



June 12, 2024

New Mexico Oil Conservation Division

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

**Re: Closure Request
BEU Connector PW Booster and Mobley Ranch
Incident Numbers NAPP2213151424 and NAPP2316045229
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 excavation and soil sampling activities performed at the BEU Connector PW Booster and Mobley Ranch (Site). The purpose of excavation and soil sampling activities, conducted in accordance with an approved *Remediation Work Plan (Work Plan)* and an approved *Remediation Work Plan Update (Work Plan Update)*, was to address impacts to soil resulting from two releases of produced water at the Site. XTO is submitting this *Closure Request*, describing final excavation activities that have occurred and requesting no further remediation for Incident Numbers NAPP2213151424 and NAPP2316045229.

RELEASE SUMMARY AND BACKGROUND

The Site is located in Unit H, Section 22, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.29070°, -103.86159°) and is associated with oil and gas exploration and production operations on state land managed by the New Mexico State Land Office (NMSLO). Please see the brief summary of events below. Additional details can be found in the *Work Plan* and *Work Plan Update*.

On April 27, 2022, approximately 296.34 barrels (bbls) of produced water released onto a pipeline right-of-way (ROW) and pasture area. No fluids were recovered. The release was assigned Incident Number NAPP2213151424. In August 2022, following approval by NMSLO of a Right of Entry (ROE) request, delineation of the Site was completed. A *Work Plan* was submitted on October 24, 2022 proposing excavation of impacted soil and requesting a soil sampling variance. The *Work Plan* was approved on February 28, 2023. Following approval of the *Work Plan*, XTO requested an Archaeological Records Management Section (ARMS) review to ensure compliance with the Cultural Properties Protection (CPP) Rule, published after submittal of the *Work Plan*. While access to the Site was pending approval, a second release occurred.

On May 27, 2023, approximately 9.04 bbls of produced water were released onto the pipeline ROW and pasture area, overlapping Incident Number NAPP2213151424. Approximately 2 bbls of produced water were recovered. The release was assigned Incident Number NAPP2316045229. The ARMS review was completed and confirmed the area had been previously surveyed and no cultural properties

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were identified in the vicinity of the release and potential disturbance areas. An NMSLO Cultural Resources Cover Sheet documenting the results of the ARMS review was submitted to the Cultural Resources Office (CRO) on September 21, 2023.

In September and October 2023, Ensolum personnel conducted additional Site assessment, delineation and excavation activities and presented the results in a *Work Plan Update*. The *Work Plan Update* was submitted on October 25, 2023 proposing continued excavation of impacted soil and confirmation soil sampling in alignment with the previously approved October 24, 2022 *Work Plan*. The *Work Plan Update* was approved by NMOCD on March 12, 2024. The *Work Plan Update*, which includes a copy of the *Work Plan*, is included in Appendix A and can be found on the NMOCD web portal.

CLOSURE CRITERIA

The Site was characterized in the *Work Plan* to assess the applicability of Table I, Closure Criteria for Soils Impacted by Release of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Based on the results of the Site Characterization detailed in the approved *Work Plan*, the following Table I Closure Criteria (Closure Criteria) apply:

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the ROW and pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

EXCAVATION AND SOIL SAMPLING ACTIVITIES

Ensolum personnel were onsite between October 18, 2023 and November 2, 2023 to excavate impacted soil according to the approved *Work Plan* and *Work Plan Update*. Excavation activities were performed by use of heavy equipment. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Once field screening results indicated impacted soil was adequately removed, 5-point composite soil samples were collected every 500 square feet, following the approved sampling variance, from the floor and sidewall of the excavation extent. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS56 were collected from the floor of the excavation at depths ranging from 2 feet to 3 feet bgs. Confirmation soil samples SW01 through SW20 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 3 feet bgs. The confirmation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 1. Photographic documentation of the excavation activities and final excavation extent is provided in Appendix B.

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 or Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following COCs: BTEX

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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 or SM4500Cl-B. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celsius required for shipment and long-term storage but are considered by the laboratory to have been received in acceptable condition.

On October 12, 2023, Ensolum personnel returned to the Site to oversee the excavation of residual chloride-impacted soil located in the vicinity of confirmation floor soil sample FS15, collected at 2 feet bgs. Heavy equipment was utilized to complete the excavation to a total depth of 3 feet bgs. Following the removal of the soil, confirmation floor soil samples FS15A was collected at 3 feet bgs. The confirmation soil sample was collected, handled, and submitted for the same COCs as described above.

The final excavation extent measured approximately 27,750 square-feet. A total of approximately 4,000 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the R360 Landfill Disposal Facility in Hobbs, New Mexico. Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation was backfilled with locally procured topsoil and the area was restored to its original condition. Following backfill activities, the disturbed area was graded and contoured to match the surrounding topography.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final excavation floor and sidewall samples indicated all COC concentrations were compliant with the Closure Criteria and reclamation requirement. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix C.

RECLAMATION PLAN

Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation was backfilled with locally procured topsoil. One representative 5-point composite sample will be collected from the backfill material to confirm compliance with the NMOCD requirement for the reclaimed area to be non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and TPH concentrations less than 100 mg/kg. The representative backfill sample will be handled and analyzed following the same procedures as described above.

Following backfill activities, the disturbed area was contoured to match the surrounding topography and the surface was prepared for seeding. Upon confirmation that the excavation was backfilled with non-waste containing material, the disturbed pasture area will be seeded with a certified weed-free seed mix. The proposed NMSLO Sandy Site Seed Mixture, below, will be used to seed the Site at the rate specified in pounds of pure live seed (PLS) per acre. Seed species will include:

Grasses	PLS/Acre
Sand bluestem	2.0
Little bluestem	3.0
Black grama	1.0
Sand dropseed	4.0
Plains bristlegass	2.0
Forbs	PLS/Acre
Firewheel (Gaillardia)	1.0
Annual Sunflower	1.0

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Shrubs	PLS/Acre
Fourwing Saltbrush	1.0

The seed mix will be applied via drill seeding. Reclamation activities will be documented with photographs and will be timestamped with Global Positioning System (GPS) data.

The Site will be monitored for vegetation growth to ensure that reclamation activities were successful. Focus for this phase will be to prevent erosion and site degradation, and to monitor for and treat invasive and noxious weed species.

- Erosion control of the newly reclaimed areas includes prompt revegetation and contouring of the surface to prevent concentrated surface water flow.
- Annual inspections will take place at the location to assess revegetation progress until vegetation is consistent with local natural vegetation density.
- If necessary, an additional application of the seed mixture will be applied.
- Noxious and invasive weeds will be identified and treated by licensed contracted herbicide applicator or mechanically removed.

A *Revegetation Report* will be submitted to the NMOCD once vegetation growth in the reclaimed pasture area has uniform vegetative cover that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds, per NMAC 19.15.29.13 D.(3).

CLOSURE REQUEST

Excavation activities were conducted at the Site in accordance with the approved *Work Plan* and *Work Plan Update* to address the two produced water releases at the Site. Laboratory analytical results for all excavation soil samples indicate all COC concentrations were compliant with the Closure Criteria and reclamation requirement. Based on the soil sample laboratory analytical results, no further remediation is required. The excavation has been backfilled with material purchased locally and the Site has been recontoured to match pre-existing site conditions. Photographic documentation of the backfill is provided in Appendix B. NMOCD correspondence is included in Appendix D.

Excavation of soil has mitigated impacts exceeding the Closure Criteria and reclamation requirement at the Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Numbers NAPP2213151424 and NAPP2316045229.

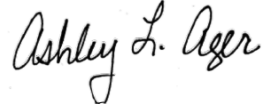
XTO Energy, Inc
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If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



David A. McInnis
Project Geologist



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

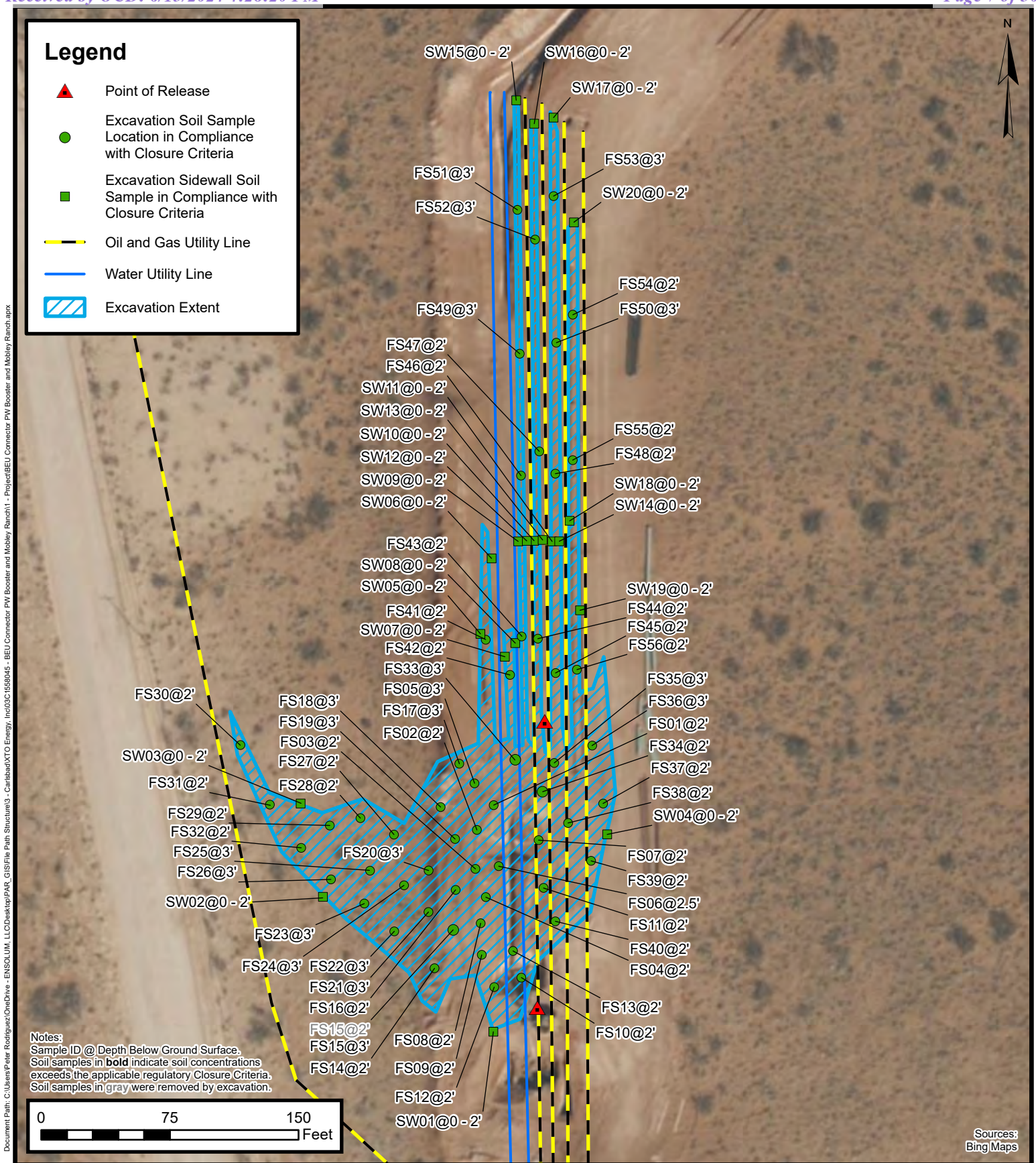
cc: Amy Ruth, XTO
Amanda Garcia, XTO
NMSLO

Appendices:

Figure 1	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	October 25, 2023, <i>Work Plan Update</i>
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Correspondence



FIGURES



Excavation Soil Sample Locations

XTO Energy, Inc

BEU Connector PW Booster and Mobley Ranch

Incident Number: NAPP2213151424 and NAPP2316045229

Unit H, Sec 22, T23S, R30E
 Eddy County, New Mexico

FIGURE

1





TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BEU Connector PW Booster and Mobley Ranch
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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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Floor Samples										
FS01	10/18/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS02	10/18/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS03	10/18/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS04	10/18/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
FS05	10/18/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS06	10/18/2023	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS07	10/18/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS08	10/19/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS09	10/19/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS10	10/19/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS11	10/19/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS12	10/20/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS13	10/20/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS14	10/20/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS15	10/20/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	704
FS15A	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS16	10/20/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS17	10/20/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
FS18	10/20/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
FS19	10/20/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS20	10/20/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS21	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS22	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS23	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS24	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS25	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0

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NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS26	10/23/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS27	10/23/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS28	10/23/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS29	10/23/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS30	10/24/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS31	10/24/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS32	10/24/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS33	10/25/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS34	10/25/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS35	10/26/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS36	10/26/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS37	10/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS38	10/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS39	10/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS40	10/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS41	10/30/2023	2	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	148
FS42	10/30/2023	2	<0.00200	<0.00401	<50.3	<50.3	<50.3	<50.3	<50.3	142
FS43	10/30/2023	2	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	565
FS44	10/31/2023	2	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	402
FS45	11/02/2023	2	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	180
FS46	11/02/2023	2	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	235
FS47	11/02/2023	2	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	256
FS48	11/02/2023	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	251
FS49	11/02/2023	3	<0.00201	<0.00402	<50.2	<50.2	<50.2	<50.2	<50.2	334
FS50	11/02/2023	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	157
FS51	11/02/2023	3	<0.00200	<0.00399	<50.4	<50.4	<50.4	<50.4	<50.4	215
FS52	11/02/2023	3	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	247
FS53	11/02/2023	3	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	255
FS54	11/02/2023	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	273
FS55	11/02/2023	2	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	310
FS56	11/02/2023	2	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	399



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NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Sidewall Soil Samples										
SW01	10/19/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW02	10/20/2023	0 - 3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW03	10/25/2023	0 - 3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW04	10/26/2023	0 - 3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW05	10/30/2023	0 - 2	<0.00202	<0.00403	<50.2	<50.2	<50.2	<50.2	<50.2	199
SW06	10/30/2023	0 - 2	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	133
SW07	10/30/2023	0 - 2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	70.6
SW08	10/30/2023	0 - 2	<0.00202	<0.00404	<49.6	<49.6	<49.6	<49.6	<49.6	60.9
SW09	10/31/2023	0 - 2	<0.00198	<0.00397	<50.4	<50.4	<50.4	<50.4	<50.4	435
SW10	10/31/2023	0 - 2	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	164
SW11	11/02/2023	0 - 2	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	195
SW12	11/02/2023	0 - 2	<0.00200	<0.00401	<50.5	<50.5	<50.5	<50.5	<50.5	256
SW13	11/02/2023	0 - 2	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	173
SW14	11/02/2023	0 - 2	<0.00198	<0.00396	<49.7	<49.7	<49.7	<49.7	<49.7	190
SW15	11/02/2023	0 - 2	<0.00200	<0.00399	<49.5	<49.5	<49.5	<49.5	<49.5	202
SW16	11/02/2023	0 - 2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	72.1
SW17	11/02/2023	0 - 2	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	284
SW18	11/02/2023	0 - 2	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	224
SW19	11/02/2023	0 - 2	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	118
SW20	11/02/2023	0 - 2	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	284

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Samples in grey indicate soil sample was removed during excavation activities



APPENDIX A

October 25, 2023, *Remediation Work Plan Update*



October 25, 2023

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

**Re: Remediation Work Plan Update
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Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan Update (Update)* to document assessment activities completed to date and provide an update on remedial actions to address impacted soil identified at the BEU Connector PW Booster (Site). In addition, this *Update* includes information on a recent release, the Mobley Ranch, which will be addressed concurrently and included as the "Site" for future discussions below.

RELEASE SUMMARY AND BACKGROUND

The Site is located in Unit H, Section 22, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.29070°, -103.86159°) and is associated with oil and gas exploration and production operations on New Mexico State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO).

On April 27, 2022, a flanged-end fitting separated from a hose and resulted in the release of 296.34 barrels (bbls) of produced water onto the pipeline right-of-way (ROW) and pasture area. No fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on April 28, 2022, and submitted a Release Notification Form C-141 (Form C-141) on May 9, 2022. The release was assigned Incident Number NAPP2213151424.

In August 2022, following approval of a Right-of-Entry (ROE) request for land access from NMSLO, Ensolum personnel completed delineation of the release. The delineation soil sampling results indicated soil contained elevated chloride concentrations in a 30,000 square foot area. A *Remediation Work Plan (Work Plan)* was submitted on October 24, 2022, proposing excavation of impacted soil identified during delineation activities and requested a sampling variance. The *Work Plan* was approved by the NMOCD on February 28, 2023, with the following conditions:

- *Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC.*
- *Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination.*
- *Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release.*

XTO Energy, Inc.
Remediation Work Plan Update
BEU Connector PW Booster and Mobley Ranch

- The variance for confirmation samples every 500 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH.

Following approval of the *Work Plan*, XTO requested ROE access from the NMSLO, as well as an Archaeological Records Management Section (ARMS) review to ensure compliance with the Cultural Properties Protection (CPP) Rule, published after submittal of the *Work Plan*. While access to the Site was pending approval, a second release occurred in the area, overlapping Incident Number NAPP2213151424.

On May 27, 2023, a gasket failed on pump discharge piping and resulted in the release of 9.04 barrels (bbls) of produced water onto the pipeline ROW and pasture area. Approximately 2 bbls of produced water were recovered. XTO reported the release to the NMOCD and submitted a Form C-141 on June 9, 2023. The release was assigned Incident Number nAPP2316045229. The release overlapped the release extent for Incident Number NAPP2213151424. XTO proposes to address both releases concurrently.

CLOSURE CRITERIA

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

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

SITE ACTIVITIES

The Mobley Ranch release was mapped using a handheld Global Positioning System (GPS) unit. Photographic documentation is provided in the Photographic log in Appendix A. The release extent is depicted on Figure 2. The ARMS review was completed and confirmed the area had been previously surveyed and no cultural properties were identified in the vicinity of the release and potential disturbance areas. An NMSLO Cultural Resources Cover Sheet documenting the results of the ARMS review was submitted to the Cultural Resource Office (CRO) of NMSLO on September 21, 2023. In addition, ongoing pipeline operations at the Site delayed the start of excavation; however, XTO recognizes the importance of remediating impacted soil at the Site and as such, pipeline construction work has been postponed in order to complete the excavation of impacted soil.

XTO Energy, Inc.
Remediation Work Plan Update
BEU Connector PW Booster and Mobley Ranch

Ensolum personnel returned to the Site on October 17, 2023, to begin excavation of impacted soil. Currently, impacted soil has been excavated with the use of a track hoe and transport vehicles. Due to the extent of underground flowlines within the release extent, a hydrovac has been utilized to identify subsurface lines to prevent another environmental release, which has extended the excavation timeline. An area of approximately 16,200 square feet has been excavated at the time of this report, which includes the proper removal and disposal of approximately 1,000 cubic yards of soil. Photographic documentation of the excavation has been conducted and a Photographic Log is in Appendix A.

PROPOSED REMEDIATION WORK PLAN

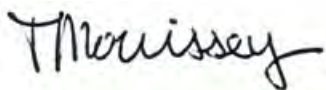
XTO proposes to continue excavation to remove impacted soil identified at the Site. XTO proposes to address Incident Numbers NAPP2213151424 and NAPP2316045229 by completing the following approved remediation activities:

- Excavation of chloride impacted soil. The proposed excavation extent is depicted on Figure 2.
- Collect confirmation samples at the approved sampling frequency of one 5-point composite soil sample every 500 square feet along the excavation floor and sidewalls.
- A total estimated 1,500 cubic yards of chloride impacted soil will be excavated (1,000 cubic yards have been removed to-date). The excavated soil will be transported to a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions and re-seeded with the recommended seed mixture as discussed below.

PROPOSED SCHEDULE

XTO will continue the excavation and confirmation soil sampling activities and will submit a *Closure Request* within 30 days following the receipt of final laboratory analytical results. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Tacoma Morrissey, MS
Senior Geologist



Daniel R. Moir, PG
Senior Managing Geologist

cc: Garrett Green, XTO
Tommee Lambert, XTO
New Mexico State Land Office

Appendices:

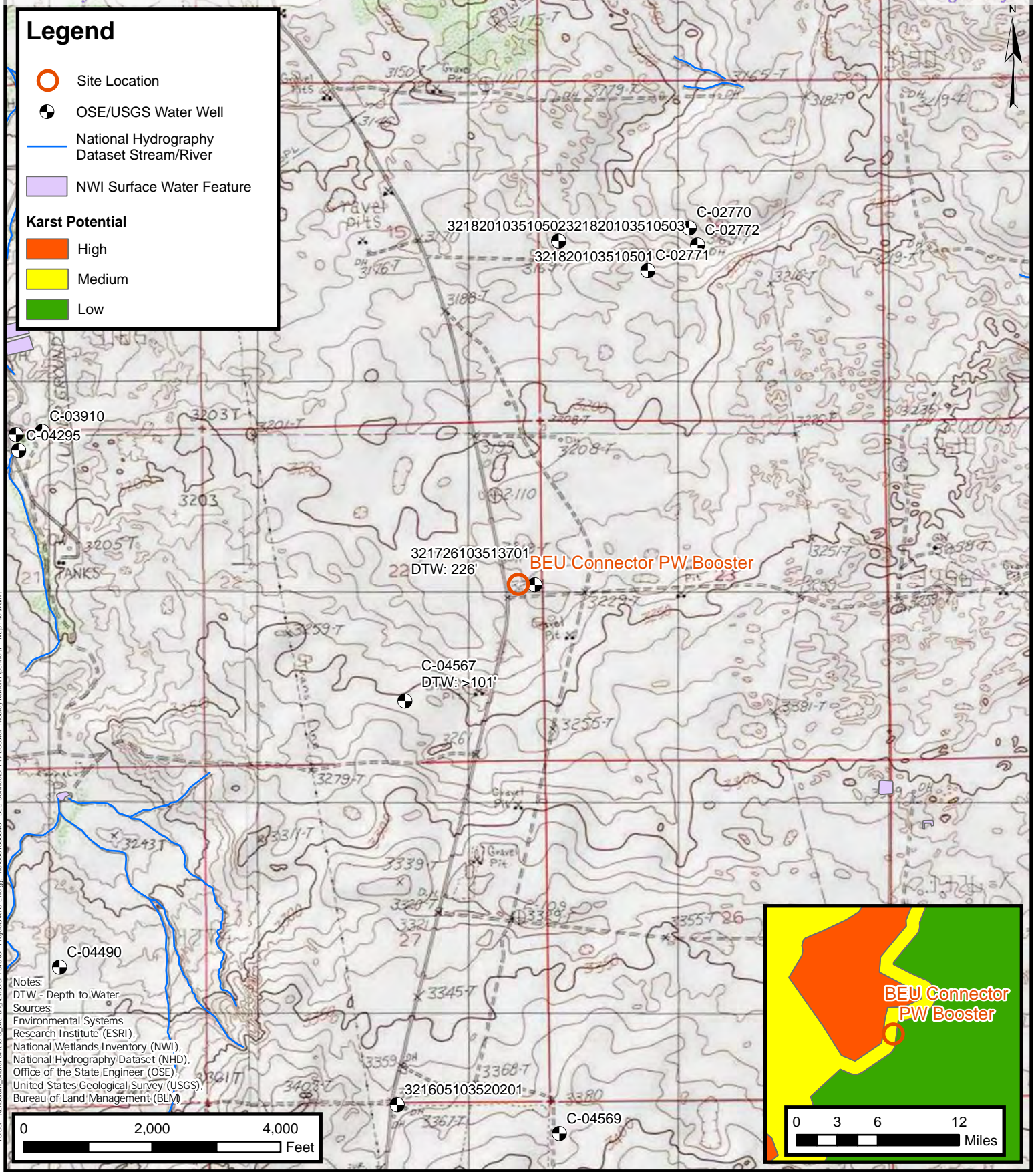
Figure 1 Site Location Map
Figure 2 Proposed Excavation Extent

XTO Energy, Inc.
Remediation Work Plan Update
BEU Connector PW Booster and Mobley Ranch

Appendix A Photographic Log
Appendix B NMOCD Notifications/Correspondence
Appendix C *Remediation Work Plan* October 24, 2022
Appendix D Proposed Reclamation Plan



FIGURES



Site Receptor Map

XTO Energy, Inc

BEU Connector PW Booster Mobley Ranch

Incident Number: nAPP2213151424 & nAPP2316045229

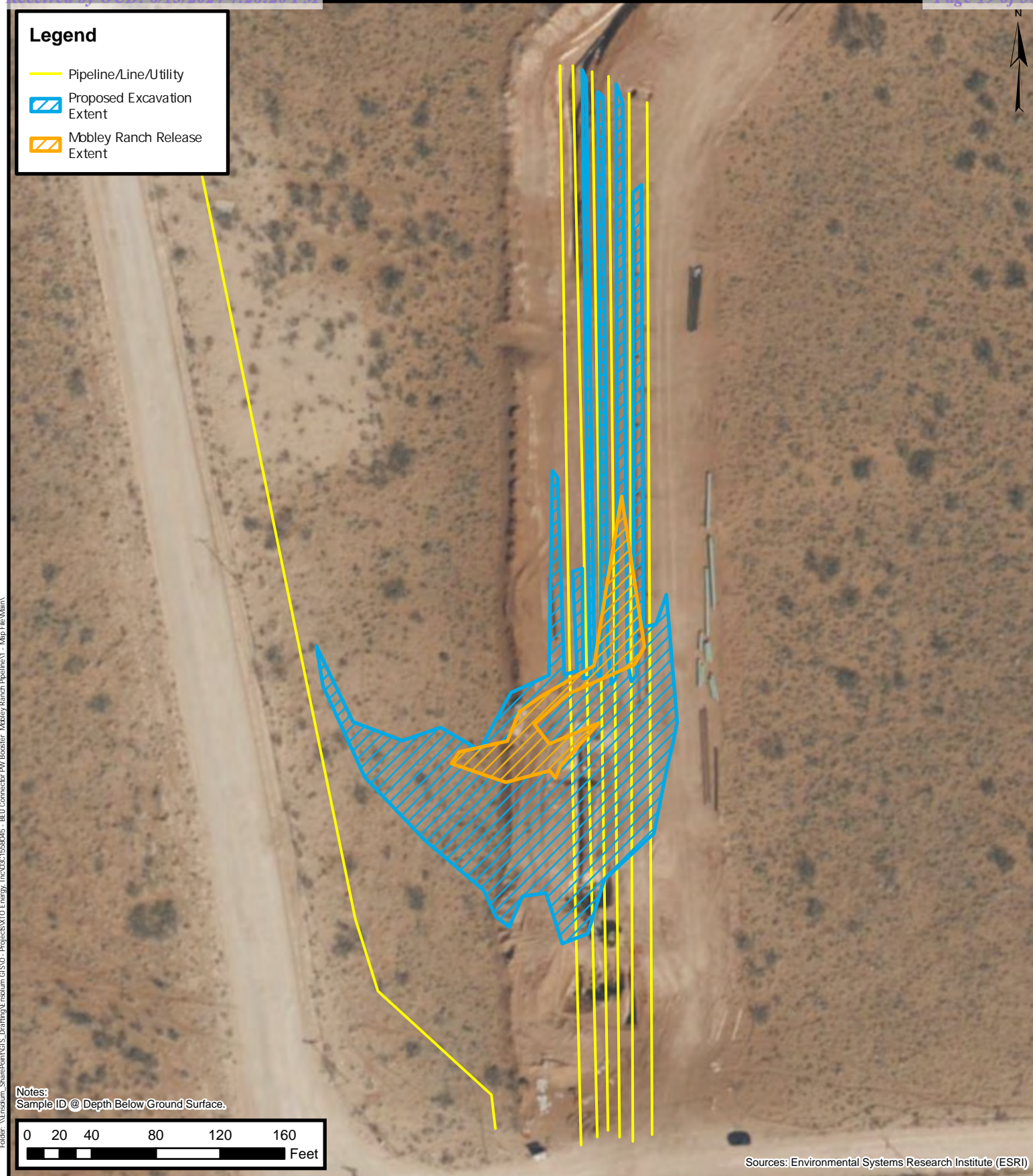
Unit H, Sec 22, T23S, R30E

Eddy Co, New Mexico, United States

FIGURE

1





Proposed Excavation Extent

XTO Energy, Inc
BEU Connector PW Booster & Mobley Ranch
Incident Number: nAPP2213151424 & nAPP2316045229
Unit H, Sec 22, T23S, R30E
Eddy Co, New Mexico, United States

FIGURE
2



APPENDIX A

Photographic Log

**Photographic Log**

XTO Energy, Inc.

BEU Connector PW Booster and Mobley Ranch

Incident Numbers NAPP2213151424 and NAPP2316045229



Photograph: 1 Date: 4/28/2022
Description: Soil staining in NAPP2213151424 release
View: North



Photograph: 2 Date: 8/1/2022
Description: Soil staining in NAPP2316045229 release
View: Northeast



Photograph: 3 Date: 10/23/2023
Description: Ongoing excavation activities
View: Southwest



Photograph: 4 Date: 10/25/2023
Description: Ongoing excavation activities
View: North



APPENDIX B

NMOCD Notifications

From: [Collins, Melanie](#)
To: [Tacoma Morrissey](#); [Ashley Ager](#)
Cc: [Green, Garrett J](#); [DelawareSpills /SM](#)
Subject: FW: The Oil Conservation Division (OCD) has approved the application, Application ID: 153127
Date: Tuesday, February 28, 2023 12:19:07 PM
Attachments: [image001.png](#)

[**EXTERNAL EMAIL**]

Work Plan approval for BEU Connector PW Booster, released 4/27/22.

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, February 28, 2023 12:15 PM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 153127

External Email - Think Before You Click

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

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2213151424, with the following conditions:

- **The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples every 500 ft2 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

From: [Collins, Melanie](#)
To: [ocd.enviro \(ocd.enviro@emnrd.nm.gov\)](#); [Hamlet, Robert, EMNRD \(Robert.Hamlet@emnrd.nm.gov\)](#); [Bratcher, Michael, EMNRD \(mike.bratcher@emnrd.nm.gov\)](#); [Harimon, Jocelyn, EMNRD \(Jocelyn.Harimon@emnrd.nm.gov\)](#)
Cc: [Tacoma Morrissey](#); [Green, Garrett J](#); [Ashley Ager](#); [DelawareSpills /SM](#)
Subject: XTO - Extension Request - BEU Connector PW Booster - Incident Number NAPP2213151424
Date: Friday, May 26, 2023 10:02:15 AM
Attachments: [image001.png](#)

[**EXTERNAL EMAIL**]

All,

XTO is requesting an extension of the current deadline of May 29, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster (Incident Number NAPP2213151424). The release occurred on April 27, 2022, and fluids were released into a pipeline right-of-way (ROW). Initial site assessment and delineation sampling has been completed at the site. A work plan was submitted to the OCD on October 24, 2022 and approved by the NMOCD on February 28, 2023. A Right-of-Entry (ROE) permit must be executed and approved by the State Land Office (SLO) to access the ROW. In order to obtain the approved ROW, complete the remediation work and submit a closure report XTO requests a 90-day extension of this deadline until August 28, 2023.

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: [Wells, Shelly, EMNRD](#)
To: [Collins, Melanie](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Cc: [Green, Garrett J](#); [Ben Belill](#); [Tacoma Morrissey](#); [Lambert, Tommee L](#); [DelawareSpills /SM](#)
Subject: RE: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)
Date: Thursday, October 12, 2023 3:26:07 PM
Attachments: [image001.png](#)

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

[**EXTERNAL EMAIL**]

Hi Melanie,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. When reporting sampling at multiple locations it is required to provide the anticipated start time for each location. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive | Santa Fe, NM 87505
(505)469-7520 | Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, October 12, 2023 2:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of October 16,

2023.

Monday – October 16, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 18 TWR Sat Battery / nAPP2230551957

Tuesday - October 17, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Wednesday - October 18, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thursday - October 19, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 23 Dog Town Draw 154H / nAPP2316446382

Friday - October 20, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: [Wells, Shelly, EMNRD](#)
To: [Collins, Melanie](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hall, Brittany, EMNRD](#)
Cc: [Green, Garrett J](#); [Ben Belill](#); [Lambert, Tommee L](#); [DelawareSpills /SM](#); [Tacoma Morrissey](#)
Subject: RE: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23
Date: Wednesday, October 18, 2023 4:58:27 PM
Attachments: [image001.png](#)

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

[**EXTERNAL EMAIL**]

Hi Melanie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Wednesday, October 18, 2023 3:16 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23

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

Ok, Shelly, ask and you shall receive—haha! Let me know if you'd like them sent individually in the future, or if it is ok to send in bulk like this.

XTO plans to complete final sampling activities at the sites listed below for the week of October 23.2023 between 8 a.m. and 5 p.m. Please reach out with questions or concerns.

Thank you!

Site Name	BEU Connector PW Booster
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2213151424
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Mobley Ranch Pipeline
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2316045229
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	JRU 91 Flowline
Location	K-36-22S-30E; Eddy County, NM
Incident ID	NAB1515234386
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Remuda 4-24-20
-----------	----------------

Location	A-04-24S-30E; Eddy County, NM
Incident ID	nAPP2233351770
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	PLU CVX JV BS 008H
Location	N-14-25S-30E; Eddy County, NM
Incident ID	nAB1602154960
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.24.2023
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	Poker Lake Unit 315H
Location	P-24-24S-30E; Eddy County, NM
Incident ID	nAPP2324233432
Source & Description of Activities	Sampling
Expected Duration for Activities	3 Days 10.25.23-10.27.23
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Thank you,

Melanie Collins



From: [Hamlet, Robert, EMNRD](#)
To: [Collins, Melanie Suzanne](#)
Cc: [Green, Garrett J](#); [DelawareSpills /SM](#); [Ben Belill](#); [Ashley Ager](#); [Tacoma Morrissey](#); [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: Final Extension - XTO - BEU Connector PW Booster & Mobley Ranch Pipeline - Incident Numbers (nAPP2213151424 & nAPP2316045229)
Date: Thursday, August 24, 2023 8:53:03 AM
Attachments: [image003.png](#)

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2213151424 & NAPP2316045229

Melanie,

Your request for an extension to **October 27th, 2023** is approved. This will be the **Final Extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Wednesday, August 23, 2023 4:25 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster & Mobley Ranch Pipeline - Incident Numbers (nAPP2213151424 & nAPP2316045229)

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Wednesday, August 23, 2023 3:02 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; bbelill@ensolum.com; Ashley Ager <aager@ensolum.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster & Mobley Ranch Pipeline

- Incident Numbers (nAPP2213151424 & nAPP2316045229)

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

All,

XTO is requesting an extension of the current deadline of August 28, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster site (Incident Number nAPP2213151424) and an extension of the current deadline of August 25, 2023, for the Mobley Ranch pipeline release (Incident Number nAPP2316045229). The BEU Connector release occurred on April 27, 2022, and as a result, fluids were released into a pasture area off-pad. An initial site assessment and delineation sampling has been completed for this release. A Remediation Work Plan was submitted to the OCD on October 24, 2022, and approved by the division on February 28, 2023. The second release (Mobley Ranch Pipeline) occurred on May 27, 2023, and overlapped the BEU Connector PW Booster release. A Right-of-Entry (ROE) permit was approved by the State Land Office (SLO) for both releases on August 21, 2023, and an excavation has been scheduled with third-party contractors. In order to complete the excavation that now includes a second release, conduct confirmation sampling, review laboratory analytical data, and to submit a remediation work plan or closure report, XTO hereby requests a 60-day extension of the aforementioned deadlines to October 27, 2023.

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756



APPENDIX C

Remediation Work Plan October 24, 2022



October 24, 2022

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

**Re: Remediation Work Plan
BEU Connector PW Booster
Incident Number NAPP2213151424
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan* to document the site assessment activities completed to date and propose a work plan to address impacted soil identified at the BEU Connector PW Booster (Site). The purpose of the site assessment activities was to delineate the lateral and vertical extent of impacted soil resulting from a release of produced water at the Site. The following Work Plan proposes to excavate impacted soil within the top 4 feet of the release extent.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit H, Section 22, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.29070° N, 103.86159° W) and is associated with oil and gas exploration and production operations on New Mexico State Land (SLO).

On April 27, 2022, a flanged-end fitting separated from a hose and resulted in the release of 296.34 barrels (bbls) of produced water onto the pipeline right-of-way (ROW) and pasture area. No fluids were recovered. XTO immediately reported the release to the NMOCD via email on April 28, 2022 and submitted a Release Notification Form C-141 on May 9, 2022. The release was assigned Incident Number NAPP2213151424.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on 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 the nearest groundwater well data. On October 26, 2021, soil boring (C-4567) was advanced to a depth of 101 feet bgs utilizing a hollow stem auger rig. The location of the borehole is approximately 0.48 miles southwest of the release and is depicted on Figure 1. The well log recorded the boring as a dry hole. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 5,613 feet southwest of the Site. The Site is greater than 200 feet from a lakebed,

XTO Energy, Inc.
Remediation Work Plan
BEU Connector PW Booster

sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area).

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

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On June 6, 2022 Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Ensolum personnel collected nine soil samples (SS01 through SS09) within the release extent from a depth of 0.5 feet bgs to assess the extent of impacted soil. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0

XTO submitted a Right-of-Entry request for land access on the SLO land. Following approval of the request, delineation activities were conducted at the Site to assess the lateral and vertical extent of impacted soil. On August 1, 2022, boreholes BH01 through BH09 were advanced via hand auger and hydrovacuum within the release extent. The boreholes were advanced to a maximum depth of 4 feet bgs. Discrete soil samples were collected from each pothole at depths ranging from 1-foot bgs to 4 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix B. The soil samples were handled and analyzed as described above. The soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix C.

LABORATORY ANALYTICAL RESULTS

XTO Energy, Inc.
Remediation Work Plan
BEU Connector PW Booster

Laboratory analytical results for all soil samples collected indicated that Benzene, BTEX, and TPH concentrations were below the Site Closure Criteria. No hydrocarbon impacted soil was identified as a result of the release.

Laboratory analytical results for the delineation soil samples SS01/BH01 through SS06/BH06, and SS09/BH09 indicated that chloride concentrations exceeded the Closure Criteria at depths ranging from 0.5 feet to 1-foot bgs. The terminal depth sample from each borehole, collected at 4 feet bgs, was compliant with the Closure Criteria and reclamation requirement and successfully defined the vertical extent of impacted soil. Laboratory Analytical Reports & Chain-of-Custody Documentation are presented in Appendix D. NMOCD notifications are presented in Appendix E.

PROPOSED REMEDIATION WORK PLAN

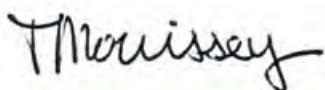
The delineation soil sampling results indicate soil containing elevated chloride concentrations exists across an approximate 30,000 square foot area and extends to depths ranging from 0.5 feet to 1-foot bgs. XTO proposes to complete the following remediation activities:

- Excavation of chloride impacted soil to a depth of 1-foot bgs. Excavation will proceed laterally until sidewall samples confirm chloride concentrations are compliant with the Closure Criteria in the top four feet. The proposed excavation extent is depicted on Figure 3.
- Due to the estimated size of the excavation, XTO requests a variance for frequency of excavation confirmation samples. XTO proposes five-point composite samples to be collected at a sampling frequency of 500 square feet along the excavation floor and sidewalls. The proposed sampling frequency would reduce the total amount of samples from approximately 150 samples (200 square feet) to approximately 60 samples. In areas where the excavation is at 1-foot bgs or less, the sidewall will be incorporated into the floor sample aliquots. The soil samples will be handled as described above and analyzed for chloride. The soil samples will be analyzed for chloride only since benzene, BTEX, or TPH concentrations were not identified as a constituent of concern (COC) in the soil samples.
- An estimated 1,500 cubic yards of chloride impacted soil will be excavated. The excavated soil will be transferred a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions and re-seeded with the recommended BLM seed mixture.

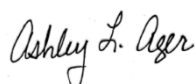
XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this Work Plan by the NMOCD.

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

Sincerely,
Ensolum, LLC



Tacoma Morrissey, MS



Ashley Ager, PG, MS



XTO Energy, Inc.
Remediation Work Plan
BEU Connector PW Booster

Senior Geologist

Program Director

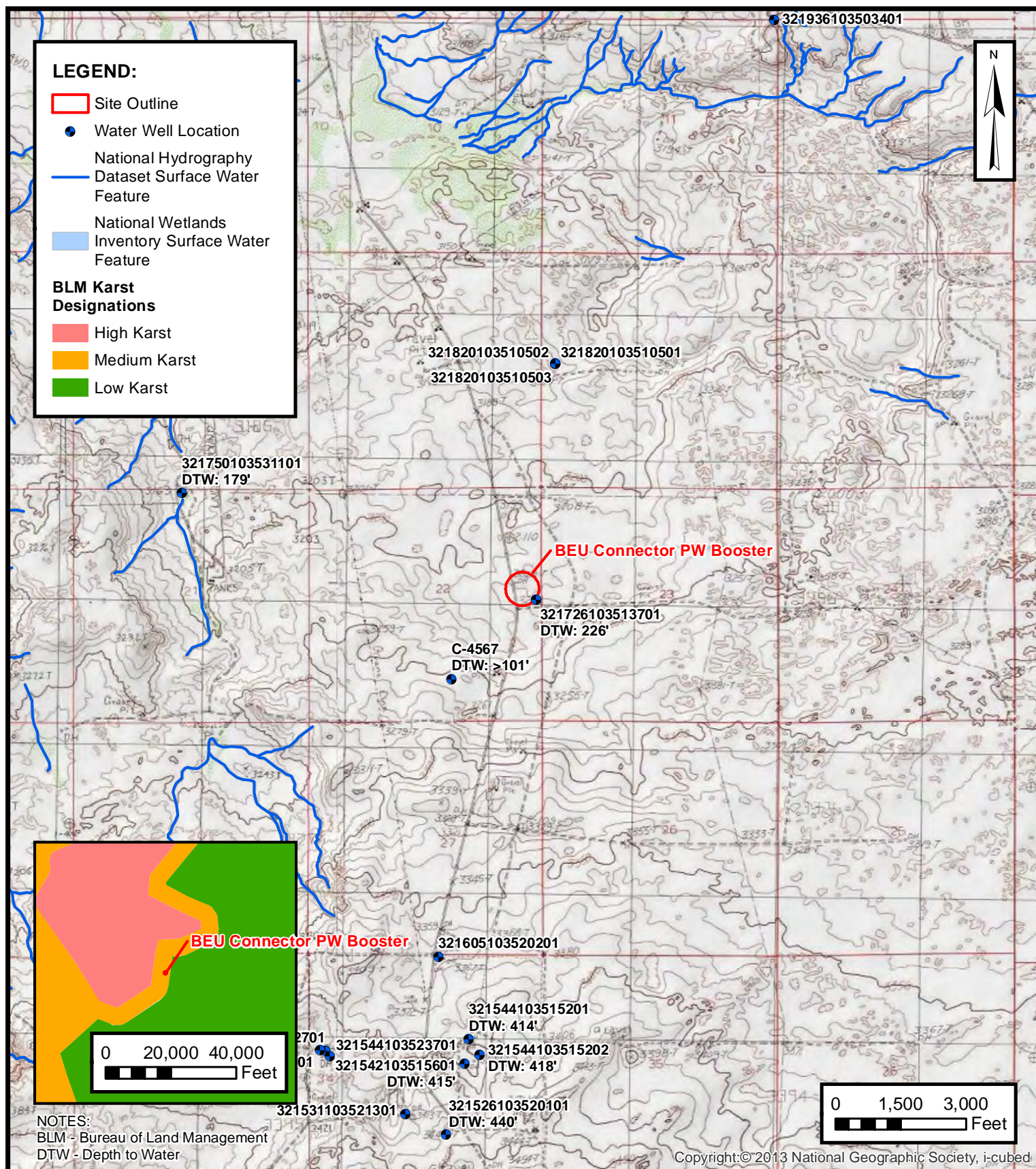
cc: Garrett Green, XTO
Shelby Pennington, XTO
New Mexico State Land Office

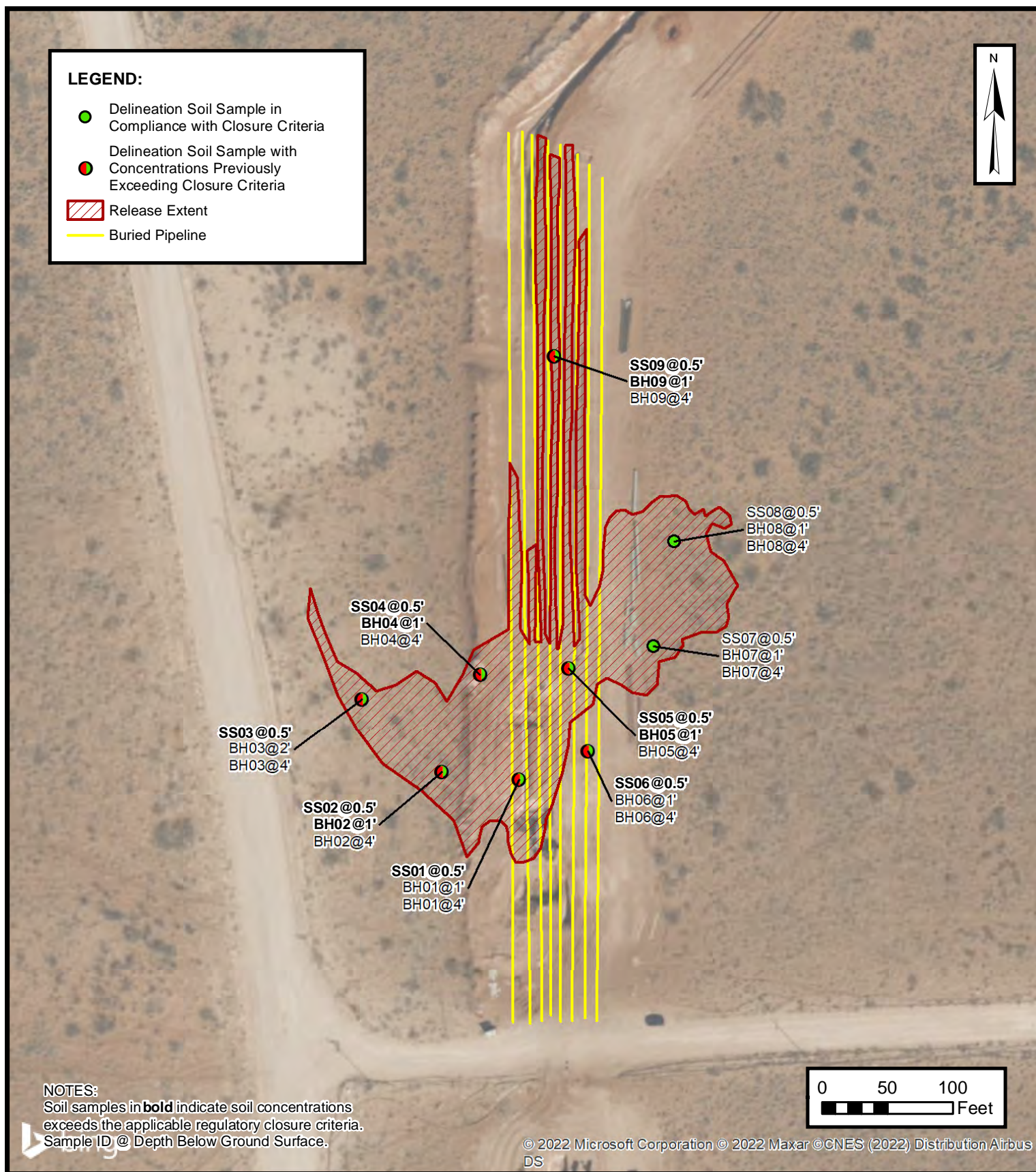
Appendices:

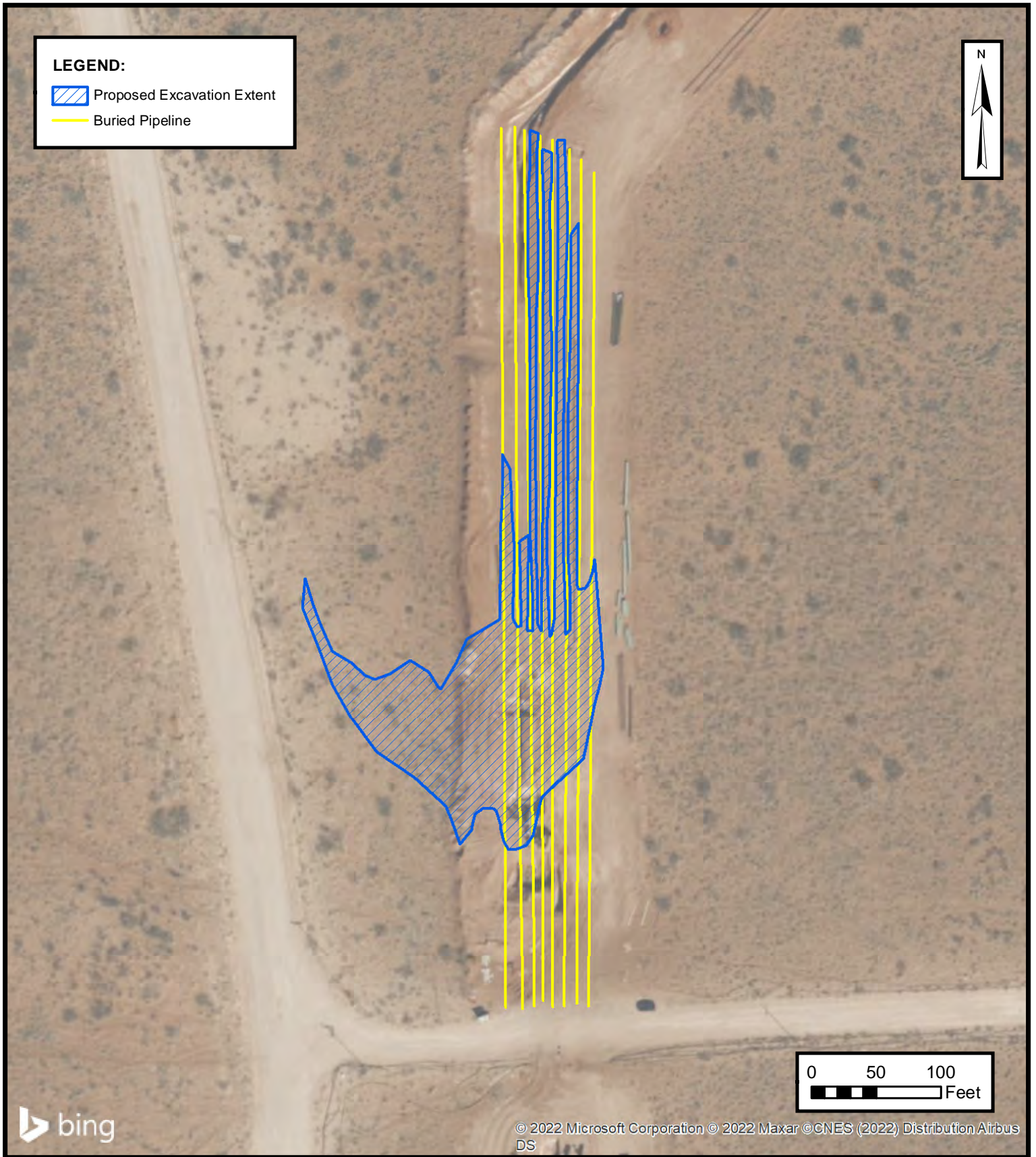
Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Figure 3	Proposed Excavation Extent
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Lithologic / Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications/Correspondence



FIGURES







PROPOSED EXCAVATION AREA

XTO ENERGY, INC
BEU CONNECTOR PW BOOSTER
NAPP2213151424
Unit H, Sec 22, T23S, R30E
Eddy County, New Mexico

FIGURE

3

ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
XTO Energy, Inc.
BEU Connector PW Booster
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										
SS01	06/06/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	5,120
BH01	08/01/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	107
BH01	08/01/2022	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	41.5
SS02	06/06/2022	0.5	<0.00200	<0.00401	<49.9	54.1	<49.9	54.1	54.1	4,270
BH02	08/01/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,770
BH02	08/01/2022	4	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	530
SS03	06/06/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	6,140
BH03	08/01/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	518
BH03	08/01/2022	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	17.6
SS04	06/06/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	7,100
BH04	08/01/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,570
BH04	08/01/2022	4	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	25.6
SS05	06/06/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5,020
BH05	08/01/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	4,300
BH05	08/01/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	18.2
SS06	06/06/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	6,310
BH06	08/01/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	34.5
BH06	08/01/2022	4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	17.9
SS07	06/06/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	17.3
BH07	08/01/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	11.9
BH07	08/01/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	30.7
SS08	06/06/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	16.2
BH08	08/01/2022	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	6.59
BH08	08/01/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	10.9



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
XTO Energy, Inc.
BEU Connector PW Booster
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
SS09	06/06/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	3,970
BH09	08/01/2022	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	3,250
BH09	08/01/2022	4	<0.00200	<0.00399	<49.9	<49.9	<50.0	<49.9	<49.9	90.7

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4567			
	WELL OWNER NAME(S) Strata Production Company				PHONE (OPTIONAL) 575-622-1127			
	WELL OWNER MAILING ADDRESS 1301 N. Sycamore Ave				CITY Roswell	STATE NM	ZIP 88201	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 17	SECONDS 8.70	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE 103	52	2.55	W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW SW SE Sec. 22 T23S R30E, NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 10/26/2021	DRILLING ENDED 10/26/2021	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) 101	DEPTH WATER FIRST ENCOUNTERED (FT) n/a		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	101	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

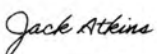
FOR OSE INTERNAL USE

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

FILE NO. C-4567	POD NO.	TRN NO. 709185
LOCATION 23S. 30E. 22. 431	WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	19	19	Caliche, with fine-grained sand, White/ Tan	Y ✓ N	
	19	54	35	Sand, Fine-grained Poorly-graded, Reddish Brown	Y ✓ N	
	54	90	36	Clay, with sand, fine-grained poorly-graded, Brown	Y ✓ N	
	90	101	11	Caliche, with with sand, fine-grained poorly-graded, Tan	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt, Camerlo Trevino	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME	Jackie D. Atkins 11/15/2021 DATE

FOR OSE INTERNAL USE


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


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





APPENDIX B


Lithologic Soil Sampling Logs


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH01		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	9,732	0.2	N	SS01	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
D	<168	0.0	N	BH01	1'	1'	SP-S	1'-3', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
D	<168	0.0	N		2'	2'		
D	<168	0.0	N		3'	3'	CCHE	3'-4', CALICHE, dry, tan-off white, poorly consolidated, very silty, no stain, no odor.
D	<168	0.0	N	BH01	4'	4'	TD	Total depth at 4' bgs.


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH02		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159				Hole Diameter: N/A				
				Method: HVAC/Auger				
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	7,672	0.5	N	SS02	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	2284	0.0	N	BH02	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	240.8	0.0	N		2'	2'		
Dry	324.8	0.0	N		3'	3'		
Dry	532	0.0	N	BH02	4'	4'		
							TD	Total depth at 4' bgs.


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH03		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	9,732	1.9	N	SS03	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.0	N		1'	1'	SP-S	1'-2', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	532.0	0.0	N	BH03	2'	2'	CCHE	2'-4', CALICHE, dry, tan-off white, poorly consolidated, very silty, no stain, no odor.
Dry	<168	0.0	N		3'	3'		
Dry	<168	0.0	N	BH03	4'	4'		
							TD	Total depth at 4' bgs.


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH04		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	8,299	1.1	N	SS04	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	1,864	0.0	N	BH04	1'	1'	SP-S	1'-3', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	476.0	0.0	N		2'	2'		
Dry	<168	0.1	N		3'	3'	CCHE	3'-4', CALICHE, dry, tan-off white, poorly consolidated, very silty, no stain, no odor.
Dry	<168	0.1	N	BH04	4'	4'	TD	Total depth at 4' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH05		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159				Hole Diameter: N/A				
				Method: HVAC/Auger				
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	5,499	0.0	N	SS05	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	>3466	0.1	N	BH05	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	2111	0.5	N		2'	2'		
Dry	<168	0.5	N		3'	3'		
Dry	<168	0.1	N	BH05	4'	4'	TD	Total depth at 4' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH06		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	7,672	0.2	N	SS06	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.0	N	BH06	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	<168	0.1	N		2'	2'		
Dry	<168	0.1	N		3'	3'		
Dry	<168	0.2	N	BH06	4'	4'		
							TD	Total depth at 4' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH07		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0.2	N	SS07	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.0	N	BH07	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	<168	0.5	N		2'	2'		
Dry	<168	0.1	N		3'	3'		
Dry	<168	0.4	N	BH07	4'	4'		
							TD	Total depth at 4' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH08		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159			Logged By: Conner Shore		Method: HVAC/Auger			
			Hole Diameter: N/A		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0.0	N	SS08	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	<168	0.1	N	BH08	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	<168	0.0	N		2'	2'		
Dry	<168	0.3	N		3'	3'		
Dry	<168	0.1	N	BH08	4'	4'		
							TD	Total depth at 4' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH09		Date: 08/01/22				
		Site Name: BEU Connector PW Booster						
		Incident Number: nAPP2213151424						
		Job Number: 03E1558045						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.29070, -103.86159				Hole Diameter: N/A				
				Method: HVAC/Auger				
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	4,799	0.1	N	SS09	0.5'		SP-SM	0-1', SILTY SAND, dry, reddish brown, poorly graded, fine grain, no stain, no odor.
Dry	3,225	0.2	N	BH09	1'	1'	SP-S	1'-4', SANDSTONE, dry, reddish brown, poorly graded, fine grain, poorly consolidated, no stain, no odor.
Dry	1,002	0.1	N		2'	2'		
Dry	<168	0.1	N		3'	3'		
Dry	<168	0.1	N	BH09	4'	4'	TD	Total depth at 4' bgs.



APPENDIX C

Photographic Log

**Photographic Log**

XTO Energy, Inc.

BEU Connector PW Booster

Incident No. NAPP2213151424



Photograph: 1 Date: 8/1/2022
Description: Pothole delineation BH01.
View: South



Photograph: 2 Date: 8/1/2022
Description: Pothole delineation BH05.
View: South



Photograph: 3 Date: 8/1/2022
Description: Pothole delineation BH02.
View: Northeast



Photograph: 4 Date: 8/1/2022
Description: Pothole delineation BH09.
View: South



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2704-1

Laboratory Sample Delivery Group: 03E1558045

Client Project/Site: BEU Connector PW Booster

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

Authorized for release by:

8/11/2022 7:08:33 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: BEU Connector PW Booster

Laboratory Job ID: 890-2704-1
SDG: 03E1558045

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Definitions/Glossary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Job ID: 890-2704-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-2704-1****Receipt**

The samples were received on 8/2/2022 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH01 (890-2704-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH02 (890-2704-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31731 and analytical batch 880-31678 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-31767 and analytical batch 880-31850 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (CCV 880-31850/20), (CCV 880-31850/33), (LCS 880-31767/1-A) and (890-2704-A-1-I MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-31767/2-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (890-2704-A-1-C MS) and (890-2704-A-1-D MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH02 (890-2704-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH02 (890-2704-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH04 (890-2704-7) and BH04 (890-2704-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH06 (890-2704-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH08 (890-2704-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH09 (890-2704-17) and BH09

Case Narrative

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Job ID: 890-2704-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

(890-2704-18). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31470 and analytical batch 880-31531 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH01

Lab Sample ID: 890-2704-1

Date Collected: 08/01/22 09:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:00	08/10/22 07:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:00	08/10/22 07:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:00	08/10/22 07:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	08/08/22 13:00	08/10/22 07:05	1
1,4-Difluorobenzene (Surr)	79		70 - 130	08/08/22 13:00	08/10/22 07:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 12:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130	08/04/22 09:22	08/05/22 12:07	1
o-Terphenyl	81		70 - 130	08/04/22 09:22	08/05/22 12:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		4.98	mg/Kg			08/11/22 09:13	1

Client Sample ID: BH01

Lab Sample ID: 890-2704-2

Date Collected: 08/01/22 09:15

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 10:47	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 10:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	08/08/22 10:46	08/09/22 10:47	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH01

Lab Sample ID: 890-2704-2

Date Collected: 08/01/22 09:15

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	08/08/22 10:46	08/09/22 10:47	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 13:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 13:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 13:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130			08/04/22 09:22	08/05/22 13:13	1
o-Terphenyl	85		70 - 130			08/04/22 09:22	08/05/22 13:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.5		4.99	mg/Kg			08/11/22 09:22	1

Client Sample ID: BH02

Lab Sample ID: 890-2704-3

Date Collected: 08/01/22 09:25

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 10:46	08/09/22 11:14	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 10:46	08/09/22 11:14	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 10:46	08/09/22 11:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 10:46	08/09/22 11:14	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 10:46	08/09/22 11:14	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 10:46	08/09/22 11:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	08/08/22 10:46	08/09/22 11:14	1
1,4-Difluorobenzene (Surr)	86		70 - 130	08/08/22 10:46	08/09/22 11:14	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH02

Lab Sample ID: 890-2704-3

Date Collected: 08/01/22 09:25

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 13:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130	08/04/22 09:22	08/05/22 13:34	1
o-Terphenyl	76		70 - 130	08/04/22 09:22	08/05/22 13:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1770		25.0	mg/Kg			08/11/22 09:31	5

Client Sample ID: BH02

Lab Sample ID: 890-2704-4

Date Collected: 08/01/22 09:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/08/22 10:46	08/09/22 11:40	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/08/22 10:46	08/09/22 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130	08/08/22 10:46	08/09/22 11:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/08/22 10:46	08/09/22 11:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130	08/04/22 09:22	08/05/22 13:56	1
o-Terphenyl	70		70 - 130	08/04/22 09:22	08/05/22 13:56	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH02

Lab Sample ID: 890-2704-4

Date Collected: 08/01/22 09:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530		4.95	mg/Kg			08/11/22 09:40	1

Client Sample ID: BH03

Lab Sample ID: 890-2704-5

Date Collected: 08/01/22 10:15

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 10:46	08/09/22 12:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			08/08/22 10:46	08/09/22 12:06	1
1,4-Difluorobenzene (Surr)	84		70 - 130			08/08/22 10:46	08/09/22 12:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			08/04/22 09:22	08/05/22 14:18	1
o-Terphenyl	101		70 - 130			08/04/22 09:22	08/05/22 14:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	518		4.97	mg/Kg			08/11/22 10:08	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH03

Lab Sample ID: 890-2704-6

Date Collected: 08/01/22 10:25

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:33	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:33	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	08/08/22 10:46	08/09/22 12:33	1
1,4-Difluorobenzene (Surr)	92		70 - 130	08/08/22 10:46	08/09/22 12:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	08/04/22 09:22	08/05/22 14:40	1
o-Terphenyl	105		70 - 130	08/04/22 09:22	08/05/22 14:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.6		5.02	mg/Kg			08/11/22 10:17	1

Client Sample ID: BH04

Lab Sample ID: 890-2704-7

Date Collected: 08/01/22 10:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 10:46	08/09/22 12:59	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 10:46	08/09/22 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	08/08/22 10:46	08/09/22 12:59	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH04

Lab Sample ID: 890-2704-7

Date Collected: 08/01/22 10:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	08/08/22 10:46	08/09/22 12:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130			08/04/22 09:22	08/05/22 15:01	1
o-Terphenyl	83		70 - 130			08/04/22 09:22	08/05/22 15:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		25.3	mg/Kg			08/11/22 10:27	5

Client Sample ID: BH04

Lab Sample ID: 890-2704-8

Date Collected: 08/01/22 10:55

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 03:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 03:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 03:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 03:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 03:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/08/22 13:11	08/11/22 03:28	1
1,4-Difluorobenzene (Surr)	98		70 - 130	08/08/22 13:11	08/11/22 03:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/08/22 11:58	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH04

Lab Sample ID: 890-2704-8

Date Collected: 08/01/22 10:55

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1	
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/04/22 09:22	08/05/22 15:23	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	64	S1-	70 - 130			08/04/22 09:22	08/05/22 15:23	1	
o-Terphenyl	75		70 - 130			08/04/22 09:22	08/05/22 15:23	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	25.6		4.99	mg/Kg			08/11/22 10:36	1	

Client Sample ID: BH05

Lab Sample ID: 890-2704-9

Date Collected: 08/01/22 12:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	109		70 - 130			08/08/22 13:11	08/11/22 03:07	1	
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 03:07	1	

Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1	

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1	

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 15:45	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 15:45	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 15:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	77		70 - 130			08/04/22 09:22	08/05/22 15:45	1	
o-Terphenyl	94		70 - 130			08/04/22 09:22	08/05/22 15:45	1	

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH05

Lab Sample ID: 890-2704-9

Date Collected: 08/01/22 12:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	4300		50.1	mg/Kg			08/11/22 10:45	10	

Client Sample ID: BH05

Lab Sample ID: 890-2704-10

Date Collected: 08/01/22 12:15

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 03:48	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		70 - 130			08/08/22 13:11	08/11/22 03:48	1	
1,4-Difluorobenzene (Surr)	95		70 - 130			08/08/22 13:11	08/11/22 03:48	1	

Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1	

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1	

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 16:07	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 16:07	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 16:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	73		70 - 130			08/04/22 09:22	08/05/22 16:07	1	
o-Terphenyl	87		70 - 130			08/04/22 09:22	08/05/22 16:07	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	18.2		5.00	mg/Kg			08/11/22 10:54	1	

Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH06

Lab Sample ID: 890-2704-11

Date Collected: 08/01/22 12:20

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 04:09	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 04:09	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 04:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/08/22 13:11	08/11/22 04:09	1
1,4-Difluorobenzene (Surr)	99		70 - 130	08/08/22 13:11	08/11/22 04:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 16:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 16:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130	08/04/22 09:22	08/05/22 16:50	1
o-Terphenyl	78		70 - 130	08/04/22 09:22	08/05/22 16:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.5		4.96	mg/Kg			08/11/22 11:22	1

Client Sample ID: BH06

Lab Sample ID: 890-2704-12

Date Collected: 08/01/22 12:35

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/08/22 13:11	08/11/22 04:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	08/08/22 13:11	08/11/22 04:29	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH06

Lab Sample ID: 890-2704-12

Date Collected: 08/01/22 12:35

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	08/08/22 13:11	08/11/22 04:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130			08/04/22 09:22	08/05/22 17:11	1
o-Terphenyl	89		70 - 130			08/04/22 09:22	08/05/22 17:11	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		4.95	mg/Kg			08/11/22 11:31	1

Client Sample ID: BH07

Lab Sample ID: 890-2704-13

Date Collected: 08/01/22 12:45

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 04:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 04:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 04:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	08/08/22 13:11	08/11/22 04:49	1
1,4-Difluorobenzene (Surr)	98		70 - 130	08/08/22 13:11	08/11/22 04:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH07

Lab Sample ID: 890-2704-13

Date Collected: 08/01/22 12:45

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 17:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			08/04/22 09:22	08/05/22 17:33	1
o-Terphenyl	91		70 - 130			08/04/22 09:22	08/05/22 17:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9		4.95	mg/Kg			08/11/22 11:59	1

Client Sample ID: BH07

Lab Sample ID: 890-2704-14

Date Collected: 08/01/22 13:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:11	08/11/22 05:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			08/08/22 13:11	08/11/22 05:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 05:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			08/04/22 09:22	08/05/22 17:55	1
o-Terphenyl	93		70 - 130			08/04/22 09:22	08/05/22 17:55	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH07

Lab Sample ID: 890-2704-14

Date Collected: 08/01/22 13:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.7		5.03	mg/Kg			08/11/22 12:08	1

Client Sample ID: BH08

Lab Sample ID: 890-2704-15

Date Collected: 08/01/22 14:00

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/08/22 13:11	08/11/22 05:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			08/08/22 13:11	08/11/22 05:30	1
1,4-Difluorobenzene (Surr)	97		70 - 130			08/08/22 13:11	08/11/22 05:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 18:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	51	S1-	70 - 130			08/04/22 09:22	08/05/22 18:16	1
o-Terphenyl	54	S1-	70 - 130			08/04/22 09:22	08/05/22 18:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.59		5.02	mg/Kg			08/11/22 12:17	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH08

Lab Sample ID: 890-2704-16

Date Collected: 08/01/22 14:15

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 05:51	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:11	08/11/22 05:51	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 13:11	08/11/22 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	08/08/22 13:11	08/11/22 05:51	1
1,4-Difluorobenzene (Surr)	90		70 - 130	08/08/22 13:11	08/11/22 05:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 18:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130	08/04/22 09:22	08/05/22 18:38	1
o-Terphenyl	86		70 - 130	08/04/22 09:22	08/05/22 18:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.9		5.01	mg/Kg			08/11/22 12:27	1

Client Sample ID: BH09

Lab Sample ID: 890-2704-17

Date Collected: 08/01/22 13:30

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/08/22 13:11	08/11/22 06:11	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/08/22 13:11	08/11/22 06:11	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/08/22 13:11	08/11/22 06:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	08/08/22 13:11	08/11/22 06:11	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH09

Lab Sample ID: 890-2704-17

Date Collected: 08/01/22 13:30

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	08/08/22 13:11	08/11/22 06:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/22 11:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 19:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130			08/04/22 09:22	08/05/22 19:00	1
o-Terphenyl	73		70 - 130			08/04/22 09:22	08/05/22 19:00	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3250		25.0	mg/Kg			08/11/22 12:36	5

Client Sample ID: BH09

Lab Sample ID: 890-2704-18

Date Collected: 08/01/22 13:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 08:01	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/08/22 13:11	08/11/22 08:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/08/22 13:11	08/11/22 08:01	1
1,4-Difluorobenzene (Surr)	98		70 - 130	08/08/22 13:11	08/11/22 08:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/09/22 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 11:58	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH09

Lab Sample ID: 890-2704-18

Date Collected: 08/01/22 13:40

Matrix: Solid

Date Received: 08/02/22 09:53

Sample Depth: 4'

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1	
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/22 09:22	08/05/22 19:22	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	68	S1-	70 - 130			08/04/22 09:22	08/05/22 19:22	1	
o-Terphenyl	81		70 - 130			08/04/22 09:22	08/05/22 19:22	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	90.7		4.99	mg/Kg			08/11/22 12:45	1	

Surrogate Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1	DFBZ1						
		(70-130)	(70-130)						
820-5243-A-121-D MS	Matrix Spike	109	83						
820-5243-A-121-E MSD	Matrix Spike Duplicate	101	89						
890-2704-1	BH01	129	79						
890-2704-1 MS	BH01	130	85						
890-2704-1 MSD	BH01	140 S1+	84						
890-2704-2	BH01	131 S1+	93						
890-2704-3	BH02	127	86						
890-2704-4	BH02	139 S1+	91						
890-2704-5	BH03	130	84						
890-2704-6	BH03	125	92						
890-2704-7	BH04	128	95						
890-2704-8	BH04	99	98						
890-2704-9	BH05	109	97						
890-2704-9 MS	BH05	106	93						
890-2704-9 MSD	BH05	102	103						
890-2704-10	BH05	98	95						
890-2704-11	BH06	99	99						
890-2704-12	BH06	103	100						
890-2704-13	BH07	101	98						
890-2704-14	BH07	101	97						
890-2704-15	BH08	100	97						
890-2704-16	BH08	106	90						
890-2704-17	BH09	103	100						
890-2704-18	BH09	104	98						
LCS 880-31731/1-A	Lab Control Sample	125	85						
LCS 880-31767/1-A	Lab Control Sample	136 S1+	81						
LCS 880-31768/1-A	Lab Control Sample	111	92						
LCSD 880-31731/2-A	Lab Control Sample Dup	111	83						
LCSD 880-31767/2-A	Lab Control Sample Dup	131 S1+	84						
LCSD 880-31768/2-A	Lab Control Sample Dup	104	92						
MB 880-31523/5-A	Method Blank	92	80						
MB 880-31731/5-A	Method Blank	92	80						
MB 880-31767/5-A	Method Blank	103	75						
MB 880-31768/5-A	Method Blank	94	97						
MB 880-31769/5-A	Method Blank	94	102						
MB 880-31850/8	Method Blank	99	77						
Surrogate Legend									
BFB = 4-Bromofluorobenzene (Surr)									
DFBZ = 1,4-Difluorobenzene (Surr)									

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-2704-1	BH01	72	81				
890-2704-1 MS	BH01	60 S1-	63 S1-				
890-2704-1 MSD	BH01	66 S1-	67 S1-				

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Surrogate Summary

Client: Ensolum

Job ID: 890-2704-1

Project/Site: BEU Connector PW Booster

SDG: 03E1558045

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2704-2	BH01	71	85
890-2704-3	BH02	65 S1-	76
890-2704-4	BH02	61 S1-	70
890-2704-5	BH03	86	101
890-2704-6	BH03	90	105
890-2704-7	BH04	69 S1-	83
890-2704-8	BH04	64 S1-	75
890-2704-9	BH05	77	94
890-2704-10	BH05	73	87
890-2704-11	BH06	65 S1-	78
890-2704-12	BH06	73	89
890-2704-13	BH07	83	91
890-2704-14	BH07	83	93
890-2704-15	BH08	51 S1-	54 S1-
890-2704-16	BH08	72	86
890-2704-17	BH09	63 S1-	73
890-2704-18	BH09	68 S1-	81
LCS 880-31470/2-A	Lab Control Sample	92	97
LCSD 880-31470/3-A	Lab Control Sample Dup	88	95
MB 880-31470/1-A	Method Blank	88	108

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31523/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31678						Prep Batch: 31523		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/04/22 16:53	08/08/22 11:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			08/04/22 16:53	08/08/22 11:35	1
1,4-Difluorobenzene (Surr)	80		70 - 130			08/04/22 16:53	08/08/22 11:35	1

Lab Sample ID: MB 880-31731/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31678						Prep Batch: 31731		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 10:46	08/09/22 01:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			08/08/22 10:46	08/09/22 01:11	1
1,4-Difluorobenzene (Surr)	80		70 - 130			08/08/22 10:46	08/09/22 01:11	1

Lab Sample ID: LCS 880-31731/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31678						Prep Batch: 31731		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.08288		mg/Kg		83	70 - 130	
Toluene	0.100	0.08549		mg/Kg		85	70 - 130	
Ethylbenzene	0.100	0.08686		mg/Kg		87	70 - 130	
m-Xylene & p-Xylene	0.200	0.1774		mg/Kg		89	70 - 130	
o-Xylene	0.100	0.09732		mg/Kg		97	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	125		70 - 130					
1,4-Difluorobenzene (Surr)	85		70 - 130					

Lab Sample ID: LCSD 880-31731/2-A						Client Sample ID: Lab Control Sample Dup		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31678						Prep Batch: 31731		
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Benzene	0.100	0.08517		mg/Kg		85	70 - 130	3 35

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: LCSD 880-31731/2-A

Matrix: Solid

Analysis Batch: 31678

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31731

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits			
Toluene	0.100	0.09048		mg/Kg		90	70 - 130		6	35
Ethylbenzene	0.100	0.08974		mg/Kg		90	70 - 130		3	35
m-Xylene & p-Xylene	0.200	0.1833		mg/Kg		92	70 - 130		3	35
o-Xylene	0.100	0.09907		mg/Kg		99	70 - 130		2	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: 820-5243-A-121-D MS

Matrix: Solid

Analysis Batch: 31678

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 31731

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Benzene	<0.00199	U F1 F2	0.101	0.007984	F1	mg/Kg		8	70 - 130	
Toluene	<0.00199	U F1 F2	0.101	0.009017	F1	mg/Kg		9	70 - 130	
Ethylbenzene	<0.00199	U F1 F2	0.101	0.009234	F1	mg/Kg		9	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.202	0.01864	F1	mg/Kg		9	70 - 130	
o-Xylene	<0.00199	U F1 F2	0.101	0.01047	F1	mg/Kg		10	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: 820-5243-A-121-E MSD

Matrix: Solid

Analysis Batch: 31678

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31731

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits			
Benzene	<0.00199	U F1 F2	0.101	0.004525	F1 F2	mg/Kg		4	70 - 130		55	35
Toluene	<0.00199	U F1 F2	0.101	0.003980	F1 F2	mg/Kg		4	70 - 130		78	35
Ethylbenzene	<0.00199	U F1 F2	0.101	0.004221	F1 F2	mg/Kg		4	70 - 130		75	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.201	0.008636	F1 F2	mg/Kg		4	70 - 130		73	35
o-Xylene	<0.00199	U F1 F2	0.101	0.005003	F1 F2	mg/Kg		5	70 - 130		71	35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: MB 880-31767/5-A

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31767

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:00	08/10/22 06:38	1

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: MB 880-31767/5-A

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31767

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:00	08/10/22 06:38	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			08/08/22 13:00	08/10/22 06:38	1
1,4-Difluorobenzene (Surr)	75		70 - 130			08/08/22 13:00	08/10/22 06:38	1

Lab Sample ID: LCS 880-31767/1-A

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31767

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08434		mg/Kg		84	70 - 130
Toluene	0.100	0.08825		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.08741		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1767		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09757		mg/Kg		98	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130				
1,4-Difluorobenzene (Surr)	81		70 - 130				

Lab Sample ID: LCSD 880-31767/2-A

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31767

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08734		mg/Kg		87	70 - 130	3	35
Toluene	0.100	0.08876		mg/Kg		89	70 - 130	1	35
Ethylbenzene	0.100	0.08917		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1831		mg/Kg		92	70 - 130	4	35
o-Xylene	0.100	0.09964		mg/Kg		100	70 - 130	2	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130						
1,4-Difluorobenzene (Surr)	84		70 - 130						

Lab Sample ID: 890-2704-1 MS

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 31767

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.100	0.09552		mg/Kg		95	70 - 130
Toluene	<0.00199	U	0.100	0.09509		mg/Kg		95	70 - 130
Ethylbenzene	<0.00199	U	0.100	0.09336		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1888		mg/Kg		94	70 - 130
o-Xylene	<0.00199	U	0.100	0.1014		mg/Kg		101	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: 890-2704-1 MS

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 31767

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	130		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-2704-1 MSD

Matrix: Solid

Analysis Batch: 31850

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 31767

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.06812	F1	mg/Kg		68	70 - 130	33	35
Toluene	<0.00199	U	0.0998	0.07008		mg/Kg		70	70 - 130	30	35
Ethylbenzene	<0.00199	U	0.0998	0.07097		mg/Kg		71	70 - 130	27	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1453		mg/Kg		73	70 - 130	26	35
o-Xylene	<0.00199	U	0.0998	0.08021		mg/Kg		80	70 - 130	23	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: MB 880-31768/5-A

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31768

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	94		70 - 130	08/08/22 13:11	08/11/22 02:38	1		
1,4-Difluorobenzene (Surr)	97		70 - 130	08/08/22 13:11	08/11/22 02:38	1		

Lab Sample ID: LCS 880-31768/1-A

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07179		mg/Kg		72	70 - 130
Toluene	0.100	0.08341		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.08799		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1838		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09228		mg/Kg		92	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: LCS 880-31768/1-A

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31768

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-31768/2-A

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31768

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07256		mg/Kg		73	70 - 130	1	35
Toluene	0.100	0.08266		mg/Kg		83	70 - 130	1	35
Ethylbenzene	0.100	0.08687		mg/Kg		87	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1804		mg/Kg		90	70 - 130	2	35
o-Xylene	0.100	0.09054		mg/Kg		91	70 - 130	2	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-2704-9 MS

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: BH05

Prep Type: Total/NA

Prep Batch: 31768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.08508		mg/Kg		85	70 - 130
Toluene	<0.00199	U	0.0998	0.09438		mg/Kg		95	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.09810		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2010		mg/Kg		101	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09903		mg/Kg		99	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-2704-9 MSD

Matrix: Solid

Analysis Batch: 31904

Client Sample ID: BH05

Prep Type: Total/NA

Prep Batch: 31768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.1022		mg/Kg		102	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09599		mg/Kg		96	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.100	0.09685		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1954		mg/Kg		97	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.09572		mg/Kg		95	70 - 130	3	35

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

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: MB 880-31769/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31904						Prep Batch: 31769		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			08/08/22 13:23	08/10/22 14:40	1
1,4-Difluorobenzene (Surr)	102		70 - 130			08/08/22 13:23	08/10/22 14:40	1

Lab Sample ID: MB 880-31850/8						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31850								
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Toluene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			08/09/22 16:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			08/09/22 16:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			08/09/22 16:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				08/09/22 16:48	1
1,4-Difluorobenzene (Surr)	77		70 - 130				08/09/22 16:48	1

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

Lab Sample ID: MB 880-31470/1-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 31531						Prep Batch: 31470		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/22 09:22	08/05/22 11:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			08/04/22 09:22	08/05/22 11:01	1
o-Terphenyl	108		70 - 130			08/04/22 09:22	08/05/22 11:01	1

QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: LCS 880-31470/2-A
Matrix: Solid
Analysis Batch: 31531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1009		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	1000	981.4		mg/Kg		98	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	97		70 - 130				

Lab Sample ID: LCSD 880-31470/3-A
Matrix: Solid
Analysis Batch: 31531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 31470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	969.8		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	894.9		mg/Kg		89	70 - 130	9	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	88		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-2704-1 MS
Matrix: Solid
Analysis Batch: 31531

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 31470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	766.4		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	620.6	F1	mg/Kg		62	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
1-Chlorooctane	60	S1-	70 - 130						
o-Terphenyl	63	S1-	70 - 130						

Lab Sample ID: 890-2704-1 MSD
Matrix: Solid
Analysis Batch: 31531

Client Sample ID: BH01
Prep Type: Total/NA
Prep Batch: 31470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	861.7		mg/Kg		84	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	671.9	F1	mg/Kg		67	70 - 130	8	20
Surrogate	%Recovery	MSD Qualifier	Limits								
1-Chlorooctane	66	S1-	70 - 130								

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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

Lab Sample ID: 890-2704-1 MSD

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 31470

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	67	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31446/1-A

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			08/11/22 08:18	1

Lab Sample ID: LCS 880-31446/2-A

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							98	90 - 110
Chloride	250	244.6		mg/Kg				

Lab Sample ID: LCSD 880-31446/3-A

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	249.4		mg/Kg		100	90 - 110	2	20

Lab Sample ID: 880-17639-A-1-B MS

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
									100	90 - 110
Chloride	1050		2490	3537		mg/Kg				

Lab Sample ID: 880-17639-A-1-C MSD

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limits
Chloride	1050		2490	3565		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-2704-10 MS

Matrix: Solid

Analysis Batch: 31668

Client Sample ID: BH05

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
									104	90 - 110
Chloride	18.2		250	277.6		mg/Kg				

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2704-10 MSD							Client Sample ID: BH05					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 31668												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	18.2		250	274.0		mg/Kg		102	90 - 110	1	20	

QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

GC VOA

Prep Batch: 31523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31523/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 31678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-2	BH01	Total/NA	Solid	8021B	31731
890-2704-3	BH02	Total/NA	Solid	8021B	31731
890-2704-4	BH02	Total/NA	Solid	8021B	31731
890-2704-5	BH03	Total/NA	Solid	8021B	31731
890-2704-6	BH03	Total/NA	Solid	8021B	31731
890-2704-7	BH04	Total/NA	Solid	8021B	31731
MB 880-31523/5-A	Method Blank	Total/NA	Solid	8021B	31523
MB 880-31731/5-A	Method Blank	Total/NA	Solid	8021B	31731
LCS 880-31731/1-A	Lab Control Sample	Total/NA	Solid	8021B	31731
LCSD 880-31731/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31731
820-5243-A-121-D MS	Matrix Spike	Total/NA	Solid	8021B	31731
820-5243-A-121-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31731

Prep Batch: 31731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-2	BH01	Total/NA	Solid	5035	
890-2704-3	BH02	Total/NA	Solid	5035	
890-2704-4	BH02	Total/NA	Solid	5035	
890-2704-5	BH03	Total/NA	Solid	5035	
890-2704-6	BH03	Total/NA	Solid	5035	
890-2704-7	BH04	Total/NA	Solid	5035	
MB 880-31731/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31731/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31731/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-5243-A-121-D MS	Matrix Spike	Total/NA	Solid	5035	
820-5243-A-121-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 31767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	5035	
MB 880-31767/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31767/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31767/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-1 MS	BH01	Total/NA	Solid	5035	
890-2704-1 MSD	BH01	Total/NA	Solid	5035	

Prep Batch: 31768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-8	BH04	Total/NA	Solid	5035	
890-2704-9	BH05	Total/NA	Solid	5035	
890-2704-10	BH05	Total/NA	Solid	5035	
890-2704-11	BH06	Total/NA	Solid	5035	
890-2704-12	BH06	Total/NA	Solid	5035	
890-2704-13	BH07	Total/NA	Solid	5035	
890-2704-14	BH07	Total/NA	Solid	5035	
890-2704-15	BH08	Total/NA	Solid	5035	
890-2704-16	BH08	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

GC VOA (Continued)

Prep Batch: 31768 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-17	BH09	Total/NA	Solid	5035	
890-2704-18	BH09	Total/NA	Solid	5035	
MB 880-31768/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-9 MS	BH05	Total/NA	Solid	5035	
890-2704-9 MSD	BH05	Total/NA	Solid	5035	

Prep Batch: 31769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31769/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 31850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8021B	31767
MB 880-31767/5-A	Method Blank	Total/NA	Solid	8021B	31767
MB 880-31850/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-31767/1-A	Lab Control Sample	Total/NA	Solid	8021B	31767
LCSD 880-31767/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31767
890-2704-1 MS	BH01	Total/NA	Solid	8021B	31767
890-2704-1 MSD	BH01	Total/NA	Solid	8021B	31767

Analysis Batch: 31860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	Total BTEX	
890-2704-2	BH01	Total/NA	Solid	Total BTEX	
890-2704-3	BH02	Total/NA	Solid	Total BTEX	
890-2704-4	BH02	Total/NA	Solid	Total BTEX	
890-2704-5	BH03	Total/NA	Solid	Total BTEX	
890-2704-6	BH03	Total/NA	Solid	Total BTEX	
890-2704-7	BH04	Total/NA	Solid	Total BTEX	
890-2704-8	BH04	Total/NA	Solid	Total BTEX	
890-2704-9	BH05	Total/NA	Solid	Total BTEX	
890-2704-10	BH05	Total/NA	Solid	Total BTEX	
890-2704-11	BH06	Total/NA	Solid	Total BTEX	
890-2704-12	BH06	Total/NA	Solid	Total BTEX	
890-2704-13	BH07	Total/NA	Solid	Total BTEX	
890-2704-14	BH07	Total/NA	Solid	Total BTEX	
890-2704-15	BH08	Total/NA	Solid	Total BTEX	
890-2704-16	BH08	Total/NA	Solid	Total BTEX	
890-2704-17	BH09	Total/NA	Solid	Total BTEX	
890-2704-18	BH09	Total/NA	Solid	Total BTEX	

Analysis Batch: 31904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-8	BH04	Total/NA	Solid	8021B	31768
890-2704-9	BH05	Total/NA	Solid	8021B	31768
890-2704-10	BH05	Total/NA	Solid	8021B	31768
890-2704-11	BH06	Total/NA	Solid	8021B	31768
890-2704-12	BH06	Total/NA	Solid	8021B	31768
890-2704-13	BH07	Total/NA	Solid	8021B	31768

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

GC VOA (Continued)

Analysis Batch: 31904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-14	BH07	Total/NA	Solid	8021B	31768
890-2704-15	BH08	Total/NA	Solid	8021B	31768
890-2704-16	BH08	Total/NA	Solid	8021B	31768
890-2704-17	BH09	Total/NA	Solid	8021B	31768
890-2704-18	BH09	Total/NA	Solid	8021B	31768
MB 880-31768/5-A	Method Blank	Total/NA	Solid	8021B	31768
MB 880-31769/5-A	Method Blank	Total/NA	Solid	8021B	31769
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	8021B	31768
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31768
890-2704-9 MS	BH05	Total/NA	Solid	8021B	31768
890-2704-9 MSD	BH05	Total/NA	Solid	8021B	31768

GC Semi VOA

Prep Batch: 31470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015NM Prep	
890-2704-2	BH01	Total/NA	Solid	8015NM Prep	
890-2704-3	BH02	Total/NA	Solid	8015NM Prep	
890-2704-4	BH02	Total/NA	Solid	8015NM Prep	
890-2704-5	BH03	Total/NA	Solid	8015NM Prep	
890-2704-6	BH03	Total/NA	Solid	8015NM Prep	
890-2704-7	BH04	Total/NA	Solid	8015NM Prep	
890-2704-8	BH04	Total/NA	Solid	8015NM Prep	
890-2704-9	BH05	Total/NA	Solid	8015NM Prep	
890-2704-10	BH05	Total/NA	Solid	8015NM Prep	
890-2704-11	BH06	Total/NA	Solid	8015NM Prep	
890-2704-12	BH06	Total/NA	Solid	8015NM Prep	
890-2704-13	BH07	Total/NA	Solid	8015NM Prep	
890-2704-14	BH07	Total/NA	Solid	8015NM Prep	
890-2704-15	BH08	Total/NA	Solid	8015NM Prep	
890-2704-16	BH08	Total/NA	Solid	8015NM Prep	
890-2704-17	BH09	Total/NA	Solid	8015NM Prep	
890-2704-18	BH09	Total/NA	Solid	8015NM Prep	
MB 880-31470/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31470/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31470/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2704-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-2704-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 31531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015B NM	31470
890-2704-2	BH01	Total/NA	Solid	8015B NM	31470
890-2704-3	BH02	Total/NA	Solid	8015B NM	31470
890-2704-4	BH02	Total/NA	Solid	8015B NM	31470
890-2704-5	BH03	Total/NA	Solid	8015B NM	31470
890-2704-6	BH03	Total/NA	Solid	8015B NM	31470
890-2704-7	BH04	Total/NA	Solid	8015B NM	31470
890-2704-8	BH04	Total/NA	Solid	8015B NM	31470
890-2704-9	BH05	Total/NA	Solid	8015B NM	31470

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

GC Semi VOA (Continued)

Analysis Batch: 31531 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-10	BH05	Total/NA	Solid	8015B NM	31470
890-2704-11	BH06	Total/NA	Solid	8015B NM	31470
890-2704-12	BH06	Total/NA	Solid	8015B NM	31470
890-2704-13	BH07	Total/NA	Solid	8015B NM	31470
890-2704-14	BH07	Total/NA	Solid	8015B NM	31470
890-2704-15	BH08	Total/NA	Solid	8015B NM	31470
890-2704-16	BH08	Total/NA	Solid	8015B NM	31470
890-2704-17	BH09	Total/NA	Solid	8015B NM	31470
890-2704-18	BH09	Total/NA	Solid	8015B NM	31470
MB 880-31470/1-A	Method Blank	Total/NA	Solid	8015B NM	31470
LCS 880-31470/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31470
LCSD 880-31470/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31470
890-2704-1 MS	BH01	Total/NA	Solid	8015B NM	31470
890-2704-1 MSD	BH01	Total/NA	Solid	8015B NM	31470

Analysis Batch: 31749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Total/NA	Solid	8015 NM	
890-2704-2	BH01	Total/NA	Solid	8015 NM	
890-2704-3	BH02	Total/NA	Solid	8015 NM	
890-2704-4	BH02	Total/NA	Solid	8015 NM	
890-2704-5	BH03	Total/NA	Solid	8015 NM	
890-2704-6	BH03	Total/NA	Solid	8015 NM	
890-2704-7	BH04	Total/NA	Solid	8015 NM	
890-2704-8	BH04	Total/NA	Solid	8015 NM	
890-2704-9	BH05	Total/NA	Solid	8015 NM	
890-2704-10	BH05	Total/NA	Solid	8015 NM	
890-2704-11	BH06	Total/NA	Solid	8015 NM	
890-2704-12	BH06	Total/NA	Solid	8015 NM	
890-2704-13	BH07	Total/NA	Solid	8015 NM	
890-2704-14	BH07	Total/NA	Solid	8015 NM	
890-2704-15	BH08	Total/NA	Solid	8015 NM	
890-2704-16	BH08	Total/NA	Solid	8015 NM	
890-2704-17	BH09	Total/NA	Solid	8015 NM	
890-2704-18	BH09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 31446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Soluble	Solid	DI Leach	
890-2704-2	BH01	Soluble	Solid	DI Leach	
890-2704-3	BH02	Soluble	Solid	DI Leach	
890-2704-4	BH02	Soluble	Solid	DI Leach	
890-2704-5	BH03	Soluble	Solid	DI Leach	
890-2704-6	BH03	Soluble	Solid	DI Leach	
890-2704-7	BH04	Soluble	Solid	DI Leach	
890-2704-8	BH04	Soluble	Solid	DI Leach	
890-2704-9	BH05	Soluble	Solid	DI Leach	
890-2704-10	BH05	Soluble	Solid	DI Leach	
890-2704-11	BH06	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

HPLC/IC (Continued)

Leach Batch: 31446 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-12	BH06	Soluble	Solid	DI Leach	
890-2704-13	BH07	Soluble	Solid	DI Leach	
890-2704-14	BH07	Soluble	Solid	DI Leach	
890-2704-15	BH08	Soluble	Solid	DI Leach	
890-2704-16	BH08	Soluble	Solid	DI Leach	
890-2704-17	BH09	Soluble	Solid	DI Leach	
890-2704-18	BH09	Soluble	Solid	DI Leach	
MB 880-31446/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31446/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31446/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17639-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17639-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2704-10 MS	BH05	Soluble	Solid	DI Leach	
890-2704-10 MSD	BH05	Soluble	Solid	DI Leach	

Analysis Batch: 31668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2704-1	BH01	Soluble	Solid	300.0	31446
890-2704-2	BH01	Soluble	Solid	300.0	31446
890-2704-3	BH02	Soluble	Solid	300.0	31446
890-2704-4	BH02	Soluble	Solid	300.0	31446
890-2704-5	BH03	Soluble	Solid	300.0	31446
890-2704-6	BH03	Soluble	Solid	300.0	31446
890-2704-7	BH04	Soluble	Solid	300.0	31446
890-2704-8	BH04	Soluble	Solid	300.0	31446
890-2704-9	BH05	Soluble	Solid	300.0	31446
890-2704-10	BH05	Soluble	Solid	300.0	31446
890-2704-11	BH06	Soluble	Solid	300.0	31446
890-2704-12	BH06	Soluble	Solid	300.0	31446
890-2704-13	BH07	Soluble	Solid	300.0	31446
890-2704-14	BH07	Soluble	Solid	300.0	31446
890-2704-15	BH08	Soluble	Solid	300.0	31446
890-2704-16	BH08	Soluble	Solid	300.0	31446
890-2704-17	BH09	Soluble	Solid	300.0	31446
890-2704-18	BH09	Soluble	Solid	300.0	31446
MB 880-31446/1-A	Method Blank	Soluble	Solid	300.0	31446
LCS 880-31446/2-A	Lab Control Sample	Soluble	Solid	300.0	31446
LCSD 880-31446/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31446
880-17639-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	31446
880-17639-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31446
890-2704-10 MS	BH05	Soluble	Solid	300.0	31446
890-2704-10 MSD	BH05	Soluble	Solid	300.0	31446

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH01

Date Collected: 08/01/22 09:00

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31767	08/08/22 13:00	MR	EET MID
Total/NA	Analysis	8021B		1			31850	08/10/22 07:05	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 12:07	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:13	CH	EET MID

Client Sample ID: BH01

Date Collected: 08/01/22 09:15

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 10:47	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:13	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:22	CH	EET MID

Client Sample ID: BH02

Date Collected: 08/01/22 09:25

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 11:14	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:34	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 09:31	CH	EET MID

Client Sample ID: BH02

Date Collected: 08/01/22 09:40

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 11:40	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH02

Date Collected: 08/01/22 09:40

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 13:56	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 09:40	CH	EET MID

Client Sample ID: BH03

Date Collected: 08/01/22 10:15

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 12:06	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 14:18	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:08	CH	EET MID

Client Sample ID: BH03

Date Collected: 08/01/22 10:25

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 12:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 14:40	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:17	CH	EET MID

Client Sample ID: BH04

Date Collected: 08/01/22 10:40

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	31731	08/08/22 10:46	EL	EET MID
Total/NA	Analysis	8021B		1			31678	08/09/22 12:59	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:01	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH04

Date Collected: 08/01/22 10:40

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 10:27	CH	EET MID

Client Sample ID: BH04

Date Collected: 08/01/22 10:55

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:09	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:36	CH	EET MID

Client Sample ID: BH05

Date Collected: 08/01/22 12:00

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 15:45	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		10			31668	08/11/22 10:45	CH	EET MID

Client Sample ID: BH05

Date Collected: 08/01/22 12:15

Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 03:48	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 16:07	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 10:54	CH	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH06

Lab Sample ID: 890-2704-11

Date Collected: 08/01/22 12:20

Matrix: Solid

Date Received: 08/02/22 09:53

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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:22	CH	EET MID

Client Sample ID: BH06

Lab Sample ID: 890-2704-12

Date Collected: 08/01/22 12:35

Matrix: Solid

Date Received: 08/02/22 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:11	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:31	CH	EET MID

Client Sample ID: BH07

Lab Sample ID: 890-2704-13

Date Collected: 08/01/22 12:45

Matrix: Solid

Date Received: 08/02/22 09:53

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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 04:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:33	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 11:59	CH	EET MID

Client Sample ID: BH07

Lab Sample ID: 890-2704-14

Date Collected: 08/01/22 13:00

Matrix: Solid

Date Received: 08/02/22 09:53

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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH07
Date Collected: 08/01/22 13:00
Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 17:55	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:08	CH	EET MID

Client Sample ID: BH08
Date Collected: 08/01/22 14:00
Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 18:16	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:17	CH	EET MID

Client Sample ID: BH08
Date Collected: 08/01/22 14:15
Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 05:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 18:38	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:27	CH	EET MID

Client Sample ID: BH09
Date Collected: 08/01/22 13:30
Date Received: 08/02/22 09:53

Lab Sample ID: 890-2704-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 06:11	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 19:00	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Client Sample ID: BH09

Lab Sample ID: 890-2704-17

Date Collected: 08/01/22 13:30

Matrix: Solid

Date Received: 08/02/22 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		5			31668	08/11/22 12:36	CH	EET MID

Client Sample ID: BH09

Lab Sample ID: 890-2704-18

Date Collected: 08/01/22 13:40

Matrix: Solid

Date Received: 08/02/22 09:53

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	31768	08/08/22 13:11	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/11/22 08:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31860	08/09/22 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			31749	08/08/22 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31470	08/04/22 09:22	DM	EET MID
Total/NA	Analysis	8015B NM		1			31531	08/05/22 19:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	31446	08/03/22 17:10	SMC	EET MID
Soluble	Analysis	300.0		1			31668	08/11/22 12:45	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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
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14

Method Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

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: BEU Connector PW Booster

Job ID: 890-2704-1
SDG: 03E1558045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2704-1	BH01	Solid	08/01/22 09:00	08/02/22 09:53	1'
890-2704-2	BH01	Solid	08/01/22 09:15	08/02/22 09:53	4'
890-2704-3	BH02	Solid	08/01/22 09:25	08/02/22 09:53	1'
890-2704-4	BH02	Solid	08/01/22 09:40	08/02/22 09:53	4'
890-2704-5	BH03	Solid	08/01/22 10:15	08/02/22 09:53	2'
890-2704-6	BH03	Solid	08/01/22 10:25	08/02/22 09:53	4'
890-2704-7	BH04	Solid	08/01/22 10:40	08/02/22 09:53	1'
890-2704-8	BH04	Solid	08/01/22 10:55	08/02/22 09:53	4'
890-2704-9	BH05	Solid	08/01/22 12:00	08/02/22 09:53	1'
890-2704-10	BH05	Solid	08/01/22 12:15	08/02/22 09:53	4'
890-2704-11	BH06	Solid	08/01/22 12:20	08/02/22 09:53	1'
890-2704-12	BH06	Solid	08/01/22 12:35	08/02/22 09:53	4'
890-2704-13	BH07	Solid	08/01/22 12:45	08/02/22 09:53	1'
890-2704-14	BH07	Solid	08/01/22 13:00	08/02/22 09:53	4'
890-2704-15	BH08	Solid	08/01/22 14:00	08/02/22 09:53	1'
890-2704-16	BH08	Solid	08/01/22 14:15	08/02/22 09:53	4'
890-2704-17	BH09	Solid	08/01/22 13:30	08/02/22 09:53	1'
890-2704-18	BH09	Solid	08/01/22 13:40	08/02/22 09:53	4'



Environment Testing
Xenoco

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.xenoco.com Page 1 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 East Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	337.257.8307	Email:	tmorrissey@ensolum.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <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: _____

Project Name:	BEU Connector PW Booster	Turn Around	Pres. Code	ANALYSIS REQUEST												Preservative Codes	
Project Number:	03E1558045	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO	DI Water: H ₂ O
Project Location:	Conner Shore	Due Date:														Cool: Cool	MeOH: Me
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN
PO #:		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Thermometer ID:														H ₃ PO ₄ : HP	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:														NaHSO ₄ : NABIS	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:														Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:														Zn Acetate+NaOH: Zn	
Total Containers:																NaOH+Ascorbic Acid: SAPC	

Sample Identification										Sample Comments									
Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLOR	TPH (80	BTEX (8											
BH01	S	08.01.22	900	1'	G	1	X	X	X										NAPP2213151424
BH01	S	08.01.22	915	4'	G	1	X	X	X										Cost Center: 1081711001
BH02	S	08.01.22	925	1'	G	1	X	X	X										
BH02	S	08.01.22	940	4'	G	1	X	X	X										AFE:
BH03	S	08.01.22	1015	2'	G	1	X	X	X										
BH03	S	08.01.22	1025	4'	G	1	X	X	X										API: 30-015-40660
BH04	S	08.01.22	1040	1'	G	1	X	X	X										
BH04	S	08.01.22	1055	4'	G	1	X	X	X										
BH05	S	08.01.22	1200	1'	G	1	X	X	X										
BH05	S	08.01.22	1215	4'	G	1	X	X	X										

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		8.8.22 953			



Environment Testing
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
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EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 East Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	337.257.8307	Email:	tmorrissey@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <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:	

Project Name:	BEU Connector PW Booster	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	ANALYSIS REQUEST																Preservative Codes		
Project Number:	03E1558045	Due Date:			None: NO																	DI Water: H ₂ O	
Project Location:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm			Cool: Cool																	MeOH: Me	
Sample Name:					HCL: HC																	HNO ₃ : HN	
PO #:					H ₂ SO ₄ : H ₂																	NaOH: Na	
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No																	H ₃ PO ₄ : HP
	Samples Received Intact:	Yes	No	Thermometer ID:																	NaHSO ₄ : NABIS		
	Cooler Custody Seals:	Yes	No	Correction Factor:																	Na ₂ S ₂ O ₃ : NaSO ₃		
	Sample Custody Seals:	Yes	No	Temperature Reading:																	Zn Acetate+NaOH: Zn		
Total Containers:		Corrected Temperature:																			NaOH+Ascorbic Acid: SACP		
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab Comp	# of Cont																	Sample Comments
	BH06	s	08.01.22	1220	1'	G	1	X	X	X	X								nAPP2213151424				
	BH06	s	08.01.22	1235	4'	G	1	X	X	X	X							Cost Center: 1081711001					
	BH07	s	08.01.22	1245	1'	G	1	X	X	X	X												
	BH07	s	08.01.22	1300	4'	G	1	X	X	X	X							AFE:					
	BH08	s	08.01.22	1400	1'	G	1	X	X	X	X												
	BH08	s	08.01.22	1415	4'	G	1	X	X	X	X												
	BH09	s	08.01.22	1330	1'	G	1	X	X	X	X							API: 30-015-40860					
	BH09	s	08.01.22	1340	4'	G	1	X	X	X	X												

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		8-2-22 953			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2704-1

SDG Number: 03E1558045

Login Number: 2704

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2704-1

SDG Number: 03E1558045

Login Number: 2704

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 08/03/22 10:15 AM

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



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2380-1

Laboratory Sample Delivery Group: 03E1558045
Client Project/Site: BEU Connector PW Booster
Revision: 1

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

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

Authorized for release by:
10/10/2022 3:17:14 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: BEU Connector PW Booster

Laboratory Job ID: 890-2380-1
SDG: 03E1558045

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Definitions/Glossary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Job ID: 890-2380-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2380-1

REVISION

The report being provided is a revision of the original report sent on 6/10/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

Report revision history

Receipt

The samples were received on 6/6/2022 12:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 29.4°C

GC VOA

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

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS06

Lab Sample ID: 890-2380-1

Date Collected: 06/06/22 08:25

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 01:32	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:32	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:32	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	06/07/22 14:58	06/08/22 01:32	1
1,4-Difluorobenzene (Surr)	97		70 - 130	06/07/22 14:58	06/08/22 01:32	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			06/08/22 15:52	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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 11:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 11:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 11:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	06/08/22 17:15	06/09/22 11:31	1
o-Terphenyl	111		70 - 130	06/08/22 17:15	06/09/22 11:31	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6310		49.8	mg/Kg			06/09/22 22:16	10

Client Sample ID: SS07

Lab Sample ID: 890-2380-2

Date Collected: 06/06/22 08:30

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 01:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/07/22 14:58	06/08/22 01:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/07/22 14:58	06/08/22 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	06/07/22 14:58	06/08/22 01:52	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS07

Lab Sample ID: 890-2380-2

Date Collected: 06/06/22 08:30

Matrix: Solid

Date Received: 06/06/22 12:24

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	06/07/22 14:58	06/08/22 01:52	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			06/08/22 15:52	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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 12:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			06/08/22 17:15	06/09/22 12:34	1
o-Terphenyl	85		70 - 130			06/08/22 17:15	06/09/22 12:34	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.3		4.96	mg/Kg			06/09/22 22:25	1

Client Sample ID: SS08

Lab Sample ID: 890-2380-3

Date Collected: 06/06/22 08:35

Matrix: Solid

Date Received: 06/06/22 12:24

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/07/22 14:58	06/08/22 02:12	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		06/07/22 14:58	06/08/22 02:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	06/07/22 14:58	06/08/22 02:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130	06/07/22 14:58	06/08/22 02:12	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			06/08/22 15:52	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			06/10/22 09:57	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS08

Lab Sample ID: 890-2380-3

Date Collected: 06/06/22 08:35

Matrix: Solid

Date Received: 06/06/22 12:24

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	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 12:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			06/08/22 17:15	06/09/22 12:55	1
o-Terphenyl	101		70 - 130			06/08/22 17:15	06/09/22 12:55	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.2		4.99	mg/Kg			06/09/22 22:53	1

Client Sample ID: SS09

Lab Sample ID: 890-2380-4

Date Collected: 06/06/22 08:40

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 02:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		06/07/22 14:58	06/08/22 02:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/07/22 14:58	06/08/22 02:33	1
1,4-Difluorobenzene (Surr)	92		70 - 130			06/07/22 14:58	06/08/22 02:33	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			06/08/22 15:52	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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 13:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			06/08/22 17:15	06/09/22 13:16	1
o-Terphenyl	102		70 - 130			06/08/22 17:15	06/09/22 13:16	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS09

Lab Sample ID: 890-2380-4

Date Collected: 06/06/22 08:40

Matrix: Solid

Date Received: 06/06/22 12:24

Sample Depth: 0.5'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3970		24.9	mg/Kg			06/09/22 23:02	5

Client Sample ID: SS04

Lab Sample ID: 890-2380-5

Date Collected: 06/06/22 08:45

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 02:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/07/22 14:58	06/08/22 02:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 02:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/07/22 14:58	06/08/22 02:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/07/22 14:58	06/08/22 02:53	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/07/22 14:58	06/08/22 02:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			06/08/22 15:52	1

Method: 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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 13:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			06/08/22 17:15	06/09/22 13:38	1
o-Terphenyl	103		70 - 130			06/08/22 17:15	06/09/22 13:38	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7100		50.2	mg/Kg			06/09/22 23:11	10

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS03

Lab Sample ID: 890-2380-6

Date Collected: 06/06/22 08:50

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 03:14	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/07/22 14:58	06/08/22 03:14	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/07/22 14:58	06/08/22 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	06/07/22 14:58	06/08/22 03:14	1
1,4-Difluorobenzene (Surr)	95		70 - 130	06/07/22 14:58	06/08/22 03:14	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			06/08/22 15:52	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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 13:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	06/08/22 17:15	06/09/22 13:59	1
o-Terphenyl	110		70 - 130	06/08/22 17:15	06/09/22 13:59	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6140		50.1	mg/Kg			06/09/22 23:20	10

Client Sample ID: SS02

Lab Sample ID: 890-2380-7

Date Collected: 06/06/22 08:55

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 03:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 03:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 03:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	06/07/22 14:58	06/08/22 03:34	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS02

Lab Sample ID: 890-2380-7

Date Collected: 06/06/22 08:55

Matrix: Solid

Date Received: 06/06/22 12:24

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	06/07/22 14:58	06/08/22 03:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/08/22 15:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.1		49.9	mg/Kg			06/10/22 09:57	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		06/08/22 17:15	06/09/22 14:21	1
Diesel Range Organics (Over C10-C28)	54.1		49.9	mg/Kg		06/08/22 17:15	06/09/22 14:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			06/08/22 17:15	06/09/22 14:21	1
o-Terphenyl	105		70 - 130			06/08/22 17:15	06/09/22 14:21	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4270		49.9	mg/Kg			06/09/22 23:29	10

Client Sample ID: SS01

Lab Sample ID: 890-2380-8

Date Collected: 06/06/22 09:00

Matrix: Solid

Date Received: 06/06/22 12:24

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/07/22 14:58	06/08/22 03:55	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/07/22 14:58	06/08/22 03:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	06/07/22 14:58	06/08/22 03:55	1
1,4-Difluorobenzene (Surr)	98		70 - 130	06/07/22 14:58	06/08/22 03:55	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/08/22 15:52	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			06/10/22 09:57	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS01

Lab Sample ID: 890-2380-8

Date Collected: 06/06/22 09:00

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/08/22 17:15	06/09/22 14:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 14:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			06/08/22 17:15	06/09/22 14:44	1
o-Terphenyl	94		70 - 130			06/08/22 17:15	06/09/22 14:44	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5120		50.5	mg/Kg			06/09/22 23:39	10

Client Sample ID: SS05

Lab Sample ID: 890-2380-9

Date Collected: 06/06/22 09:05

Matrix: Solid

Date Received: 06/06/22 12:24

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		06/07/22 14:58	06/08/22 05:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/07/22 14:58	06/08/22 05:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			06/07/22 14:58	06/08/22 05:45	1
1,4-Difluorobenzene (Surr)	98		70 - 130			06/07/22 14:58	06/08/22 05:45	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/08/22 15:52	1

Method: 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			06/10/22 09:57	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		06/08/22 17:15	06/09/22 15:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 15:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/08/22 17:15	06/09/22 15:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			06/08/22 17:15	06/09/22 15:06	1
o-Terphenyl	118		70 - 130			06/08/22 17:15	06/09/22 15:06	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS05
Date Collected: 06/06/22 09:05
Date Received: 06/06/22 12:24
Sample Depth: 0.5'

Lab Sample ID: 890-2380-9
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5020		50.3	mg/Kg			06/09/22 23:48	10	

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

Surrogate Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2374-A-5-C MS	Matrix Spike	108	100
890-2374-A-5-D MSD	Matrix Spike Duplicate	110	100
890-2380-1	SS06	107	97
890-2380-2	SS07	107	99
890-2380-3	SS08	116	100
890-2380-4	SS09	112	92
890-2380-5	SS04	112	100
890-2380-6	SS03	116	95
890-2380-7	SS02	108	93
890-2380-8	SS01	110	98
890-2380-9	SS05	112	98
LCS 880-27017/1-A	Lab Control Sample	108	99
LCSD 880-27017/2-A	Lab Control Sample Dup	108	97
MB 880-26988/5-A	Method Blank	98	100
MB 880-27017/5-A	Method Blank	99	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2380-1	SS06	113	111
890-2380-1 MS	SS06	95	82
890-2380-1 MSD	SS06	101	89
890-2380-2	SS07	85	85
890-2380-3	SS08	107	101
890-2380-4	SS09	106	102
890-2380-5	SS04	106	103
890-2380-6	SS03	109	110
890-2380-7	SS02	106	105
890-2380-8	SS01	96	94
890-2380-9	SS05	115	118
LCS 880-27115/2-A	Lab Control Sample	118	109
LCSD 880-27115/3-A	Lab Control Sample Dup	106	99
MB 880-27115/1-A	Method Blank	95	98

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26988/5-A

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26988

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

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

Lab Sample ID: MB 880-27017/5-A

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27017

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

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

Lab Sample ID: LCS 880-27017/1-A

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27017

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

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

Lab Sample ID: LCSD 880-27017/2-A

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27017

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

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

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

Lab Sample ID: LCSD 880-27017/2-A

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27017

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

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

Lab Sample ID: 890-2374-A-5-C MS

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 27017

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

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

Lab Sample ID: 890-2374-A-5-D MSD

Matrix: Solid

Analysis Batch: 26971

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 27017

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

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

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

Lab Sample ID: MB 880-27115/1-A

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27115

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 10:28	1

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

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

Lab Sample ID: MB 880-27115/1-A

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27115

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 10:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/22 17:15	06/09/22 10:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			06/08/22 17:15	06/09/22 10:28	1
o-Terphenyl	98		70 - 130			06/08/22 17:15	06/09/22 10:28	1

Lab Sample ID: LCS 880-27115/2-A

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1105		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1128		mg/Kg		113	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	118		70 - 130				
o-Terphenyl	109		70 - 130				

Lab Sample ID: LCSD 880-27115/3-A

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27115

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	928.0		mg/Kg		93	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	1000	1017		mg/Kg		102	70 - 130	10	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	106		70 - 130						
o-Terphenyl	99		70 - 130						

Lab Sample ID: 890-2380-1 MS

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: SS06

Prep Type: Total/NA

Prep Batch: 27115

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	869.3		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	783.0		mg/Kg		77	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	95		70 - 130						
o-Terphenyl	82		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

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

Lab Sample ID: 890-2380-1 MSD

Matrix: Solid

Analysis Batch: 27121

Client Sample ID: SS06

Prep Type: Total/NA

Prep Batch: 27115

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1012		mg/Kg		97	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	855.9		mg/Kg		84	70 - 130	9	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	101		70 - 130								
o-Terphenyl	89		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27034/1-A

Matrix: Solid

Analysis Batch: 27220

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/09/22 19:11	1

Lab Sample ID: LCS 880-27034/2-A

Matrix: Solid

Analysis Batch: 27220

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	264.6		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-27034/3-A

Matrix: Solid

Analysis Batch: 27220

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.6		mg/Kg		102	90 - 110	4	20

Lab Sample ID: 880-15527-A-2-C MS

Matrix: Solid

Analysis Batch: 27220

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	53.2		250	305.9		mg/Kg		101	90 - 110

Lab Sample ID: 880-15527-A-2-D MSD

Matrix: Solid

Analysis Batch: 27220

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	53.2		250	312.8		mg/Kg		104	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

GC VOA

Analysis Batch: 26971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8021B	27017
890-2380-2	SS07	Total/NA	Solid	8021B	27017
890-2380-3	SS08	Total/NA	Solid	8021B	27017
890-2380-4	SS09	Total/NA	Solid	8021B	27017
890-2380-5	SS04	Total/NA	Solid	8021B	27017
890-2380-6	SS03	Total/NA	Solid	8021B	27017
890-2380-7	SS02	Total/NA	Solid	8021B	27017
890-2380-8	SS01	Total/NA	Solid	8021B	27017
890-2380-9	SS05	Total/NA	Solid	8021B	27017
MB 880-26988/5-A	Method Blank	Total/NA	Solid	8021B	26988
MB 880-27017/5-A	Method Blank	Total/NA	Solid	8021B	27017
LCS 880-27017/1-A	Lab Control Sample	Total/NA	Solid	8021B	27017
LCSD 880-27017/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27017
890-2374-A-5-C MS	Matrix Spike	Total/NA	Solid	8021B	27017
890-2374-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27017

Prep Batch: 26988

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

Prep Batch: 27017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	5035	
890-2380-2	SS07	Total/NA	Solid	5035	
890-2380-3	SS08	Total/NA	Solid	5035	
890-2380-4	SS09	Total/NA	Solid	5035	
890-2380-5	SS04	Total/NA	Solid	5035	
890-2380-6	SS03	Total/NA	Solid	5035	
890-2380-7	SS02	Total/NA	Solid	5035	
890-2380-8	SS01	Total/NA	Solid	5035	
890-2380-9	SS05	Total/NA	Solid	5035	
MB 880-27017/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27017/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27017/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2374-A-5-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2374-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	Total BTEX	
890-2380-2	SS07	Total/NA	Solid	Total BTEX	
890-2380-3	SS08	Total/NA	Solid	Total BTEX	
890-2380-4	SS09	Total/NA	Solid	Total BTEX	
890-2380-5	SS04	Total/NA	Solid	Total BTEX	
890-2380-6	SS03	Total/NA	Solid	Total BTEX	
890-2380-7	SS02	Total/NA	Solid	Total BTEX	
890-2380-8	SS01	Total/NA	Solid	Total BTEX	
890-2380-9	SS05	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

GC Semi VOA

Prep Batch: 27115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015NM Prep	
890-2380-2	SS07	Total/NA	Solid	8015NM Prep	
890-2380-3	SS08	Total/NA	Solid	8015NM Prep	
890-2380-4	SS09	Total/NA	Solid	8015NM Prep	
890-2380-5	SS04	Total/NA	Solid	8015NM Prep	
890-2380-6	SS03	Total/NA	Solid	8015NM Prep	
890-2380-7	SS02	Total/NA	Solid	8015NM Prep	
890-2380-8	SS01	Total/NA	Solid	8015NM Prep	
890-2380-9	SS05	Total/NA	Solid	8015NM Prep	
MB 880-27115/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27115/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27115/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2380-1 MS	SS06	Total/NA	Solid	8015NM Prep	
890-2380-1 MSD	SS06	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015B NM	27115
890-2380-2	SS07	Total/NA	Solid	8015B NM	27115
890-2380-3	SS08	Total/NA	Solid	8015B NM	27115
890-2380-4	SS09	Total/NA	Solid	8015B NM	27115
890-2380-5	SS04	Total/NA	Solid	8015B NM	27115
890-2380-6	SS03	Total/NA	Solid	8015B NM	27115
890-2380-7	SS02	Total/NA	Solid	8015B NM	27115
890-2380-8	SS01	Total/NA	Solid	8015B NM	27115
890-2380-9	SS05	Total/NA	Solid	8015B NM	27115
MB 880-27115/1-A	Method Blank	Total/NA	Solid	8015B NM	27115
LCS 880-27115/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27115
LCSD 880-27115/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27115
890-2380-1 MS	SS06	Total/NA	Solid	8015B NM	27115
890-2380-1 MSD	SS06	Total/NA	Solid	8015B NM	27115

Analysis Batch: 27276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Total/NA	Solid	8015 NM	
890-2380-2	SS07	Total/NA	Solid	8015 NM	
890-2380-3	SS08	Total/NA	Solid	8015 NM	
890-2380-4	SS09	Total/NA	Solid	8015 NM	
890-2380-5	SS04	Total/NA	Solid	8015 NM	
890-2380-6	SS03	Total/NA	Solid	8015 NM	
890-2380-7	SS02	Total/NA	Solid	8015 NM	
890-2380-8	SS01	Total/NA	Solid	8015 NM	
890-2380-9	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Soluble	Solid	DI Leach	
890-2380-2	SS07	Soluble	Solid	DI Leach	
890-2380-3	SS08	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

HPLC/IC (Continued)

Leach Batch: 27034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-4	SS09	Soluble	Solid	DI Leach	
890-2380-5	SS04	Soluble	Solid	DI Leach	
890-2380-6	SS03	Soluble	Solid	DI Leach	
890-2380-7	SS02	Soluble	Solid	DI Leach	
890-2380-8	SS01	Soluble	Solid	DI Leach	
890-2380-9	SS05	Soluble	Solid	DI Leach	
MB 880-27034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15527-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15527-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 27220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2380-1	SS06	Soluble	Solid	300.0	27034
890-2380-2	SS07	Soluble	Solid	300.0	27034
890-2380-3	SS08	Soluble	Solid	300.0	27034
890-2380-4	SS09	Soluble	Solid	300.0	27034
890-2380-5	SS04	Soluble	Solid	300.0	27034
890-2380-6	SS03	Soluble	Solid	300.0	27034
890-2380-7	SS02	Soluble	Solid	300.0	27034
890-2380-8	SS01	Soluble	Solid	300.0	27034
890-2380-9	SS05	Soluble	Solid	300.0	27034
MB 880-27034/1-A	Method Blank	Soluble	Solid	300.0	27034
LCS 880-27034/2-A	Lab Control Sample	Soluble	Solid	300.0	27034
LCSD 880-27034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27034
880-15527-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	27034
880-15527-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27034

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS06

Lab Sample ID: 890-2380-1

Date Collected: 06/06/22 08:25

Matrix: Solid

Date Received: 06/06/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 01:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 11:31	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 22:16	CH	EET MID

Client Sample ID: SS07

Lab Sample ID: 890-2380-2

Date Collected: 06/06/22 08:30

Matrix: Solid

Date Received: 06/06/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 01:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 12:34	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		1			27220	06/09/22 22:25	CH	EET MID

Client Sample ID: SS08

Lab Sample ID: 890-2380-3

Date Collected: 06/06/22 08:35

Matrix: Solid

Date Received: 06/06/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 12:55	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		1			27220	06/09/22 22:53	CH	EET MID

Client Sample ID: SS09

Lab Sample ID: 890-2380-4

Date Collected: 06/06/22 08:40

Matrix: Solid

Date Received: 06/06/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS09**Lab Sample ID: 890-2380-4****Date Collected: 06/06/22 08:40****Matrix: Solid****Date Received: 06/06/22 12:24**

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			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 13:16	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		5			27220	06/09/22 23:02	CH	EET MID

Client Sample ID: SS04**Lab Sample ID: 890-2380-5****Date Collected: 06/06/22 08:45****Matrix: Solid****Date Received: 06/06/22 12:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 02:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 13:38	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:11	CH	EET MID

Client Sample ID: SS03**Lab Sample ID: 890-2380-6****Date Collected: 06/06/22 08:50****Matrix: Solid****Date Received: 06/06/22 12:24**

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	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 13:59	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:20	CH	EET MID

Client Sample ID: SS02**Lab Sample ID: 890-2380-7****Date Collected: 06/06/22 08:55****Matrix: Solid****Date Received: 06/06/22 12:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 14:21	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Client Sample ID: SS02

Date Collected: 06/06/22 08:55

Date Received: 06/06/22 12:24

Lab Sample ID: 890-2380-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:29	CH	EET MID

Client Sample ID: SS01

Date Collected: 06/06/22 09:00

Date Received: 06/06/22 12:24

Lab Sample ID: 890-2380-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 03:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 14:44	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:39	CH	EET MID

Client Sample ID: SS05

Date Collected: 06/06/22 09:05

Date Received: 06/06/22 12:24

Lab Sample ID: 890-2380-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	27017	06/07/22 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26971	06/08/22 05:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			27106	06/08/22 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			27276	06/10/22 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27115	06/08/22 17:15	DM	EET MID
Total/NA	Analysis	8015B NM		1			27121	06/09/22 15:06	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	27034	06/07/22 16:09	SMC	EET MID
Soluble	Analysis	300.0		10			27220	06/09/22 23:48	CH	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: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

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	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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

Method Summary

Client: Ensolum
Project/Site: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

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: BEU Connector PW Booster

Job ID: 890-2380-1
SDG: 03E1558045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2380-1	SS06	Solid	06/06/22 08:25	06/06/22 12:24	0.5'
890-2380-2	SS07	Solid	06/06/22 08:30	06/06/22 12:24	0.5'
890-2380-3	SS08	Solid	06/06/22 08:35	06/06/22 12:24	0.5'
890-2380-4	SS09	Solid	06/06/22 08:40	06/06/22 12:24	0.5'
890-2380-5	SS04	Solid	06/06/22 08:45	06/06/22 12:24	0.5'
890-2380-6	SS03	Solid	06/06/22 08:50	06/06/22 12:24	0.5'
890-2380-7	SS02	Solid	06/06/22 08:55	06/06/22 12:24	0.5'
890-2380-8	SS01	Solid	06/06/22 09:00	06/06/22 12:24	0.5'
890-2380-9	SS05	Solid	06/06/22 09:05	06/06/22 12:24	0.5'

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



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 1 of 1

Project Manager:	Ben Bell	Bill to: (if different)	Adrian Baker
Company Name:	Ensolution	Company Name:	MTD
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	b.bell@ensolun.com

Work Order Comments	
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <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"/> TRIP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	ALU Converter PWS Koster	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03E1558045	Due Date:			
Project Location:	32.2907 - 103.8615	TAT starts the day received by the lab, if received by 4:30pm			
Sample's Name:	Kase Parker				
PO #:					
SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Samples Received Inact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	T-M-207		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.2		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	29.4		
Total Containers:		Corrected Temperature:	29.4		



890-2380 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes
5501	S	6/6/22	0825	6.5ft			BTEX		None: NO DI Water: H ₂ O
5502			0830				TPH		Cool: Cool MeOH: Me
5503			0835				Chlorides		HCL: HC HNO ₃ : HN
5504			0840						H ₂ SO ₄ : H ₂ NaOH: Na
5505			0845						H ₃ PO ₄ : HP
5506			0850						NaHSO ₄ : NABIS
5507			0855						Na ₂ S ₂ O ₃ : NaSO ₃
5508			0900						Zn Acetate+NaOH: Zn
5509			0905						NaOH+Ascorbic Acid: SABC

Total 200.7 / 6010 2008 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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 \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/6/22 12:34			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2380-1

SDG Number: 03E1558045

Login Number: 2380

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2380-1

SDG Number: 03E1558045

Login Number: 2380

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 06/07/22 12:08 PM

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



APPENDIX E

NMOCD Notifications

From: [Hamlet, Robert, EMNRD](#)
To: [Collins, Melanie](#)
Cc: [DelawareSpills /SM](#); [Pennington, Shelby G](#); [Green, Garrett J](#); [Ben Belill](#); [Tacoma Morrissey](#); [Kalei Jennings](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)
Subject: (Extension Approval) - XTO - BEU Connector PW Booster / NAPP2213151424
Date: Friday, July 22, 2022 4:42:46 PM
Attachments: [image002.jpg](#)
[image003.png](#)

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2213151424

Melanie,

Your request for an extension to **October 24th, 2022** is approved. Please keep us up to date on the Right of Entry (ROE) Permit. Please include this e-mail correspondence in the remediation and/or closure report.

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



From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Friday, July 22, 2022 1:56 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Pennington, Shelby G <shelby.g.pennington@exxonmobil.com>; Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Kalei Jennings <kjennings@ensolum.com>
Subject: [EXTERNAL] XTO - Extension Request - BEU Connector PW Booster / NAPP2213151424

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

All,

XTO is requesting an extension of the current deadline of July 26, 2022, for submitting a

remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU Connector PW Booster (Incident Number NAPP2213151424). The release occurred on April 27, 2022 and an initial site assessment of the release was conducted. Fluids were released into the pasture area due to a flanged-end fitting separating from a hose while moving produced water. Initial assessment and sampling was conducted and excavation is pending. A Right of Entry (ROE) Permit was submitted to the State Land Office (SLO) in July 2022 and the executed permit has yet to be received. In order to complete the remediation work and submit a remediation work plan or closure report XTO requests a 90-day extension of this deadline until October 24, 2022.

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: [Green, Garrett J](#)
To: ocd.enviro@state.nm.us; [Bratcher, Mike, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tacoma Morrissey](#); [Kalei Jennings](#); [DelawareSpills /SM](#)
Subject: XTO - Sampling Notification (Week of 8/1/22 - 8/5/22)
Date: Friday, July 29, 2022 4:11:00 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of August 1, 2022.

Monday

- PLU C1 Frac Pond / NAPP2207743395
- BEU Connector PW Booster / nAPP2213151424

Tuesday

- BEU Connector PW Booster / nAPP2213151424
- Goldenchild CTB / nAPP2035256230, nAPP2102237559, nAPP2101335437, & nAPP2101331137

Wednesday

- BEU Connector PW Booster / nAPP2213151424
- Ross Draw 25 NW Battery / NAPP2201444794

Thursday

- PLU 89 / NRM1932350962

Thank you,

Garrett Green

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

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



APPENDIX D

Proposed Reclamation Plan

XTO Energy, Inc.
Remediation Work Plan Update
BEU Connector PW Booster and Mobley Ranch

PROPOSED RECLAMATION PLAN

The release occurred off pad in the pasture within the pipeline ROW and as such, a reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the off pad area that was impacted by the release per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation. The following Reclamation Plan addresses reclamation of the off-pad area:

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. Topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil and vegetation will be assessed during excavation activities to determine the proper weed-free seed mix designed by the NMSLO to meet reclamation standards for this region;
- The seed mixture will be distributed with one or more of the following mechanisms: push broadcaster seed spreader / tractor operated broadcast seed spreader / drill seeding / other means;
- Application of the seed mixture will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distribution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;
- Erosion control management will potentially include:
 - The placement of wattles in areas with a propensity for high run off rates;
 - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
 - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Backfilling of the excavation will be completed following receipt of confirmation soil samples indicating all chemicals of concern concentrations are in compliance with the Closure Criteria and/or the reclamation requirement;
- Seeding is anticipated to be completed in when temperatures and precipitation is most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be adhered to for this Site;
- If seeding occurs outside of the 180 days approved in the current fully executed ROE Permit, a new ROE Permit will be executed prior to entering the pasture for reclamation activities;
- Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Spring/Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion;
- Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.



APPENDIX B

Photographic Log

**Photographic Log**

XTO Energy, Inc.

BEU Connector PW Booster and Mobley Ranch

Incident Numbers NAPP2213151424 and NAPP2316045229



Photograph: 1 Date: 4/28/2022
Description: Soil staining in NAPP2213151424 release
View: North



Photograph: 2 Date: 8/1/2022
Description: Soil staining in NAPP2316045229 release
View: Northeast



Photograph: 3 Date: 10/23/2023
Description: Ongoing excavation activities
View: Southwest



Photograph: 4 Date: 10/25/2023
Description: Ongoing excavation activities
View: North



Photographic Log

XTO Energy, Inc.

BEU Connector PW Booster and Mobley Ranch

Incident Numbers NAPP2213151424 and NAPP2316045229



Photograph: 1 Date: 10/30/2023
Description: Final excavation extent
View: South



Photograph: 2 Date: 11/01/2023
Description: Final excavation extent
View: South



Photograph: 3 Date: 12/13/2023
Description: Backfill activities
View: South



Photograph: 4 Date: 12/13/2023
Description: Backfill activities
View: North



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 20, 2023

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU CONNECTOR PW BOOSTER/MOBLEY RANCH PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 10/19/23 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLE\	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 01 2FT (H235719-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.04	102	2.00	4.67	
Toluene*	<0.050	0.050	10/20/2023	ND	2.09	104	2.00	5.21	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	3.69	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.28	105	6.00	3.03	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 02 2FT (H235719-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.04	102	2.00	4.67	
Toluene*	<0.050	0.050	10/20/2023	ND	2.09	104	2.00	5.21	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	3.69	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.28	105	6.00	3.03	
Total BTX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 03 2FT (H235719-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.04	102	2.00	4.67	
Toluene*	<0.050	0.050	10/20/2023	ND	2.09	104	2.00	5.21	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	3.69	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.28	105	6.00	3.03	
Total BTX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 04 2FT (H235719-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.04	102	2.00	4.67	
Toluene*	<0.050	0.050	10/20/2023	ND	2.09	104	2.00	5.21	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	3.69	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.28	105	6.00	3.03	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 05 3FT (H235719-05)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	2.19		
Toluene*	<0.050	0.050	10/20/2023	ND	2.08	104	2.00	3.71		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	4.59		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.53	109	6.00	5.05		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 06 2.5FT (H235719-06)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	2.19	
Toluene*	<0.050	0.050	10/20/2023	ND	2.08	104	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	4.59	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.53	109	6.00	5.05	
Total BTX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/20/2023	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/18/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 07 2FT (H235719-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	2.19		
Toluene*	<0.050	0.050	10/20/2023	ND	2.08	104	2.00	3.71		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	4.59		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.53	109	6.00	5.05		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/20/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	206	103	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 20, 2023

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU CONNECTOR PW BOOSTER/MOBLEY RANCH PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 10/19/23 16:09.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/19/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLE\	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Shalyn Rodriguez
Project Location:	32.2907,-103.86159		

Sample ID: FS 08 2 (H235734-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	1.37		
Toluene*	<0.050	0.050	10/20/2023	ND	2.21	110	2.00	2.17		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	4.02		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.68		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/20/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	182	90.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	0.530	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/19/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Shalyn Rodriguez
Project Location:	32.2907,-103.86159		

Sample ID: FS 09 2 (H235734-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	1.37		
Toluene*	<0.050	0.050	10/20/2023	ND	2.21	110	2.00	2.17		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	4.02		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.68		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/20/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	182	90.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	0.530	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/19/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Shalyn Rodriguez
Project Location:	32.2907,-103.86159		

Sample ID: FS 10 2 (H235734-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	1.37		
Toluene*	<0.050	0.050	10/20/2023	ND	2.21	110	2.00	2.17		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	4.02		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.68		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/20/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	182	90.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	0.530	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/19/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Shalyn Rodriguez
Project Location:	32.2907,-103.86159		

Sample ID: FS 11 2 (H235734-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	1.37		
Toluene*	<0.050	0.050	10/20/2023	ND	2.21	110	2.00	2.17		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	4.02		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.68		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/20/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/19/2023	ND	182	90.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	195	97.7	200	0.530	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.7 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/19/2023	Sampling Date:	10/19/2023
Reported:	10/20/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C558043	Sample Received By:	Shalyn Rodriguez
Project Location:	32.2907,-103.86159		

Sample ID: SW 01 0-2 (H235734-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.17	108	2.00	1.37		
Toluene*	<0.050	0.050	10/20/2023	ND	2.21	110	2.00	2.17		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.16	108	2.00	4.02		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.68		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	10/20/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	182	90.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	195	97.7	200	0.530	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 83.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



Company Name: Ensolum, LLC

BILL TO

ANALYSIS REQUEST

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: Ben Bell		Company: XTO Energy			
Address: 3122 National Parks Hwy		Attn: Garrett Green			
City: Carlsbad		Address: 3045 Greentree			
State: NM		City: Carlsbad			
Zip: 88220		State: NM			
Phone #: 969-854-0852		Fax #: 575-200-0727			
Project #: 3C1553045		Project Owner:			
Project Name: BEECONNECT at BOSTER/Weller Ranch/Field		State: NM			
Project Location: 32.2907, -103.86159		Phone #: 575-200-0727			
Sample Name: Screen well log		Fax #:			

FOR LAB USE ONLY		MATRIX		PRESERV.		SAMPLING																
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME							
#035734	F508	2					X							10/11/23	10:15	X	CI - (SAM 4500)					
	F509	2					X							10/19/23	10:20	X	BTEx					
	F510	2					X							10/19/23	13:00	X	TPH					
	F511	2					X							10/19/23	13:30	X						
	BUD01	0-2						X						10/19/23	13:35	X						

PLEASE NOTE: Liability and Damages. Cardinal's liability and clearly exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: <i>WV</i>		Received By: <i>Speed</i>		Date: <i>10-19-23</i>	
Time: <i>1009</i>		Received By: <i>Speed</i>		Date: <i>10-19-23</i>	
Relinquished By: <i>WV</i>		Received By: <i>Speed</i>		Date: <i>10-19-23</i>	
Time: <i>1009</i>		Received By: <i>Speed</i>		Date: <i>10-19-23</i>	
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact	
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
				Checked By: <i>SK</i>	
				Thermometer ID: #115	
				Correction Factor: 0.05°C	
				Turnaround Time: <i>#140</i>	
				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
				Bacteria (only) Sample Condition	
				Cool Intact	
				Yes <input type="checkbox"/> No <input type="checkbox"/>	
				Observed Temp. °C	
				Corrected Temp. °C	



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 23, 2023

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU CONNECTOR PW BOOSTER/MOBLEY RANCH PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 10/20/23 15:33.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLE\	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 12 2FT (H235770-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/23/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 13 2FT (H235770-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEx	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/23/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 14 2FT (H235770-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/23/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Analytical Results For:

ENSOLUM
 BEN BELILL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 15 2FT (H235770-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	10/23/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 16 2FT (H235770-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEx	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/23/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 96.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.9 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 17 3FT (H235770-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92		
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	10/23/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.3 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 18 3FT (H235770-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/23/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 73.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.8 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 19 3FT (H235770-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92	
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4	
Total BTX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/23/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 66.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.0 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: FS 20 3FT (H235770-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92		
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	10/23/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/20/2023	Sampling Date:	10/20/2023
Reported:	10/23/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Dionica Hinojos
Project Location:	32.2907,-103.86159		

Sample ID: SW 02 0-3 (H235770-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.01	100	2.00	7.92		
Toluene*	<0.050	0.050	10/20/2023	ND	2.05	103	2.00	9.60		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.06	103	2.00	11.1		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.01	100	6.00	10.4		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/23/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2023	ND	185	92.5	200	1.90	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	182	90.9	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC

Project Manager: bea belill

Address: 3122 National Parks Hwy

City: Carlsbad

State: NM Zip: 88220

Phone #: 505-434-0852

Fax #:

Project #: 03C1586043

Project Owner: Wadley Ranch Pipeline

Project Name: EEL Connector A/B booster

City: Hobbs State: NM

Project Location: 32.2907, -103.46184

State: NM Zip: 88220

Sampler Name:

Phone #:

FOR LAB USE ONLY

Fax #:

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: XTO Energy

Attn: GARY GREEN

Address: 3104 E Green

City: Hobbs State: NM

Zip: 88220

Phone #:

Fax #:

MATRIX

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

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ACID/BASE:

ICE / COOL

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 25, 2023

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU CONNECTOR PW BOOSTER

Enclosed are the results of analyses for samples received by the laboratory on 10/24/23 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/24/2023	Sampling Date:	10/23/2023
Reported:	10/25/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 21 3' (H235814-01)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21	
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79	
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96	
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70	
Total BTEX	<0.300	0.300	10/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	10/25/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 22 3' (H235814-02)

BTEX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	10/25/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 23 3' (H235814-03)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 24 3' (H235814-04)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21	
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79	
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96	
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70	
Total BTX	<0.300	0.300	10/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 98.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 25 3' (H235814-05)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 26 3' (H235814-06)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 27 2' (H235814-07)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/24/2023	Sampling Date:	10/23/2023
Reported:	10/25/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 28 2' (H235814-08)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 99.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 29 2' (H235814-09)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTEx	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/24/2023
Reported: 10/25/2023
Project Name: BEU CONNECTOR PW BOOSTER
Project Number: 03C1558045
Project Location: 32.2907,-103.86159

Sampling Date: 10/23/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 15A 3' (H235814-10)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	1.95	97.3	2.00	5.21		
Toluene*	<0.050	0.050	10/24/2023	ND	2.12	106	2.00	3.79		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.08	104	2.00	2.96		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.30	105	6.00	2.70		
Total BTX	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	10/25/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2023	ND	176	88.0	200	4.23	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	192	96.0	200	3.98	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO				ANALYSIS REQUEST			
Project Manager: Ben Bell				P.O. #:				Company: XTO Energy			
Address: 3122 National Parks Hwy				Attn: Garrett Green				Address: 304 E Green			
City: Carlsbad				State: NM Zip: 88220				City: Milledgeville			
Phone #: 989-854-0852				Fax #:				State: Texas Zip: 75620			
Project #: 3CB584045				Project Owner: Mabley Ranch, LLC				City: Milledgeville			
Project Name: BEUCONNECTOR PU BOSTON				State: NM				Zip: 88220			
Project Location: 30.207 - 103.46159				Phone #:				Fax #:			
Sample Name: Seach the well				Matrix:				PRESERV. SAMPLING			
FOR LAB USE ONLY				DATE				TIME			
Lab I.D.				Sample I.D.				Depth (feet)			
H235814				FS 21				3			
1				FS 22				3			
2				FS 23				3			
3				FS 24				3			
4				FS 25				3			
5				FS 26				3			
6				FS 27				3			
7				FS 28				3			
8				FS 29				3			
9				FS 30				3			
10				FS 31				3			
				(G)RAB OR (C)OMP.				# CONTAINERS			
				GROUNDWATER				WASTEWATER			
				SOIL				OIL			
				SLUDGE				OTHER :			
				ACID/BASE:				ICE / COOL			
				OTHER :				DATE			
				TIME				CI - (SAM 4500)			
				10:20				X			
				12:05				X			
				12:10				X			
				12:15				X			
				13:00				X			
				13:05				X			
				13:10				X			
				13:15				X			
				13:20				X			
				13:25				X			
				13:30				X			
				13:35				X			
				13:40				X			
				13:45				X			
				13:50				X			
				13:55				X			
				14:00				X			
				14:05				X			
				14:10				X			
				14:15				X			
				14:20				X			
				14:25				X			
				14:30				X			
				14:35				X			
				14:40				X			
				14:45				X			
				14:50				X			
				14:55				X			
				15:00				X			
				15:05				X			
				15:10				X			
				15:15				X			
				15:20				X			
				15:25				X			
				15:30				X			
				15:35				X			
				15:40				X			
				15:45				X			
				15:50				X			
				15:55				X			
				16:00				X			
				16:05				X			
				16:10				X			
				16:15				X			
				16:20				X			
				16:25				X			
				16:30				X			
				16:35				X			
				16:40				X			
				16:45				X			
				16:50				X			
				16:55				X			
				17:00				X			
				17:05				X			
				17:10				X			
				17:15				X			
				17:20				X			
				17:25				X			
				17:30				X			
				17:35				X			
				17:40				X			
				17:45				X			
				17:50				X			
				17:55				X			
				18:00				X			
				18:05				X			
				18:10				X			
				18:15				X			
				18:20				X			
				18:25				X			
				18:30				X			
				18:35				X			
				18:40				X			
				18:45				X			
				18:50				X			
				18:55				X			
				19:00				X			
				19:05				X			
				19:10				X			
				19:15				X			
				19:20				X			
				19:25				X			
				19:30				X			
				19:35				X			
				19:40				X			
				19:45				X			
				19:50				X			
				19:55				X			
				20:00				X			
				20:05				X			
				20:10				X			
				20:15				X			
				20:20				X			
				20:25				X			
				20:30				X			
				20:35				X			
				20:40				X			
				20:45				X			
				20:50				X			
				20:55				X			
				21:00				X			
				21:05				X			
				21:10				X			
				21:15				X			
				21:20				X			
				21:25				X			
				21:30				X			
				21:35				X			
				21:40				X			
				21:45				X			
				21:50				X			
				21:55				X			
				22:00				X			
				22:05				X			
				22:10				X			
				22:15				X			
				22:20				X			
				22:25				X			
				22:30				X			
				22:35				X			
				22:40				X			
				22:45				X			
				22:50				X			
				22:55				X			
				23:00				X			
				23:05				X			
				23:10				X			
				23:15				X			
				23:20				X			
				23:25				X			
				23:30				X			
				23:35				X			
				23:40				X			
				23:45				X			
				23:50				X			
				23:55				X			
				24:00				X			
				24:05				X			
				24:10				X			
				24:15				X			
				24:20				X			
				24:25				X			
				24:30				X			
				24:35				X			
				24:40				X			
				24:45				X			
				24:50				X			
				24:55				X			
				25:00				X			
				25:05				X			
				25:10				X			
				25:15				X			
				25:20				X			
				25:25				X			
				25:30				X			
				25:35				X			
				25:40				X			
				25:45				X			
				25:50				X			
				25:55				X			
				26:00				X			
				26:05				X			
				26:10				X			
				26:15				X			
				26:20				X			
				26:25				X			
				26:30				X			
				26:35				X			
				26:40				X			
				26:45				X			
				26:50				X			
				26:55				X			
				27:00				X			
				27:05				X			
				27:10				X			
				27:15				X			
				27:20				X			
				27:25				X			
				27:30				X			
				27:35				X			
				27:40				X			
				27:45				X			
				27:50				X			
				27:55				X			
				28:00				X			
				28:05				X			
				28:10				X			
				28:15				X			
				28:20				X			
				28:25				X			
				28:30				X			
				28:35				X			
				28:40				X			
				28:45				X			
				28:50				X			
				28:55				X			
				29:00				X			
				29:05				X			
				29:10				X			
				29:15				X			
				29:20				X			
				29:25				X			
				29:30				X			
				29:35				X			
				29:40				X			
				29:45				X			
				29:50				X			
				29:55				X			
				30:00				X			
				30:05				X			
				30:10				X			
				30:15				X			
				30:20				X			
				30:25				X			
				30:30				X			
				30:35				X			
				30:40				X			
				30:45				X			
				30:50				X			
				30:55				X			
				31:00				X			
				31:05				X			
				31:10				X			
				31:15				X			
				31:20				X			
				31:25				X			
				31:30				X			
				31:35				X			
				31:40				X			
				31:45				X			
				31:50				X			
				31:55				X			
				32:00				X			
				32:05				X			
				32:10				X			
				32:15				X			
				32:20				X			
				32:25				X			
				32:30				X			
				32:35				X			
				32:40				X			
				32:45				X			
				32:50				X			
				32:55				X			
				33:00				X			
				33:05				X			
				33:10				X			
				33:15				X			
				33:20				X			
				33:25				X			
				33:30				X			
				33:35				X			
				33:40				X			
				33:45				X			
				33:50				X			
				33:55				X			
				34:00				X			
				34:05				X			
				34:10				X			
				34:15				X			
				34:20				X			
				34:25				X			
				34:30				X			
				34:35				X			
				34:40				X			
				34:45				X			
				34:50				X			
				34:55				X			
				35:00				X			
				35:05				X			
				35:10				X			
				35:15				X			
				35:20				X			
				35:25				X			
				35:30				X			
				35:35				X			
				35:40				X			
				35:45				X			
				35:50				X			
				35:55				X			
				36:00				X			
				36:05				X			
				36:10				X			
				36:15				X			
				36:20				X			
				36:25				X			
				36:30				X			
				36:35				X			
				36:40				X			
				36:45				X			
				36:50				X			
				36:55				X			
				37:00				X			
				37:05				X			
				37:10				X			
				37:15				X			
				37:20				X			
				37:25				X			
				37:30				X			
				37:35				X			
				37:40				X			
				37:45				X			
				37:50				X			
				37:55				X			
				38:00				X			
				38:05				X			
				38:10				X			
				38:15				X			
				38:20				X			
				38:25				X			
				38:30				X			
				38:35				X			
				38:40				X			
				38:45				X			
				38:50				X			
				38:55				X			
				39:00				X			
				39:05				X			
				39:10				X			
				39:15				X			
				39:20				X			
				39:25				X			
				39:30				X			
				39:35				X			
				39:40				X			
				39:45				X			
				39:50				X			
				39:55				X			
				40:00				X			
				40:05				X			
				40:10				X			
				40:15				X			



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 27, 2023

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU CONNECTOR PW BOOSTER/MOBLEY RANCH PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 10/26/23 15:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLE\	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 37 2 (H235883-01)

BTEx 8021B		mg/kg		Analyzed By: AW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64	
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81	
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17	
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421	
Total BTEX	<0.300	0.300	10/26/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/27/2023	ND	384	96.0	400	11.8		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 38 2 (H235883-02)

BTX 8021B		mg/kg		Analyzed By: AW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64		
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81		
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17		
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421		
Total BTX	<0.300	0.300	10/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	10/27/2023	ND	384	96.0	400	11.8		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 39 2 (H235883-03)

BTX 8021B		mg/kg		Analyzed By: AW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64		
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81		
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17		
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421		
Total BTX	<0.300	0.300	10/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/27/2023	ND	384	96.0	400	11.8		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 40 2 (H235883-04)

BTEX 8021B		mg/kg		Analyzed By: AW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64		
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81		
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17		
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421		
Total BTEX	<0.300	0.300	10/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/27/2023	ND	384	96.0	400	11.8		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 35 3 (H235883-05)

BTEx 8021B		mg/kg		Analyzed By: AW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64		
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81		
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17		
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421		
Total BTEx	<0.300	0.300	10/26/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/27/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: FS 36 3 (H235883-06)

BTX 8021B		mg/kg		Analyzed By: AW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64	
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81	
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17	
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421	
Total BTX	<0.300	0.300	10/26/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/27/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/26/2023	Sampling Date:	10/26/2023
Reported:	10/27/2023	Sampling Type:	Soil
Project Name:	BEU CONNECTOR PW BOOSTER/MOBLEY	Sampling Condition:	Cool & Intact
Project Number:	03C1558045	Sample Received By:	Tamara Oldaker
Project Location:	32.2907,-103.86159		

Sample ID: SW 04 0-3' (H235883-07)

BTX 8021B		mg/kg		Analyzed By: AW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2023	ND	2.04	102	2.00	1.64	
Toluene*	<0.050	0.050	10/26/2023	ND	2.10	105	2.00	1.81	
Ethylbenzene*	<0.050	0.050	10/26/2023	ND	2.11	105	2.00	1.17	
Total Xylenes*	<0.150	0.150	10/26/2023	ND	6.30	105	6.00	0.0421	
Total BTX	<0.300	0.300	10/26/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/27/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2023	ND	182	90.8	200	8.03	
DRO >C10-C28*	<10.0	10.0	10/27/2023	ND	199	99.5	200	0.376	
EXT DRO >C28-C36	<10.0	10.0	10/27/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC

Project Manager: Ben Belli

Address: 3122 National Parks Hwy

City: Carlsbad

Phone #: 954-965-0652

Project #: 21586413

Project Name: B-E Connect Pipeline

Project Location: 32.2907, -108.40139

Sampler Name: Sarah Vekony

State: NM

Zip: 88220

Fax #:

Project Owner:

City: Midland

State: NM

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D. H235883

Sample I.D.

Depth (feet)

Matrix: (G) RAB OR (C) OMP

Preserv: # CONTAINERS

Sampling: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER

Acid/Base: ICE / COOL, OTHER

Date:

Time:

Observed Temp. °C

Corrected Temp. °C

Sample Condition: Cool, Intact, Yes, No

Checked By:

Remarks:

Reinquinshed By:

Date:

Time:

Received By:

Date:

Time:

Observed Temp. °C

Corrected Temp. °C

Sample Condition: Cool, Intact, Yes, No

Checked By:

Remarks:

Reinquinshed By:

Date:

Time:

Received By:

Date:

Time:

Observed Temp. °C

Corrected Temp. °C

Sample Condition: Cool, Intact, Yes, No

Checked By:

Remarks:



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 11/13/2023 1:18:20 PM

JOB DESCRIPTION

Beu Connector Mobley Ranch Pipeline

SDG NUMBER 32.2907,-105.86154

JOB NUMBER

890-5564-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



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

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Laboratory Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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Definitions/Glossary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Job ID: 890-5564-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-5564-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/3/2023 8:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW11 (890-5564-1), SW12 (890-5564-2), FS45 (890-5564-3), FS46 (890-5564-4), FS47 (890-5564-5), FS48 (890-5564-6), FS49 (890-5564-7), SW13 (890-5564-8), SW14 (890-5564-9), SW15 (890-5564-10), SW16 (890-5564-11), FS50 (890-5564-12), SW17 (890-5564-13), FS51 (890-5564-14), SW18 (890-5564-15), FS52 (890-5564-16), FS53 (890-5564-17), SW19 (890-5564-18), SW20 (890-5564-19), FS54 (890-5564-20), FS55 (890-5564-21) and FS56 (890-5564-22).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS45 (890-5564-3), FS46 (890-5564-4), FS47 (890-5564-5), FS48 (890-5564-6), FS49 (890-5564-7), SW13 (890-5564-8), SW14 (890-5564-9), SW15 (890-5564-10), FS53 (890-5564-17), SW20 (890-5564-19) and (890-5564-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-66321 and analytical batch 880-66359 was outside the control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-66358/1-A) and (MB 880-66358/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The method blank for preparation batch 880-66358 and analytical batch 880-66359 contained Benzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-66321 and analytical batch 880-66359 was outside control limits. Sample non-homogeneity is suspected.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS55 (890-5564-21), FS56 (890-5564-22), (CCV 880-66703/33), (CCV 880-66703/82) and (890-5569-A-21-F). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-66435 and analytical batch 880-66703 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (890-5569-A-21-D MS) and (890-5569-A-21-E

Case Narrative

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Job ID: 890-5564-1 (Continued)**Laboratory: Eurofins Carlsbad (Continued)**

MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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 surrogate recovery for the blank associated with preparation batch 880-66317 and analytical batch 880-66340 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-66340/20) and (CCV 880-66340/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-66315 and analytical batch 880-66346 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW11 (890-5564-1), SW12 (890-5564-2), FS45 (890-5564-3), FS46 (890-5564-4), FS47 (890-5564-5), FS48 (890-5564-6), FS49 (890-5564-7), SW13 (890-5564-8), SW14 (890-5564-9), SW15 (890-5564-10), SW16 (890-5564-11), FS50 (890-5564-12), SW17 (890-5564-13), FS51 (890-5564-14), (890-5563-A-19-A), (890-5563-A-19-B MS) and (890-5563-A-19-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-66346/20), (CCV 880-66346/31), (CCV 880-66346/5), (CCV 880-66346/57) and (CCV 880-66346/58). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-66315 and analytical batch 880-66346 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-66356 and 880-66356 and analytical batch 880-66512 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-66357 and analytical batch 880-66513 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-66337 and analytical batch 880-66518 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW11

Lab Sample ID: 890-5564-1

Date Collected: 11/02/23 09:00

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 05:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:35	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 05:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	11/06/23 17:15	11/08/23 05:35	1
1,4-Difluorobenzene (Surr)	75		70 - 130	11/06/23 17:15	11/08/23 05:35	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			11/08/23 05:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			11/07/23 14:55	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	<50.2	U	50.2	mg/Kg		11/06/23 16:30	11/07/23 14:55	1
Diesel Range Organics (Over C10-C28)	<50.2	U *1	50.2	mg/Kg		11/06/23 16:30	11/07/23 14:55	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/06/23 16:30	11/07/23 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	146	S1+	70 - 130	11/06/23 16:30	11/07/23 14:55	1
o-Terphenyl	176	S1+	70 - 130	11/06/23 16:30	11/07/23 14:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	195		4.99	mg/Kg			11/08/23 08:53	1

Client Sample ID: SW12

Lab Sample ID: 890-5564-2

Date Collected: 11/02/23 09:05

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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		11/06/23 17:15	11/08/23 06:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 06:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 06:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 06:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 06:01	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 06:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	11/06/23 17:15	11/08/23 06:01	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW12

Lab Sample ID: 890-5564-2

Date Collected: 11/02/23 09:05

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	71		70 - 130	11/06/23 17:15	11/08/23 06:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/08/23 06:01	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			11/07/23 15:17	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	<50.5	U	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:17	1
Diesel Range Organics (Over C10-C28)	<50.5	U *1	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:17	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130			11/06/23 16:30	11/07/23 15:17	1
o-Terphenyl	165	S1+	70 - 130			11/06/23 16:30	11/07/23 15:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	256		4.95	mg/Kg			11/08/23 09:09	1

Client Sample ID: FS45

Lab Sample ID: 890-5564-3

Date Collected: 11/02/23 09:10

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

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		11/06/23 17:15	11/08/23 06:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 06:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 06:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130			11/06/23 17:15	11/08/23 06:26	1
1,4-Difluorobenzene (Surr)	94		70 - 130			11/06/23 17:15	11/08/23 06:26	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			11/08/23 06:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			11/07/23 15:38	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS45

Lab Sample ID: 890-5564-3

Date Collected: 11/02/23 09:10

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

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	<50.5	U	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:38	1	
Diesel Range Organics (Over C10-C28)	<50.5	U *1	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:38	1	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		11/06/23 16:30	11/07/23 15:38	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	130		70 - 130			11/06/23 16:30	11/07/23 15:38	1	
o-Terphenyl	155	S1+	70 - 130			11/06/23 16:30	11/07/23 15:38	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	180		4.98	mg/Kg			11/08/23 09:14	1	

Client Sample ID: FS46

Lab Sample ID: 890-5564-4

Date Collected: 11/02/23 09:15

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

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		11/06/23 17:15	11/08/23 06:52	1	
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:52	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:52	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 06:52	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 06:52	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 06:52	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130			11/06/23 17:15	11/08/23 06:52	1	
1,4-Difluorobenzene (Surr)	93		70 - 130			11/06/23 17:15	11/08/23 06:52	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			11/08/23 06:52	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.7	U	49.7	mg/Kg			11/07/23 16:00	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	<49.7	U	49.7	mg/Kg		11/06/23 16:30	11/07/23 16:00	1	
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7	mg/Kg		11/06/23 16:30	11/07/23 16:00	1	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		11/06/23 16:30	11/07/23 16:00	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	127		70 - 130			11/06/23 16:30	11/07/23 16:00	1	
o-Terphenyl	151	S1+	70 - 130			11/06/23 16:30	11/07/23 16:00	1	

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS46

Lab Sample ID: 890-5564-4

Date Collected: 11/02/23 09:15

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	235		5.04	mg/Kg			11/08/23 09:19	1

Client Sample ID: FS47

Lab Sample ID: 890-5564-5

Date Collected: 11/02/23 09:20

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

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		11/06/23 17:15	11/08/23 07:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 07:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:19	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 07:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130			11/06/23 17:15	11/08/23 07:19	1
1,4-Difluorobenzene (Surr)	79		70 - 130			11/06/23 17:15	11/08/23 07:19	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			11/08/23 07:19	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			11/07/23 16:45	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	<49.6	U	49.6	mg/Kg		11/06/23 16:30	11/07/23 16:45	1
Diesel Range Organics (Over C10-C28)	<49.6	U *1	49.6	mg/Kg		11/06/23 16:30	11/07/23 16:45	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		11/06/23 16:30	11/07/23 16:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			11/06/23 16:30	11/07/23 16:45	1
o-Terphenyl	153	S1+	70 - 130			11/06/23 16:30	11/07/23 16:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	256		5.03	mg/Kg			11/08/23 09:25	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS48
Date Collected: 11/02/23 10:00
Date Received: 11/03/23 08:21
Sample Depth: 2

Lab Sample ID: 890-5564-6
Matrix: Solid

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		11/06/23 17:15	11/08/23 07:46	1	
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:46	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:46	1	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 07:46	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 07:46	1	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 07:46	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130			11/06/23 17:15	11/08/23 07:46	1	
1,4-Difluorobenzene (Surr)	98		70 - 130			11/06/23 17:15	11/08/23 07:46	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/08/23 07:46	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			11/07/23 17:08	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		11/06/23 16:30	11/07/23 17:08	1	
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		11/06/23 16:30	11/07/23 17:08	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/06/23 16:30	11/07/23 17:08	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	122		70 - 130			11/06/23 16:30	11/07/23 17:08	1	
o-Terphenyl	147	S1+	70 - 130			11/06/23 16:30	11/07/23 17:08	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	251		4.98	mg/Kg			11/08/23 09:30	1	

Client Sample ID: FS49
Date Collected: 11/02/23 10:05
Date Received: 11/03/23 08:21
Sample Depth: 3

Lab Sample ID: 890-5564-7
Matrix: Solid

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		11/06/23 17:15	11/08/23 08:12	1	
Toluene	<0.00201	U	0.00201	mg/Kg		11/06/23 17:15	11/08/23 08:12	1	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/06/23 17:15	11/08/23 08:12	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/06/23 17:15	11/08/23 08:12	1	
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/06/23 17:15	11/08/23 08:12	1	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/06/23 17:15	11/08/23 08:12	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130			11/06/23 17:15	11/08/23 08:12	1	

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS49

Lab Sample ID: 890-5564-7

Date Collected: 11/02/23 10:05

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	11/06/23 17:15	11/08/23 08:12	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			11/08/23 08:12	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			11/07/23 17:30	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	<50.2	U	50.2	mg/Kg		11/06/23 16:30	11/07/23 17:30	1
Diesel Range Organics (Over C10-C28)	<50.2	U *1	50.2	mg/Kg		11/06/23 16:30	11/07/23 17:30	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/06/23 16:30	11/07/23 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130			11/06/23 16:30	11/07/23 17:30	1
o-Terphenyl	171	S1+	70 - 130			11/06/23 16:30	11/07/23 17:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	334	F1	4.98	mg/Kg			11/08/23 09:35	1

Client Sample ID: SW13

Lab Sample ID: 890-5564-8

Date Collected: 11/02/23 10:10

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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		11/06/23 17:15	11/08/23 08:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 08:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 08:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 08:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 08:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 08:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130			11/06/23 17:15	11/08/23 08:38	1
1,4-Difluorobenzene (Surr)	102		70 - 130			11/06/23 17:15	11/08/23 08:38	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			11/08/23 08:38	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			11/07/23 17:53	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW13
Date Collected: 11/02/23 10:10
Date Received: 11/03/23 08:21
Sample Depth: 0-2

Lab Sample ID: 890-5564-8
Matrix: Solid

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	<50.4	U	50.4	mg/Kg		11/06/23 16:30	11/07/23 17:53	1	
Diesel Range Organics (Over C10-C28)	<50.4	U *1	50.4	mg/Kg		11/06/23 16:30	11/07/23 17:53	1	
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		11/06/23 16:30	11/07/23 17:53	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	130		70 - 130			11/06/23 16:30	11/07/23 17:53	1	
o-Terphenyl	157	S1+	70 - 130			11/06/23 16:30	11/07/23 17:53	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	173		5.04	mg/Kg			11/08/23 09:51	1	

Client Sample ID: SW14
Date Collected: 11/02/23 10:15
Date Received: 11/03/23 08:21
Sample Depth: 0-2

Lab Sample ID: 890-5564-9
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
Toluene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/06/23 17:15	11/08/23 09:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	93		70 - 130			11/06/23 17:15	11/08/23 09:51	1	
1,4-Difluorobenzene (Surr)	70		70 - 130			11/06/23 17:15	11/08/23 09:51	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/08/23 09:51	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.7	U	49.7	mg/Kg			11/07/23 18:14	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	<49.7	U	49.7	mg/Kg		11/06/23 16:30	11/07/23 18:14	1	
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7	mg/Kg		11/06/23 16:30	11/07/23 18:14	1	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		11/06/23 16:30	11/07/23 18:14	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	126		70 - 130			11/06/23 16:30	11/07/23 18:14	1	
o-Terphenyl	151	S1+	70 - 130			11/06/23 16:30	11/07/23 18:14	1	

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW14

Lab Sample ID: 890-5564-9

Date Collected: 11/02/23 10:15

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		5.01	mg/Kg			11/08/23 09:56	1

Client Sample ID: SW15

Lab Sample ID: 890-5564-10

Date Collected: 11/02/23 10:20

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-3

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		11/06/23 17:15	11/08/23 10:17	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 10:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 10:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 10:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 10:17	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 10:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130			11/06/23 17:15	11/08/23 10:17	1
1,4-Difluorobenzene (Surr)	119		70 - 130			11/06/23 17:15	11/08/23 10:17	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			11/08/23 10:17	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5	mg/Kg			11/07/23 18:36	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	<49.5	U	49.5	mg/Kg		11/06/23 16:30	11/07/23 18:36	1
Diesel Range Organics (Over C10-C28)	<49.5	U *1	49.5	mg/Kg		11/06/23 16:30	11/07/23 18:36	1
Oil Range Organics (Over C28-C36)	<49.5	U	49.5	mg/Kg		11/06/23 16:30	11/07/23 18:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130			11/06/23 16:30	11/07/23 18:36	1
o-Terphenyl	171	S1+	70 - 130			11/06/23 16:30	11/07/23 18:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202		4.96	mg/Kg			11/08/23 10:12	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW16
Date Collected: 11/02/23 10:25
Date Received: 11/03/23 08:21
Sample Depth: 0-3

Lab Sample ID: 890-5564-11
Matrix: Solid

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		11/06/23 17:15	11/08/23 12:02	1	
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 12:02	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 12:02	1	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 12:02	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 12:02	1	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 12:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	111		70 - 130			11/06/23 17:15	11/08/23 12:02	1	
1,4-Difluorobenzene (Surr)	90		70 - 130			11/06/23 17:15	11/08/23 12:02	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/08/23 12:02	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			11/07/23 18:57	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		11/06/23 16:30	11/07/23 18:57	1	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/06/23 16:30	11/07/23 18:57	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/06/23 16:30	11/07/23 18:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	123		70 - 130			11/06/23 16:30	11/07/23 18:57	1	
o-Terphenyl	149	S1+	70 - 130			11/06/23 16:30	11/07/23 18:57	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	72.1		5.02	mg/Kg			11/08/23 10:17	1	

Client Sample ID: FS50
Date Collected: 11/02/23 11:00
Date Received: 11/03/23 08:21
Sample Depth: 3

Lab Sample ID: 890-5564-12
Matrix: Solid

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		11/06/23 17:15	11/08/23 12:28	1	
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:28	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:28	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 12:28	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:28	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 12:28	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	114		70 - 130			11/06/23 17:15	11/08/23 12:28	1	

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS50

Lab Sample ID: 890-5564-12

Date Collected: 11/02/23 11:00

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	11/06/23 17:15	11/08/23 12:28	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			11/08/23 12:28	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			11/07/23 19:19	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		11/06/23 16:30	11/07/23 19:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		11/06/23 16:30	11/07/23 19:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/06/23 16:30	11/07/23 19:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130			11/06/23 16:30	11/07/23 19:19	1
o-Terphenyl	183	S1+	70 - 130			11/06/23 16:30	11/07/23 19:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	157		5.01	mg/Kg			11/08/23 10:22	1

Client Sample ID: SW17

Lab Sample ID: 890-5564-13

Date Collected: 11/02/23 11:05

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-3

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		11/06/23 17:15	11/08/23 12:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:54	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 12:54	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 12:54	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 12:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			11/06/23 17:15	11/08/23 12:54	1
1,4-Difluorobenzene (Surr)	95		70 - 130			11/06/23 17:15	11/08/23 12:54	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			11/08/23 12:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			11/07/23 19:40	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW17

Lab Sample ID: 890-5564-13

Date Collected: 11/02/23 11:05

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-3

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	<50.1	U	50.1	mg/Kg		11/06/23 16:30	11/07/23 19:40	1
Diesel Range Organics (Over C10-C28)	<50.1	U *1	50.1	mg/Kg		11/06/23 16:30	11/07/23 19:40	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		11/06/23 16:30	11/07/23 19:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130			11/06/23 16:30	11/07/23 19:40	1
o-Terphenyl	170	S1+	70 - 130			11/06/23 16:30	11/07/23 19:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		5.04	mg/Kg			11/08/23 10:27	1

Client Sample ID: FS51

Lab Sample ID: 890-5564-14

Date Collected: 11/02/23 11:10

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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		11/06/23 17:15	11/08/23 13:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 13:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 13:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			11/06/23 17:15	11/08/23 13:21	1
1,4-Difluorobenzene (Surr)	70		70 - 130			11/06/23 17:15	11/08/23 13:21	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			11/08/23 13:21	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			11/07/23 20:02	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	<50.4	U	50.4	mg/Kg		11/06/23 16:30	11/07/23 20:02	1
Diesel Range Organics (Over C10-C28)	<50.4	U *1	50.4	mg/Kg		11/06/23 16:30	11/07/23 20:02	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		11/06/23 16:30	11/07/23 20:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130			11/06/23 16:30	11/07/23 20:02	1
o-Terphenyl	173	S1+	70 - 130			11/06/23 16:30	11/07/23 20:02	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS51

Lab Sample ID: 890-5564-14

Date Collected: 11/02/23 11:10

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	215		5.02	mg/Kg			11/08/23 10:32	1

Client Sample ID: SW18

Lab Sample ID: 890-5564-15

Date Collected: 11/02/23 11:15

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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		11/06/23 17:15	11/08/23 13:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 13:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 13:47	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 13:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			11/06/23 17:15	11/08/23 13:47	1
1,4-Difluorobenzene (Surr)	89		70 - 130			11/06/23 17:15	11/08/23 13:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/08/23 13:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/07/23 12:51	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	<49.8	U	49.8	mg/Kg		11/06/23 16:35	11/07/23 12:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/06/23 16:35	11/07/23 12:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/06/23 16:35	11/07/23 12:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			11/06/23 16:35	11/07/23 12:51	1
o-Terphenyl	94		70 - 130			11/06/23 16:35	11/07/23 12:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	224		5.04	mg/Kg			11/08/23 10:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS52

Lab Sample ID: 890-5564-16

Date Collected: 11/02/23 11:20

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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		11/06/23 17:15	11/08/23 14:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 14:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 14:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 14:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 14:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 14:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			11/06/23 17:15	11/08/23 14:13	1
1,4-Difluorobenzene (Surr)	90		70 - 130			11/06/23 17:15	11/08/23 14:13	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			11/08/23 14:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			11/07/23 13:15	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	<49.6	U	49.6	mg/Kg		11/06/23 16:35	11/07/23 13:15	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		11/06/23 16:35	11/07/23 13:15	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		11/06/23 16:35	11/07/23 13:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			11/06/23 16:35	11/07/23 13:15	1
o-Terphenyl	96		70 - 130			11/06/23 16:35	11/07/23 13:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	247		4.97	mg/Kg			11/08/23 12:46	1

Client Sample ID: FS53

Lab Sample ID: 890-5564-17

Date Collected: 11/02/23 11:25

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/06/23 17:15	11/08/23 14:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130			11/06/23 17:15	11/08/23 14:39	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS53

Lab Sample ID: 890-5564-17

Date Collected: 11/02/23 11:25

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	120		70 - 130	11/06/23 17:15	11/08/23 14:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/08/23 14:39	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			11/07/23 13:38	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		11/06/23 16:35	11/07/23 13:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/06/23 16:35	11/07/23 13:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/06/23 16:35	11/07/23 13:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			11/06/23 16:35	11/07/23 13:38	1
o-Terphenyl	97		70 - 130			11/06/23 16:35	11/07/23 13:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	255	F1	4.98	mg/Kg			11/08/23 08:43	1

Client Sample ID: SW19

Lab Sample ID: 890-5564-18

Date Collected: 11/02/23 12:30

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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		11/06/23 17:15	11/08/23 15:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 15:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 15:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 15:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/06/23 17:15	11/08/23 15:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/06/23 17:15	11/08/23 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	11/06/23 17:15	11/08/23 15:05	1
1,4-Difluorobenzene (Surr)	77		70 - 130	11/06/23 17:15	11/08/23 15:05	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			11/08/23 15:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			11/07/23 11:43	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW19

Lab Sample ID: 890-5564-18

Date Collected: 11/02/23 12:30

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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	<50.1	U	50.1	mg/Kg		11/06/23 16:35	11/07/23 11:43	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		11/06/23 16:35	11/07/23 11:43	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		11/06/23 16:35	11/07/23 11:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			11/06/23 16:35	11/07/23 11:43	1
o-Terphenyl	98		70 - 130			11/06/23 16:35	11/07/23 11:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		4.99	mg/Kg			11/08/23 09:00	1

Client Sample ID: SW20

Lab Sample ID: 890-5564-19

Date Collected: 11/02/23 12:35

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

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		11/06/23 17:15	11/08/23 15:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 15:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:31	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/06/23 17:15	11/08/23 15:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			11/06/23 17:15	11/08/23 15:31	1
1,4-Difluorobenzene (Surr)	84		70 - 130			11/06/23 17:15	11/08/23 15:31	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			11/08/23 15:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			11/07/23 14:03	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	<49.7	U	49.7	mg/Kg		11/06/23 16:35	11/07/23 14:03	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		11/06/23 16:35	11/07/23 14:03	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		11/06/23 16:35	11/07/23 14:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130			11/06/23 16:35	11/07/23 14:03	1
o-Terphenyl	76		70 - 130			11/06/23 16:35	11/07/23 14:03	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW20

Lab Sample ID: 890-5564-19

Date Collected: 11/02/23 12:35

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 0-2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		5.04	mg/Kg			11/08/23 09:05	1

Client Sample ID: FS54

Lab Sample ID: 890-5564-20

Date Collected: 11/02/23 12:40

Matrix: Solid

Date Received: 11/03/23 08:21

Sample Depth: 2

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		11/06/23 17:15	11/08/23 15:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 15:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 15:57	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/06/23 17:15	11/08/23 15:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			11/06/23 17:15	11/08/23 15:57	1
1,4-Difluorobenzene (Surr)	88		70 - 130			11/06/23 17:15	11/08/23 15:57	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/08/23 15:57	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			11/07/23 14:27	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		11/06/23 16:35	11/07/23 14:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/06/23 16:35	11/07/23 14:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/06/23 16:35	11/07/23 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			11/06/23 16:35	11/07/23 14:27	1
o-Terphenyl	103		70 - 130			11/06/23 16:35	11/07/23 14:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	273		5.00	mg/Kg			11/08/23 09:11	1

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS55
Date Collected: 11/02/23 12:45
Date Received: 11/03/23 08:21
Sample Depth: 2

Lab Sample ID: 890-5564-21
Matrix: Solid

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		11/08/23 12:08	11/12/23 03:56	1	
Toluene	<0.00199	U	0.00199	mg/Kg		11/08/23 12:08	11/12/23 03:56	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/08/23 12:08	11/12/23 03:56	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/08/23 12:08	11/12/23 03:56	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/08/23 12:08	11/12/23 03:56	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/08/23 12:08	11/12/23 03:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130			11/08/23 12:08	11/12/23 03:56	1	
1,4-Difluorobenzene (Surr)	97		70 - 130			11/08/23 12:08	11/12/23 03:56	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			11/12/23 03:56	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.2	U	50.2	mg/Kg			11/07/23 14:52	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	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 14:52	1	
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 14:52	1	
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 14:52	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	90		70 - 130			11/06/23 16:35	11/07/23 14:52	1	
o-Terphenyl	92		70 - 130			11/06/23 16:35	11/07/23 14:52	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	310		5.05	mg/Kg			11/07/23 16:40	1	

Client Sample ID: FS56
Date Collected: 11/02/23 12:50
Date Received: 11/03/23 08:21
Sample Depth: 2

Lab Sample ID: 890-5564-22
Matrix: Solid

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		11/08/23 12:00	11/12/23 04:23	1	
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/23 12:00	11/12/23 04:23	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/23 12:00	11/12/23 04:23	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/08/23 12:00	11/12/23 04:23	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/23 12:00	11/12/23 04:23	1	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/08/23 12:00	11/12/23 04:23	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130			11/08/23 12:00	11/12/23 04:23	1	

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Client Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS56
Date Collected: 11/02/23 12:50
Date Received: 11/03/23 08:21
Sample Depth: 2

Lab Sample ID: 890-5564-22
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,4-Difluorobenzene (Surr)	10	S1-	70 - 130			11/08/23 12:00	11/12/23 04:23	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			11/12/23 04:23	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.2	U	50.2	mg/Kg			11/07/23 15:17	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	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 15:17	1	
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 15:17	1	
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/06/23 16:35	11/07/23 15:17	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	95		70 - 130			11/06/23 16:35	11/07/23 15:17	1	
o-Terphenyl	98		70 - 130			11/06/23 16:35	11/07/23 15:17	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	399	F1	4.97	mg/Kg			11/08/23 15:19	1	

Surrogate Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	BFB1	DFBZ1		
		(70-130)	(70-130)		
880-34990-A-2-B MB	Method Blank	123	99		
890-5564-1	SW11	104	75		
890-5564-1 MS	SW11	121	126		
890-5564-1 MSD	SW11	81	67 S1-		
890-5564-2	SW12	109	71		
890-5564-3	FS45	138 S1+	94		
890-5564-4	FS46	133 S1+	93		
890-5564-5	FS47	137 S1+	79		
890-5564-6	FS48	139 S1+	98		
890-5564-7	FS49	152 S1+	98		
890-5564-8	SW13	150 S1+	102		
890-5564-9	SW14	93	70		
890-5564-10	SW15	143 S1+	119		
890-5564-11	SW16	111	90		
890-5564-12	FS50	114	88		
890-5564-13	SW17	97	95		
890-5564-14	FS51	109	70		
890-5564-15	SW18	96	89		
890-5564-16	FS52	86	90		
890-5564-17	FS53	135 S1+	120		
890-5564-18	SW19	130	77		
890-5564-19	SW20	132 S1+	84		
890-5564-20	FS54	120	88		
890-5564-21	FS55	139 S1+	97		
890-5564-22	FS56	147 S1+	10 S1-		
890-5569-A-21-D MS	Matrix Spike	132 S1+	68 S1-		
890-5569-A-21-E MSD	Matrix Spike Duplicate	153 S1+	89		
LCS 880-66321/1-A	Lab Control Sample	95	80		
LCS 880-66435/1-A	Lab Control Sample	113	83		
LCSD 880-66321/2-A	Lab Control Sample Dup	122	99		
LCSD 880-66435/2-A	Lab Control Sample Dup	124	75		
MB 880-66321/5-A	Method Blank	69 S1-	88		
MB 880-66434/5-A	Method Blank	81	79		
MB 880-66435/5-A	Method Blank	76	71		
Surrogate Legend					
BFB = 4-Bromofluorobenzene (Surr)					
DFBZ = 1,4-Difluorobenzene (Surr)					

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-5563-A-19-B MS	Matrix Spike	132 S1+	131 S1+
890-5563-A-19-C MSD	Matrix Spike Duplicate	130	132 S1+
890-5564-1	SW11	146 S1+	176 S1+
890-5564-2	SW12	137 S1+	165 S1+
890-5564-3	FS45	130	155 S1+

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Surrogate Summary

Client: Ensolum

Job ID: 890-5564-1

Project/Site: Beu Connector Mobley Ranch Pipeline

SDG: 32.2907,-105.86154

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-5564-4	FS46	127	151 S1+
890-5564-5	FS47	129	153 S1+
890-5564-6	FS48	122	147 S1+
890-5564-7	FS49	143 S1+	171 S1+
890-5564-8	SW13	130	157 S1+
890-5564-9	SW14	126	151 S1+
890-5564-10	SW15	142 S1+	171 S1+
890-5564-11	SW16	123	149 S1+
890-5564-12	FS50	148 S1+	183 S1+
890-5564-13	SW17	140 S1+	170 S1+
890-5564-14	FS51	143 S1+	173 S1+
890-5564-15	SW18	93	94
890-5564-16	FS52	95	96
890-5564-17	FS53	96	97
890-5564-18	SW19	97	98
890-5564-18 MS	SW19	95	86
890-5564-18 MSD	SW19	96	89
890-5564-19	SW20	73	76
890-5564-20	FS54	101	103
890-5564-21	FS55	90	92
890-5564-22	FS56	95	98
LCS 880-66315/2-A	Lab Control Sample	86	105
LCS 880-66317/2-A	Lab Control Sample	103	115
LCSD 880-66315/3-A	Lab Control Sample Dup	98	118
LCSD 880-66317/3-A	Lab Control Sample Dup	98	101
MB 880-66315/1-A	Method Blank	243 S1+	301 S1+
MB 880-66317/1-A	Method Blank	162 S1+	169 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-66321/5-A				Client Sample ID: Method Blank				
Matrix: Solid				Prep Type: Total/NA				
Analysis Batch: 66359				Prep Batch: 66321				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/06/23 17:15	11/08/23 05:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130			11/06/23 17:15	11/08/23 05:10	1
1,4-Difluorobenzene (Surr)	88		70 - 130			11/06/23 17:15	11/08/23 05:10	1

Lab Sample ID: LCS 880-66321/1-A				Client Sample ID: Lab Control Sample				
Matrix: Solid				Prep Type: Total/NA				
Analysis Batch: 66359				Prep Batch: 66321				
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene		0.100	0.08935		mg/Kg		89	70 - 130
Toluene		0.100	0.1017		mg/Kg		102	70 - 130
Ethylbenzene		0.100	0.1027		mg/Kg		103	70 - 130
m-Xylene & p-Xylene		0.200	0.2045		mg/Kg		102	70 - 130
o-Xylene		0.100	0.1079		mg/Kg		108	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	95		70 - 130					
1,4-Difluorobenzene (Surr)	80		70 - 130					

Lab Sample ID: LCSD 880-66321/2-A					Client Sample ID: Lab Control Sample Dup											
Matrix: Solid					Prep Type: Total/NA											
Analysis Batch: 66359					Prep Batch: 66321											
Analyte	Spike			LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD					
	Added			Result	Qualifier							Limits	Limit			
	Benzene			0.100	0.09122							mg/Kg	91	70 - 130	2	35
	Toluene			0.100	0.1055							mg/Kg	106	70 - 130	4	35
	Ethylbenzene			0.100	0.1051							mg/Kg	105	70 - 130	2	35
	m-Xylene & p-Xylene			0.200	0.2022							mg/Kg	101	70 - 130	1	35
	o-Xylene			0.100	0.1081							mg/Kg	108	70 - 130	0	35
LCSD		LCSD														
Surrogate	%Recovery	Qualifier	Limits													
4-Bromofluorobenzene (Surr)	122		70 - 130													
1,4-Difluorobenzene (Surr)	99		70 - 130													

Lab Sample ID: 890-5564-1 MS								Client Sample ID: SW11		
Matrix: Solid								Prep Type: Total/NA		
Analysis Batch: 66359								Prep Batch: 66321		
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F2	0.100	0.1173		mg/Kg		117	70 - 130	
Toluene	<0.00200	U	0.100	0.1106		mg/Kg		110	70 - 130	

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

Lab Sample ID: 890-5564-1 MS

Matrix: Solid

Analysis Batch: 66359

Client Sample ID: SW11

Prep Type: Total/NA

Prep Batch: 66321

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Ethylbenzene	<0.00200	U	0.100	0.1068		mg/Kg		107	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2065		mg/Kg		103	70 - 130	
o-Xylene	<0.00200	U	0.100	0.1062		mg/Kg		106	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	121		70 - 130							
1,4-Difluorobenzene (Surr)	126		70 - 130							

Lab Sample ID: 890-5564-1 MSD

Matrix: Solid

Analysis Batch: 66359

Client Sample ID: SW11

Prep Type: Total/NA

Prep Batch: 66321

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits		RPD	Limit
Benzene	<0.00200	U F2	0.0996	0.07697	F2	mg/Kg		77	70 - 130		41	35
Toluene	<0.00200	U	0.0996	0.07765		mg/Kg		78	70 - 130		35	35
Ethylbenzene	<0.00200	U	0.0996	0.09176		mg/Kg		92	70 - 130		15	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1741		mg/Kg		87	70 - 130		17	35
o-Xylene	<0.00200	U	0.0996	0.08459		mg/Kg		85	70 - 130		23	35
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	81		70 - 130									
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130									

Lab Sample ID: 880-34990-A-2-B MB

Matrix: Solid

Analysis Batch: 66359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66358

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/07/23 11:44	11/08/23 00:56	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits					
4-Bromofluorobenzene (Surr)	123		70 - 130					
1,4-Difluorobenzene (Surr)	99		70 - 130					

Lab Sample ID: MB 880-66434/5-A

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66434

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:54	11/11/23 04:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:54	11/11/23 04:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:54	11/11/23 04:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/07/23 15:54	11/11/23 04:38	1

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

Lab Sample ID: MB 880-66434/5-A

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66434

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:54	11/11/23 04:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/07/23 15:54	11/11/23 04:38	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	81		70 - 130			11/07/23 15:54	11/11/23 04:38	1
1,4-Difluorobenzene (Surr)	79		70 - 130			11/07/23 15:54	11/11/23 04:38	1

Lab Sample ID: MB 880-66435/5-A

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66435

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/07/23 15:55	11/11/23 18:17	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	76		70 - 130			11/07/23 15:55	11/11/23 18:17	1
1,4-Difluorobenzene (Surr)	71		70 - 130			11/07/23 15:55	11/11/23 18:17	1

Lab Sample ID: LCS 880-66435/1-A

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.1094		mg/Kg		109	70 - 130	
Toluene	0.100	0.1112		mg/Kg		111	70 - 130	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	
m-Xylene & p-Xylene	0.200	0.2001		mg/Kg		100	70 - 130	
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130	
Surrogate	LCS	LCS	Limits					
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	113		70 - 130					
1,4-Difluorobenzene (Surr)	83		70 - 130					

Lab Sample ID: LCSD 880-66435/2-A

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 66435

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1110		mg/Kg		111	70 - 130	1	35
Toluene	0.100	0.1078		mg/Kg		108	70 - 130	3	35
Ethylbenzene	0.100	0.1151		mg/Kg		115	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2296		mg/Kg		115	70 - 130	14	35
o-Xylene	0.100	0.1224		mg/Kg		122	70 - 130	15	35

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	75		70 - 130

Lab Sample ID: 890-5569-A-21-D MS

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 66435

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.08876		mg/Kg		88	70 - 130
Toluene	<0.00201	U F2 F1	0.101	0.07431		mg/Kg		74	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.101	0.07440		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.202	0.1432		mg/Kg		71	70 - 130
o-Xylene	<0.00201	U F2 F1	0.101	0.09014		mg/Kg		89	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130

Lab Sample ID: 890-5569-A-21-E MSD

Matrix: Solid

Analysis Batch: 66703

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 66435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.07067		mg/Kg		71	70 - 130	23	35
Toluene	<0.00201	U F2 F1	0.0996	0.02247	F2 F1	mg/Kg		23	70 - 130	107	35
Ethylbenzene	<0.00201	U F2 F1	0.0996	0.02605	F2 F1	mg/Kg		26	70 - 130	96	35
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.199	0.05428	F2 F1	mg/Kg		27	70 - 130	90	35
o-Xylene	<0.00201	U F2 F1	0.0996	0.06237	F2 F1	mg/Kg		63	70 - 130	36	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	153	S1+	70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

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

Lab Sample ID: MB 880-66315/1-A

Matrix: Solid

Analysis Batch: 66346

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66315

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		11/06/23 16:30	11/07/23 09:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/06/23 16:30	11/07/23 09:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/06/23 16:30	11/07/23 09:02	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	243	S1+	70 - 130	11/06/23 16:30	11/07/23 09:02	1		
o-Terphenyl	301	S1+	70 - 130	11/06/23 16:30	11/07/23 09:02	1		

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

Lab Sample ID: LCS 880-66315/2-A				Client Sample ID: Lab Control Sample						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 66346				Prep Batch: 66315						
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10			1000	841.4		mg/Kg		84	70 - 130	
Diesel Range Organics (Over C10-C28)			1000	837.2		mg/Kg		84	70 - 130	
Surrogate		LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane		86		70 - 130						
o-Terphenyl		105		70 - 130						

Lab Sample ID: LCSD 880-66315/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 66346				Prep Batch: 66315						
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1028		mg/Kg		103	70 - 130	20 20
Diesel Range Organics (Over C10-C28)			1000	1036	*1	mg/Kg		104	70 - 130	21 20
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane		98		70 - 130						
o-Terphenyl		118		70 - 130						

Lab Sample ID: 890-5563-A-19-B MS				Client Sample ID: Matrix Spike						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 66346				Prep Batch: 66315						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	1010	937.0		mg/Kg		93	70 - 130	
Diesel Range Organics (Over C10-C28)	56.3	*1	1010	1092		mg/Kg		103	70 - 130	
Surrogate		MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane		132	S1+	70 - 130						
o-Terphenyl		131	S1+	70 - 130						

Lab Sample ID: 890-5563-A-19-C MSD				Client Sample ID: Matrix Spike Duplicate						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 66346				Prep Batch: 66315						
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	1010	899.8		mg/Kg		89	70 - 130	4 20
Diesel Range Organics (Over C10-C28)	56.3	*1	1010	1102		mg/Kg		103	70 - 130	1 20
Surrogate		MSD %Recovery	MSD Qualifier	Limits						
1-Chlorooctane		130		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

Lab Sample ID: 890-5563-A-19-C MSD

Matrix: Solid

Analysis Batch: 66346

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 66315

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	132	S1+	70 - 130

Lab Sample ID: MB 880-66317/1-A

Matrix: Solid

Analysis Batch: 66340

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66317

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/06/23 16:35	11/07/23 08:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/06/23 16:35	11/07/23 08:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/06/23 16:35	11/07/23 08:58	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	162	S1+	70 - 130			11/06/23 16:35	11/07/23 08:58	1
<i>o</i> -Terphenyl	169	S1+	70 - 130			11/06/23 16:35	11/07/23 08:58	1

Lab Sample ID: LCS 880-66317/2-A

Matrix: Solid

Analysis Batch: 66340

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66317

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	924.3		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1057		mg/Kg		106	70 - 130
Surrogate	LCS	LCS	Limits				
	%Recovery	Qualifier					
1-Chlorooctane	103		70 - 130				
<i>o</i> -Terphenyl	115		70 - 130				

Lab Sample ID: LCSD 880-66317/3-A

Matrix: Solid

Analysis Batch: 66340

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 66317

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	932.7		mg/Kg		93	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1011		mg/Kg		101	70 - 130	4	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	98		70 - 130						
<i>o</i> -Terphenyl	101		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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

Lab Sample ID: 890-5564-18 MS

Matrix: Solid

Analysis Batch: 66340

Client Sample ID: SW19

Prep Type: Total/NA

Prep Batch: 66317

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	737.2		mg/Kg		71	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	759.3		mg/Kg		74	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	86		70 - 130								

Lab Sample ID: 890-5564-18 MSD

Matrix: Solid

Analysis Batch: 66340

Client Sample ID: SW19

Prep Type: Total/NA

Prep Batch: 66317

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	744.9		mg/Kg		71	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	798.0		mg/Kg		77	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	89		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-66334/1-A

Matrix: Solid

Analysis Batch: 66438

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			11/07/23 15:47	1

Lab Sample ID: LCS 880-66334/2-A

Matrix: Solid

Analysis Batch: 66438

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Chloride	250	244.8		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-66334/3-A

Matrix: Solid

Analysis Batch: 66438

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCS	LCS				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	246.3		mg/Kg		99	90 - 110	1	20

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-35311-A-6-C MS

Matrix: Solid

Analysis Batch: 66438

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	4090		2500	6463		mg/Kg		95	90 - 110

Lab Sample ID: 880-35311-A-6-D MSD

Matrix: Solid

Analysis Batch: 66438

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4090		2500	6476		mg/Kg		96	90 - 110	0	20

Lab Sample ID: MB 880-66356/1-A

Matrix: Solid

Analysis Batch: 66512

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/08/23 08:06	1

Lab Sample ID: LCS 880-66356/2-A

Matrix: Solid

Analysis Batch: 66512

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	259.5		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-66356/3-A

Matrix: Solid

Analysis Batch: 66512

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	260.4		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-5564-7 MS

Matrix: Solid

Analysis Batch: 66512

Client Sample ID: FS49

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	334	F1	249	511.2	F1	mg/Kg		71	90 - 110

Lab Sample ID: 890-5564-7 MSD

Matrix: Solid

Analysis Batch: 66512

Client Sample ID: FS49

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	334	F1	249	505.5	F1	mg/Kg		69	90 - 110	1	20

Lab Sample ID: MB 880-66357/1-A

Matrix: Solid

Analysis Batch: 66513

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/08/23 08:10	1

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-66357/2-A
Matrix: Solid
Analysis Batch: 66513

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	250.8		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-66357/3-A
Matrix: Solid
Analysis Batch: 66513

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250.5		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-5564-17 MS
Matrix: Solid
Analysis Batch: 66513

Client Sample ID: FS53
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	255	F1	249	545.7	F1	mg/Kg		117	90 - 110

Lab Sample ID: 890-5564-17 MSD
Matrix: Solid
Analysis Batch: 66513

Client Sample ID: FS53
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	255	F1	249	540.3	F1	mg/Kg		115	90 - 110	1	20

Lab Sample ID: MB 880-66337/1-A
Matrix: Solid
Analysis Batch: 66518

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/08/23 15:02	1

Lab Sample ID: LCS 880-66337/2-A
Matrix: Solid
Analysis Batch: 66518

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	257.8		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-66337/3-A
Matrix: Solid
Analysis Batch: 66518

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	258.1		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-5564-22 MS
Matrix: Solid
Analysis Batch: 66518

Client Sample ID: FS56
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	399	F1	249	596.4	F1	mg/Kg		79	90 - 110

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QC Sample Results

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-5564-22 MSD							Client Sample ID: FS56					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 66518												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	399	F1	249	592.2	F1	mg/Kg		78	90 - 110	1	20	

QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

GC VOA

Prep Batch: 66321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	5035	
890-5564-2	SW12	Total/NA	Solid	5035	
890-5564-3	FS45	Total/NA	Solid	5035	
890-5564-4	FS46	Total/NA	Solid	5035	
890-5564-5	FS47	Total/NA	Solid	5035	
890-5564-6	FS48	Total/NA	Solid	5035	
890-5564-7	FS49	Total/NA	Solid	5035	
890-5564-8	SW13	Total/NA	Solid	5035	
890-5564-9	SW14	Total/NA	Solid	5035	
890-5564-10	SW15	Total/NA	Solid	5035	
890-5564-11	SW16	Total/NA	Solid	5035	
890-5564-12	FS50	Total/NA	Solid	5035	
890-5564-13	SW17	Total/NA	Solid	5035	
890-5564-14	FS51	Total/NA	Solid	5035	
890-5564-15	SW18	Total/NA	Solid	5035	
890-5564-16	FS52	Total/NA	Solid	5035	
890-5564-17	FS53	Total/NA	Solid	5035	
890-5564-18	SW19	Total/NA	Solid	5035	
890-5564-19	SW20	Total/NA	Solid	5035	
890-5564-20	FS54	Total/NA	Solid	5035	
MB 880-66321/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66321/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66321/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5564-1 MS	SW11	Total/NA	Solid	5035	
890-5564-1 MSD	SW11	Total/NA	Solid	5035	

Prep Batch: 66358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34990-A-2-B MB	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 66359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	8021B	66321
890-5564-2	SW12	Total/NA	Solid	8021B	66321
890-5564-3	FS45	Total/NA	Solid	8021B	66321
890-5564-4	FS46	Total/NA	Solid	8021B	66321
890-5564-5	FS47	Total/NA	Solid	8021B	66321
890-5564-6	FS48	Total/NA	Solid	8021B	66321
890-5564-7	FS49	Total/NA	Solid	8021B	66321
890-5564-8	SW13	Total/NA	Solid	8021B	66321
890-5564-9	SW14	Total/NA	Solid	8021B	66321
890-5564-10	SW15	Total/NA	Solid	8021B	66321
890-5564-11	SW16	Total/NA	Solid	8021B	66321
890-5564-12	FS50	Total/NA	Solid	8021B	66321
890-5564-13	SW17	Total/NA	Solid	8021B	66321
890-5564-14	FS51	Total/NA	Solid	8021B	66321
890-5564-15	SW18	Total/NA	Solid	8021B	66321
890-5564-16	FS52	Total/NA	Solid	8021B	66321
890-5564-17	FS53	Total/NA	Solid	8021B	66321
890-5564-18	SW19	Total/NA	Solid	8021B	66321
890-5564-19	SW20	Total/NA	Solid	8021B	66321

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QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

GC VOA (Continued)

Analysis Batch: 66359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-20	FS54	Total/NA	Solid	8021B	66321
880-34990-A-2-B MB	Method Blank	Total/NA	Solid	8021B	66358
MB 880-66321/5-A	Method Blank	Total/NA	Solid	8021B	66321
LCS 880-66321/1-A	Lab Control Sample	Total/NA	Solid	8021B	66321
LCSD 880-66321/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66321
890-5564-1 MS	SW11	Total/NA	Solid	8021B	66321
890-5564-1 MSD	SW11	Total/NA	Solid	8021B	66321

Prep Batch: 66434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-66434/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 66435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-21	FS55	Total/NA	Solid	5035	
890-5564-22	FS56	Total/NA	Solid	5035	
MB 880-66435/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66435/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66435/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5569-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5569-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 66703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-21	FS55	Total/NA	Solid	8021B	66435
890-5564-22	FS56	Total/NA	Solid	8021B	66435
MB 880-66434/5-A	Method Blank	Total/NA	Solid	8021B	66434
MB 880-66435/5-A	Method Blank	Total/NA	Solid	8021B	66435
LCS 880-66435/1-A	Lab Control Sample	Total/NA	Solid	8021B	66435
LCSD 880-66435/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66435
890-5569-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	66435
890-5569-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	66435

Analysis Batch: 66711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	Total BTEX	
890-5564-2	SW12	Total/NA	Solid	Total BTEX	
890-5564-3	FS45	Total/NA	Solid	Total BTEX	
890-5564-4	FS46	Total/NA	Solid	Total BTEX	
890-5564-5	FS47	Total/NA	Solid	Total BTEX	
890-5564-6	FS48	Total/NA	Solid	Total BTEX	
890-5564-7	FS49	Total/NA	Solid	Total BTEX	
890-5564-8	SW13	Total/NA	Solid	Total BTEX	
890-5564-9	SW14	Total/NA	Solid	Total BTEX	
890-5564-10	SW15	Total/NA	Solid	Total BTEX	
890-5564-11	SW16	Total/NA	Solid	Total BTEX	
890-5564-12	FS50	Total/NA	Solid	Total BTEX	
890-5564-13	SW17	Total/NA	Solid	Total BTEX	
890-5564-14	FS51	Total/NA	Solid	Total BTEX	
890-5564-15	SW18	Total/NA	Solid	Total BTEX	
890-5564-16	FS52	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

GC VOA (Continued)

Analysis Batch: 66711 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-17	FS53	Total/NA	Solid	Total BTEX	
890-5564-18	SW19	Total/NA	Solid	Total BTEX	
890-5564-19	SW20	Total/NA	Solid	Total BTEX	
890-5564-20	FS54	Total/NA	Solid	Total BTEX	
890-5564-21	FS55	Total/NA	Solid	Total BTEX	
890-5564-22	FS56	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 66315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	8015NM Prep	
890-5564-2	SW12	Total/NA	Solid	8015NM Prep	
890-5564-3	FS45	Total/NA	Solid	8015NM Prep	
890-5564-4	FS46	Total/NA	Solid	8015NM Prep	
890-5564-5	FS47	Total/NA	Solid	8015NM Prep	
890-5564-6	FS48	Total/NA	Solid	8015NM Prep	
890-5564-7	FS49	Total/NA	Solid	8015NM Prep	
890-5564-8	SW13	Total/NA	Solid	8015NM Prep	
890-5564-9	SW14	Total/NA	Solid	8015NM Prep	
890-5564-10	SW15	Total/NA	Solid	8015NM Prep	
890-5564-11	SW16	Total/NA	Solid	8015NM Prep	
890-5564-12	FS50	Total/NA	Solid	8015NM Prep	
890-5564-13	SW17	Total/NA	Solid	8015NM Prep	
890-5564-14	FS51	Total/NA	Solid	8015NM Prep	
MB 880-66315/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-66315/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-66315/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5563-A-19-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-5563-A-19-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 66317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-15	SW18	Total/NA	Solid	8015NM Prep	
890-5564-16	FS52	Total/NA	Solid	8015NM Prep	
890-5564-17	FS53	Total/NA	Solid	8015NM Prep	
890-5564-18	SW19	Total/NA	Solid	8015NM Prep	
890-5564-19	SW20	Total/NA	Solid	8015NM Prep	
890-5564-20	FS54	Total/NA	Solid	8015NM Prep	
890-5564-21	FS55	Total/NA	Solid	8015NM Prep	
890-5564-22	FS56	Total/NA	Solid	8015NM Prep	
MB 880-66317/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-66317/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-66317/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5564-18 MS	SW19	Total/NA	Solid	8015NM Prep	
890-5564-18 MSD	SW19	Total/NA	Solid	8015NM Prep	

Analysis Batch: 66340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-15	SW18	Total/NA	Solid	8015B NM	66317
890-5564-16	FS52	Total/NA	Solid	8015B NM	66317

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QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

GC Semi VOA (Continued)

Analysis Batch: 66340 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-17	FS53	Total/NA	Solid	8015B NM	66317
890-5564-18	SW19	Total/NA	Solid	8015B NM	66317
890-5564-19	SW20	Total/NA	Solid	8015B NM	66317
890-5564-20	FS54	Total/NA	Solid	8015B NM	66317
890-5564-21	FS55	Total/NA	Solid	8015B NM	66317
890-5564-22	FS56	Total/NA	Solid	8015B NM	66317
MB 880-66317/1-A	Method Blank	Total/NA	Solid	8015B NM	66317
LCS 880-66317/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	66317
LCSD 880-66317/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	66317
890-5564-18 MS	SW19	Total/NA	Solid	8015B NM	66317
890-5564-18 MSD	SW19	Total/NA	Solid	8015B NM	66317

Analysis Batch: 66346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	8015B NM	66315
890-5564-2	SW12	Total/NA	Solid	8015B NM	66315
890-5564-3	FS45	Total/NA	Solid	8015B NM	66315
890-5564-4	FS46	Total/NA	Solid	8015B NM	66315
890-5564-5	FS47	Total/NA	Solid	8015B NM	66315
890-5564-6	FS48	Total/NA	Solid	8015B NM	66315
890-5564-7	FS49	Total/NA	Solid	8015B NM	66315
890-5564-8	SW13	Total/NA	Solid	8015B NM	66315
890-5564-9	SW14	Total/NA	Solid	8015B NM	66315
890-5564-10	SW15	Total/NA	Solid	8015B NM	66315
890-5564-11	SW16	Total/NA	Solid	8015B NM	66315
890-5564-12	FS50	Total/NA	Solid	8015B NM	66315
890-5564-13	SW17	Total/NA	Solid	8015B NM	66315
890-5564-14	FS51	Total/NA	Solid	8015B NM	66315
MB 880-66315/1-A	Method Blank	Total/NA	Solid	8015B NM	66315
LCS 880-66315/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	66315
LCSD 880-66315/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	66315
890-5563-A-19-B MS	Matrix Spike	Total/NA	Solid	8015B NM	66315
890-5563-A-19-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	66315

Analysis Batch: 66480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Total/NA	Solid	8015 NM	
890-5564-2	SW12	Total/NA	Solid	8015 NM	
890-5564-3	FS45	Total/NA	Solid	8015 NM	
890-5564-4	FS46	Total/NA	Solid	8015 NM	
890-5564-5	FS47	Total/NA	Solid	8015 NM	
890-5564-6	FS48	Total/NA	Solid	8015 NM	
890-5564-7	FS49	Total/NA	Solid	8015 NM	
890-5564-8	SW13	Total/NA	Solid	8015 NM	
890-5564-9	SW14	Total/NA	Solid	8015 NM	
890-5564-10	SW15	Total/NA	Solid	8015 NM	
890-5564-11	SW16	Total/NA	Solid	8015 NM	
890-5564-12	FS50	Total/NA	Solid	8015 NM	
890-5564-13	SW17	Total/NA	Solid	8015 NM	
890-5564-14	FS51	Total/NA	Solid	8015 NM	
890-5564-15	SW18	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

GC Semi VOA (Continued)

Analysis Batch: 66480 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-16	FS52	Total/NA	Solid	8015 NM	
890-5564-17	FS53	Total/NA	Solid	8015 NM	
890-5564-18	SW19	Total/NA	Solid	8015 NM	
890-5564-19	SW20	Total/NA	Solid	8015 NM	
890-5564-20	FS54	Total/NA	Solid	8015 NM	
890-5564-21	FS55	Total/NA	Solid	8015 NM	
890-5564-22	FS56	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 66334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-21	FS55	Soluble	Solid	DI Leach	
MB 880-66334/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-66334/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-66334/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-35311-A-6-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-35311-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 66337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-22	FS56	Soluble	Solid	DI Leach	
MB 880-66337/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-66337/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-66337/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5564-22 MS	FS56	Soluble	Solid	DI Leach	
890-5564-22 MSD	FS56	Soluble	Solid	DI Leach	

Leach Batch: 66356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Soluble	Solid	DI Leach	
890-5564-2	SW12	Soluble	Solid	DI Leach	
890-5564-3	FS45	Soluble	Solid	DI Leach	
890-5564-4	FS46	Soluble	Solid	DI Leach	
890-5564-5	FS47	Soluble	Solid	DI Leach	
890-5564-6	FS48	Soluble	Solid	DI Leach	
890-5564-7	FS49	Soluble	Solid	DI Leach	
890-5564-8	SW13	Soluble	Solid	DI Leach	
890-5564-9	SW14	Soluble	Solid	DI Leach	
890-5564-10	SW15	Soluble	Solid	DI Leach	
890-5564-11	SW16	Soluble	Solid	DI Leach	
890-5564-12	FS50	Soluble	Solid	DI Leach	
890-5564-13	SW17	Soluble	Solid	DI Leach	
890-5564-14	FS51	Soluble	Solid	DI Leach	
890-5564-15	SW18	Soluble	Solid	DI Leach	
890-5564-16	FS52	Soluble	Solid	DI Leach	
MB 880-66356/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-66356/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-66356/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5564-7 MS	FS49	Soluble	Solid	DI Leach	
890-5564-7 MSD	FS49	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

HPLC/IC

Leach Batch: 66357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-17	FS53	Soluble	Solid	DI Leach	
890-5564-18	SW19	Soluble	Solid	DI Leach	
890-5564-19	SW20	Soluble	Solid	DI Leach	
890-5564-20	FS54	Soluble	Solid	DI Leach	
MB 880-66357/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-66357/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-66357/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5564-17 MS	FS53	Soluble	Solid	DI Leach	
890-5564-17 MSD	FS53	Soluble	Solid	DI Leach	

Analysis Batch: 66438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-21	FS55	Soluble	Solid	300.0	66334
MB 880-66334/1-A	Method Blank	Soluble	Solid	300.0	66334
LCS 880-66334/2-A	Lab Control Sample	Soluble	Solid	300.0	66334
LCSD 880-66334/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	66334
880-35311-A-6-C MS	Matrix Spike	Soluble	Solid	300.0	66334
880-35311-A-6-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	66334

Analysis Batch: 66512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-1	SW11	Soluble	Solid	300.0	66356
890-5564-2	SW12	Soluble	Solid	300.0	66356
890-5564-3	FS45	Soluble	Solid	300.0	66356
890-5564-4	FS46	Soluble	Solid	300.0	66356
890-5564-5	FS47	Soluble	Solid	300.0	66356
890-5564-6	FS48	Soluble	Solid	300.0	66356
890-5564-7	FS49	Soluble	Solid	300.0	66356
890-5564-8	SW13	Soluble	Solid	300.0	66356
890-5564-9	SW14	Soluble	Solid	300.0	66356
890-5564-10	SW15	Soluble	Solid	300.0	66356
890-5564-11	SW16	Soluble	Solid	300.0	66356
890-5564-12	FS50	Soluble	Solid	300.0	66356
890-5564-13	SW17	Soluble	Solid	300.0	66356
890-5564-14	FS51	Soluble	Solid	300.0	66356
890-5564-15	SW18	Soluble	Solid	300.0	66356
890-5564-16	FS52	Soluble	Solid	300.0	66356
MB 880-66356/1-A	Method Blank	Soluble	Solid	300.0	66356
LCS 880-66356/2-A	Lab Control Sample	Soluble	Solid	300.0	66356
LCSD 880-66356/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	66356
890-5564-7 MS	FS49	Soluble	Solid	300.0	66356
890-5564-7 MSD	FS49	Soluble	Solid	300.0	66356

Analysis Batch: 66513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-17	FS53	Soluble	Solid	300.0	66357
890-5564-18	SW19	Soluble	Solid	300.0	66357
890-5564-19	SW20	Soluble	Solid	300.0	66357
890-5564-20	FS54	Soluble	Solid	300.0	66357
MB 880-66357/1-A	Method Blank	Soluble	Solid	300.0	66357
LCS 880-66357/2-A	Lab Control Sample	Soluble	Solid	300.0	66357

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QC Association Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

HPLC/IC (Continued)

Analysis Batch: 66513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-66357/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	66357
890-5564-17 MS	FS53	Soluble	Solid	300.0	66357
890-5564-17 MSD	FS53	Soluble	Solid	300.0	66357

Analysis Batch: 66518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5564-22	FS56	Soluble	Solid	300.0	66337
MB 880-66337/1-A	Method Blank	Soluble	Solid	300.0	66337
LCS 880-66337/2-A	Lab Control Sample	Soluble	Solid	300.0	66337
LCSD 880-66337/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	66337
890-5564-22 MS	FS56	Soluble	Solid	300.0	66337
890-5564-22 MSD	FS56	Soluble	Solid	300.0	66337

Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW11
Date Collected: 11/02/23 09:00
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 05:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 05:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 14:55	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 14:55	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 08:53	CH	EET MID

Client Sample ID: SW12
Date Collected: 11/02/23 09:05
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 06:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 06:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 15:17	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 15:17	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:09	CH	EET MID

Client Sample ID: FS45
Date Collected: 11/02/23 09:10
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 06:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 06:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 15:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 15:38	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:14	CH	EET MID

Client Sample ID: FS46
Date Collected: 11/02/23 09:15
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 06:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 06:52	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS46

Date Collected: 11/02/23 09:15

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			66480	11/07/23 16:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 16:00	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:19	CH	EET MID

Client Sample ID: FS47

Date Collected: 11/02/23 09:20

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 07:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 07:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 16:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 16:45	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:25	CH	EET MID

Client Sample ID: FS48

Date Collected: 11/02/23 10:00

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 07:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 07:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 17:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 17:08	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:30	CH	EET MID

Client Sample ID: FS49

Date Collected: 11/02/23 10:05

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 08:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 08:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 17:30	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 17:30	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS49
Date Collected: 11/02/23 10:05
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:35	CH	EET MID

Client Sample ID: SW13
Date Collected: 11/02/23 10:10
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 08:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 08:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 17:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 17:53	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:51	CH	EET MID

Client Sample ID: SW14
Date Collected: 11/02/23 10:15
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 09:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 09:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 18:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 18:14	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 09:56	CH	EET MID

Client Sample ID: SW15
Date Collected: 11/02/23 10:20
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 10:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 18:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 18:36	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:12	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: SW16

Lab Sample ID: 890-5564-11

Date Collected: 11/02/23 10:25

Matrix: Solid

Date Received: 11/03/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 12:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 12:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 18:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 18:57	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:17	CH	EET MID

Client Sample ID: FS50

Lab Sample ID: 890-5564-12

Date Collected: 11/02/23 11:00

Matrix: Solid

Date Received: 11/03/23 08:21

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	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 12:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 12:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 19:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 19:19	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:22	CH	EET MID

Client Sample ID: SW17

Lab Sample ID: 890-5564-13

Date Collected: 11/02/23 11:05

Matrix: Solid

Date Received: 11/03/23 08:21

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	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 12:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 19:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 19:40	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:27	CH	EET MID

Client Sample ID: FS51

Lab Sample ID: 890-5564-14

Date Collected: 11/02/23 11:10

Matrix: Solid

Date Received: 11/03/23 08:21

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	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 13:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 13:21	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS51

Lab Sample ID: 890-5564-14

Date Collected: 11/02/23 11:10

Matrix: Solid

Date Received: 11/03/23 08:21

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			66480	11/07/23 20:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	66315	11/06/23 16:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66346	11/07/23 20:02	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:32	CH	EET MID

Client Sample ID: SW18

Lab Sample ID: 890-5564-15

Date Collected: 11/02/23 11:15

Matrix: Solid

Date Received: 11/03/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 13:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 13:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 12:51	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 10:38	CH	EET MID

Client Sample ID: FS52

Lab Sample ID: 890-5564-16

Date Collected: 11/02/23 11:20

Matrix: Solid

Date Received: 11/03/23 08:21

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	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 14:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 14:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 13:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 13:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	66356	11/07/23 11:35	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66512	11/08/23 12:46	CH	EET MID

Client Sample ID: FS53

Lab Sample ID: 890-5564-17

Date Collected: 11/02/23 11:25

Matrix: Solid

Date Received: 11/03/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 14:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 14:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 13:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 13:38	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS53

Date Collected: 11/02/23 11:25

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	66357	11/07/23 11:38	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66513	11/08/23 08:43	CH	EET MID

Client Sample ID: SW19

Date Collected: 11/02/23 12:30

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 15:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 15:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 11:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 11:43	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	66357	11/07/23 11:38	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66513	11/08/23 09:00	CH	EET MID

Client Sample ID: SW20

Date Collected: 11/02/23 12:35

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 15:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 14:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 14:03	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	66357	11/07/23 11:38	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66513	11/08/23 09:05	CH	EET MID

Client Sample ID: FS54

Date Collected: 11/02/23 12:40

Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	66321	11/06/23 17:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66359	11/08/23 15:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/08/23 15:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 14:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 14:27	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	66357	11/07/23 11:38	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66513	11/08/23 09:11	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Client Sample ID: FS55
Date Collected: 11/02/23 12:45
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	66435	11/08/23 12:08	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66703	11/12/23 03:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/12/23 03:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 14:52	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 14:52	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	66334	11/06/23 20:14	CH	EET MID
Soluble	Analysis	300.0		1			66438	11/07/23 16:40	CH	EET MID

Client Sample ID: FS56
Date Collected: 11/02/23 12:50
Date Received: 11/03/23 08:21

Lab Sample ID: 890-5564-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	66435	11/08/23 12:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66703	11/12/23 04:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			66711	11/12/23 04:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			66480	11/07/23 15:17	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	66317	11/06/23 16:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66340	11/07/23 15:17	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	66337	11/06/23 20:19	CH	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	66518	11/08/23 15:19	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

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	EPA	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

EPA = US Environmental Protection Agency

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: Beu Connector Mobley Ranch Pipeline

Job ID: 890-5564-1
SDG: 32.2907,-105.86154

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5564-1	SW11	Solid	11/02/23 09:00	11/03/23 08:21	0-2
890-5564-2	SW12	Solid	11/02/23 09:05	11/03/23 08:21	0-2
890-5564-3	FS45	Solid	11/02/23 09:10	11/03/23 08:21	2
890-5564-4	FS46	Solid	11/02/23 09:15	11/03/23 08:21	2
890-5564-5	FS47	Solid	11/02/23 09:20	11/03/23 08:21	2
890-5564-6	FS48	Solid	11/02/23 10:00	11/03/23 08:21	2
890-5564-7	FS49	Solid	11/02/23 10:05	11/03/23 08:21	3
890-5564-8	SW13	Solid	11/02/23 10:10	11/03/23 08:21	0-2
890-5564-9	SW14	Solid	11/02/23 10:15	11/03/23 08:21	0-2
890-5564-10	SW15	Solid	11/02/23 10:20	11/03/23 08:21	0-3
890-5564-11	SW16	Solid	11/02/23 10:25	11/03/23 08:21	0-3
890-5564-12	FS50	Solid	11/02/23 11:00	11/03/23 08:21	3
890-5564-13	SW17	Solid	11/02/23 11:05	11/03/23 08:21	0-3
890-5564-14	FS51	Solid	11/02/23 11:10	11/03/23 08:21	3
890-5564-15	SW18	Solid	11/02/23 11:15	11/03/23 08:21	0-2
890-5564-16	FS52	Solid	11/02/23 11:20	11/03/23 08:21	3
890-5564-17	FS53	Solid	11/02/23 11:25	11/03/23 08:21	3
890-5564-18	SW19	Solid	11/02/23 12:30	11/03/23 08:21	0-2
890-5564-19	SW20	Solid	11/02/23 12:35	11/03/23 08:21	0-2
890-5564-20	FS54	Solid	11/02/23 12:40	11/03/23 08:21	2
890-5564-21	FS55	Solid	11/02/23 12:45	11/03/23 08:21	2
890-5564-22	FS56	Solid	11/02/23 12:50	11/03/23 08:21	2



Environment Testing

Xenco

Chain of Custody

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

Work Order No:

www.xenco.com Page 1 of 3

Project Manager:	Ben Bell	Bill to: (if different)	Garrett Green
Company Name:	Enselom LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	989-851-0852	Email:	B.Bell@xenco.com

Project Name:	BEUconnat-rp-wil-Border-Mexico for Abad Peline	Pres. Code	
Project Number:	031558045	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	
Project Location:	32.2907-106.86154	Due Date:	
Sampler's Name:	Sarah Welby	TAT starts the day received by the lab, if received by 4:30pm	
P.O. #:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
2W11	S	11/02/23	9:00	0-2	C	1		
SW12			9:05	0-2				
FS45			9:10	2				
FS46			9:15	2				
FS47			9:20	2				
FS48			10:00	2				
FS49			10:05	3				
SW13			10:10	0-2				
SW14			10:15	0-2				
SW15			10:20	0-3				

Total 2007/6010	200.8/6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr 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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
1. [Signature]	[Signature]	11/3	[Signature]	8/21
3. [Signature]				
5. [Signature]				

Revised Date 08/25/2020 Rev. 2020.2

Chain of Custody



Environment Testing

Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

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EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

www.xenco.com Page 2 of 3

Project Manager:	Ben Belil	Bill to: (if different)	Garrett Green
Company Name:	ENSOLUM LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	989-854-0382	Email:	BBelil@ensolum.com

Project Name:	BE Enconstr. on Beach at Indigo Summit	Pres. Code	
Project Number:	031559048	Rush	<input type="checkbox"/>
Project Location:	32.2907, -103.66159	Routine	<input checked="" type="checkbox"/>
Sampler's Name:	Sarah Welving	Due Date:	
PO #:		TAT starts the day received by the lab, if received by 4:30pm	

SAMPLE RECEIPT				Parameters				ANALYSIS REQUEST				Preservative Codes			
Temp Blank:	Yes/No	Wet Ice:	Yes/No	Grab/Comp	Depth	Time	Sampled	Matrix	Date	Time	Sampled	Matrix	Date	Time	Sampled
Samples Received Intact:	Yes/No	Thermometer ID:	THCC												
Cooler Custody Seals:	Yes/No	Correction Factor:	0.2												
Sample Custody Seals:	Yes/No	Temperature Reading:	1.2												
Total Containers:		Corrected Temperature:	1.0												

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments
SW 16	S	11/07/23	10:25	0-3	C	1	Cost Center
FS 50			11:00	3			1067711001
SW 17			11:05	0-3			Incident #
FS 51			11:10	3			nAPP2213151424
SW 18			11:15	0-2			nAPP2316045229
FS 52			11:20	3			
FS 53			11:25	3			
SW 19			12:30	0-2			
SW 20			12:35	0-2			
FS 34			12:40	2			

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>Wag</i>	<i>Bun8</i>	11/13	2. <i>821</i>		
3. <i>Wag</i>			4. <i>Wag</i>		
5. <i>Wag</i>			6. <i>Wag</i>		

Revised Date: 08/25/2020 Rev. 20/0.2

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 383-3443, Lubbock, TX (806) 794-1256
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

Xenco

Work Order No:

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Page

3 of 3

Project Manager: Ben Belili
Company Name: Ensolvum LLC
Address: 3122 National Parks Hwy
City, State ZIP: Carlsbad, NM, 88220
Phone: 989-854-0652
Email: belili@ensolvum.com

Bill to: (if different)
Company Name: XTO Energy
Address: 3104 E Green St
City, State ZIP: Carlsbad, NM, 88220
Email: belili@ensolvum.com

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

Project Name: Ben Belili
Company Name: Ensolvum LLC
Address: 3122 National Parks Hwy
City, State ZIP: Carlsbad, NM, 88220
Phone: 989-854-0652
Email: belili@ensolvum.com

Bill to: (if different)
Company Name: XTO Energy
Address: 3104 E Green St
City, State ZIP: Carlsbad, NM, 88220
Email: belili@ensolvum.com

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

SAMPLE RECEIPT		Temp Blank:		Thermometer ID:		Correction Factor:		Temperature Readings:		Corrected Temperature:		Parameters		Preservative Codes	
Project Name:	Project Number:	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	None	NO	DI Water: H ₂ O	
Project Location:	3122 National Parks Hwy	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Cool: Cool	Cool: Cool	MeOH: Me	
Sampler's Name:	Sarah Welby	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	HCL: HC	HCL: HC	HNO ₃ : HN	
P.O. #:	32.2507-103.76159	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	H ₂ SO ₄ : H ₂	H ₂ SO ₄ : H ₂	NaOH: Na	
Samples Received Intact:	031558043	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	H ₃ PO ₄ : HP	H ₃ PO ₄ : HP	NaHSO ₄ : NABIS	
Cooler Custody Seals:	32.2507-103.76159	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Na ₂ S ₂ O ₃ : NaSO ₃	Na ₂ S ₂ O ₃ : NaSO ₃	Zn Acetate+NaOH: Zn	
Sample Custody Seals:	32.2507-103.76159	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	NaOH+Ascorbic Acid: SAPC	NaOH+Ascorbic Acid: SAPC		
Total Containers:	100	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments
FS 55	S	11/02/23	12:45	2	C	2	Cost Center
FS 56	S	11/02/23	12:50	2	C	2	108171101
							Accident #5
							nAPP2213151424
							nAPP2316045229

Total 2007/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. [Signature]	[Signature]	11/3	2. [Signature]	[Signature]	
3. [Signature]	[Signature]		4. [Signature]	[Signature]	
5. [Signature]	[Signature]		6. [Signature]	[Signature]	

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5564-1
SDG Number: 32.2907,-105.86154

Login Number: 5564
List Number: 1
Creator: Bruns, Shannon

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: 890-5564-1
SDG Number: 32.2907,-105.86154

Login Number: 5564

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 11/06/23 01:01 PM

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



Environment Testing

- 1
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- 3
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- 11
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- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/7/2023 2:39:07 PM

JOB DESCRIPTION

BFU Connector AW Booster Mobley Ranch Pipeline
SDG NUMBER 32.2907, -103.86159

JOB NUMBER

880-35219-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701



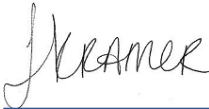
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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



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Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch Pipeline

Laboratory Job ID: 880-35219-1
SDG: 32.2907, -103.86159

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Definitions/Glossary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: BFU Connector AW Booster Mobley Ranch Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Job ID: 880-35219-1

Laboratory: Eurofins Midland

Narrative**Job Narrative
880-35219-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 11/2/2023 10:51 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW05 (880-35219-1), SW06 (880-35219-2), SW07 (880-35219-3), SW08 (880-35219-4), FS 41 (880-35219-5), FS 42 (880-35219-6), FS 43 (880-35219-7), SW 9 (880-35219-8), SW 10 (880-35219-9) and FS 44 (880-35219-10).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-66217 and analytical batch 880-66220 was outside the upper control limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-66217 and analytical batch 880-66220 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-66134 and analytical batch 880-66125 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW05 (880-35219-1), SW06 (880-35219-2), SW07 (880-35219-3), SW08 (880-35219-4), FS 41 (880-35219-5), FS 42 (880-35219-6), FS 43 (880-35219-7), SW 9 (880-35219-8), SW 10 (880-35219-9), FS 44 (880-35219-10), (880-35214-A-7-D), (880-35214-A-7-E MS) and (880-35214-A-7-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-66125/20), (CCV 880-66125/31) and (CCV 880-66125/5). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW05

Lab Sample ID: 880-35219-1

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		11/04/23 17:22	11/06/23 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			11/04/23 17:22	11/06/23 12:47	1
1,4-Difluorobenzene (Surr)	112		70 - 130			11/04/23 17:22	11/06/23 12:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/06/23 12:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			11/03/23 12:06	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	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 12:06	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 12:06	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 12:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	162	S1+	70 - 130			11/03/23 09:36	11/03/23 12:06	1
o-Terphenyl	155	S1+	70 - 130			11/03/23 09:36	11/03/23 12:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		5.00	mg/Kg			11/07/23 09:00	1

Client Sample ID: SW06

Lab Sample ID: 880-35219-2

Date Collected: 10/30/23 14:10

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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		11/04/23 17:22	11/06/23 13:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 13:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 13:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/04/23 17:22	11/06/23 13:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 13:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/04/23 17:22	11/06/23 13:07	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW06

Lab Sample ID: 880-35219-2

Date Collected: 10/30/23 14:10

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	11/04/23 17:22	11/06/23 13:07	1
1,4-Difluorobenzene (Surr)	107		70 - 130	11/04/23 17:22	11/06/23 13:07	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			11/06/23 13:07	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			11/03/23 12:28	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	<50.5	U	50.5	mg/Kg		11/03/23 09:36	11/03/23 12:28	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		11/03/23 09:36	11/03/23 12:28	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		11/03/23 09:36	11/03/23 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	157	S1+	70 - 130	11/03/23 09:36	11/03/23 12:28	1
o-Terphenyl	150	S1+	70 - 130	11/03/23 09:36	11/03/23 12:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		4.95	mg/Kg			11/07/23 09:06	1

Client Sample ID: SW07

Lab Sample ID: 880-35219-3

Date Collected: 10/30/23 14:15

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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		11/04/23 17:22	11/06/23 13:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 13:28	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 13:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 13:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 13:28	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	11/04/23 17:22	11/06/23 13:28	1
1,4-Difluorobenzene (Surr)	108		70 - 130	11/04/23 17:22	11/06/23 13:28	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			11/06/23 13:28	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW07

Lab Sample ID: 880-35219-3

Date Collected: 10/30/23 14:15

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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			11/03/23 12:49	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		11/03/23 09:36	11/03/23 12:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/03/23 09:36	11/03/23 12:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/03/23 09:36	11/03/23 12:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	178	S1+	70 - 130			11/03/23 09:36	11/03/23 12:49	1
o-Terphenyl	171	S1+	70 - 130			11/03/23 09:36	11/03/23 12:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.6		5.00	mg/Kg			11/07/23 09:23	1

Client Sample ID: SW08

Lab Sample ID: 880-35219-4

Date Collected: 10/30/23 14:20

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		11/04/23 17:22	11/06/23 13:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			11/04/23 17:22	11/06/23 13:48	1
1,4-Difluorobenzene (Surr)	107		70 - 130			11/04/23 17:22	11/06/23 13:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			11/06/23 13:48	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			11/03/23 13:10	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	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:10	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:10	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:10	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW08

Lab Sample ID: 880-35219-4

Date Collected: 10/30/23 14:20

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	152	S1+	70 - 130	11/03/23 09:36	11/03/23 13:10	1
o-Terphenyl	141	S1+	70 - 130	11/03/23 09:36	11/03/23 13:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.9		4.98	mg/Kg			11/07/23 09:29	1

Client Sample ID: FS 41

Lab Sample ID: 880-35219-5

Date Collected: 10/30/23 14:30

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 2

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		11/04/23 17:22	11/06/23 14:09	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/04/23 17:22	11/06/23 14:09	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/04/23 17:22	11/06/23 14:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/04/23 17:22	11/06/23 14:09	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/04/23 17:22	11/06/23 14:09	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/04/23 17:22	11/06/23 14:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			11/04/23 17:22	11/06/23 14:09	1
1,4-Difluorobenzene (Surr)	104		70 - 130			11/04/23 17:22	11/06/23 14:09	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			11/06/23 14:09	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			11/03/23 13:32	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	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:32	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:32	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		11/03/23 09:36	11/03/23 13:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130			11/03/23 09:36	11/03/23 13:32	1
o-Terphenyl	139	S1+	70 - 130			11/03/23 09:36	11/03/23 13:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		5.02	mg/Kg			11/07/23 09:46	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: FS 42

Lab Sample ID: 880-35219-6

Date Collected: 10/30/23 14:35

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 2

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		11/04/23 17:22	11/06/23 14:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 14:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 14:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/04/23 17:22	11/06/23 14:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 14:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/04/23 17:22	11/06/23 14:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			11/04/23 17:22	11/06/23 14:29	1
1,4-Difluorobenzene (Surr)	113		70 - 130			11/04/23 17:22	11/06/23 14:29	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/06/23 14:29	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			11/03/23 13:54	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	<50.3	U	50.3	mg/Kg		11/03/23 09:36	11/03/23 13:54	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		11/03/23 09:36	11/03/23 13:54	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		11/03/23 09:36	11/03/23 13:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130			11/03/23 09:36	11/03/23 13:54	1
o-Terphenyl	140	S1+	70 - 130			11/03/23 09:36	11/03/23 13:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	142		4.98	mg/Kg			11/07/23 09:51	1

Client Sample ID: FS 43

Lab Sample ID: 880-35219-7

Date Collected: 10/30/23 14:40

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 2

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		11/04/23 17:22	11/06/23 14:50	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 14:50	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 14:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 14:50	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 14:50	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 14:50	1

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Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: FS 43

Lab Sample ID: 880-35219-7

Date Collected: 10/30/23 14:40

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	11/04/23 17:22	11/06/23 14:50	1
1,4-Difluorobenzene (Surr)	113		70 - 130	11/04/23 17:22	11/06/23 14:50	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			11/06/23 14:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			11/03/23 14:17	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	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 14:17	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 14:17	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		11/03/23 09:36	11/03/23 14:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	157	S1+	70 - 130			11/03/23 09:36	11/03/23 14:17	1
o-Terphenyl	149	S1+	70 - 130			11/03/23 09:36	11/03/23 14:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	565		4.99	mg/Kg			11/07/23 09:57	1

Client Sample ID: SW 9

Lab Sample ID: 880-35219-8

Date Collected: 10/31/23 13:00

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 15:10	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 15:10	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 15:10	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		11/04/23 17:22	11/06/23 15:10	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 15:10	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		11/04/23 17:22	11/06/23 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	11/04/23 17:22	11/06/23 15:10	1
1,4-Difluorobenzene (Surr)	110		70 - 130	11/04/23 17:22	11/06/23 15:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			11/06/23 15:10	1

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Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW 9

Lab Sample ID: 880-35219-8

Date Collected: 10/31/23 13:00

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			11/03/23 14:39	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	<50.4	U	50.4	mg/Kg		11/03/23 09:36	11/03/23 14:39	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		11/03/23 09:36	11/03/23 14:39	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		11/03/23 09:36	11/03/23 14:39	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130			11/03/23 09:36	11/03/23 14:39	1
o-Terphenyl	144	S1+	70 - 130			11/03/23 09:36	11/03/23 14:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	435		4.98	mg/Kg			11/07/23 10:03	1

Client Sample ID: SW 10

Lab Sample ID: 880-35219-9

Date Collected: 10/31/23 13:05

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

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		11/04/23 17:22	11/06/23 17:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 17:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 17:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 17:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/04/23 17:22	11/06/23 17:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/04/23 17:22	11/06/23 17:01	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130			11/04/23 17:22	11/06/23 17:01	1
1,4-Difluorobenzene (Surr)	104		70 - 130			11/04/23 17:22	11/06/23 17:01	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			11/06/23 17:01	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/03/23 15:01	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	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:01	1

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Client Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW 10

Lab Sample ID: 880-35219-9

Date Collected: 10/31/23 13:05

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 0-2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	11/03/23 09:36	11/03/23 15:01	1
o-Terphenyl	146	S1+	70 - 130	11/03/23 09:36	11/03/23 15:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	164		5.01	mg/Kg			11/07/23 10:08	1

Client Sample ID: FS 44

Lab Sample ID: 880-35219-10

Date Collected: 10/31/23 14:00

Matrix: Solid

Date Received: 11/02/23 10:51

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/04/23 17:22	11/06/23 17:21	1
<hr/>								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			11/04/23 17:22	11/06/23 17:21	1
1,4-Difluorobenzene (Surr)	115		70 - 130			11/04/23 17:22	11/06/23 17:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/06/23 17:21	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/03/23 15:44	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	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/03/23 09:36	11/03/23 15:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	159	S1+	70 - 130			11/03/23 09:36	11/03/23 15:44	1
o-Terphenyl	148	S1+	70 - 130			11/03/23 09:36	11/03/23 15:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	402		5.02	mg/Kg			11/07/23 10:14	1

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Surrogate Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-35219-1	SW05	93	112				
880-35219-2	SW06	94	107				
880-35219-3	SW07	101	108				
880-35219-4	SW08	101	107				
880-35219-5	FS 41	99	104				
880-35219-6	FS 42	98	113				
880-35219-7	FS 43	96	113				
880-35219-8	SW 9	102	110				
880-35219-9	SW 10	81	104				
880-35219-10	FS 44	98	115				
LCS 880-66217/1-A	Lab Control Sample	87	108				
LCSD 880-66217/2-A	Lab Control Sample Dup	93	108				
MB 880-66217/5-A	Method Blank	106	149 S1+				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
880-35219-1	SW05	162 S1+	155 S1+				
880-35219-2	SW06	157 S1+	150 S1+				
880-35219-3	SW07	178 S1+	171 S1+				
880-35219-4	SW08	152 S1+	141 S1+				
880-35219-5	FS 41	144 S1+	139 S1+				
880-35219-6	FS 42	149 S1+	140 S1+				
880-35219-7	FS 43	157 S1+	149 S1+				
880-35219-8	SW 9	151 S1+	144 S1+				
880-35219-9	SW 10	151 S1+	146 S1+				
880-35219-10	FS 44	159 S1+	148 S1+				
LCS 880-66134/2-A	Lab Control Sample	106	117				
LCSD 880-66134/3-A	Lab Control Sample Dup	102	110				
MB 880-66134/1-A	Method Blank	219 S1+	213 S1+				
Surrogate Legend							
1CO = 1-Chlorooctane							
OTPH = o-Terphenyl							

QC Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-66217/5-A

Matrix: Solid

Analysis Batch: 66220

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66217

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 11:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 11:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/04/23 17:22	11/06/23 11:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/04/23 17:22	11/06/23 11:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/04/23 17:22	11/06/23 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	11/04/23 17:22	11/06/23 11:37	1
1,4-Difluorobenzene (Surr)	149	S1+	70 - 130	11/04/23 17:22	11/06/23 11:37	1

Lab Sample ID: LCS 880-66217/1-A

Matrix: Solid

Analysis Batch: 66220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66217

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08978		mg/Kg		90	70 - 130
Toluene	0.100	0.08009		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.07424		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	0.200	0.1692		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08224		mg/Kg		82	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-66217/2-A

Matrix: Solid

Analysis Batch: 66220

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 66217

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1015		mg/Kg		101	70 - 130	12	35
Toluene	0.100	0.08627		mg/Kg		86	70 - 130	7	35
Ethylbenzene	0.100	0.08339		mg/Kg		83	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.1882		mg/Kg		94	70 - 130	11	35
o-Xylene	0.100	0.09193		mg/Kg		92	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

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

Lab Sample ID: MB 880-66134/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 66125						Prep Batch: 66134			
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		11/03/23 07:36	11/03/23 08:26	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/03/23 07:36	11/03/23 08:26	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/03/23 07:36	11/03/23 08:26	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	219	S1+	70 - 130			11/03/23 07:36	11/03/23 08:26	1	
o-Terphenyl	213	S1+	70 - 130			11/03/23 07:36	11/03/23 08:26	1	

Lab Sample ID: LCS 880-66134/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 66125						Prep Batch: 66134			
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10		1000	915.5		mg/Kg		92	70 - 130	
Diesel Range Organics (Over C10-C28)		1000	993.8		mg/Kg		99	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	106		70 - 130						
o-Terphenyl	117		70 - 130						

Lab Sample ID: LCSD 880-66134/3-A						Client Sample ID: Lab Control Sample Dup			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 66125						Prep Batch: 66134			
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Gasoline Range Organics (GRO)-C6-C10		1000	892.9		mg/Kg		89	70 - 130	3 20
Diesel Range Organics (Over C10-C28)		1000	943.7		mg/Kg		94	70 - 130	5 20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	102		70 - 130						
o-Terphenyl	110		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-66079/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Soluble			
Analysis Batch: 66353									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00	mg/Kg			11/07/23 07:30	1	

QC Sample Results

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-66079/2-A				Client Sample ID: Lab Control Sample						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 66353										
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride			250	253.4		mg/Kg		101	90 - 110	

Lab Sample ID: LCSD 880-66079/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 66353										
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Chloride			250	253.3		mg/Kg		101	90 - 110	0 20

Lab Sample ID: 880-35219-2 MS				Client Sample ID: SW06						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 66353										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	133		248	395.0		mg/Kg		106	90 - 110	

Lab Sample ID: 880-35219-2 MSD				Client Sample ID: SW06						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 66353										
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Chloride	133		248	390.8		mg/Kg		104	90 - 110	1 20

QC Association Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

GC VOA

Prep Batch: 66217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	5035	
880-35219-2	SW06	Total/NA	Solid	5035	
880-35219-3	SW07	Total/NA	Solid	5035	
880-35219-4	SW08	Total/NA	Solid	5035	
880-35219-5	FS 41	Total/NA	Solid	5035	
880-35219-6	FS 42	Total/NA	Solid	5035	
880-35219-7	FS 43	Total/NA	Solid	5035	
880-35219-8	SW 9	Total/NA	Solid	5035	
880-35219-9	SW 10	Total/NA	Solid	5035	
880-35219-10	FS 44	Total/NA	Solid	5035	
MB 880-66217/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66217/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66217/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 66220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	8021B	66217
880-35219-2	SW06	Total/NA	Solid	8021B	66217
880-35219-3	SW07	Total/NA	Solid	8021B	66217
880-35219-4	SW08	Total/NA	Solid	8021B	66217
880-35219-5	FS 41	Total/NA	Solid	8021B	66217
880-35219-6	FS 42	Total/NA	Solid	8021B	66217
880-35219-7	FS 43	Total/NA	Solid	8021B	66217
880-35219-8	SW 9	Total/NA	Solid	8021B	66217
880-35219-9	SW 10	Total/NA	Solid	8021B	66217
880-35219-10	FS 44	Total/NA	Solid	8021B	66217
MB 880-66217/5-A	Method Blank	Total/NA	Solid	8021B	66217
LCS 880-66217/1-A	Lab Control Sample	Total/NA	Solid	8021B	66217
LCSD 880-66217/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66217

Analysis Batch: 66396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	Total BTEX	
880-35219-2	SW06	Total/NA	Solid	Total BTEX	
880-35219-3	SW07	Total/NA	Solid	Total BTEX	
880-35219-4	SW08	Total/NA	Solid	Total BTEX	
880-35219-5	FS 41	Total/NA	Solid	Total BTEX	
880-35219-6	FS 42	Total/NA	Solid	Total BTEX	
880-35219-7	FS 43	Total/NA	Solid	Total BTEX	
880-35219-8	SW 9	Total/NA	Solid	Total BTEX	
880-35219-9	SW 10	Total/NA	Solid	Total BTEX	
880-35219-10	FS 44	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 66125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	8015B NM	66134
880-35219-2	SW06	Total/NA	Solid	8015B NM	66134
880-35219-3	SW07	Total/NA	Solid	8015B NM	66134

QC Association Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

GC Semi VOA (Continued)

Analysis Batch: 66125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-4	SW08	Total/NA	Solid	8015B NM	66134
880-35219-5	FS 41	Total/NA	Solid	8015B NM	66134
880-35219-6	FS 42	Total/NA	Solid	8015B NM	66134
880-35219-7	FS 43	Total/NA	Solid	8015B NM	66134
880-35219-8	SW 9	Total/NA	Solid	8015B NM	66134
880-35219-9	SW 10	Total/NA	Solid	8015B NM	66134
880-35219-10	FS 44	Total/NA	Solid	8015B NM	66134
MB 880-66134/1-A	Method Blank	Total/NA	Solid	8015B NM	66134
LCS 880-66134/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	66134
LCSD 880-66134/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	66134

Prep Batch: 66134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	8015NM Prep	
880-35219-2	SW06	Total/NA	Solid	8015NM Prep	
880-35219-3	SW07	Total/NA	Solid	8015NM Prep	
880-35219-4	SW08	Total/NA	Solid	8015NM Prep	
880-35219-5	FS 41	Total/NA	Solid	8015NM Prep	
880-35219-6	FS 42	Total/NA	Solid	8015NM Prep	
880-35219-7	FS 43	Total/NA	Solid	8015NM Prep	
880-35219-8	SW 9	Total/NA	Solid	8015NM Prep	
880-35219-9	SW 10	Total/NA	Solid	8015NM Prep	
880-35219-10	FS 44	Total/NA	Solid	8015NM Prep	
MB 880-66134/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-66134/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-66134/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 66275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Total/NA	Solid	8015 NM	
880-35219-2	SW06	Total/NA	Solid	8015 NM	
880-35219-3	SW07	Total/NA	Solid	8015 NM	
880-35219-4	SW08	Total/NA	Solid	8015 NM	
880-35219-5	FS 41	Total/NA	Solid	8015 NM	
880-35219-6	FS 42	Total/NA	Solid	8015 NM	
880-35219-7	FS 43	Total/NA	Solid	8015 NM	
880-35219-8	SW 9	Total/NA	Solid	8015 NM	
880-35219-9	SW 10	Total/NA	Solid	8015 NM	
880-35219-10	FS 44	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 66079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Soluble	Solid	DI Leach	
880-35219-2	SW06	Soluble	Solid	DI Leach	
880-35219-3	SW07	Soluble	Solid	DI Leach	
880-35219-4	SW08	Soluble	Solid	DI Leach	
880-35219-5	FS 41	Soluble	Solid	DI Leach	
880-35219-6	FS 42	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

HPLC/IC (Continued)

Leach Batch: 66079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-7	FS 43	Soluble	Solid	DI Leach	
880-35219-8	SW 9	Soluble	Solid	DI Leach	
880-35219-9	SW 10	Soluble	Solid	DI Leach	
880-35219-10	FS 44	Soluble	Solid	DI Leach	
MB 880-66079/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-66079/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-66079/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-35219-2 MS	SW06	Soluble	Solid	DI Leach	
880-35219-2 MSD	SW06	Soluble	Solid	DI Leach	

Analysis Batch: 66353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35219-1	SW05	Soluble	Solid	300.0	66079
880-35219-2	SW06	Soluble	Solid	300.0	66079
880-35219-3	SW07	Soluble	Solid	300.0	66079
880-35219-4	SW08	Soluble	Solid	300.0	66079
880-35219-5	FS 41	Soluble	Solid	300.0	66079
880-35219-6	FS 42	Soluble	Solid	300.0	66079
880-35219-7	FS 43	Soluble	Solid	300.0	66079
880-35219-8	SW 9	Soluble	Solid	300.0	66079
880-35219-9	SW 10	Soluble	Solid	300.0	66079
880-35219-10	FS 44	Soluble	Solid	300.0	66079
MB 880-66079/1-A	Method Blank	Soluble	Solid	300.0	66079
LCS 880-66079/2-A	Lab Control Sample	Soluble	Solid	300.0	66079
LCSD 880-66079/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	66079
880-35219-2 MS	SW06	Soluble	Solid	300.0	66079
880-35219-2 MSD	SW06	Soluble	Solid	300.0	66079

Lab Chronicle

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW05

Date Collected: 10/30/23 14:05

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 12:47
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 12:47
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 12:06
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 12:06
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:00

Client Sample ID: SW06

Date Collected: 10/30/23 14:10

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 13:07
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 13:07
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 12:28
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 12:28
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:06

Client Sample ID: SW07

Date Collected: 10/30/23 14:15

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 13:28
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 13:28
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 12:49
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 12:49
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:23

Client Sample ID: SW08

Date Collected: 10/30/23 14:20

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 13:48

Lab Chronicle

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: SW08
Date Collected: 10/30/23 14:20
Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 13:48
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 13:10
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 13:10
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:29

Client Sample ID: FS 41
Date Collected: 10/30/23 14:30
Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 14:09
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 14:09
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 13:32
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 13:32
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:46

Client Sample ID: FS 42
Date Collected: 10/30/23 14:35
Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 14:29
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 14:29
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 13:54
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 13:54
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:51

Client Sample ID: FS 43
Date Collected: 10/30/23 14:40
Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 14:50
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 14:50
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 14:17

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: FS 43

Date Collected: 10/30/23 14:40

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 14:17
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 09:57

Client Sample ID: SW 9

Date Collected: 10/31/23 13:00

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 15:10
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 15:10
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 14:39
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 14:39
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 10:03

Client Sample ID: SW 10

Date Collected: 10/31/23 13:05

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 17:01
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 17:01
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 15:01
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 15:01
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 10:08

Client Sample ID: FS 44

Date Collected: 10/31/23 14:00

Date Received: 11/02/23 10:51

Lab Sample ID: 880-35219-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			66217	EL	EET MID	11/04/23 17:22
Total/NA	Analysis	8021B		1	66220	MNR	EET MID	11/06/23 17:21
Total/NA	Analysis	Total BTEX		1	66396	SM	EET MID	11/06/23 17:21
Total/NA	Analysis	8015 NM		1	66275	SM	EET MID	11/03/23 15:44
Total/NA	Prep	8015NM Prep			66134	TKC	EET MID	11/03/23 09:36
Total/NA	Analysis	8015B NM		1	66125	SM	EET MID	11/03/23 15:44

Lab Chronicle

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Client Sample ID: FS 44 Lab Sample ID: 880-35219-10
Date Collected: 10/31/23 14:00 Matrix: Solid
Date Received: 11/02/23 10:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			66079	SMC	EET MID	11/02/23 13:01
Soluble	Analysis	300.0		1	66353	CH	EET MID	11/07/23 10:14

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

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	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

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	EPA	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
- EPA = US Environmental Protection Agency
- 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: BFU Connector AW Booster Mobley Ranch
Pipeline

Job ID: 880-35219-1
SDG: 32.2907, -103.86159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-35219-1	SW05	Solid	10/30/23 14:05	11/02/23 10:51	0-2
880-35219-2	SW06	Solid	10/30/23 14:10	11/02/23 10:51	0-2
880-35219-3	SW07	Solid	10/30/23 14:15	11/02/23 10:51	0-2
880-35219-4	SW08	Solid	10/30/23 14:20	11/02/23 10:51	0-2
880-35219-5	FS 41	Solid	10/30/23 14:30	11/02/23 10:51	2
880-35219-6	FS 42	Solid	10/30/23 14:35	11/02/23 10:51	2
880-35219-7	FS 43	Solid	10/30/23 14:40	11/02/23 10:51	2
880-35219-8	SW 9	Solid	10/31/23 13:00	11/02/23 10:51	0-2
880-35219-9	SW 10	Solid	10/31/23 13:05	11/02/23 10:51	0-2
880-35219-10	FS 44	Solid	10/31/23 14:00	11/02/23 10:51	2



Environment Testing
Xenco

Chain of Custody

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

Work Order



880-35219 Chain of Custody

www.xt

Project Manager:	Ben Belli	Bill to: (if different)	Garrett Green
Company Name:	Ensolv LLC	Company Name:	XTO Energy
Address:	3122 National Parkway	Address:	3104 E Greentree
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	989-854-0852	Email:	BBelli@ensolv.com

Project Name:	BU connector Boosting Pump	Pres. Code	
Project Number:	361558015	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	
Project Location:	322907-103.66159	Due Date:	
Sampler's Name:	Sarah Wong	TAT starts the day received by the lab, if received by 4:30pm	
PO #			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	Parameters		Pres. Code	ANALYSIS REQUEST	Preservative Codes
						Temp Blank:	Wet Ice			
SW03	S	10/30/23	14.05	0-2	C	1				None NO
SW06	S	10/30/23	14.10	0-2						Cool Cool
SW07	S	10/30/23	14.15	0-2						HCL HC
SW08	S	10/30/23	14.20	0-2						H ₂ SO ₄ H ₂
FS41	S	10/30/23	14.30	2						H ₃ PO ₄ HP
FS42	S	10/30/23	14.35	2						NaHSO ₄ NABIS
FS43	S	10/30/23	14.40	2						Na ₂ S ₂ O ₃ NaSO ₃
SW64	S	10/31/23	13.00	0-2						Zn Acetate+NaOH Zn
SW10	S	10/31/23	13.05	0-2						NaOH+Ascorbic Acid SAPC
FS44	S	10/31/23	14.00	2						

Total	200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg 1631 / 245 1 / 7470 / 7471		

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 <i>[Signature]</i>	2 <i>[Signature]</i>	10/31	3 <i>[Signature]</i>	4 <i>[Signature]</i>	11/2/23
3 <i>[Signature]</i>	4 <i>[Signature]</i>		5 <i>[Signature]</i>	6 <i>[Signature]</i>	1051

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-35219-1
SDG Number: 32.2907, -103.86159

Login Number: 35219
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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



APPENDIX D

NMOCD Correspondence

From: [Wells, Shelly, EMNRD](#)
To: [Collins, Melanie](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Cc: [Green, Garrett J](#); [Ben Belill](#); [Tacoma Morrissey](#); [Lambert, Tommee L](#); [DelawareSpills /SM](#)
Subject: RE: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)
Date: Thursday, October 12, 2023 4:26:05 PM
Attachments: [image001.png](#)

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

[**EXTERNAL EMAIL**]

Hi Melanie,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. When reporting sampling at multiple locations it is required to provide the anticipated start time for each location. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, October 12, 2023 2:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 10/16/23 - 10/20/23)

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

All,

XTO plans to complete final sampling activities at the sites listed below for the week of October 16,

2023.

Monday – October 16, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 18 TWR Sat Battery / nAPP2230551957

Tuesday - October 17, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Wednesday - October 18, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thursday - October 19, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229
- PLU 23 Dog Town Draw 154H / nAPP2316446382

Friday - October 20, 2023

- BEU Connector PW Booster / nAPP2213151424
- Mobley Ranch Pipeline / nAPP2316045229

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: [Wells, Shelly, EMNRD](#)
To: [Collins, Melanie](#); [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hall, Brittany, EMNRD](#)
Cc: [Green, Garrett J](#); [Ben Belill](#); [Lambert, Tommee L](#); [DelawareSpills /SM](#); [Tacoma Morrissey](#)
Subject: RE: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23
Date: Wednesday, October 18, 2023 4:58:27 PM
Attachments: [image001.png](#)

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

[**EXTERNAL EMAIL**]

Hi Melanie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Wednesday, October 18, 2023 3:16 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] XTO Sampling notifications Week of 10.23.23-10.27.23

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

Ok, Shelly, ask and you shall receive—haha! Let me know if you'd like them sent individually in the future, or if it is ok to send in bulk like this.

XTO plans to complete final sampling activities at the sites listed below for the week of October 23.2023 between 8 a.m. and 5 p.m. Please reach out with questions or concerns.

Thank you!

Site Name	BEU Connector PW Booster
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2213151424
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Mobley Ranch Pipeline
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2316045229
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.23.23-10.27.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	JRU 91 Flowline
Location	K-36-22S-30E; Eddy County, NM
Incident ID	NAB1515234386
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Remuda 4-24-20
-----------	----------------

Location	A-04-24S-30E; Eddy County, NM
Incident ID	nAPP2233351770
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.23.2023
Env Consultant	Ensolum
Contractor	NA
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	PLU CVX JV BS 008H
Location	N-14-25S-30E; Eddy County, NM
Incident ID	nAB1602154960
Source & Description of Activities	Sampling
Expected Duration for Activities	1 Day 10.24.2023
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Site Name	Poker Lake Unit 315H
Location	P-24-24S-30E; Eddy County, NM
Incident ID	nAPP2324233432
Source & Description of Activities	Sampling
Expected Duration for Activities	3 Days 10.25.23-10.27.23
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	BLM

Thank you,

Melanie Collins



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

From: [Rodgers, Scott, EMNRD](#)
To: [Collins, Melanie](#); spills@slo.state.nm.us; [Hamlet, Robert, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)
Cc: [Green, Garrett J](#); [Ben Belill](#); [DelawareSpills /SM](#); [Lambert, Tommee L](#)
Subject: RE: [EXTERNAL] XTO - Sampling Notification (Week of 10/30/23 - 11/3/23)
Date: Wednesday, October 25, 2023 5:59:47 PM
Attachments: [image003.png](#)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

[**EXTERNAL EMAIL**]

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Scott Rodgers • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113
505.469.1830 | scott.rodgers@emnrd.nm.gov
<http://www.emnrd.nm.gov/oecd>



From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Wednesday, October 25, 2023 3:11 PM
To: spills@slo.state.nm.us; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Green, Garrett J <garrett.green@exxonmobil.com>; bbelill@ensolum.com; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Lambert, Tommee L <tommee.l.lambert@exxonmobil.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 10/30/23 - 11/3/23)

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

XTO plans to complete final sampling activities at the sites listed below for the week of October 30, 2023, between 8 a.m. and 5 p.m MST.

Thank you,

Site Name	BEU Connector PW Booster
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2213151424
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.30.23-11.3.23)

Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Mobley Ranch Pipeline
Location	H-22-23S-30E; Eddy County, NM
Incident ID	nAPP2316045229
Source & Description of Activities	Sampling
Expected Duration for Activities	5 Days (10.30.23-11.3.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Site Name	Hat Mesa 32-2
Location	C-32-20S-33E; Lea County, NM
Incident ID	nAPP2316046257
Source & Description of Activities	Sampling
Expected Duration for Activities	4 Days (10.31.23-11.3.23)
Env Consultant	Ensolum
Contractor	Tex Mex
Sampling Notification Required	Yes
Surface Owner	SLO

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

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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

QUESTIONS

Action 354059

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 354059
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2316045229
Incident Name	NAPP2316045229 MOBLEY RANCH @ 0
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received

Location of Release Source

Please answer all the questions in this group.

Site Name	MOBLEY RANCH
Date Release Discovered	05/27/2023
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Gasket Produced Water Released: 9 BBL Recovered: 2 BBL Lost: 7 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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Santa Fe, NM 87505

QUESTIONS, Page 2

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	354059
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 06/13/2024
--	--

District I

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Santa Fe, NM 87505

QUESTIONS, Page 3

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	354059
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	565
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	0
GRO+DRO	(EPA SW-846 Method 8015M)	0
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	10/18/2024
On what date will (or did) the final sampling or liner inspection occur	11/02/2023
On what date will (or was) the remediation complete(d)	12/13/2023
What is the estimated surface area (in square feet) that will be reclaimed	27750
What is the estimated volume (in cubic yards) that will be reclaimed	4000
What is the estimated surface area (in square feet) that will be remediated	27750
What is the estimated volume (in cubic yards) that will be remediated	4000

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 4

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	354059
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 06/13/2024
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 354059
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	354059
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	354072
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/02/2023
What was the (estimated) number of samples that were to be gathered	60
What was the sampling surface area in square feet	27750

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	27750
What was the total volume (cubic yards) remediated	4000
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	27750
What was the total volume (in cubic yards) reclaimed	4000
Summarize any additional remediation activities not included by answers (above)	Excavation activities were conducted at the Site in accordance with the approved Work Plan and Work Plan Update to address the two produced water releases at the Site. Laboratory analytical results for all excavation soil samples indicate all COC concentrations were compliant with the Closure Criteria and reclamation requirement. Based on the soil sample laboratory analytical results, no further remediation is required. The excavation has been backfilled with material purchased locally and the Site has been recontoured to match pre-existing site conditions.

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 06/13/2024
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QUESTIONS, Page 7

Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	354059
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS**Reclamation Report**

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	27750
What was the total volume of replacement material (in cubic yards) for this site	4000

Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	07/12/2024

Summarize any additional reclamation activities not included by answers (above)	Following backfill activities, the disturbed area was contoured to match the surrounding topography and the surface was prepared for seeding. Upon confirmation that the excavation was backfilled with non-waste containing material, the disturbed pasture area will be seeded with a certified weed-free seed mix. The NMSLO Sandy Site Seed Mixture will be used to seed the Site. The seed mix will be applied via drill seeding. The Site will be monitored for vegetation growth to ensure that reclamation activities were successful.
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The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.

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.

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 06/13/2024
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Action 354059

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 354059
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 354059

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	354059
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	6/25/2024