



January 28, 2026

New Mexico Oil Conservation Division

New Mexico Energy, Minerals, and Natural Resources Department
1220 South Street, Francis Drive
Santa Fe, New Mexico 87505

**Re: 2026 Remediation Work Plan
Remuda Basin Battery Unit #1
Incident Number NHMP1413240586
Facility ID fAPP2126043451
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *2026 Remediation Work Plan (RWP)* to propose additional remedial activities to address impacted soil resulting from the April 27, 2014, produced water release at the Remuda Basin Battery Unit #1 (Site). On May 12, 2020, a *Deferral Request* was prepared on behalf of XTO by LT Environmental, Inc. (LTE) and submitted to the New Mexico Oil Conservation Division (NMOCD) documenting delineation soil sampling and excavation activities completed at the Site. NMOCD approved XTO's deferral request on September 27, 2022, with the stipulation that final remediation of the remaining impacted soil would occur during any future major deconstruction, alteration and/or abandonment. The following *RWP* summarizes remediation activities conducted following decommissioning of the Site and proposes additional remedial activities in support of requesting No Further Action (NFA) for Incident Number NHMP1413240586.

SITE DESCRIPTION AND RELEASE BACKGROUND

The Site is located in Unit J, Section 24, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.2886238°, -103.9360428°) and is associated with oil and gas exploration and production operations on land that is owned by the New Mexico State Land Office (NMSLO).

On April 27, 2014, a produced water transfer pump failed to start due to blown fuses, causing approximately 15 barrels (bbls) of produced water to release within and around the tank battery containment and just into the pasture area south of the tank battery. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on May 8, 2014 and was assigned Remediation Permit (RP) Number 2RP-2296 and Incident Number NHMP1413240586.

Delineation sampling and excavation were conducted in 2019 and 2020 by LTE to address impacts from the release. A liner from historical remediation activities was encountered at 4 feet below ground surface (bgs) north of the tank battery. Impacted soil was excavated from four separate areas around the tank containment, and confirmation samples were collected from the excavations. The northern extent of the excavation was limited due to the presence of the active tank battery. The combined excavations measured approximately 1,400 square feet in area with depths ranging from approximately 2.5 feet to 9 feet bgs. Approximately 650 cubic yards of impacted soil were excavated from the Site; however,

XTO Energy, Inc.
2026 Remediation Work Plan
Remuda Basin Battery Unit #1

residual impacted soil was left in place for compliance with the XTO safety policy regarding earth moving activities within 2 feet of active production equipment. XTO requested a deferral for two sidewall sampling locations (SW04 and SW05) in the May 12, 2020 *Deferral Request* submitted to the NMOCD. The *Deferral Request* is included as Appendix A. NMOCD approved XTO's deferral request on September 27, 2022 with the requirement that remediation of the remaining impacted soil would occur during any future major deconstruction, alteration and/or abandonment.

CLOSURE CRITERIA

Based on the results of the Site Characterization, which was documented in the May 12, 2020 *Deferral Request*, 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): 100 mg/kg; and
- Chloride: 600 mg/kg.

Potential Site receptors are identified on Figure 1.

NMSLO CULTURAL RESOURCES AND BIOLOGICAL REVIEW

Cultural Properties Protection

- A Class III Cultural Resource Inventory was conducted immediately north of the Site at Incident Number NAB1836137253 in May 2019 (New Mexico Cultural Resource Information System [NMCRIS] No. 143058). The investigation reported a finding of No Historic Properties Affected for the adjacent property to the north and including the northern half of this Site.
- The intent of the Site remediation and reclamation is to restore habitat and vegetation cover/composition to pre-disturbance conditions.
- Based on results of the delineation data, remediation and reclamation activities are anticipated to remain in previously disturbed areas of the well pad. If any surface disturbing activities encroach into undisturbed areas, the Cultural Properties Protection (CPP) Rule will be followed.

Biological Review

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils.

- The Site is not located within the historical range of the Lesser Prairie-Chicken habitat; however, the Site is located within an NMSLO Candidate Conservation Agreement with Assurances (CCAA) area.
 - Measures to comply with the CCAA include restoration of habitat by reclamation of the well pad and revegetation with native species.
 - Construction activities will be avoided during breeding, nesting, and early brood-rearing seasons.
- The Site is not located within the range of the Dunes Sagebrush Lizard.

XTO Energy, Inc.
2026 Remediation Work Plan
Remuda Basin Battery Unit #1

- The Site is not located within the CCAA boundary for the Texas Hornshell mussel.
- A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no potential critical habitats at the Site.
 - Threatened and non-essential experimental population bird species (Piping Plover and Northern Aplomado Falcon, respectively) are potentially present in the area near the Site.
 - Endangered clam species (Texas Hornshell) are potentially present in the area near the Site.
 - Proposed threatened insect species (Monarch Butterfly) are possibly present in the area near the Site.
 - No native vegetation/habitat outside of the well pad extent will be disturbed during remediation activities.
 - If remediation activities extend outside of the well pad extent, a biological survey will be completed.
- The Site is located in a high-potential karst area so the strictest Closure Criteria was applied for the release.
- The depth to groundwater is documented to be just over 50 feet bgs near the Site.
- An intermittent dry wash is located within 300 feet of the original release extent. The Site will be monitored for sedimentation off the Site.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey classifies the soil type at the Site as Reeves-Gypsum land complex with 0 to 3 percent slopes. The NRCS description of the soil is included as Appendix B.

Summary of Reeves:

- Typical Soil Profile
 - 0 to 8 inches: Loam
 - 8 to 32 inches: Clay loam
 - 32 to 60 inches: Gypsiferous material

Properties

- Slope: 0 to 1 percent slopes
- Depth to restrictive feature: More than 80 inches
- Drainage Class: Well drained
- Runoff class: High

Summary of Gypsum Land:

- Setting
 - Landform: Ridges, plains, hills
 - Parent material: Residuum weathered from gypsum
- Remediation and reclamation activities are not expected to negatively impact sensitive receptors or sensitive soils.

XTO Energy, Inc.
2026 Remediation Work Plan
Remuda Basin Battery Unit #1

ADDITIONAL EXCAVATION AND SOIL SAMPLING ACTIVITIES

The tank battery was decommissioned prior to March 2022, and excavation of the deferred area began in 2023. The current size of the excavation is approximately 1,900 square feet by 19.5 feet bgs, and the sidewalls are appropriately sloped to comply with safety protocols. Excavations extending deeper than 20 feet bgs require a protective system designed by a registered professional engineer (PE) in accordance with OSHA 29 CFR 1926.652(b) and (c) so the excavation was terminated at 19.5 feet bgs. Sidewall and floor soil samples were collected from the current excavation between July and September 2025. All soil samples were field screened for volatile organic compounds (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. 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 samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico or Eurofins Carlsbad in Carlsbad, New Mexico, for analysis of BTEX using United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following Standard Method 4500 or EPA Method 300.0. The sampling locations were mapped utilizing a handheld Global Positioning System (GPS) unit.

A total of 10 composite soil samples were collected from the floor of the final excavation (FS01 through FS10) at a depth of 19.5 feet bgs. A total of 33 composite soil samples were collected from the sidewalls of the final excavation at depths ranging from ground surface to 4 feet bgs (SW01 through SW06, SW07A, SW08, and SW27), 4 feet to 16 feet bgs (SW09 through SW18, SW20A through SW23A, SW24 through SW26, SW28A, and SW29), 4 feet to 18 feet bgs (SW19), and 16 feet to 19.5 feet bgs (SW30 through SW33). The 43 excavation soil samples collected from the current extent of the excavation report BTEX and TPH concentrations compliant with Site Closure Criteria. Sidewall samples collected from the top four feet of soil indicate all COCs are compliant with the Closure Criteria. Seventeen out of 20 sidewall samples collected between 4 feet and 16 feet bgs are compliant with Closure Criteria. Chloride concentrations appear to increase in the clay present at a depth of 16 feet bgs beneath the gypsum layer. Chloride concentrations exceed the Closure Criteria in all 10 of the floor samples and all four of the sidewall samples collected at depths ranging from 16 feet to 19.5 feet bgs, with concentrations ranging from 608 mg/kg to 7,680 mg/kg.

A core drill was used to collect discrete soil samples at three locations (BH01 through BH03) within the excavation to determine the vertical extent of chloride impacts. Soil samples were collected every 2 feet and screened for VOCs and chloride using the methods described above, until field screenings suggested COC concentrations were compliant with Closure Criteria. Soil samples were collected and submitted using the above-described procedures for laboratory analysis of BTEX, TPH and chloride. Chloride concentrations were compliant with Closure Criteria at a depth of 26 feet bgs in BH01 and BH02, and 20 feet bgs in BH03.

Additionally, three soil borings were advanced with a core drill west, east and north (BH04, BH06, and BH07, respectively) of the excavation to delineate chloride impacts laterally. Soil samples were collected every five feet, screened, and submitted for analysis as described above. TPH and chloride concentrations exceeded Closure Criteria in the top 10 feet of the boring advanced east of the excavation (BH06). Chloride concentrations were detected above Closure Criteria at a depth of 5 feet bgs north of the excavation at sampling location BH07. All COC concentrations were compliant with Closure Criteria west of the excavation at sampling location BH04, which defines the western extent of the soil impacts. The laboratory analytical results for the 2025 excavation and delineation soil sampling locations are summarized in Table 1 and illustrated on Figure 2. The 2025 laboratory analytical reports are included as Appendix B.

XTO Energy, Inc.
2026 Remediation Work Plan
Remuda Basin Battery Unit #1

PROPOSED REMEDIATION WORK PLAN

As discussed above, chloride impacts exceeding Closure Criteria remain in place at the Site from a depth of 4 feet bgs to a maximum depth of 26 feet bgs at the Site. A liner was observed at a depth of approximately 4 feet bgs north of the tank battery during the initial remediation activities conducted at the Site. Several liners were utilized to protect potential receptors in response to illegal dumping of produced water from an unknown party, which was discovered on December 14, 2018 immediately north of the Site (Incident Number NAB1836137253). Based on the conditions present at the Site, XTO proposes the following activities be completed at the Site.

- XTO will complete lateral delineation of the impacted soil remaining at the Site to the north, east and south of the excavation utilizing a sonic drill rig. Three soil borings will be advanced to a depth of 28 feet bgs and discrete samples will be collected every five feet to define the extent of the COCs. The soil samples will be collected and submitted for analysis using the methods described above.
 - If hydrocarbon concentrations (BTEX and/or TPH) exceed Closure Criteria in samples collected from the proposed boreholes, the impacts will be excavated.
 - If chloride concentrations exceed Closure Criteria in delineation samples, the impacted soil will be excavated to a depth of 4 feet bgs and depths greater than 4 feet bgs will be covered with the proposed liner.
 - Additional step-out soil borings will be drilled until impacts are laterally delineated.
- XTO will excavate soil surrounding delineation boring BH06 to a depth of 10 feet bgs to address TPH impacts noted in the boring. Soil boring BH07 will also be excavated to a depth of 4 feet bgs to remove chloride impacts in the top 4 feet of soil to accommodate the reclamation requirement.
- XTO proposes to backfill the excavation, and any additional excavation proposed based on the delineation data, with clean, locally purchased material to a depth of 4 feet bgs and install a Bentomat ST clay liner at a depth of 4 feet bgs. The Bentomat ST clay liner is the most commonly used reinforced geosynthetic clay liner and consists of a layer of sodium bentonite between a woven and nonwoven geotextile to provide an artificial hydraulic barrier. The liner will prevent precipitation from infiltrating through the impacted soil and stop downward migration of the impacts towards groundwater. The liner will also inhibit chloride from migrating vertically toward the surface or laterally to the nearby ephemeral stream, which will add additional protection to the surface and groundwater.
- Following the installation of the liner, the excavation will be backfilled to ground surface with clean, locally purchased material, and the Site will be recontoured to match pre-existing site conditions. The backfill material will be sampled using methods described above to ensure the soil does not contain COCs above Closure Criteria.

Photographs of the excavation, drilling, liner installation and backfill activities will be submitted to the NMOCD in a *Closure Request*. The proposed work will be completed within 90 days of approval from the NMOCD and the NMSLO of the *RWP*. Following the approval of the *Closure Request* with NFA for Incident Number NHMP1413240586, the area will be reseeded with a NMSLO approved seed mixture, and the Site will be assessed for erosion control if necessary. A *Reclamation Report* will be submitted to the NMSLO prior to completion of reclamation work.

XTO Energy, Inc.
2026 Remediation Work Plan
Remuda Basin Battery Unit #1

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

Sincerely,
Ensolum, LLC



Katherine Kahn, P.G. (licensed in Wyoming)
Senior Managing Geologist



Tacoma Morrissey, M.S., P.G. (licensed in Texas)
Associate Principal

cc: Dale Woodall, XTO
Richard Kotzur, XTO
New Mexico State Land Office

Appendices:

Figure 1 Site Receptor Map
Figure 2 2025 Excavation and Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results

Appendix A May 12, 2020 *Deferral Request*
Appendix B Laboratory Analytical Reports & Chain-of-Custody Documentation (2025)

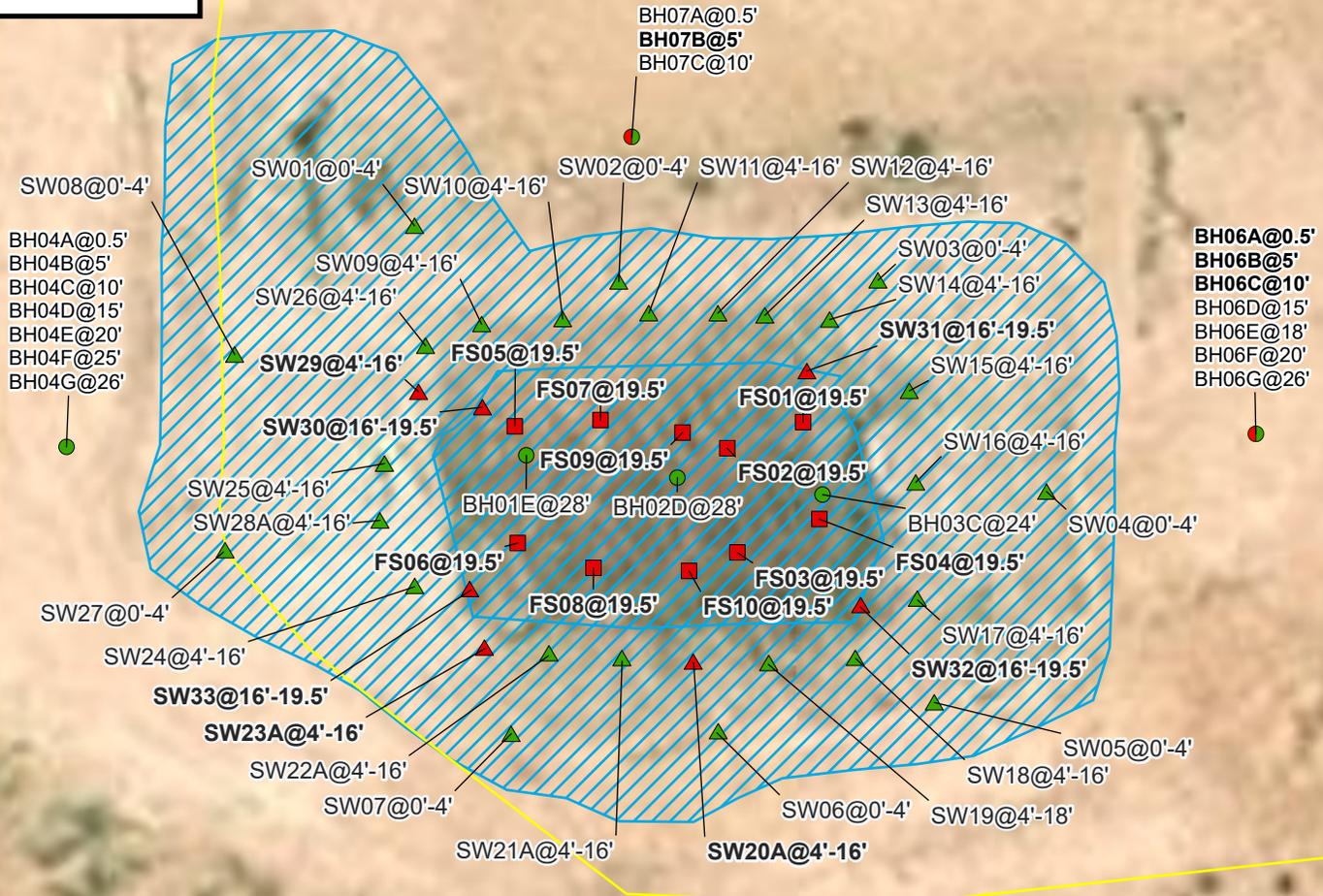


FIGURES

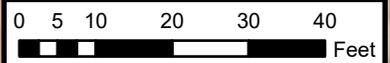


Legend

- Confirmation/ Delineation Soil Sample in Compliance with Closure Criteria
- Confirmation/ Delineation Soil Sample Compliant with Closure Criteria at Terminus Depth
- Confirmation Floor Sample with Concentrations Exceeding Closure Criteria
- ▲ Confirmation Sidewall Sample in Compliance with Closure Criteria
- ▲ Confirmation Sidewall Sample with Concentrations Exceeding Closure Criteria
- Oil and Gas Utility Line
- ▨ Excavation Extent



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable closure criteria.



Sources: Environmental Systems Research Institute (ESRI)

2025 Excavation Extent

XTO Energy, Inc
 Remuda Basin Battery Unit #1
 Incident Number: NHMP1413240586
 Unit J, Section 24, T 23S, R 29E
 Eddy County, New Mexico

FIGURE

2



TABLE



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Remuda Basin Battery Unit #1 - Spill
 XTO Energy, Inc
 Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
2025 Delineation Soil Samples										
BH01A	09/26/2025	20	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	704
BH01B	09/26/2025	22	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	832
BH01C	09/26/2025	24	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	848
BH01D	09/26/2025	26	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
BH01E	09/26/2025	28	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH02A	09/26/2025	20	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,020
BH02B	09/26/2025	22	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,970
BH02C	09/26/2025	26	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	512
BH02D	09/26/2025	28	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
BH03A	09/30/2025	20	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
BH03B	09/30/2025	22	<0.050	<0.300	<10.0	26.8	20.4	26.8	47.2	64.0
BH03C	09/30/2025	24	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH04A	10/02/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
BH04B	10/02/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
BH04C	10/02/2025	10	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
BH04D	10/02/2025	15	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
BH04E	10/02/2025	20	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
BH04F	10/02/2025	25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH04G	10/02/2025	26	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH06A	9/29/2025	0.5	<0.050	<0.300	<10.0	64.1	21.5	64.1	85.6	640
BH06B	9/29/2025	5	<0.050	<0.300	58.7	430	55.2	489	544	1,090
BH06C	9/29/2025	10	0.077	<0.300	27.4	154	15.7	181	197	656
BH06D	9/29/2025	15	0.118	<0.300	23.6	74.2	<10.0	97.8	97.8	400
BH06E	9/29/2025	18	<0.050	<0.300	<10.0	54.8	<10.0	54.8	54.8	160
BH06F	9/30/2025	20	<0.050	<0.300	<10.0	21.6	<10.0	21.6	21.6	32.0
BH06G	10/1/2025	26	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Remuda Basin Battery Unit #1 - Spill
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
BH07A	9/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	592
BH07B	9/29/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,060
BH07C	10/1/2025	10	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
2025 Confirmation Soil Samples										
FS04	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	412
FS01	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,120
FS02	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	412
FS02	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,280
FS03	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,360
FS03	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,260
FS04	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,340
FS04	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,310
FS05	7/29/2025	46	<0.050	<0.300	29.4	838	477	867	4,044	848
FS05	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,230
FS06	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608
FS06	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,180
FS07	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	460
FS07	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,600
FS08	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
FS08	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,760
FS09	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	624
FS09	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,840
FS10	7/29/2025	46	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,600
FS10	9/8/2025	19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,080
SW01	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW02	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SW03	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW04	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW05	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
SW06	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	512
SW07	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	624
SW07A	9/17/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Remuda Basin Battery Unit #1 - Spill
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW08	7/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW09	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW10	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
SW11	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW12	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW13	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
SW14	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SW15	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW16	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW17	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW18	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464
SW19	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	736
SW19	8/19/2025	4-18	<0.00199	<0.00398	<50.0	<50.0	72.5	<50.0	72.5	551
SW20	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	9,680
SW20	8/20/2025	4-18	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	672
SW20A	9/8/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608
SW21	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,320
SW21	8/20/2025	4-18	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
SW21A	9/8/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464
SW22	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,900
SW22A	9/8/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
SW23	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,710
SW23A	9/8/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,640
SW24	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW25	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW26	7/30/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW27	9/8/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW28	9/8/2025	4-16	<0.050	<0.300	<10.0	91.7	48.4	91.7	440	1,650
SW28A	9/17/2025	4-16	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	544
SW29	9/8/2025	4-16	<0.050	<0.300	<10.0	22.9	<10.0	22.9	22.9	2,600



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Remuda Basin Battery Unit #1 - Spill
XTO Energy, Inc
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW30	9/8/2025	16-19.5	<0.050	<0.300	<10.0	19.5	<10.0	19.5	19.5	7,680
SW31	9/8/2025	16-19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,760
SW32	9/8/2025	16-19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,860
SW33	9/8/2025	16-19.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,020

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 I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

May 12, 2020
Deferral Request



LT Environmental, Inc.

3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

May 12, 2020

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

**RE: Deferral Request
XTO Energy, Inc.
Remuda Basin Battery Unit #1
Remediation Permit Number 2RP-2296
Eddy County, New Mexico**

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and excavation activities at the Remuda Basin Battery Unit # 1 (Site) in Unit J, Section 24, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of these activities was to address impacts to soil resulting from a produced water release at the Site. Based on the results of the soil sampling events, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation until the Site is reconstructed, and/or the well pad is abandoned.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On April 27, 2014, a produced water transfer pump failed to start due to blown fuses, causing approximately 15 barrels (bbls) of produced water to release within and around the tank battery containment and pasture area south of the tank battery. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on May 8, 2014 and was assigned Remediation Permit (RP) Number 2RP-2296 (Attachment 1).



SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of NMAC 19.15.29.12. Depth to groundwater at the Site is estimated to be between 50 and 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) well 321717103561001, located approximately 98 feet northwest of the Site. The water well has a depth to groundwater of approximately 50.26 feet bgs. Ground surface elevation at the water well location is 3,033 feet above mean sea level (AMSL), which is approximately 3 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an intermittent stream approximately 280 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is less than 1,000 feet to a freshwater well. The Site is not within a 100-year floodplain or overlying a subsurface mine. The Site is located within a high-potential karst area.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- Total petroleum hydrocarbons (TPH): 100 mg/kg; and
- Chloride: 600 mg/kg.

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

Between November 2019 and April 2020, LTE personnel were at the Site to oversee site assessment and excavation activities.

Potholes were advanced via backhoe at 12 locations around the tank battery on the well pad and pasture area south of the well pad to assess the lateral and vertical extent impacted soil. The pothole locations were selected based on information provided on the initial Form C-141 and field observations. Potholes PH01 through PH12 were advanced to depths ranging from 1.5 feet to 9 feet bgs. Delineation soil samples were collected from the pothole from depths ranging from 1 foot to 9 feet bgs. A liner from historical remediation activities was encountered at 4 feet bgs north of the tank battery in potholes PH03, PH04, and PH11. Additional vertical delineation was not completed north of the tank battery in order to preserve the integrity of the historical liner. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips,



respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The potholes, delineation soil samples, and historical liner location are depicted on Figure 2.

Impacted soil was excavated from the release area as indicated by visual observations, field screening activities, and laboratory analytical results for the delineation soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Impacted soil was excavated from four separate areas, to depths ranging from approximately 2.5 feet to 9 feet bgs. Following removal of impacted soil to the extent possible, LTE collected five-point composite soil samples every 200 square feet from the sidewalls and floors of the excavations. The five-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW18 were collected from the sidewalls of the excavations at depths ranging from the ground surface to approximately 9 feet bgs. Composite soil samples FS01 through FS07 were collected from the floors of the excavations at depths ranging from approximately 2.5 feet to 9 feet bgs. No floor sample was collected from the excavation north of the tank battery due to the historical liner present at 4 feet bgs. Instead, the excavation in this area exposed the liner, removing all impacted soil above it. Discrete delineation samples (SW04A/SW04B/SW04C and SW05A/SW05B/SW05C/SW05D) were collected below the depth of the excavation in the area just south of the tank battery containment for additional delineation purposes. The excavation extents and excavation soil sample locations are depicted on Figure 3. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The delineation and excavation 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 shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The combined excavations measured approximately 1,400 square feet in area with depths ranging from approximately 2.5 feet to 9 feet bgs. A total of approximately 650 cubic yards of impacted soil were removed from the excavations. The impacted soil was transported and properly disposed of at the R360 Landfill located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples collected from potholes PH03, PH05, and PH08 through PH12, indicated that BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results indicated that chloride concentrations



exceeded the Closure Criteria in delineation soil samples collected from potholes PH01, PH02, PH04, PH06, and PH07. Based on laboratory analytical results for the delineation soil samples, impacted soil was excavated at those sample locations.

Laboratory analytical results for excavation sidewall samples SW02, SW03, SW06 through SW14 and SW16 through SW18, and excavation floor samples FS01 through FS07 indicated that BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and no further excavation was required in these areas.

Laboratory analytical results indicated that chloride concentrations initially exceeded the Closure Criteria in sidewall samples SW01 and SW15. Additional soil was excavated to the south of samples SW01 and SW15, and subsequent southern sidewall sample SW16 was compliant.

Laboratory analytical results indicated that chloride concentrations exceeded the Closure Criteria in sidewall samples SW04 and SW05. Further excavation of impacted soil north of sidewall samples SW04 and SW05 was limited by the presence of the active tank battery. XTO safety policy restricts soil disturbing activities to a 2-foot radius of active production equipment. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the production equipment. This policy was enforced where impacted soil was identified within 2 feet of the tank battery in sidewall samples SW04 and SW05. Discrete vertical delineation soil samples SW04A/SW04B/SW04C and SW05A/SW05B/SW05C/SW05D were collected from depths ranging from 4 feet bgs to 16 feet bgs under the northern sidewall of the excavation south of the tank battery containment to determine the maximum depth of impacted soil. Soil samples SW04C and SW05D, collected at depths of 16 feet and 14 feet, respectively, were compliant with the Closure Criteria and confirmed that impacted soil did not extent beyond 16 feet bgs.

Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

DEFERRAL REQUEST

A total of approximately 650 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place for compliance with the XTO safety policy regarding earth moving activities within 2 feet of active production equipment. Impacted soil was excavated to the extent possible, and laboratory analytical results for excavation sidewall samples SW04/SW04A/SW04B and SW05/SW05A/SW05B/SW05C collected from depths ranging from the ground surface to 12 feet bgs, indicated that soil with chloride concentrations exceeding the Closure Criteria was left in place within 2 feet of an active tank battery.

The impacted soil remaining in place is delineated vertically by subsequent discrete sidewall samples SW04C and SW05D and floor samples FS01 through FS04. The impacted soil remaining



Billings, B.
Page 5

in place is delineated laterally by excavation soil samples SW02, SW03, SW06, SW16, and delineation samples from potholes PH05, PH08 through PH10, and PH12. Impacted soil is delineated to the north by the presence of a historical liner from prior remediation activities. An estimated 2,500 cubic yards of impacted soil remains in place around and beneath the tank battery, assuming a maximum 14-foot depth based on the excavation and delineation soil samples listed above that were compliant with the Closure Criteria.

XTO requests to backfill the excavations and complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. LTE and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The impacted soil remaining in place is limited to the area immediately around and beneath the tank battery, and no saturated soil remains in-place. XTO requests deferral of final remediation for RP Number 2RP-2296. An updated NMOCD Form C-141 is included as Attachment 1.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Korey Kennedy'.

Korey Kennedy
Project Environmental Scientist

A handwritten signature in black ink that reads 'Ashley L. Ager'.

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Mike Bratcher, NMOCD
Ryan Mann, State Land Office

Attachments:

- Figure 1 Site Location Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Table 1 Soil Analytical Results
- Attachment 1 Initial/Final NMOCD Form C-141 (2RP-2296)
- Attachment 2 Lithologic / Soil Sample Logs
- Attachment 3 Photographic Log

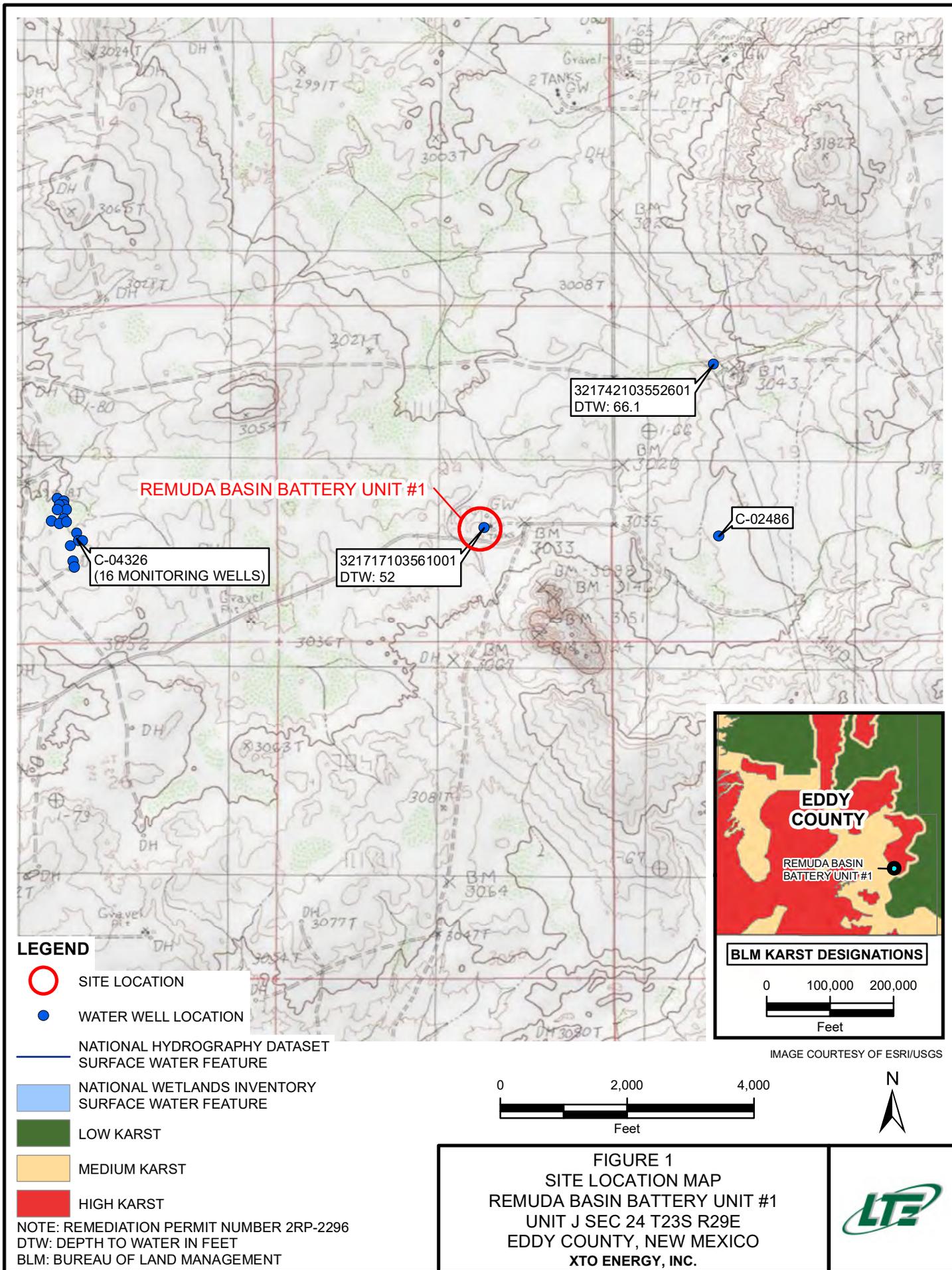


Billings, B.
Page 6

Attachment 4 Laboratory Analytical Reports

FIGURES





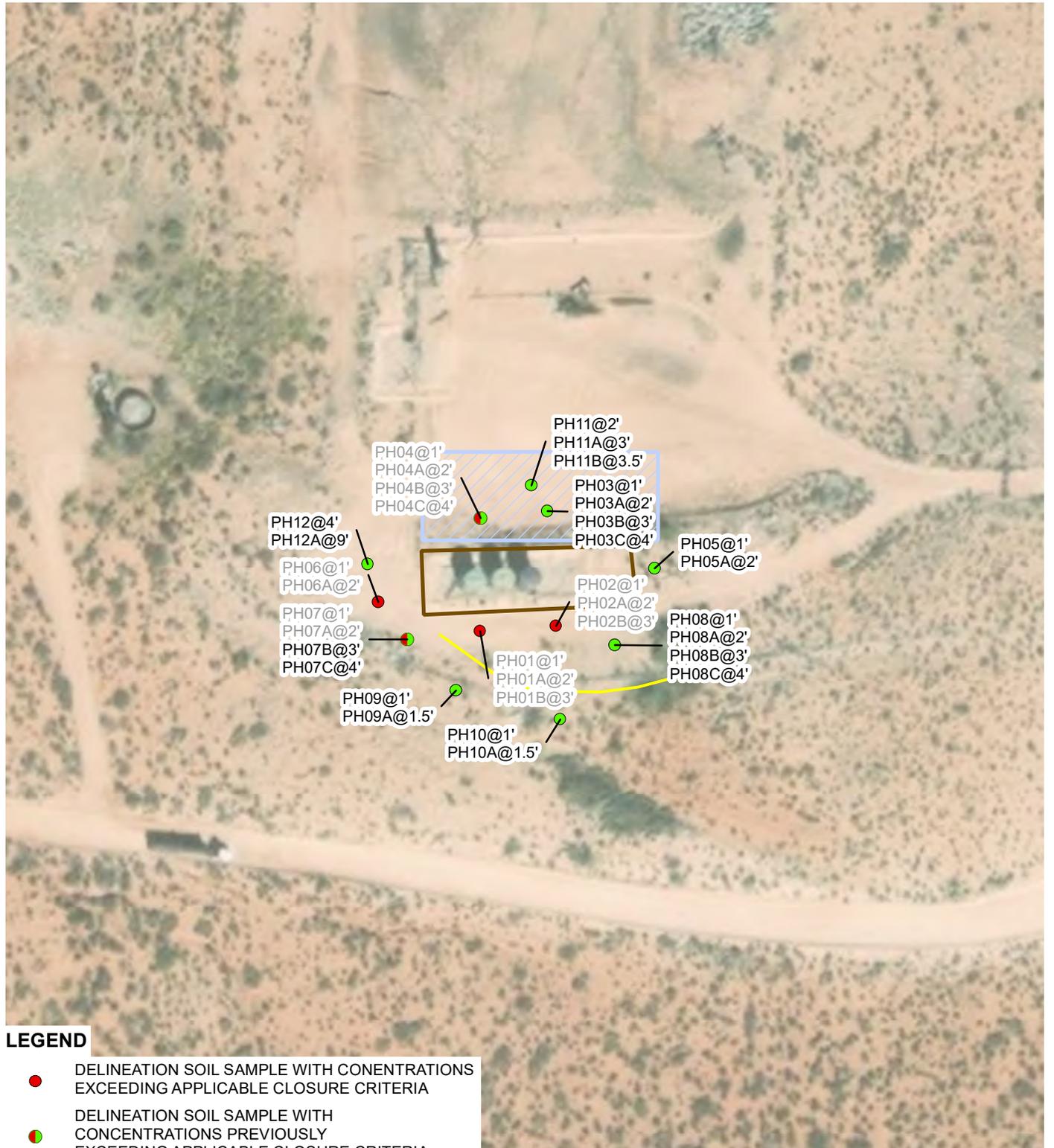


IMAGE COURTESY OF ESRI

LEGEND

- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
 - DELINEATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
 - DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
 - GAS LINE
 - APPROXIMATE HISTORICAL LINER EXTENT
 - TANK BATTERY CONTAINMENT BERM
- SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 TEXT: INDICATES SOIL SAMPLE THAT WAS EXCAVATED
 NOTE: REMEDIATION PERMIT NUMBER 2RP-2296

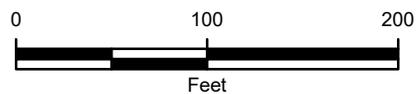


FIGURE 2
 DELINEATION SOIL SAMPLE LOCATIONS
 REMUDA BASIN BATTERY UNIT #1
 UNIT J SEC 24 T23S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



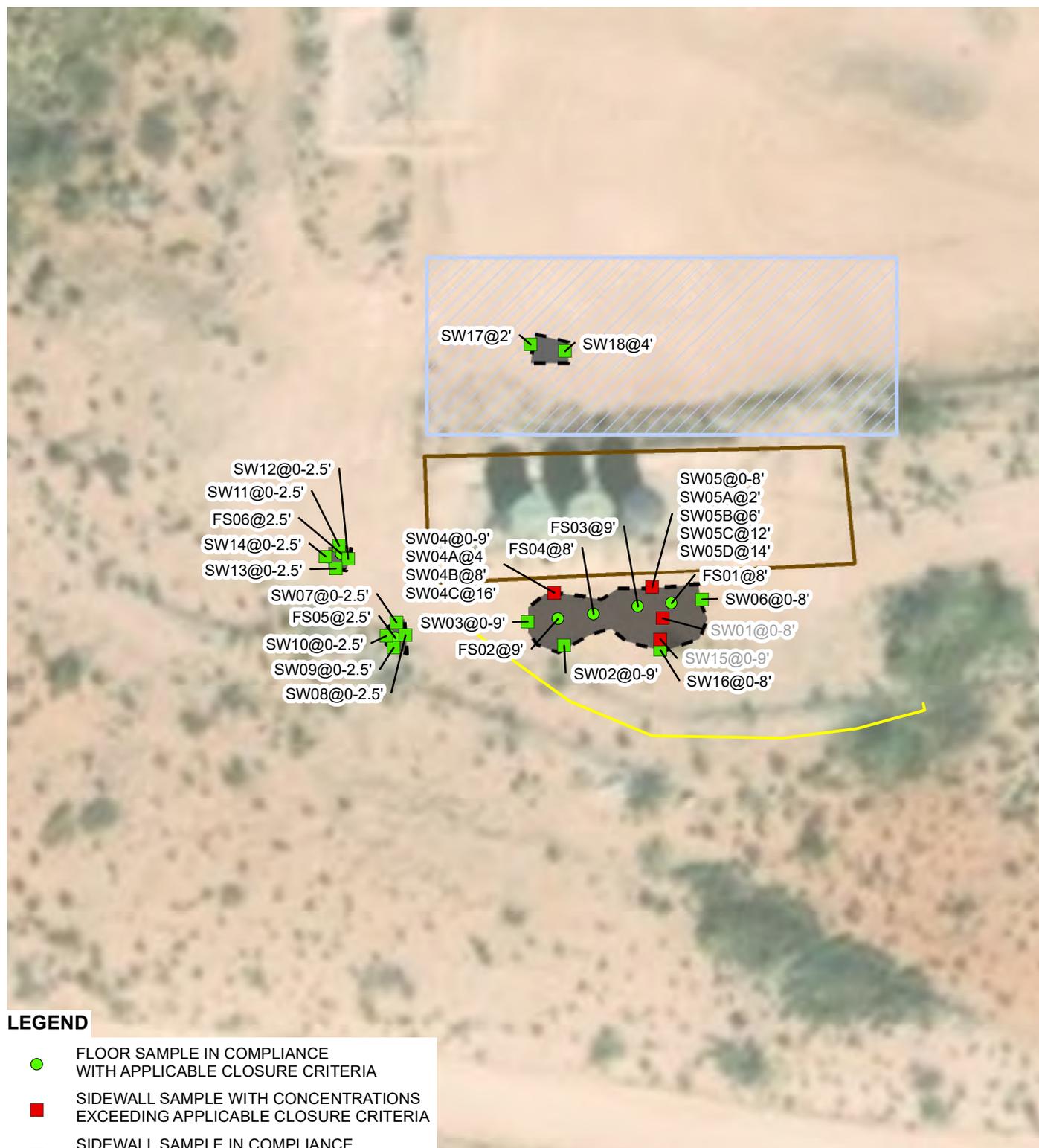


IMAGE COURTESY OF ESRI

LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
 - SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
 - SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
 - GAS LINE
 - EXCAVATION EXTENT
 - APPROXIMATE HISTORICAL LINER EXTENT
 - TANK BATTERY CONTAINMENT BERM
- SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 TEXT: INDICATES SOIL SAMPLE THAT WAS EXCAVATED
 NOTE: REMEDIATION PERMIT NUMBER 2RP-2296

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
REMUDA BASIN BATTERY UNIT #1
UNIT J SEC 24 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



P:\XTO Energy\GIS\MXD\012918058_REMUDA BASIN #0011012918058_FIG03_EXCAVATION_2296.mxd

TABLES



**TABLE 1
SOIL ANALYTICAL RESULTS
REMUDA BASIN BATTERY UNIT #1
REMEDATION PERMIT NUMBER 2RP-2296
EDDYCOUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
PH01	1	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	6,850
PH01A	2	11/07/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<50.2	<50.2	<50.2	<50.2	<50.2	2,740
PH01B	3	11/07/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<50.2	<50.2	<50.2	<50.2	<50.2	4,250
PH02	1	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.2	<50.2	<50.2	<50.2	<50.2	2,770
PH02A	2	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	1,740
PH02B	3	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	<50.1	<50.1	<50.1	<50.1	2,250
PH03	1	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.3	<50.3	<50.3	<50.3	<50.3	193
PH03A	2	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.1	<50.1	<50.1	<50.1	<50.1	127
PH03B	3	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.9	<49.9	<49.9	<49.9	<49.9	261
PH03C	4	11/07/2019	<0.00102	<0.00102	<0.00102	<0.00102	<0.00102	<50.2	<50.2	<50.2	<50.2	<50.2	184
PH04	1	11/07/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<49.8	<49.8	<49.8	<49.8	<49.8	659
PH04A	2	11/07/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<50.2	<50.2	<50.2	<50.2	<50.2	719
PH04B	3	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.3	<50.3	<50.3	<50.3	<50.3	314
PH04C	4	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	318
PH05	1	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.2	<50.2	<50.2	<50.2	<50.2	361
PH05A	2	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	<50.1	<50.1	<50.1	<50.1	574
PH06	1	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.9	<49.9	<49.9	<49.9	<49.9	292
PH06A	2	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.2	<50.2	<50.2	<50.2	<50.2	1,610
PH07	1	11/07/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<50.0	<50.0	<50.0	<50.0	<50.0	943
PH07A	2	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	585
PH07B	3	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	511
PH07C	4	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	<50.1	<50.1	<50.1	<50.1	334
PH08	1	11/07/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<50.1	<50.1	<50.1	<50.1	<50.1	377
PH08A	2	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.7	<49.7	<49.7	<49.7	<49.7	335
PH08B	3	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.3	<50.3	<50.3	<50.3	<50.3	373
PH08C	4	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.1	<50.1	<50.1	<50.1	<50.1	246
PH09	1	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.3	<50.3	<50.3	<50.3	<50.3	<1.00
PH09A	1.5	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	1.04



**TABLE 1
SOIL ANALYTICAL RESULTS
REMUDA BASIN BATTERY UNIT #1
REMEDATION PERMIT NUMBER 2RP-2296
EDDYCOUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
PH10	1	11/07/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	<1.00
PH10A	1.5	11/07/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.3	<50.3	<50.3	<50.3	<50.3	4.44
PH11	2	03/09/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	65.0
PH11A	3	03/09/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	93.9
PH11B	3.5	03/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	95.5
PH12	4	04/29/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	261
PH12A	9	04/29/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	219
FS01	8	01/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	325
FS02	9	01/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	264
FS03	9	01/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	451
FS04	8	01/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	285
FS05	2.5	01/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	242
FS06	2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	29.2
FS07	8	04/01/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	261
SW01	0 - 8	01/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	650
SW02	0 - 9	01/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	386
SW03	0 - 9	01/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	342
SW04	0 - 9	01/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,600
SW04A	4	04/01/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,620
SW04B	8	04/01/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	2,100
SW04C	16	04/28/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	191
SW05	0 - 8	01/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	2,010
SW05A	2	04/01/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	2,280
SW05B	6	04/01/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	5,470
SW05C	12	04/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	651
SW05D	14	04/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	362
SW06	0 - 8	01/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	457
SW07	0 - 2.5	01/20/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	30.4



**TABLE 1
SOIL ANALYTICAL RESULTS
REMUDA BASIN BATTERY UNIT #1
REMEDATION PERMIT NUMBER 2RP-2296
EDDYCOUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
SW08	0 - 2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	301
SW09	0 - 2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	352
SW10	0 - 2.5	01/20/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	175
SW11	0 - 2.5	01/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	186
SW12	0 - 2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	320
SW13	0 - 2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	234
SW14	0 - 2.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	341
SW15	0 - 9	03/10/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	852
SW16	0 - 8	04/01/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	182
SW17	2	04/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	111
SW18	4	04/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	230

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

ORO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

NA - not analyzed

Greyed data represent samples that were excavated



A proud member of WSP

ATTACHMENT 1: INITIAL/FINAL NIM OCD FORM C-141 (2RP-2296)

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nHMP 14132405860 OPERATOR Initial Report Final Report

Name of Company: BOPCO, L.P. <u>260737</u>	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: Remuda Basin Battery Unit #1	Facility Type: Exploration and Production

Surface Owner: State of N.M.	Mineral Owner: State of N.M.	API No. 30-015-03691
------------------------------	------------------------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	24	23S	29E	1980	South	198	East	Eddy

Latitude: N 32.288041 Longitude: W 103.936333

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 15 bbls	Volume Recovered: None
Source of Release: Produced water storage tank	Date and Hour of Occurrence: 4/27/14 at 10 a.m.	Date and Hour of Discovery: 4/27/14 at 10 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Tony Savoie	Date and Hour 11/26/12 at 10:22 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	
If a Watercourse was Impacted, Describe Fully.*	<div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>RECEIVED</p> <p>MAY 09 2014</p> <p>NMOCD ARTESIA</p> </div>	
Describe Cause of Problem and Remedial Action Taken. The produced water transfer pump failed to start due to blown fuses. The facility normally makes less than 100 bls of water per day. The water production for the day was three times the normal production; it is suspected that produced water was unloaded into the water storage tanks from an unknown source.		
Describe Area Affected and Cleanup Action Taken.* The spill impacted an area of approximately 900 sq.ft. inside the tank batteries earthen containment. There is a remediation underway at the facility dealing with an unauthorized release on the well pad and reserve pit. The affected area in the pasture will be remediated in accordance to the NMOCD guidelines.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.		

Signature: <u>Tony Savoie</u>	OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie	Approved by Environmental Specialist: <u>[Signature]</u>	
Title: Waste Management and Remediation Specialist	Approval Date: <u>5/12/14</u>	Expiration Date: <u>NA</u>
E-mail Address: <u>tasavoie@basspet.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/8/14 Phone: 432-556-8730	Remediation per OCD Rule & Guidelines. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	

* Attach Additional Sheets If Necessary

6/12/14

2RP-2296

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	2RP-2296
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-2296
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.288041 Longitude -103.936333
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Remuda Basin Battery Unit #1	Site Type Exploration and Production
Date Release Discovered 4/27/2014	API# (if applicable) 30-015-03691

Unit Letter	Section	Township	Range	County
J	24	23S	29E	Eddy

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 15 bbls	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The produced water transfer pump failed to start due to blown fuses. The spill impacted an area approximately 900 sq.ft. inside the tank batteries earthen containment.

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	
District RP	2RP-2296
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD?	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kyle Littrell</u> Title: <u>SH&E Supervisor</u> Signature:  Date: <u>5-12-2020</u> email: <u>Kyle_Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	NHMP1413240586
District RP	2RP-2296
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_50-100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	[REDACTED]
District RP	2RP-2296
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 5/12/2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by:  Date: 

Incident ID	MP14132405
District RP	2RP-2296
Facility ID	
Application ID	

Remediation Plan

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

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

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

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

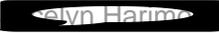
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 5-12-2020

email: Kyle.Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by:  Date: 

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature:  Date: 

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS



LT Environmental, Inc.
 508 West Stevens Street
 Carlsbad, New Mexico 88220

Identifier: PHA
 Date: 11.7.19
 Project Name: Remede Basin #1
 RP Number: ZRP-2296

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: _____ Field Screening: PID Chloride
 Logged By: CL Method: Truckhoe
 Hole Diameter: _____ Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
930	D 3864	0.0	N	PHD1	1	1	CCHIE	1-3 Caliche, tan, off white, no stain, no odor
945	D 1170	0.2	N	PHD1A	2	2		
1000	D 3864	0.0	N	PHD1B	3	3		
					4			TP @ 3' - Refusal
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			



LT Environmental, Inc.
 508 West Stevens Street
 Carlsbad, New Mexico 88220

Identifier:
PH02

Date:
11.7.19

Project Name:
Remuda Basin #1

RP Number:
ZRP-2296

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL

Method: Truckhoe

Lat/Long:

Field Screening:
 PID Chloride

Hole Diameter:

Total Depth:
3

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			1-3
1020	D 7.4 3248	1.2	N	PH02	1	1	CL	Clayey sand, brown, no stain, no odor, low plasticity, low cohesiveness, G-F sands, well sorted, some caliche
1030	D 5.0 1372	1.0	N	PH02A	2	2		
1040	D 5.8 1848	0.7	N	PH02B	3	3		
					4			TD @ 3, Refusal
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			



LT Environmental, Inc.
 508 West Stevens Street
 Carlsbad, New Mexico 88220

Identifier: PH03	Date: 11.7.19
Project Name: Remuda Basin #1	RP Number: 2RP-2296
Logged By: JL	Method: Truck core
Hole Diameter:	Total Depth: 4

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:
 PID Chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1135	D 2179	0.2	N	PH03	1	1	SP-SM	1-1 sand with quite a bit brown m-f, poorly graded, no odor, no stain above silt
1150	D 2179	0.0	N	PH03A	2	2	SP-SM	2-4 sand, brown, m-f, no stain, no odor, poorly graded,
1260	D 2179	0.0	N	PH03B	3	3		
1220	D 2179	0.0	N	PH03C	4	4		
								TOE 4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 <p>LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220</p>		Identifier: PH04	Date: 11-7-19					
		Project Name: Remuda Basin #1	RP Number: 2RP-2296					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening: PID Chloride	Logged By: SL					
		Hole Diameter:	Method: Trackhoe					
			Total Depth: 4'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1245	D	554	0.0	N	PH04	1	SP-SM	¹ Sand, Brown, m-f, no odor, no stain, poorly graded trace silt
1300	D	554	0.0	N	PH04A	2	CLHE	² Caliche, off white, tan, no stain no odor
1310	D	252	0.0	N	PH04B	3	SP-SM	Sand, Brown, m-f, no odor, no stain, poorly graded trace silt
1320	D	252	0.0	N	PH04C	4		
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220		Identifier: PHOS		Date: 11.7.19		
				Project Name: Remuda Basin #1		RP Number: ZRP-2296		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: <i>SL</i>		Method: <i>Trackhoe</i>		
Lat/Long:		Field Screening: PID Chloride		Hole Diameter:		Total Depth: <i>2'</i>		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
<i>1340</i>	<i>2.4</i> <i>386</i>	<i>0.0</i>	<i>N</i>	<i>PHOS</i>	<i>1</i>	<i>1</i>	<i>SP-SM</i>	<i>1-1 sand, brown, in-layers, graded, no odor, no stain, trace silt</i>
<i>1400</i>	<i>3.0</i> <i>554</i>	<i>0.0</i>	<i>N</i>	<i>PHOSA</i>	<i>2</i>	<i>2</i>	<i>CCHE</i>	<i>2-2 calc. ls, tan, off white, no odor, no stain</i>
					<i>3</i>			<i>TD @ 2'-refusal</i>
					<i>4</i>			
					<i>5</i>			
					<i>6</i>			
					<i>7</i>			
					<i>8</i>			
					<i>9</i>			
					<i>10</i>			
					<i>11</i>			
					<i>12</i>			

 <p style="text-align: center;">LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220</p>		Identifier: PH06	Date: 11-7-19						
		Project Name: Remuda Basin #1	RP Number: 2RP-2296						
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening: (PID) (Chloride)	Logged By: SL						
		Hole Diameter:	Method: Trackhoe						
			Total Depth: 1.5'						
Comments:									
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1420	D	4 207	0.2	N	PH06	0	1	CCHE	1-1.5 Caliche, offwhite, tan, no odor, no staining PH06
1440	D	3 554	0.2		PH06A	1	1.5		
						2			TD @ 1.5'
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

 <p style="text-align: center;">LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220</p>		Identifier: PH07	Date: 11.7.19					
		Project Name: Remuda Basin #1	RP Number: 2RP-2296					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening: PID Chloride	Logged By: SL					
		Hole Diameter:	Method: Trachoe					
			Total Depth: 4'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1500	D 437	0.0	N	PH07	1	1		1-4
1510	D 437	0.0	N	PH07A	2	2	SP-SM	Sand, Brown, no stain → no odor, m-f, poorly graded, trace caliche & trace silt
1520	D 437	0.0	N	PH07B	3	3		
1530	D 297	0.0	N	PH07c	4	4		
					5			TD @ 4'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220		Identifier: PH08	Date: 11-7-19					
		Project Name: Remuda Basin #1	RP Number: 2RP-2296					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening: PID Chloride	Logged By: SL					
		Hole Diameter:	Method: Trackha					
Total Depth: y								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1550	D <179	0.0	N	PH08	0	1	CLHE	1-1 caliche, off white, fm, gray, no odor, no stain
1600	D <179	0.1	N	PH08A	2	2	SP-SM	2-4 sand brown, light brown, no stain, no odor, m-f, poorly graded, trace caliche, trace silt
1610	D <199	0.0	N	PH08B	3	3		
1620	D 1.8 252	0.0	N	PH08C	4	4		
					5			TO @ 4
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 <p>LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220</p>		Identifier: <i>PH09</i>	Date: <i>11.7.19</i>					
		Project Name: <i>Remuda Basin #1</i>	RP Number: <i>2RP-2296</i>					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: <i>SL</i>	Method: <i>Trackha</i>					
Lat/Long:		Field Screening: <u>PID</u> <u>Chloride</u>	Hole Diameter: _____					
Total Depth: <i>1.5'</i>								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
<i>1640</i>	<i><179</i>	<i>0.0</i>	<i>N</i>	<i>PH09</i>		<i>1</i>	<i>CLAY</i>	<i>1-1.5</i> <i>Calc. no odor, no stain, off white, tan,</i>
<i>1650</i>	<i><179</i>	<i>0.0</i>	<i>N</i>	<i>PH09A</i>		<i>1.5</i>		
					2			<i>1.5'-TO - red soil</i>
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			



LT Environmental, Inc.
 508 West Stevens Street
 Carlsbad, New Mexico 88220

A proud member
 of WSP

Compliance · Engineering · Remediation

BH or PH Name:

PH 11

Date:

03-09-2020

Site Name: REMUDA BASIN BATTERY #1

RP or Incident Number: 2RP-2296

LTE Job Number: D12918058

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: C. ACBOR

Method: POthOLE

Lat/Long:

32.288041 -103.936333

Field Screening:

Chloride, PID

Hole Diameter:

Total Depth:

3.5

Comments:

EXPOSED LINER AT 3.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
	BDL	0.0	NO	PH 10	2		SM	Dark gray, poorly sorted, organics, no odor, no stain ↓ LINER WAS EXPOSED @ 3.5'
		0.2		PH 10A	3		SM	
		0.0		PH 10B	3.5		SM	

CA

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of loading area – looking east.



Photograph 2: View of pad and excavation – looking west



Photograph 3: View of tank battery and excavation - looking north west.



Photograph 4: View of open excavation – looking east.

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Analytical Report 642596

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

12-NOV-19

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12-NOV-19

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **642596**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 642596. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 642596 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer
Project Assistant

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	11-07-19 09:30	1 ft	642596-001
PH01A	S	11-07-19 09:45	2 ft	642596-002
PH01B	S	11-07-19 10:00	3 ft	642596-003
PH02	S	11-07-19 10:20	1 ft	642596-004
PH02A	S	11-07-19 10:30	2 ft	642596-005
PH02B	S	11-07-19 10:40	3 ft	642596-006
PH03	S	11-07-19 11:35	1 ft	642596-007
PH03A	S	11-07-19 11:50	2 ft	642596-008
PH03B	S	11-07-19 12:00	3 ft	642596-009
PH03C	S	11-07-19 12:20	4 ft	642596-010
PH04	S	11-07-19 12:45	1 ft	642596-011
PH04A	S	11-07-19 13:00	2 ft	642596-012
PH04B	S	11-07-19 13:10	3 ft	642596-013
PH04C	S	11-07-19 13:20	4 ft	642596-014
PH05	S	11-07-19 13:40	1 ft	642596-015
PH05A	S	11-07-19 14:00	2 ft	642596-016
PH06	S	11-07-19 14:20	1 ft	642596-017
PH06A	S	11-07-19 14:40	2 ft	642596-018
PH07	S	11-07-19 15:00	1 ft	642596-019
PH07A	S	11-07-19 15:10	2 ft	642596-020
PH07B	S	11-07-19 15:20	3 ft	642596-021
PH07C	S	11-07-19 15:30	4 ft	642596-022
PH08	S	11-07-19 15:50	1 ft	642596-023
PH08A	S	11-07-19 16:00	2 ft	642596-024
PH08B	S	11-07-19 16:10	3 ft	642596-025
PH08C	S	11-07-19 16:20	4 ft	642596-026
PH09	S	11-07-19 16:40	1 ft	642596-027
PH09A	S	11-07-19 16:50	1.5 ft	642596-028
PH10	S	11-07-19 17:00	1 ft	642596-029
PH10A	S	11-07-19 17:10	1.5 ft	642596-030



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID:
Work Order Number(s): 642596

Report Date: 12-NOV-19
Date Received: 11/08/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3106914 TPH by SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 642594-001 S,642596-001.

Batch: LBA-3106935 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3106973 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3106983 Chloride by EPA 300

Lab Sample ID 642596-022 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 642596-012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3106997 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 642596-017,642596-023.

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 642596-023.



Certificate of Analysis Summary 642596

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642596-001	642596-002	642596-003	642596-004	642596-005	642596-006
	<i>Field Id:</i>	PH01	PH01A	PH01B	PH02	PH02A	PH02B
	<i>Depth:</i>	1- ft	2- ft	3- ft	1- ft	2- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 09:30	Nov-07-19 09:45	Nov-07-19 10:00	Nov-07-19 10:20	Nov-07-19 10:30	Nov-07-19 10:40
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-08-19 09:50					
	<i>Analyzed:</i>	Nov-08-19 12:42	Nov-08-19 13:01	Nov-08-19 13:21	Nov-08-19 13:40	Nov-08-19 13:59	Nov-08-19 14:18
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100
	Toluene	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100
	Ethylbenzene	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100
	m,p-Xylenes	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
	o-Xylene	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100
Total Xylenes	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	
Total BTEX	<0.00100 0.00100	<0.00096 0.00096	<0.00098 0.00098	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	
Chloride by EPA 300	<i>Extracted:</i>	Nov-08-19 10:11					
	<i>Analyzed:</i>	Nov-08-19 13:42	Nov-08-19 13:48	Nov-08-19 14:06	Nov-08-19 14:12	Nov-08-19 14:18	Nov-08-19 14:24
	<i>Units/RL:</i>	mg/kg RL					
Chloride	6850 500	2740 500	4250 500	2770 500	1740 200	2250 500	
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-08-19 12:00					
	<i>Analyzed:</i>	Nov-08-19 16:55	Nov-08-19 17:34	Nov-08-19 17:54	Nov-08-19 18:14	Nov-08-19 18:33	Nov-08-19 18:53
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
	Diesel Range Organics (DRO)	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
	Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
	Total GRO-DRO	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
	Total TPH	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 642596

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	642596-007	642596-008	642596-009	642596-010	642596-011	642596-012
	Field Id:	PH03	PH03A	PH03B	PH03C	PH04	PH04A
	Depth:	1- ft	2- ft	3- ft	4- ft	1- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-07-19 11:35	Nov-07-19 11:50	Nov-07-19 12:00	Nov-07-19 12:20	Nov-07-19 12:45	Nov-07-19 13:00
BTEX by EPA 8021B	Extracted:	Nov-08-19 09:50	Nov-08-19 09:50	Nov-08-19 09:50	Nov-08-19 09:50	Nov-08-19 09:50	Nov-08-19 09:50
	Analyzed:	Nov-08-19 14:37	Nov-08-19 14:56	Nov-08-19 16:00	Nov-08-19 16:19	Nov-08-19 16:38	Nov-08-19 16:57
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990
	Toluene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990
	Ethylbenzene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990
	m,p-Xylenes	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00203 0.00203	<0.00200 0.00200	<0.00198 0.00198
	o-Xylene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990
Total Xylenes	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990	
Total BTEX	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00102 0.00102	<0.000998 0.000998	<0.000990 0.000990	
Chloride by EPA 300	Extracted:	Nov-08-19 10:11	Nov-08-19 10:11	Nov-08-19 10:11	Nov-08-19 10:11	Nov-08-19 10:11	Nov-08-19 11:11
	Analyzed:	Nov-08-19 14:30	Nov-08-19 14:48	Nov-08-19 14:54	Nov-08-19 15:00	Nov-08-19 15:06	Nov-08-19 15:47
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	193 100	127 50.0	261 10.0	184 10.0	659 50.0	719 50.0	
TPH by SW8015 Mod	Extracted:	Nov-08-19 12:00	Nov-08-19 12:00	Nov-08-19 12:00	Nov-08-19 12:00	Nov-08-19 12:00	Nov-08-19 13:00
	Analyzed:	Nov-08-19 19:13	Nov-08-19 19:32	Nov-08-19 19:52	Nov-08-19 20:12	Nov-08-19 20:31	Nov-08-19 13:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Diesel Range Organics (DRO)	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Total GRO-DRO	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Total TPH	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 642596

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642596-013	642596-014	642596-015	642596-016	642596-017	642596-018
	<i>Field Id:</i>	PH04B	PH04C	PH05	PH05A	PH06	PH06A
	<i>Depth:</i>	3- ft	4- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 13:10	Nov-07-19 13:20	Nov-07-19 13:40	Nov-07-19 14:00	Nov-07-19 14:20	Nov-07-19 14:40
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-08-19 09:50					
	<i>Analyzed:</i>	Nov-08-19 17:16	Nov-08-19 17:36	Nov-08-19 17:55	Nov-08-19 18:14	Nov-08-19 18:33	Nov-08-19 18:52
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101
	Toluene	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101
	Ethylbenzene	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101
	m,p-Xylenes	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201
	o-Xylene	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101
Total Xylenes	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	
Total BTEX	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	
Chloride by EPA 300	<i>Extracted:</i>	Nov-08-19 11:11					
	<i>Analyzed:</i>	Nov-08-19 16:15	Nov-08-19 16:22	Nov-08-19 16:28	Nov-08-19 16:35	Nov-08-19 16:42	Nov-08-19 17:02
	<i>Units/RL:</i>	mg/kg RL					
Chloride	314 10.0	318 50.0	361 200	574 200	292 D 100	1610 500	
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-08-19 13:00					
	<i>Analyzed:</i>	Nov-08-19 13:59	Nov-08-19 14:19	Nov-08-19 14:39	Nov-08-19 15:03	Nov-08-19 21:10	Nov-08-19 21:30
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.2 50.2
	Diesel Range Organics (DRO)	<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.2 50.2
	Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.2 50.2
	Total GRO-DRO	<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.2 50.2
	Total TPH	<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 642596

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642596-019	642596-020	642596-021	642596-022	642596-023	642596-024
	<i>Field Id:</i>	PH07	PH07A	PH07B	PH07C	PH08	PH08A
	<i>Depth:</i>	1- ft	2- ft	3- ft	4- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 15:00	Nov-07-19 15:10	Nov-07-19 15:20	Nov-07-19 15:30	Nov-07-19 15:50	Nov-07-19 16:00
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-08-19 09:11	Nov-08-19 09:11	Nov-08-19 09:11	Nov-08-19 09:11	Nov-08-19 09:11	Nov-08-19 09:11
	<i>Analyzed:</i>	Nov-08-19 15:35	Nov-08-19 15:55	Nov-08-19 16:16	Nov-08-19 17:31	Nov-08-19 17:52	Nov-08-19 18:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101
	Toluene	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101
	Ethylbenzene	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101
	m,p-Xylenes	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
	o-Xylene	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101
Total Xylenes	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101	
Total BTEX	<0.000996 0.000996	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.00101 0.00101	
Chloride by EPA 300	<i>Extracted:</i>	Nov-08-19 11:11	Nov-08-19 11:11	Nov-08-19 11:11	Nov-08-19 11:11	Nov-08-19 11:11	Nov-08-19 11:11
	<i>Analyzed:</i>	Nov-08-19 17:09	Nov-08-19 17:16	Nov-08-19 17:23	Nov-08-19 17:29	Nov-08-19 17:50	Nov-08-19 17:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	943 500	585 500	511 500	334 D 100	377 D 100	335 D 100	
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-08-19 13:00	Nov-08-19 13:00	Nov-08-19 13:00	Nov-08-19 13:00	Nov-08-19 13:00	Nov-08-19 13:00
	<i>Analyzed:</i>	Nov-08-19 21:50	Nov-08-19 16:23	Nov-08-19 16:55	Nov-08-19 17:34	Nov-08-19 17:54	Nov-08-19 18:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.7 49.7
	Diesel Range Organics (DRO)	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.7 49.7
	Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.7 49.7
	Total GRO-DRO	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.7 49.7
	Total TPH	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.7 49.7

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant



Certificate of Analysis Summary 642596

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642596-025	642596-026	642596-027	642596-028	642596-029	642596-030
	<i>Field Id:</i>	PH08B	PH08C	PH09	PH09A	PH10	PH10A
	<i>Depth:</i>	3- ft	4- ft	1- ft	1.5- ft	1- ft	1.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 16:10	Nov-07-19 16:20	Nov-07-19 16:40	Nov-07-19 16:50	Nov-07-19 17:00	Nov-07-19 17:10
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-08-19 09:11					
	<i>Analyzed:</i>	Nov-08-19 18:32	Nov-08-19 18:53	Nov-08-19 19:13	Nov-08-19 19:33	Nov-08-19 19:54	Nov-08-19 20:14
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101
	Toluene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101
	Ethylbenzene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101
	m,p-Xylenes	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
	o-Xylene	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101
Total Xylenes	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	
Total BTEX	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	
Chloride by EPA 300	<i>Extracted:</i>	Nov-08-19 11:11					
	<i>Analyzed:</i>	Nov-08-19 18:17	Nov-08-19 18:23	Nov-08-19 18:30	Nov-08-19 18:37	Nov-08-19 18:44	Nov-08-19 18:51
	<i>Units/RL:</i>	mg/kg RL					
Chloride	373 D 50.0	246 D 50.0	<1.00 1.00	1.04 1.00	<1.00 1.00	4.44 1.00	
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-08-19 13:00					
	<i>Analyzed:</i>	Nov-08-19 18:33	Nov-08-19 18:53	Nov-08-19 19:13	Nov-08-19 19:32	Nov-08-19 19:52	Nov-08-19 20:12
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.8 49.8	<50.3 50.3
	Diesel Range Organics (DRO)	<50.3 50.3	<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.8 49.8	<50.3 50.3
	Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3	<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.8 49.8	<50.3 50.3
	Total GRO-DRO	<50.3 50.3	<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.8 49.8	<50.3 50.3
	Total TPH	<50.3 50.3	<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.8 49.8	<50.3 50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
 Project Assistant



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH01** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-001 Date Collected: 11.07.19 09.30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6850	500	mg/kg	11.08.19 13.42		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 16.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	143	%	70-135	11.08.19 16.55	**
o-Terphenyl	84-15-1	148	%	70-135	11.08.19 16.55	**



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH01	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-001	Date Collected: 11.07.19 09.30	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 12.42	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 12.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.08.19 12.42		
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.08.19 12.42		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH01A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-002 Date Collected: 11.07.19 09.45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2740	500	mg/kg	11.08.19 13.48		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 17.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 17.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 17.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 17.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 17.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.08.19 17.34	
o-Terphenyl	84-15-1	111	%	70-135	11.08.19 17.34	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: PH01A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-002	Date Collected: 11.07.19 09.45	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.08.19 13.01	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
Total BTEX		<0.000996	0.000996	mg/kg	11.08.19 13.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.08.19 13.01		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.08.19 13.01		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH01B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-003 Date Collected: 11.07.19 10.00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4250	500	mg/kg	11.08.19 14.06		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 17.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 17.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 17.54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 17.54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 17.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.08.19 17.54	
o-Terphenyl	84-15-1	117	%	70-135	11.08.19 17.54	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH01B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-003	Date Collected: 11.07.19 10.00	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 13.21	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
Total BTEX		<0.000998	0.000998	mg/kg	11.08.19 13.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.08.19 13.21		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.08.19 13.21		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH02** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-004 Date Collected: 11.07.19 10.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2770	500	mg/kg	11.08.19 14.12		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 18.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 18.14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 18.14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.08.19 18.14	
o-Terphenyl	84-15-1	107	%	70-135	11.08.19 18.14	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH02	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-004	Date Collected: 11.07.19 10.20	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 13.40	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 13.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 13.40		
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.08.19 13.40		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH02A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-005 Date Collected: 11.07.19 10.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1740	200	mg/kg	11.08.19 14.18		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.08.19 18.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 18.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 18.33	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 18.33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 18.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.08.19 18.33	
o-Terphenyl	84-15-1	109	%	70-135	11.08.19 18.33	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH02A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-005	Date Collected: 11.07.19 10.30	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 13.59	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 13.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.08.19 13.59		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 13.59		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH02B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-006 Date Collected: 11.07.19 10.40 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2250	500	mg/kg	11.08.19 14.24		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 18.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.08.19 18.53	
o-Terphenyl	84-15-1	108	%	70-135	11.08.19 18.53	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH02B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-006	Date Collected: 11.07.19 10.40	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 14.18	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 14.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 14.18		
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.08.19 14.18		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH03** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-007 Date Collected: 11.07.19 11.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	193	100	mg/kg	11.08.19 14.30		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.08.19 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.08.19 19.13	
o-Terphenyl	84-15-1	110	%	70-135	11.08.19 19.13	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH03	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-007	Date Collected: 11.07.19 11.35	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 14.37	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 14.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.08.19 14.37		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.08.19 14.37		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH03A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-008 Date Collected: 11.07.19 11.50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	50.0	mg/kg	11.08.19 14.48		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 19.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 19.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 19.32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 19.32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 19.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.08.19 19.32	
o-Terphenyl	84-15-1	110	%	70-135	11.08.19 19.32	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH03A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-008	Date Collected: 11.07.19 11.50	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 14.56	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 14.56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.08.19 14.56		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 14.56		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH03B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-009 Date Collected: 11.07.19 12.00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	261	10.0	mg/kg	11.08.19 14.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.08.19 19.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 19.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 19.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 19.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 19.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.08.19 19.52	
o-Terphenyl	84-15-1	118	%	70-135	11.08.19 19.52	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH03B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-009	Date Collected: 11.07.19 12.00	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 16.00	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 16.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.08.19 16.00		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.08.19 16.00		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH03C** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-010 Date Collected: 11.07.19 12.20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	184	10.0	mg/kg	11.08.19 15.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 20.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 20.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 20.12	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 20.12	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 20.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.08.19 20.12	
o-Terphenyl	84-15-1	114	%	70-135	11.08.19 20.12	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH03C	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-010	Date Collected: 11.07.19 12.20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
Toluene	108-88-3	<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
Ethylbenzene	100-41-4	<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
m,p-Xylenes	179601-23-1	<0.00203	0.00203	mg/kg	11.08.19 16.19	U	1
o-Xylene	95-47-6	<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
Total Xylenes	1330-20-7	<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
Total BTEX		<0.00102	0.00102	mg/kg	11.08.19 16.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.08.19 16.19		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 16.19		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH04** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-011 Date Collected: 11.07.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 10.11 Basis: Wet Weight
 Seq Number: 3106922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	659	50.0	mg/kg	11.08.19 15.06		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 12.00 Basis: Wet Weight
 Seq Number: 3106914

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.08.19 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.08.19 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.08.19 20.31	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.08.19 20.31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.08.19 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.08.19 20.31	
o-Terphenyl	84-15-1	113	%	70-135	11.08.19 20.31	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH04	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-011	Date Collected: 11.07.19 12.45	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 16.38	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
Total BTEX		<0.000998	0.000998	mg/kg	11.08.19 16.38	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114		%	70-130	11.08.19 16.38	
1,4-Difluorobenzene	540-36-3	106		%	70-130	11.08.19 16.38	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH04A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-012 Date Collected: 11.07.19 13.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	719	50.0	mg/kg	11.08.19 15.47		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 13.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 13.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 13.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 13.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 13.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.08.19 13.00	
o-Terphenyl	84-15-1	105	%	70-135	11.08.19 13.00	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH04A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-012	Date Collected: 11.07.19 13.00	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	11.08.19 16.57	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
Total BTEX		<0.000990	0.000990	mg/kg	11.08.19 16.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.08.19 16.57		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 16.57		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH04B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-013 Date Collected: 11.07.19 13.10 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	314	10.0	mg/kg	11.08.19 16.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.08.19 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.08.19 13.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.08.19 13.59	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.08.19 13.59	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.08.19 13.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	11.08.19 13.59	
o-Terphenyl	84-15-1	85	%	70-135	11.08.19 13.59	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH04B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-013	Date Collected: 11.07.19 13.10	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 17.16	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 17.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.08.19 17.16		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.08.19 17.16		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH04C** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-014 Date Collected: 11.07.19 13.20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	318	50.0	mg/kg	11.08.19 16.22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.08.19 14.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.08.19 14.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.08.19 14.19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.08.19 14.19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.08.19 14.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	11.08.19 14.19	
o-Terphenyl	84-15-1	85	%	70-135	11.08.19 14.19	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH04C	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-014	Date Collected: 11.07.19 13.20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 17.36	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 17.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 17.36		
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.08.19 17.36		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH05** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-015 Date Collected: 11.07.19 13.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	361	200	mg/kg	11.08.19 16.28		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 14.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 14.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 14.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 14.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 14.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	11.08.19 14.39	
o-Terphenyl	84-15-1	97	%	70-135	11.08.19 14.39	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH05	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-015	Date Collected: 11.07.19 13.40	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 17.55	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 17.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.08.19 17.55		
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.08.19 17.55		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH05A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-016 Date Collected: 11.07.19 14.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	574	200	mg/kg	11.08.19 16.35		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 15.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 15.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 15.03	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 15.03	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 15.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.08.19 15.03	
o-Terphenyl	84-15-1	125	%	70-135	11.08.19 15.03	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH05A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-016	Date Collected: 11.07.19 14.00	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 18.14	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 18.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.08.19 18.14		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 18.14		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH06** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-017 Date Collected: 11.07.19 14.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	292	100	mg/kg	11.11.19 10.08	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.08.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 21.10	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 21.10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.08.19 21.10	
o-Terphenyl	84-15-1	137	%	70-135	11.08.19 21.10	**



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH06	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-017	Date Collected: 11.07.19 14.20	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 18.33	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 18.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.08.19 18.33		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 18.33		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH06A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-018 Date Collected: 11.07.19 14.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1610	500	mg/kg	11.08.19 17.02		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 21.30	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 21.30	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.08.19 21.30	
o-Terphenyl	84-15-1	118	%	70-135	11.08.19 21.30	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: PH06A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-018	Date Collected: 11.07.19 14.40	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.50	Basis: Wet Weight
Seq Number: 3106935		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 18.52	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 18.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.08.19 18.52		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 18.52		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO Remuda Basin #1

Sample Id: **PH07** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-019 Date Collected: 11.07.19 15.00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	943	500	mg/kg	11.08.19 17.09		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.08.19 21.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.08.19 21.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.08.19 21.50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.08.19 21.50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.08.19 21.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.08.19 21.50	
o-Terphenyl	84-15-1	114	%	70-135	11.08.19 21.50	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH07	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-019	Date Collected: 11.07.19 15.00	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.08.19 15.35	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
Total BTEX		<0.000996	0.000996	mg/kg	11.08.19 15.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.08.19 15.35		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 15.35		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH07A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-020 Date Collected: 11.07.19 15.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	585	500	mg/kg	11.08.19 17.16		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.08.19 16.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.08.19 16.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.08.19 16.23	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.08.19 16.23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.08.19 16.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.08.19 16.23	
o-Terphenyl	84-15-1	126	%	70-135	11.08.19 16.23	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH07A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-020	Date Collected: 11.07.19 15.10	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 15.55	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 15.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.08.19 15.55		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.08.19 15.55		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH07B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-021 Date Collected: 11.07.19 15.20 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	511	500	mg/kg	11.08.19 17.23		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.08.19 16.55	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.08.19 16.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	11.08.19 16.55	
o-Terphenyl	84-15-1	71	%	70-135	11.08.19 16.55	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH07B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-021	Date Collected: 11.07.19 15.20	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.08.19 16.16	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 16.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.08.19 16.16		
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.08.19 16.16		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH07C** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-022 Date Collected: 11.07.19 15.30 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	334	100	mg/kg	11.11.19 10.42	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 17.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 17.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 17.34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 17.34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 17.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	11.08.19 17.34	
o-Terphenyl	84-15-1	84	%	70-135	11.08.19 17.34	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH07C	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-022	Date Collected: 11.07.19 15.30	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 17.31	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 17.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.08.19 17.31		
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.08.19 17.31		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH08** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-023 Date Collected: 11.07.19 15.50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	377	100	mg/kg	11.11.19 10.49	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 17.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 17.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 17.54	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 17.54	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 17.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	170	%	70-135	11.08.19 17.54	**
o-Terphenyl	84-15-1	187	%	70-135	11.08.19 17.54	**



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH08	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-023	Date Collected: 11.07.19 15.50	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 17.52	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
Total BTEX		<0.000998	0.000998	mg/kg	11.08.19 17.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.08.19 17.52		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.08.19 17.52		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH08A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-024 Date Collected: 11.07.19 16.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	335	100	mg/kg	11.11.19 10.55	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.7	49.7	mg/kg	11.08.19 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.7	49.7	mg/kg	11.08.19 18.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.7	49.7	mg/kg	11.08.19 18.14	U	1
Total GRO-DRO	PHC628	<49.7	49.7	mg/kg	11.08.19 18.14	U	1
Total TPH	PHC635	<49.7	49.7	mg/kg	11.08.19 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	11.08.19 18.14	
o-Terphenyl	84-15-1	74	%	70-135	11.08.19 18.14	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH08A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-024	Date Collected: 11.07.19 16.00	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 18.12	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 18.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.08.19 18.12		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.08.19 18.12		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH08B** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-025 Date Collected: 11.07.19 16.10 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	373	50.0	mg/kg	11.11.19 11.02	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.08.19 18.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.08.19 18.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.08.19 18.33	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.08.19 18.33	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.08.19 18.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	11.08.19 18.33	
o-Terphenyl	84-15-1	84	%	70-135	11.08.19 18.33	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH08B	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-025	Date Collected: 11.07.19 16.10	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 18.32	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 18.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.08.19 18.32		
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.08.19 18.32		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH08C** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-026 Date Collected: 11.07.19 16.20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	50.0	mg/kg	11.11.19 11.22	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.08.19 18.53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.08.19 18.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	11.08.19 18.53	
o-Terphenyl	84-15-1	77	%	70-135	11.08.19 18.53	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH08C	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-026	Date Collected: 11.07.19 16.20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 18.53	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 18.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.08.19 18.53		
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.08.19 18.53		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH09** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-027 Date Collected: 11.07.19 16.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	11.11.19 11.29	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.08.19 19.13	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.08.19 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.08.19 19.13	
o-Terphenyl	84-15-1	105	%	70-135	11.08.19 19.13	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH09	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-027	Date Collected: 11.07.19 16.40	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 19.13	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 19.13	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.08.19 19.13		
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.08.19 19.13		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH09A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-028 Date Collected: 11.07.19 16.50 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1.04	1.00	mg/kg	11.11.19 11.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.08.19 19.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.08.19 19.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.08.19 19.32	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.08.19 19.32	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.08.19 19.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.08.19 19.32	
o-Terphenyl	84-15-1	124	%	70-135	11.08.19 19.32	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH09A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-028	Date Collected: 11.07.19 16.50	Sample Depth: 1.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 19.33	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 19.33	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117		%	70-130	11.08.19 19.33	
1,4-Difluorobenzene	540-36-3	105		%	70-130	11.08.19 19.33	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH10** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-029 Date Collected: 11.07.19 17.00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	11.11.19 11.43	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.08.19 19.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.08.19 19.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.08.19 19.52	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.08.19 19.52	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.08.19 19.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.08.19 19.52	
o-Terphenyl	84-15-1	108	%	70-135	11.08.19 19.52	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH10	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-029	Date Collected: 11.07.19 17.00	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.08.19 19.54	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.08.19 19.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.08.19 19.54		
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.08.19 19.54		



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **PH10A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642596-030 Date Collected: 11.07.19 17.10 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.08.19 11.11 Basis: Wet Weight
 Seq Number: 3106983

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4.44	1.00	mg/kg	11.11.19 11.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.08.19 13.00 Basis: Wet Weight
 Seq Number: 3106997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.08.19 20.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.08.19 20.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.08.19 20.12	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.08.19 20.12	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.08.19 20.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.08.19 20.12	
o-Terphenyl	84-15-1	100	%	70-135	11.08.19 20.12	



Certificate of Analytical Results 642596

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: PH10A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642596-030	Date Collected: 11.07.19 17.10	Sample Depth: 1.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 11.08.19 09.11	Basis: Wet Weight
Seq Number: 3106973		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.08.19 20.14	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.08.19 20.14	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119		%	70-130	11.08.19 20.14	
1,4-Difluorobenzene	540-36-3	104		%	70-130	11.08.19 20.14	



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3106922

MB Sample Id: 7689889-1-BLK

Matrix: Solid

LCS Sample Id: 7689889-1-BKS

Prep Method: E300P

Date Prep: 11.08.19

LCSD Sample Id: 7689889-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	250	100	90-110	0	20	mg/kg	11.08.19 12:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3106983

MB Sample Id: 7689891-1-BLK

Matrix: Solid

LCS Sample Id: 7689891-1-BKS

Prep Method: E300P

Date Prep: 11.08.19

LCSD Sample Id: 7689891-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	252	101	256	102	90-110	2	20	mg/kg	11.08.19 15:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3106922

Parent Sample Id: 642594-001

Matrix: Soil

MS Sample Id: 642594-001 S

Prep Method: E300P

Date Prep: 11.08.19

MSD Sample Id: 642594-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	272	200	456	92	458	93	90-110	0	20	mg/kg	11.08.19 12:25	

Analytical Method: Chloride by EPA 300

Seq Number: 3106922

Parent Sample Id: 642596-002

Matrix: Soil

MS Sample Id: 642596-002 S

Prep Method: E300P

Date Prep: 11.08.19

MSD Sample Id: 642596-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2740	200	2950	105	2940	100	90-110	0	20	mg/kg	11.08.19 13:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3106983

Parent Sample Id: 642596-012

Matrix: Soil

MS Sample Id: 642596-012 S

Prep Method: E300P

Date Prep: 11.08.19

MSD Sample Id: 642596-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	719	500	1350	126	1320	120	90-110	2	20	mg/kg	11.08.19 15:54	X

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3106983
Parent Sample Id: 642596-022

Matrix: Soil
MS Sample Id: 642596-022 S

Prep Method: E300P
Date Prep: 11.08.19
MSD Sample Id: 642596-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	334	500	665	66	656	64	90-110	1	20	mg/kg	11.08.19 17:36	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3106914
MB Sample Id: 7689947-1-BLK

Matrix: Solid
LCS Sample Id: 7689947-1-BKS

Prep Method: SW8015P
Date Prep: 11.08.19
LCSD Sample Id: 7689947-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	905	91	921	92	70-135	2	35	mg/kg	11.08.19 12:21	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1030	103	70-135	2	35	mg/kg	11.08.19 12:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		120		121		70-135	%	11.08.19 12:21
o-Terphenyl	113		121		121		70-135	%	11.08.19 12:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3106997
MB Sample Id: 7689950-1-BLK

Matrix: Solid
LCS Sample Id: 7689950-1-BKS

Prep Method: SW8015P
Date Prep: 11.08.19
LCSD Sample Id: 7689950-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	804	80	792	79	70-135	2	35	mg/kg	11.08.19 12:21	
Diesel Range Organics (DRO)	<50.0	1000	877	88	854	85	70-135	3	35	mg/kg	11.08.19 12:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		103		102		70-135	%	11.08.19 12:21
o-Terphenyl	110		107		102		70-135	%	11.08.19 12:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3106914

Matrix: Solid
MB Sample Id: 7689947-1-BLK

Prep Method: SW8015P
Date Prep: 11.08.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.08.19 12:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result
MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: TPH by SW8015 Mod
Seq Number: 3106997

Matrix: Solid
MB Sample Id: 7689950-1-BLK

Prep Method: SW8015P
Date Prep: 11.08.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.08.19 12:01	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3106914
Parent Sample Id: 642594-001

Matrix: Soil
MS Sample Id: 642594-001 S

Prep Method: SW8015P
Date Prep: 11.08.19
MSD Sample Id: 642594-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1100	110	892	89	70-135	21	35	mg/kg	11.08.19 13:20	
Diesel Range Organics (DRO)	<50.1	1000	1220	122	991	99	70-135	21	35	mg/kg	11.08.19 13:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	141	**	117		70-135	%	11.08.19 13:20
o-Terphenyl	139	**	118		70-135	%	11.08.19 13:20

Analytical Method: TPH by SW8015 Mod
Seq Number: 3106997
Parent Sample Id: 642596-012

Matrix: Soil
MS Sample Id: 642596-012 S

Prep Method: SW8015P
Date Prep: 11.08.19
MSD Sample Id: 642596-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	745	75	758	76	70-135	2	35	mg/kg	11.08.19 13:20	
Diesel Range Organics (DRO)	<49.8	995	801	81	827	83	70-135	3	35	mg/kg	11.08.19 13:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		101		70-135	%	11.08.19 13:20
o-Terphenyl	102		105		70-135	%	11.08.19 13:20

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3106973

MB Sample Id: 7689952-1-BLK

Matrix: Solid

LCS Sample Id: 7689952-1-BKS

Prep Method: SW5030B

Date Prep: 11.08.19

LCSD Sample Id: 7689952-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.101	101	0.114	114	70-130	12	35	mg/kg	11.08.19 10:35	
Toluene	<0.00100	0.100	0.114	114	0.126	126	70-130	10	35	mg/kg	11.08.19 10:35	
Ethylbenzene	<0.00100	0.100	0.103	103	0.115	115	71-129	11	35	mg/kg	11.08.19 10:35	
m,p-Xylenes	<0.00200	0.200	0.209	105	0.232	116	70-135	10	35	mg/kg	11.08.19 10:35	
o-Xylene	<0.00100	0.100	0.105	105	0.118	118	71-133	12	35	mg/kg	11.08.19 10:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		106		70-130	%	11.08.19 10:35
4-Bromofluorobenzene	105		104		110		70-130	%	11.08.19 10:35

Analytical Method: BTEX by EPA 8021B

Seq Number: 3106935

MB Sample Id: 7689955-1-BLK

Matrix: Solid

LCS Sample Id: 7689955-1-BKS

Prep Method: SW5030B

Date Prep: 11.08.19

LCSD Sample Id: 7689955-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0960	96	0.0934	93	70-130	3	35	mg/kg	11.08.19 10:22	
Toluene	<0.00100	0.100	0.102	102	0.0979	98	70-130	4	35	mg/kg	11.08.19 10:22	
Ethylbenzene	<0.00100	0.100	0.0938	94	0.0900	90	71-129	4	35	mg/kg	11.08.19 10:22	
m,p-Xylenes	<0.00200	0.200	0.198	99	0.190	95	70-135	4	35	mg/kg	11.08.19 10:22	
o-Xylene	<0.00100	0.100	0.101	101	0.0962	96	71-133	5	35	mg/kg	11.08.19 10:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		105		70-130	%	11.08.19 10:22
4-Bromofluorobenzene	112		113		111		70-130	%	11.08.19 10:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3106973

Parent Sample Id: 642600-001

Matrix: Soil

MS Sample Id: 642600-001 S

Prep Method: SW5030B

Date Prep: 11.08.19

MSD Sample Id: 642600-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000994	0.0994	0.0702	71	0.0689	69	70-130	2	35	mg/kg	11.08.19 11:57	X
Toluene	<0.000994	0.0994	0.0726	73	0.0695	70	70-130	4	35	mg/kg	11.08.19 11:57	
Ethylbenzene	0.00345	0.0994	0.0738	71	0.0714	68	71-129	3	35	mg/kg	11.08.19 11:57	X
m,p-Xylenes	0.00295	0.199	0.154	76	0.146	72	70-135	5	35	mg/kg	11.08.19 11:57	
o-Xylene	0.00132	0.0994	0.0760	75	0.0727	72	71-133	4	35	mg/kg	11.08.19 11:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	11.08.19 11:57
4-Bromofluorobenzene	114		111		70-130	%	11.08.19 11:57

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3106935

Parent Sample Id: 642594-001

Matrix: Soil

MS Sample Id: 642594-001 S

Prep Method: SW5030B

Date Prep: 11.08.19

MSD Sample Id: 642594-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0932	92	0.0870	87	70-130	7	35	mg/kg	11.08.19 11:00	
Toluene	<0.00101	0.101	0.0934	92	0.0858	86	70-130	8	35	mg/kg	11.08.19 11:00	
Ethylbenzene	<0.00101	0.101	0.0920	91	0.0839	84	71-129	9	35	mg/kg	11.08.19 11:00	
m,p-Xylenes	<0.00202	0.202	0.196	97	0.178	89	70-135	10	35	mg/kg	11.08.19 11:00	
o-Xylene	<0.00101	0.101	0.0984	97	0.0895	90	71-133	9	35	mg/kg	11.08.19 11:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		70-130	%	11.08.19 11:00
4-Bromofluorobenzene	119		119		70-130	%	11.08.19 11:00

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/08/2019 08:51:00 AM

Work Order #: 642596

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/08/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/08/2019

Analytical Report 649661

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

012918058

22-JAN-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



22-JAN-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **649661**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649661. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 649661 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS05	S	01-20-20 09:45	2.5 ft	649661-001
SW07	S	01-20-20 10:00	0 - 2.5 ft	649661-002
SW08	S	01-20-20 10:15	0 - 2.5 ft	649661-003
SW09	S	01-20-20 10:30	0 - 2.5 ft	649661-004
SW10	S	01-20-20 10:45	0 - 2.5 ft	649661-005



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 012918058
Work Order Number(s): 649661

Report Date: 22-JAN-20
Date Received: 01/20/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3113883 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 649661-004.

Batch: LBA-3113991 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 649663-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 649661

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 012918058
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon Jan-20-20 03:30 pm
Report Date: 22-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	649661-001	649661-002	649661-003	649661-004	649661-005	
	Field Id:	FS05	SW07	SW08	SW09	SW10	
	Depth:	2.5- ft	0-2.5 ft	0-2.5 ft	0-2.5 ft	0-2.5 ft	
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Jan-20-20 09:45	Jan-20-20 10:00	Jan-20-20 10:15	Jan-20-20 10:30	Jan-20-20 10:45	
BTEX by EPA 8021B	Extracted:	Jan-20-20 16:00					
	Analyzed:	Jan-21-20 07:31	Jan-21-20 07:51	Jan-21-20 08:12	Jan-21-20 08:32	Jan-21-20 08:53	
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
m,p-Xylenes		<0.00399 0.00399	<0.00397 0.00397	<0.00403 0.00403	<0.00404 0.00404	<0.00396 0.00396	
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	
Chloride by EPA 300	Extracted:	Jan-20-20 16:49					
	Analyzed:	Jan-20-20 19:46	Jan-20-20 19:51	Jan-20-20 19:57	Jan-20-20 20:02	Jan-20-20 20:08	
	Units/RL:	mg/kg RL					
Chloride		242 10.1	30.4 10.1	301 9.90	352 10.0	175 9.98	
TPH by SW8015 Mod	Extracted:	Jan-20-20 17:00					
	Analyzed:	Jan-21-20 00:33	Jan-21-20 00:33	Jan-21-20 00:53	Jan-21-20 00:53	Jan-21-20 01:12	
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<49.8 49.8	
Diesel Range Organics (DRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<49.8 49.8	
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<49.8 49.8	
Total GRO-DRO		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<49.8 49.8	
Total TPH		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<49.8 49.8	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS05** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649661-001 Date Collected: 01.20.20 09.45 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.49 Basis: Wet Weight
 Seq Number: 3113985

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	242	10.1	mg/kg	01.20.20 19.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 00.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	01.21.20 00.33	
o-Terphenyl	84-15-1	105	%	70-135	01.21.20 00.33	



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS05	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649661-001	Date Collected: 01.20.20 09.45	Sample Depth: 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.21.20 07.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.21.20 07.31	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 07.31		
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.21.20 07.31		



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW07** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649661-002 Date Collected: 01.20.20 10.00 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.49 Basis: Wet Weight
 Seq Number: 3113985

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.4	10.1	mg/kg	01.20.20 19.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 00.33	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 00.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	01.21.20 00.33	
o-Terphenyl	84-15-1	108	%	70-135	01.21.20 00.33	



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW07	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649661-002	Date Collected: 01.20.20 10.00	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.21.20 07.51	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.21.20 07.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.21.20 07.51		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 07.51		



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW08** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649661-003 Date Collected: 01.20.20 10.15 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.49 Basis: Wet Weight
 Seq Number: 3113985

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	301	9.90	mg/kg	01.20.20 19.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 00.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 00.53	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 00.53	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 00.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	01.21.20 00.53	
o-Terphenyl	84-15-1	109	%	70-135	01.21.20 00.53	



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW08	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649661-003	Date Collected: 01.20.20 10.15	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.21.20 08.12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 08.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 08.12		
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.21.20 08.12		



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW09** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649661-004 Date Collected: 01.20.20 10.30 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.49 Basis: Wet Weight
 Seq Number: 3113985

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	352	10.0	mg/kg	01.20.20 20.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.21.20 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.21.20 00.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.21.20 00.53	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.21.20 00.53	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.21.20 00.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	138	%	70-135	01.21.20 00.53	**
o-Terphenyl	84-15-1	134	%	70-135	01.21.20 00.53	



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW09	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649661-004	Date Collected: 01.20.20 10.30	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 08.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 08.32	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.21.20 08.32		
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.21.20 08.32		



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW10** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649661-005 Date Collected: 01.20.20 10.45 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.49 Basis: Wet Weight
 Seq Number: 3113985

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	175	9.98	mg/kg	01.20.20 20.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.21.20 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.21.20 01.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.21.20 01.12	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.21.20 01.12	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.21.20 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.21.20 01.12	
o-Terphenyl	84-15-1	104	%	70-135	01.21.20 01.12	



Certificate of Analytical Results 649661

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW10	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649661-005	Date Collected: 01.20.20 10.45	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.21.20 08.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.21.20 08.53	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.21.20 08.53		
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.21.20 08.53		



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3113985 Matrix: Solid Prep Method: E300P
 MB Sample Id: 7694792-1-BLK LCS Sample Id: 7694792-1-BKS Date Prep: 01.20.20
 LCSD Sample Id: 7694792-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.39	250	252	101	252	101	90-110	0	20	mg/kg	01.20.20 18:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3113985 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 649573-008 MS Sample Id: 649573-008 S Date Prep: 01.20.20
 MSD Sample Id: 649573-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	79.7	193	333	131	316	122	90-110	5	20	mg/kg	01.20.20 18:53	X

Analytical Method: Chloride by EPA 300

Seq Number: 3113985 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 649573-018 MS Sample Id: 649573-018 S Date Prep: 01.20.20
 MSD Sample Id: 649573-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	382	202	679	147	701	159	90-110	3	20	mg/kg	01.20.20 20:34	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7694812-1-BLK LCS Sample Id: 7694812-1-BKS Date Prep: 01.20.20
 LCSD Sample Id: 7694812-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1140	114	70-135	4	35	mg/kg	01.20.20 23:34	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1100	110	70-135	10	35	mg/kg	01.20.20 23:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		116		124		70-135	%	01.20.20 23:34
o-Terphenyl	102		109		117		70-135	%	01.20.20 23:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7694812-1-BLK Date Prep: 01.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.20.20 23:14	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
 Relative Percent Difference RPD = 200* |(C-E) / (C+E)|
 LCS/LCSD Recovery [D] = 100 * (C) / [B]
 Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)
 LCS = Laboratory Control Sample MS = Matrix Spike
 A = Parent Result B = Spike Added
 C = MS/LCS Result D = MSD/LCSD % Rec
 E = MSD/LCSD Result



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

Parent Sample Id: 649655-004

Matrix: Soil

MS Sample Id: 649655-004 S

Prep Method: SW8015P

Date Prep: 01.20.20

MSD Sample Id: 649655-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1280	128	1170	117	70-135	9	35		mg/kg	01.20.20 23:53	
Diesel Range Organics (DRO)	<50.1	1000	1240	124	1090	109	70-135	13	35		mg/kg	01.20.20 23:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		129		70-135	%	01.20.20 23:53
o-Terphenyl	129		118		70-135	%	01.20.20 23:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

MB Sample Id: 7694845-1-BLK

Matrix: Solid

LCS Sample Id: 7694845-1-BKS

Prep Method: SW5030B

Date Prep: 01.20.20

LCSD Sample Id: 7694845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0906	91	0.0910	91	70-130	0	35		mg/kg	01.21.20 04:54	
Toluene	<0.00200	0.100	0.0883	88	0.0880	88	70-130	0	35		mg/kg	01.21.20 04:54	
Ethylbenzene	<0.00200	0.100	0.0855	86	0.0842	84	71-129	2	35		mg/kg	01.21.20 04:54	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.173	87	70-135	2	35		mg/kg	01.21.20 04:54	
o-Xylene	<0.00200	0.100	0.0882	88	0.0867	87	71-133	2	35		mg/kg	01.21.20 04:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		101		70-130	%	01.21.20 04:54
4-Bromofluorobenzene	98		97		96		70-130	%	01.21.20 04:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

Parent Sample Id: 649663-005

Matrix: Soil

MS Sample Id: 649663-005 S

Prep Method: SW5030B

Date Prep: 01.20.20

MSD Sample Id: 649663-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0816	82	0.0670	66	70-130	20	35		mg/kg	01.21.20 05:35	X
Toluene	<0.00200	0.0998	0.0788	79	0.0665	66	70-130	17	35		mg/kg	01.21.20 05:35	X
Ethylbenzene	<0.00200	0.0998	0.0761	76	0.0645	64	71-129	17	35		mg/kg	01.21.20 05:35	X
m,p-Xylenes	<0.00399	0.200	0.157	79	0.135	67	70-135	15	35		mg/kg	01.21.20 05:35	X
o-Xylene	<0.00200	0.0998	0.0786	79	0.0685	68	71-133	14	35		mg/kg	01.21.20 05:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	01.21.20 05:35
4-Bromofluorobenzene	99		102		70-130	%	01.21.20 05:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.20.2020 03.30.00 PM

Work Order #: 649661

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

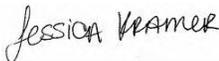
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 01.20.2020

Checklist reviewed by:


Jessica Kramer

Date: 01.21.2020

Analytical Report 649655

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

012918058

22-JAN-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



22-JAN-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **649655**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649655. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 649655 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer
Project Assistant

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS06	S	01-20-20 11:00	2.5 ft	649655-001
SW11	S	01-20-20 11:15	0 - 2.5 ft	649655-002
SW12	S	01-20-20 11:30	0 - 2.5 ft	649655-003
SW13	S	01-20-20 11:45	0 - 2.5 ft	649655-004
SW14	S	01-20-20 12:00	0 - 2.5 ft	649655-005



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 012918058
Work Order Number(s): 649655

Report Date: 22-JAN-20
Date Received: 01/20/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3113964 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3113990 Chloride by EPA 300

Lab Sample ID 649663-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 649655-001, -002, -003, -004, -005.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3113991 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 649663-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3113992 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 649655

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 012918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Jan-20-20 03:20 pm

Report Date: 22-JAN-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	649655-001	649655-002	649655-003	649655-004	649655-005				
	<i>Field Id:</i>	FS06	SW11	SW12	SW13	SW14				
	<i>Depth:</i>	2.5- ft	0-2.5 ft	0-2.5 ft	0-2.5 ft	0-2.5 ft				
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL				
	<i>Sampled:</i>	Jan-20-20 11:00	Jan-20-20 11:15	Jan-20-20 11:30	Jan-20-20 11:45	Jan-20-20 12:00				
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** **		Jan-20-20 17:00	Jan-20-20 17:00	Jan-20-20 16:00	Jan-20-20 16:00			
	<i>Analyzed:</i>	Jan-21-20 04:09		Jan-21-20 03:12	Jan-21-20 03:33	Jan-21-20 06:50	Jan-21-20 07:11			
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
Toluene	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
Ethylbenzene	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
m,p-Xylenes	<0.00404	0.00404	<0.00398	0.00398	<0.00405	0.00405	<0.00404	0.00404		
o-Xylene	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
Total Xylenes	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
Total BTEX	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Jan-20-20 16:10		Jan-20-20 16:10	Jan-20-20 16:10	Jan-20-20 16:10	Jan-20-20 16:10			
	<i>Analyzed:</i>	Jan-20-20 22:00		Jan-20-20 22:06	Jan-20-20 22:11	Jan-20-20 22:17	Jan-20-20 22:33			
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride	29.2	10.1	186	10.0	320	10.0	234	9.94	341	10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Jan-20-20 17:36		Jan-20-20 17:36	Jan-20-20 17:36	Jan-20-20 17:00	Jan-20-20 17:00			
	<i>Analyzed:</i>	Jan-20-20 22:35		Jan-20-20 22:54	Jan-20-20 22:54	Jan-20-20 23:53	Jan-21-20 00:13			
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)	<49.8	49.8	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3
Diesel Range Organics (DRO)	<49.8	49.8	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3
Motor Oil Range Hydrocarbons (MRO)	<49.8	49.8	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3
Total GRO-DRO	<49.8	49.8	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3
Total TPH	<49.8	49.8	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS06** Matrix: Soil Date Received: 01.20.20 15.20
 Lab Sample Id: 649655-001 Date Collected: 01.20.20 11.00 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.2	10.1	mg/kg	01.20.20 22.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.36 Basis: Wet Weight
 Seq Number: 3113865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.20.20 22.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.20.20 22.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.20.20 22.35	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.20.20 22.35	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.20.20 22.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	01.20.20 22.35	
o-Terphenyl	84-15-1	109	%	70-135	01.20.20 22.35	



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS06	Matrix: Soil	Date Received: 01.20.20 15.20
Lab Sample Id: 649655-001	Date Collected: 01.20.20 11.00	Sample Depth: 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 13.39	Basis: Wet Weight
Seq Number: 3113964		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 04.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 04.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.21.20 04.09		
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.21.20 04.09		



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW11** Matrix: Soil Date Received: 01.20.20 15.20
 Lab Sample Id: 649655-002 Date Collected: 01.20.20 11.15 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	186	10.0	mg/kg	01.20.20 22.06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.36 Basis: Wet Weight
 Seq Number: 3113865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.20.20 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.20.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.20.20 22.54	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.20.20 22.54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.20.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.20.20 22.54	
o-Terphenyl	84-15-1	107	%	70-135	01.20.20 22.54	



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW11	Matrix: Soil	Date Received: 01.20.20 15.20
Lab Sample Id: 649655-002	Date Collected: 01.20.20 11.15	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 17.00	Basis: Wet Weight
Seq Number: 3113992		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.21.20 03.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.21.20 03.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.21.20 03.12		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 03.12		



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW12** Matrix: Soil Date Received: 01.20.20 15.20
 Lab Sample Id: 649655-003 Date Collected: 01.20.20 11.30 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	320	10.0	mg/kg	01.20.20 22.11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.36 Basis: Wet Weight
 Seq Number: 3113865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.20.20 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.20.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.20.20 22.54	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.20.20 22.54	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.20.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	01.20.20 22.54	
o-Terphenyl	84-15-1	106	%	70-135	01.20.20 22.54	



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW12	Matrix: Soil	Date Received: 01.20.20 15.20
Lab Sample Id: 649655-003	Date Collected: 01.20.20 11.30	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 17.00	Basis: Wet Weight
Seq Number: 3113992		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00405	0.00405	mg/kg	01.21.20 03.33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 03.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.21.20 03.33		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.20 03.33		



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW13** Matrix: Soil Date Received: 01.20.20 15.20
 Lab Sample Id: 649655-004 Date Collected: 01.20.20 11.45 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	234	9.94	mg/kg	01.20.20 22.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.20.20 23.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.20.20 23.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.20.20 23.53	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.20.20 23.53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.20.20 23.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	01.20.20 23.53	
o-Terphenyl	84-15-1	100	%	70-135	01.20.20 23.53	



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW13	Matrix: Soil	Date Received: 01.20.20 15.20
Lab Sample Id: 649655-004	Date Collected: 01.20.20 11.45	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 06.50	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 06.50	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.20 06.50		
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.21.20 06.50		



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW14** Matrix: Soil Date Received: 01.20.20 15.20
 Lab Sample Id: 649655-005 Date Collected: 01.20.20 12.00 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	341	10.1	mg/kg	01.20.20 22.33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 00.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 00.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 00.13	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 00.13	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.21.20 00.13	
o-Terphenyl	84-15-1	112	%	70-135	01.21.20 00.13	



Certificate of Analytical Results 649655

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW14	Matrix: Soil	Date Received: 01.20.20 15.20
Lab Sample Id: 649655-005	Date Collected: 01.20.20 12.00	Sample Depth: 0 - 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 07.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 07.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.21.20 07.11		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.20 07.11		



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

MB Sample Id: 7694796-1-BLK

Matrix: Solid

LCS Sample Id: 7694796-1-BKS

Prep Method: E300P

Date Prep: 01.20.20

LCSD Sample Id: 7694796-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.41	250	258	103	258	103	90-110	0	20	mg/kg	01.20.20 21:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

Parent Sample Id: 649655-001

Matrix: Soil

MS Sample Id: 649655-001 S

Prep Method: E300P

Date Prep: 01.20.20

MSD Sample Id: 649655-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.2	189	287	136	288	137	90-110	0	20	mg/kg	01.20.20 21:50	X

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

Parent Sample Id: 649663-010

Matrix: Soil

MS Sample Id: 649663-010 S

Prep Method: E300P

Date Prep: 01.20.20

MSD Sample Id: 649663-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	285	198	553	135	495	107	90-110	11	20	mg/kg	01.20.20 23:44	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

MB Sample Id: 7694812-1-BLK

Matrix: Solid

LCS Sample Id: 7694812-1-BKS

Prep Method: SW8015P

Date Prep: 01.20.20

LCSD Sample Id: 7694812-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1140	114	70-135	4	35	mg/kg	01.20.20 23:34	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1100	110	70-135	10	35	mg/kg	01.20.20 23:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		116		124		70-135	%	01.20.20 23:34
o-Terphenyl	102		109		117		70-135	%	01.20.20 23:34

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113865

MB Sample Id: 7694760-1-BLK

Matrix: Solid

LCS Sample Id: 7694760-1-BKS

Prep Method: SW8015P

Date Prep: 01.20.20

LCSD Sample Id: 7694760-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1100	110	70-135	5	35	mg/kg	01.20.20 18:57	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1060	106	70-135	0	35	mg/kg	01.20.20 18:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		121		118		70-135	%	01.20.20 18:57
o-Terphenyl	100		114		114		70-135	%	01.20.20 18:57

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

Matrix: Solid

MB Sample Id: 7694812-1-BLK

Prep Method: SW8015P

Date Prep: 01.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.20.20 23:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113885

Matrix: Solid

MB Sample Id: 7694760-1-BLK

Prep Method: SW8015P

Date Prep: 01.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.20.20 18:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

Parent Sample Id: 649655-004

Matrix: Soil

MS Sample Id: 649655-004 S

Prep Method: SW8015P

Date Prep: 01.20.20

MSD Sample Id: 649655-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1280	128	1170	117	70-135	9	35	mg/kg	01.20.20 23:53	
Diesel Range Organics (DRO)	<50.1	1000	1240	124	1090	109	70-135	13	35	mg/kg	01.20.20 23:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		129		70-135	%	01.20.20 23:53
o-Terphenyl	129		118		70-135	%	01.20.20 23:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113865

Parent Sample Id: 649573-008

Matrix: Soil

MS Sample Id: 649573-008 S

Prep Method: SW8015P

Date Prep: 01.20.20

MSD Sample Id: 649573-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1100	110	1080	108	70-135	2	35	mg/kg	01.20.20 19:37	
Diesel Range Organics (DRO)	<49.9	997	1230	123	1090	109	70-135	12	35	mg/kg	01.20.20 19:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		121		70-135	%	01.20.20 19:37
o-Terphenyl	108		114		70-135	%	01.20.20 19:37

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113992

MB Sample Id: 7694831-1-BLK

Matrix: Solid

LCS Sample Id: 7694831-1-BKS

Prep Method: SW5030B

Date Prep: 01.20.20

LCSD Sample Id: 7694831-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0978	98	0.0937	94	70-130	4	35	mg/kg	01.20.20 18:14	
Toluene	<0.00200	0.100	0.0943	94	0.0910	91	70-130	4	35	mg/kg	01.20.20 18:14	
Ethylbenzene	<0.00200	0.100	0.0915	92	0.0884	88	71-129	3	35	mg/kg	01.20.20 18:14	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.183	92	70-135	3	35	mg/kg	01.20.20 18:14	
o-Xylene	<0.00200	0.100	0.0932	93	0.0905	91	71-133	3	35	mg/kg	01.20.20 18:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		101		70-130	%	01.20.20 18:14
4-Bromofluorobenzene	97		98		95		70-130	%	01.20.20 18:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113964

MB Sample Id: 7694838-1-BLK

Matrix: Solid

LCS Sample Id: 7694838-1-BKS

Prep Method: SW5030B

Date Prep: 01.20.20

LCSD Sample Id: 7694838-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.112	112	0.0972	97	70-130	14	35	mg/kg	01.20.20 18:54	
Toluene	<0.00200	0.100	0.103	103	0.0902	90	70-130	13	35	mg/kg	01.20.20 18:54	
Ethylbenzene	<0.00200	0.100	0.0999	100	0.0877	88	71-129	13	35	mg/kg	01.20.20 18:54	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.173	87	70-135	12	35	mg/kg	01.20.20 18:54	
o-Xylene	<0.00200	0.100	0.0977	98	0.0869	87	71-133	12	35	mg/kg	01.20.20 18:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		106		104		70-130	%	01.20.20 18:54
4-Bromofluorobenzene	84		89		92		70-130	%	01.20.20 18:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

MB Sample Id: 7694845-1-BLK

Matrix: Solid

LCS Sample Id: 7694845-1-BKS

Prep Method: SW5030B

Date Prep: 01.20.20

LCSD Sample Id: 7694845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0906	91	0.0910	91	70-130	0	35	mg/kg	01.21.20 04:54	
Toluene	<0.00200	0.100	0.0883	88	0.0880	88	70-130	0	35	mg/kg	01.21.20 04:54	
Ethylbenzene	<0.00200	0.100	0.0855	86	0.0842	84	71-129	2	35	mg/kg	01.21.20 04:54	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.173	87	70-135	2	35	mg/kg	01.21.20 04:54	
o-Xylene	<0.00200	0.100	0.0882	88	0.0867	87	71-133	2	35	mg/kg	01.21.20 04:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		101		70-130	%	01.21.20 04:54
4-Bromofluorobenzene	98		97		96		70-130	%	01.21.20 04:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113992

Parent Sample Id: 649562-001

Matrix: Soil

MS Sample Id: 649562-001 S

Prep Method: SW5030B

Date Prep: 01.20.20

MSD Sample Id: 649562-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0800	80	0.0954	96	70-130	18	35	mg/kg	01.20.20 18:55	
Toluene	<0.00199	0.0994	0.0777	78	0.0924	93	70-130	17	35	mg/kg	01.20.20 18:55	
Ethylbenzene	<0.00199	0.0994	0.0749	75	0.0897	90	71-129	18	35	mg/kg	01.20.20 18:55	
m,p-Xylenes	<0.000749	0.199	0.155	78	0.185	93	70-135	18	35	mg/kg	01.20.20 18:55	
o-Xylene	<0.00199	0.0994	0.0767	77	0.0921	93	71-133	18	35	mg/kg	01.20.20 18:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		104		70-130	%	01.20.20 18:55
4-Bromofluorobenzene	99		98		70-130	%	01.20.20 18:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113964

Parent Sample Id: 649573-008

Matrix: Soil

MS Sample Id: 649573-008 S

Prep Method: SW5030B

Date Prep: 01.20.20

MSD Sample Id: 649573-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0612	61	0.106	106	70-130	54	35	mg/kg	01.20.20 19:35	XF
Toluene	<0.00200	0.0998	0.0742	74	0.0974	98	70-130	27	35	mg/kg	01.20.20 19:35	
Ethylbenzene	<0.00200	0.0998	0.0775	78	0.0952	96	71-129	20	35	mg/kg	01.20.20 19:35	
m,p-Xylenes	<0.00399	0.200	0.151	76	0.188	94	70-135	22	35	mg/kg	01.20.20 19:35	
o-Xylene	<0.00200	0.0998	0.0780	78	0.0940	94	71-133	19	35	mg/kg	01.20.20 19:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		108		70-130	%	01.20.20 19:35
4-Bromofluorobenzene	107		94		70-130	%	01.20.20 19:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

Parent Sample Id: 649663-005

Matrix: Soil

MS Sample Id: 649663-005 S

Prep Method: SW5030B

Date Prep: 01.20.20

MSD Sample Id: 649663-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0816	82	0.0670	66	70-130	20	35		mg/kg	01.21.20 05:35	X
Toluene	<0.00200	0.0998	0.0788	79	0.0665	66	70-130	17	35		mg/kg	01.21.20 05:35	X
Ethylbenzene	<0.00200	0.0998	0.0761	76	0.0645	64	71-129	17	35		mg/kg	01.21.20 05:35	X
m,p-Xylenes	<0.00399	0.200	0.157	79	0.135	67	70-135	15	35		mg/kg	01.21.20 05:35	X
o-Xylene	<0.00200	0.0998	0.0786	79	0.0685	68	71-133	14	35		mg/kg	01.21.20 05:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	01.21.20 05:35
4-Bromofluorobenzene	99		102		70-130	%	01.21.20 05:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result
MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.20.2020 03.20.00 PM

Work Order #: 649655

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 01.20.2020

Checklist reviewed by:


Jessica Kramer

Date: 01.21.2020

Analytical Report 649663

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

12918058

22-JAN-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



22-JAN-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **649663**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649663. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 649663 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive style with a horizontal line underneath.

Jessica Kramer
Project Assistant

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	01-17-20 14:50	8 ft	649663-001
FS02	S	01-17-20 16:50	9 ft	649663-002
SW01	S	01-17-20 15:00	0 - 8 ft	649663-003
SW02	S	01-17-20 16:00	0 - 9 ft	649663-004
SW03	S	01-17-20 16:10	0 - 9 ft	649663-005
SW04	S	01-17-20 16:20	0 - 9 ft	649663-006
SW05	S	01-17-20 16:30	0 - 8 ft	649663-007
SW06	S	01-17-20 09:15	0 - 8 ft	649663-008
FS03	S	01-17-20 09:30	9 ft	649663-009
FS04	S	01-17-20 12:15	8 ft	649663-010



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 12918058
Work Order Number(s): 649663

Report Date: 22-JAN-20
Date Received: 01/20/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3113990 Chloride by EPA 300

Lab Sample ID 649663-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 649663-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3113991 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 649663-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 649663-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 649663

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 12918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Jan-20-20 03:30 pm

Report Date: 22-JAN-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	649663-001	649663-002	649663-003	649663-004	649663-005	649663-006
	<i>Field Id:</i>	FS01	FS02	SW01	SW02	SW03	SW04
	<i>Depth:</i>	8- ft	9- ft	0-8 ft	0-9 ft	0-9 ft	0-9 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jan-17-20 14:50	Jan-17-20 16:50	Jan-17-20 15:00	Jan-17-20 16:00	Jan-17-20 16:10	Jan-17-20 16:20
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-20-20 16:00					
	<i>Analyzed:</i>	Jan-21-20 09:13	Jan-21-20 09:33	Jan-21-20 09:54	Jan-21-20 11:09	Jan-21-20 11:29	Jan-21-20 11:50
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00404 0.00404	<0.00403 0.00403	<0.00398 0.00398	<0.00395 0.00395	<0.00404 0.00404
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Jan-20-20 16:10					
	<i>Analyzed:</i>	Jan-20-20 22:49	Jan-20-20 22:54	Jan-20-20 23:00	Jan-20-20 23:05	Jan-20-20 23:10	Jan-20-20 22:38
	<i>Units/RL:</i>	mg/kg RL					
Chloride		325 10.0	264 10.1	650 10.0	386 10.1	342 9.96	1600 20.1
TPH by SW8015 Mod	<i>Extracted:</i>	Jan-20-20 17:00					
	<i>Analyzed:</i>	Jan-21-20 01:12	Jan-21-20 01:32	Jan-21-20 01:32	Jan-21-20 01:52	Jan-21-20 02:11	Jan-21-20 02:11
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.3 50.3
Diesel Range Organics (DRO)		<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.3 50.3
Total GRO-DRO		<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.3 50.3
Total TPH		<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.3 50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 649663

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 12918058
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon Jan-20-20 03:30 pm
Report Date: 22-JAN-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	649663-007	649663-008	649663-009	649663-010		
	Field Id:	SW05	SW06	FS03	FS04		
	Depth:	0-8 ft	0-8 ft	9- ft	8- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Jan-17-20 16:30	Jan-17-20 09:15	Jan-17-20 09:30	Jan-17-20 12:15		
BTEX by EPA 8021B	Extracted:	Jan-20-20 16:00	Jan-20-20 16:00	Jan-20-20 16:00	Jan-20-20 16:00		
	Analyzed:	Jan-21-20 12:10	Jan-21-20 12:30	Jan-21-20 12:51	Jan-21-20 13:11		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202		
	Toluene	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202		
	Ethylbenzene	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202		
	m,p-Xylenes	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404		
	o-Xylene	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202		
Total Xylenes	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Total BTEX	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Chloride by EPA 300	Extracted:	Jan-20-20 16:10	Jan-20-20 16:10	Jan-20-20 16:10	Jan-20-20 16:10		
	Analyzed:	Jan-20-20 22:44	Jan-20-20 23:16	Jan-20-20 23:21	Jan-20-20 23:39		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2010 20.1	457 10.0	451 10.0	285 9.96		
TPH by SW8015 Mod	Extracted:	Jan-20-20 17:00	Jan-20-20 17:00	Jan-20-20 17:00	Jan-20-20 17:00		
	Analyzed:	Jan-21-20 02:31	Jan-21-20 02:31	Jan-21-20 02:51	Jan-21-20 02:51		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.2 50.2	<50.3 50.3	<50.3 50.3		
	Diesel Range Organics (DRO)	<50.0 50.0	<50.2 50.2	<50.3 50.3	<50.3 50.3		
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.2 50.2	<50.3 50.3	<50.3 50.3			
Total GRO-DRO	<50.0 50.0	<50.2 50.2	<50.3 50.3	<50.3 50.3			
Total TPH	<50.0 50.0	<50.2 50.2	<50.3 50.3	<50.3 50.3			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS01** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-001 Date Collected: 01.17.20 14.50 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	325	10.0	mg/kg	01.20.20 22.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.21.20 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.21.20 01.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.21.20 01.12	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.21.20 01.12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.21.20 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.21.20 01.12	
o-Terphenyl	84-15-1	101	%	70-135	01.21.20 01.12	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS01	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-001	Date Collected: 01.17.20 14.50	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.21.20 09.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.21.20 09.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.21.20 09.13		
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.21.20 09.13		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS02** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-002 Date Collected: 01.17.20 16.50 Sample Depth: 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	264	10.1	mg/kg	01.20.20 22.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.21.20 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	01.21.20 01.32	
o-Terphenyl	84-15-1	89	%	70-135	01.21.20 01.32	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS02	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-002	Date Collected: 01.17.20 16.50	Sample Depth: 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 09.33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 09.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.21.20 09.33		
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.21.20 09.33		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW01** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-003 Date Collected: 01.17.20 15.00 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	650	10.0	mg/kg	01.20.20 23.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.21.20 01.32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.21.20 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.21.20 01.32	
o-Terphenyl	84-15-1	100	%	70-135	01.21.20 01.32	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW01	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-003	Date Collected: 01.17.20 15.00	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.21.20 09.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 09.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.21.20 09.54		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.21.20 09.54		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW02** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-004 Date Collected: 01.17.20 16.00 Sample Depth: 0 - 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	386	10.1	mg/kg	01.20.20 23.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.21.20 01.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.21.20 01.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.21.20 01.52	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.21.20 01.52	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.21.20 01.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.21.20 01.52	
o-Terphenyl	84-15-1	100	%	70-135	01.21.20 01.52	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW02	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-004	Date Collected: 01.17.20 16.00	Sample Depth: 0 - 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.21.20 11.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.21.20 11.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.20 11.09		
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.21.20 11.09		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW03** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-005 Date Collected: 01.17.20 16.10 Sample Depth: 0 - 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	342	9.96	mg/kg	01.20.20 23.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.21.20 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.21.20 02.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.21.20 02.11	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.21.20 02.11	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.21.20 02.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.21.20 02.11	
o-Terphenyl	84-15-1	96	%	70-135	01.21.20 02.11	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW03	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-005	Date Collected: 01.17.20 16.10	Sample Depth: 0 - 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	01.21.20 11.29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.21.20 11.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.21.20 11.29		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 11.29		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW04** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-006 Date Collected: 01.17.20 16.20 Sample Depth: 0 - 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1600	20.1	mg/kg	01.20.20 22.38		2

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 02.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 02.11	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 02.11	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 02.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	01.21.20 02.11	
o-Terphenyl	84-15-1	98	%	70-135	01.21.20 02.11	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW04	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-006	Date Collected: 01.17.20 16.20	Sample Depth: 0 - 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 11.50	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 11.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.21.20 11.50		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 11.50		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW05** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-007 Date Collected: 01.17.20 16.30 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2010	20.1	mg/kg	01.20.20 22.44		2

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.21.20 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.21.20 02.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.21.20 02.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.21.20 02.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.21.20 02.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.21.20 02.31	
o-Terphenyl	84-15-1	95	%	70-135	01.21.20 02.31	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW05	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-007	Date Collected: 01.17.20 16.30	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.21.20 12.10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 12.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.21.20 12.10		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 12.10		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW06** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-008 Date Collected: 01.17.20 09.15 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	457	10.0	mg/kg	01.20.20 23.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.21.20 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.21.20 02.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.21.20 02.31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.21.20 02.31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.21.20 02.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.21.20 02.31	
o-Terphenyl	84-15-1	102	%	70-135	01.21.20 02.31	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW06	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-008	Date Collected: 01.17.20 09.15	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.21.20 12.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.21.20 12.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.21.20 12.30		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.21.20 12.30		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS03** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-009 Date Collected: 01.17.20 09.30 Sample Depth: 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	451	10.0	mg/kg	01.20.20 23.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 02.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	01.21.20 02.51	
o-Terphenyl	84-15-1	95	%	70-135	01.21.20 02.51	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS03	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-009	Date Collected: 01.17.20 09.30	Sample Depth: 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.21.20 12.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.21.20 12.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.21.20 12.51		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.21.20 12.51		



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS04** Matrix: Soil Date Received: 01.20.20 15.30
 Lab Sample Id: 649663-010 Date Collected: 01.17.20 12.15 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JHB % Moisture:
 Analyst: JHB Date Prep: 01.20.20 16.10 Basis: Wet Weight
 Seq Number: 3113990

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	285	9.96	mg/kg	01.20.20 23.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 01.20.20 17.00 Basis: Wet Weight
 Seq Number: 3113883

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.21.20 02.51	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.21.20 02.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.21.20 02.51	
o-Terphenyl	84-15-1	100	%	70-135	01.21.20 02.51	



Certificate of Analytical Results 649663

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS04	Matrix: Soil	Date Received: 01.20.20 15.30
Lab Sample Id: 649663-010	Date Collected: 01.17.20 12.15	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: JHB		% Moisture:
Analyst: JHB	Date Prep: 01.20.20 16.00	Basis: Wet Weight
Seq Number: 3113991		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.21.20 13.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.21.20 13.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.20 13.11		
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.21.20 13.11		



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

MB Sample Id: 7694796-1-BLK

Matrix: Solid

LCS Sample Id: 7694796-1-BKS

Prep Method: E300P

Date Prep: 01.20.20

LCSD Sample Id: 7694796-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.41	250	258	103	258	103	90-110	0	20	mg/kg	01.20.20 21:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

Parent Sample Id: 649655-001

Matrix: Soil

MS Sample Id: 649655-001 S

Prep Method: E300P

Date Prep: 01.20.20

MSD Sample Id: 649655-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.2	189	287	136	288	137	90-110	0	20	mg/kg	01.20.20 21:50	X

Analytical Method: Chloride by EPA 300

Seq Number: 3113990

Parent Sample Id: 649663-010

Matrix: Soil

MS Sample Id: 649663-010 S

Prep Method: E300P

Date Prep: 01.20.20

MSD Sample Id: 649663-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	285	198	553	135	495	107	90-110	11	20	mg/kg	01.20.20 23:44	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

MB Sample Id: 7694812-1-BLK

Matrix: Solid

LCS Sample Id: 7694812-1-BKS

Prep Method: SW8015P

Date Prep: 01.20.20

LCSD Sample Id: 7694812-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1140	114	70-135	4	35	mg/kg	01.20.20 23:34	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1100	110	70-135	10	35	mg/kg	01.20.20 23:34	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		116		124		70-135	%	01.20.20 23:34
o-Terphenyl	102		109		117		70-135	%	01.20.20 23:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

Matrix: Solid

MB Sample Id: 7694812-1-BLK

Prep Method: SW8015P

Date Prep: 01.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.20.20 23:14	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3113883

Parent Sample Id: 649655-004

Matrix: Soil

MS Sample Id: 649655-004 S

Prep Method: SW8015P

Date Prep: 01.20.20

MSD Sample Id: 649655-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1280	128	1170	117	70-135	9	35		mg/kg	01.20.20 23:53	
Diesel Range Organics (DRO)	<50.1	1000	1240	124	1090	109	70-135	13	35		mg/kg	01.20.20 23:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		129		70-135	%	01.20.20 23:53
o-Terphenyl	129		118		70-135	%	01.20.20 23:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

MB Sample Id: 7694845-1-BLK

Matrix: Solid

LCS Sample Id: 7694845-1-BKS

Prep Method: SW5030B

Date Prep: 01.20.20

LCSD Sample Id: 7694845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0906	91	0.0910	91	70-130	0	35		mg/kg	01.21.20 04:54	
Toluene	<0.00200	0.100	0.0883	88	0.0880	88	70-130	0	35		mg/kg	01.21.20 04:54	
Ethylbenzene	<0.00200	0.100	0.0855	86	0.0842	84	71-129	2	35		mg/kg	01.21.20 04:54	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.173	87	70-135	2	35		mg/kg	01.21.20 04:54	
o-Xylene	<0.00200	0.100	0.0882	88	0.0867	87	71-133	2	35		mg/kg	01.21.20 04:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		101		70-130	%	01.21.20 04:54
4-Bromofluorobenzene	98		97		96		70-130	%	01.21.20 04:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3113991

Parent Sample Id: 649663-005

Matrix: Soil

MS Sample Id: 649663-005 S

Prep Method: SW5030B

Date Prep: 01.20.20

MSD Sample Id: 649663-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0816	82	0.0670	66	70-130	20	35		mg/kg	01.21.20 05:35	X
Toluene	<0.00200	0.0998	0.0788	79	0.0665	66	70-130	17	35		mg/kg	01.21.20 05:35	X
Ethylbenzene	<0.00200	0.0998	0.0761	76	0.0645	64	71-129	17	35		mg/kg	01.21.20 05:35	X
m,p-Xylenes	<0.00399	0.200	0.157	79	0.135	67	70-135	15	35		mg/kg	01.21.20 05:35	X
o-Xylene	<0.00200	0.0998	0.0786	79	0.0685	68	71-133	14	35		mg/kg	01.21.20 05:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	01.21.20 05:35
4-Bromofluorobenzene	99		102		70-130	%	01.21.20 05:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.20.2020 03.30.00 PM

Work Order #: 649663

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

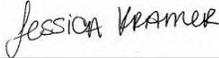
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 01.20.2020

Checklist reviewed by:


Jessica Kramer

Date: 01.21.2020

Analytical Report 655308

for

LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin Battery #1

012918058

13-MAR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



13-MAR-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **655308**
Remuda Basin Battery #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655308. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 655308 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive style with a horizontal line underneath it.

Jessica Kramer
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH 10	S	03-09-20 10:35	2 ft	655308-001
PH 10A	S	03-09-20 10:42	3 ft	655308-002
PH 10B	S	03-09-20 10:50	3.5 ft	655308-003
SW 15	S	03-10-20 16:00	0 - 9 ft	655308-004





CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin Battery #1

Project ID: 012918058
Work Order Number(s): 655308

Report Date: 13-MAR-20
Date Received: 03/11/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119320 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 655308

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin Battery #1

Project Id: 012918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Mar-11-20 11:20 am

Report Date: 13-MAR-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	655308-001	655308-002	655308-003	655308-004		
	<i>Field Id:</i>	PH 10	PH 10A	PH 10B	SW 15		
	<i>Depth:</i>	2- ft	3- ft	3.5- ft	0-9 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Mar-09-20 10:35	Mar-09-20 10:42	Mar-09-20 10:50	Mar-10-20 16:00		
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-11-20 13:00	Mar-11-20 13:00	Mar-11-20 13:00	Mar-11-20 13:00		
	<i>Analyzed:</i>	Mar-11-20 16:49	Mar-11-20 17:15	Mar-11-20 17:42	Mar-11-20 18:03		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00404 0.00404	<0.00404 0.00404		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Mar-11-20 11:48	Mar-11-20 11:48	Mar-11-20 11:48	Mar-11-20 11:48		
	<i>Analyzed:</i>	Mar-11-20 12:52	Mar-11-20 12:57	Mar-11-20 13:03	Mar-11-20 13:09		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		65.0 10.0	93.9 9.92	95.5 10.1	852 49.9		
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-11-20 12:20	Mar-11-20 12:20	Mar-11-20 12:20	Mar-11-20 12:20		
	<i>Analyzed:</i>	Mar-11-20 14:34	Mar-11-20 14:34	Mar-11-20 15:35	Mar-11-20 15:35		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9		
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9		
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9		
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **PH 10** Matrix: Soil Date Received: 03.11.20 11.20
 Lab Sample Id: 655308-001 Date Collected: 03.09.20 10.35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.11.20 11.48 Basis: Wet Weight
 Seq Number: 3119239

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.0	10.0	mg/kg	03.11.20 12.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.11.20 12.20 Basis: Wet Weight
 Seq Number: 3119329

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.11.20 14.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	03.11.20 14.34	
o-Terphenyl	84-15-1	97	%	70-135	03.11.20 14.34	



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: PH 10	Matrix: Soil	Date Received: 03.11.20 11.20
Lab Sample Id: 655308-001	Date Collected: 03.09.20 10.35	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 03.11.20 13.00	Basis: Wet Weight
Seq Number: 3119320		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.11.20 16.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.11.20 16.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.11.20 16.49		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.11.20 16.49		



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **PH 10A** Matrix: Soil Date Received: 03.11.20 11.20
 Lab Sample Id: 655308-002 Date Collected: 03.09.20 10.42 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.11.20 11.48 Basis: Wet Weight
 Seq Number: 3119239

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.9	9.92	mg/kg	03.11.20 12.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.11.20 12.20 Basis: Wet Weight
 Seq Number: 3119334

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.11.20 14.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.11.20 14.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	03.11.20 14.34	
o-Terphenyl	84-15-1	83	%	70-135	03.11.20 14.34	



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: PH 10A	Matrix: Soil	Date Received: 03.11.20 11.20
Lab Sample Id: 655308-002	Date Collected: 03.09.20 10.42	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 03.11.20 13.00	Basis: Wet Weight
Seq Number: 3119320		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.11.20 17.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.20 17.15	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.11.20 17.15		
4-Bromofluorobenzene	460-00-4	84	%	70-130	03.11.20 17.15		



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **PH 10B** Matrix: Soil Date Received: 03.11.20 11.20
 Lab Sample Id: 655308-003 Date Collected: 03.09.20 10.50 Sample Depth: 3.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.11.20 11.48 Basis: Wet Weight
 Seq Number: 3119239

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	95.5	10.1	mg/kg	03.11.20 13.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.11.20 12.20 Basis: Wet Weight
 Seq Number: 3119334

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.11.20 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.11.20 15.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.11.20 15.35	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.11.20 15.35	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.11.20 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.11.20 15.35	
o-Terphenyl	84-15-1	99	%	70-135	03.11.20 15.35	



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: PH 10B	Matrix: Soil	Date Received: 03.11.20 11.20
Lab Sample Id: 655308-003	Date Collected: 03.09.20 10.50	Sample Depth: 3.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 03.11.20 13.00	Basis: Wet Weight
Seq Number: 3119320		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.11.20 17.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.11.20 17.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.11.20 17.42		
4-Bromofluorobenzene	460-00-4	88	%	70-130	03.11.20 17.42		



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **SW 15** Matrix: Soil Date Received: 03.11.20 11.20
 Lab Sample Id: 655308-004 Date Collected: 03.10.20 16.00 Sample Depth: 0 - 9 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.11.20 11.48 Basis: Wet Weight
 Seq Number: 3119239

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	852	49.9	mg/kg	03.11.20 13.09		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.11.20 12.20 Basis: Wet Weight
 Seq Number: 3119329

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.11.20 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.11.20 15.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.11.20 15.35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.11.20 15.35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.11.20 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	03.11.20 15.35	
o-Terphenyl	84-15-1	91	%	70-135	03.11.20 15.35	



Certificate of Analytical Results 655308

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: SW 15	Matrix: Soil	Date Received: 03.11.20 11.20
Lab Sample Id: 655308-004	Date Collected: 03.10.20 16.00	Sample Depth: 0 - 9 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 03.11.20 13.00	Basis: Wet Weight
Seq Number: 3119320		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.11.20 18.03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.11.20 18.03	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81		%	70-130	03.11.20 18.03	
1,4-Difluorobenzene	540-36-3	88		%	70-130	03.11.20 18.03	



LT Environmental, Inc.
Remuda Basin Battery #1

Analytical Method: Chloride by EPA 300

Seq Number: 3119239

MB Sample Id: 7698564-1-BLK

Matrix: Solid

LCS Sample Id: 7698564-1-BKS

Prep Method: E300P

Date Prep: 03.11.20

LCSD Sample Id: 7698564-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	03.11.20 11:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3119239

Parent Sample Id: 655268-001

Matrix: Soil

MS Sample Id: 655268-001 S

Prep Method: E300P

Date Prep: 03.11.20

MSD Sample Id: 655268-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	485	198	692	105	703	110	90-110	2	20	mg/kg	03.11.20 11:42	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119329

MB Sample Id: 7698656-1-BLK

Matrix: Solid

LCS Sample Id: 7698656-1-BKS

Prep Method: SW8015P

Date Prep: 03.11.20

LCSD Sample Id: 7698656-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	940	94	915	92	70-135	3	35	mg/kg	03.11.20 13:53	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	983	98	70-135	3	35	mg/kg	03.11.20 13:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		111		107		70-135	%	03.11.20 13:53
o-Terphenyl	102		109		105		70-135	%	03.11.20 13:53

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119334

MB Sample Id: 7698657-1-BLK

Matrix: Solid

LCS Sample Id: 7698657-1-BKS

Prep Method: SW8015P

Date Prep: 03.11.20

LCSD Sample Id: 7698657-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	921	92	872	87	70-135	5	35	mg/kg	03.11.20 13:53	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1000	100	70-135	8	35	mg/kg	03.11.20 13:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		119		123		70-135	%	03.11.20 13:53
o-Terphenyl	131		131		116		70-135	%	03.11.20 13:53

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin Battery #1

Analytical Method: TPH by SW8015 Mod
Seq Number: 3119329

Matrix: Solid
MB Sample Id: 7698656-1-BLK

Prep Method: SW8015P
Date Prep: 03.11.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.11.20 13:33	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3119334

Matrix: Solid
MB Sample Id: 7698657-1-BLK

Prep Method: SW8015P
Date Prep: 03.11.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.11.20 13:33	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3119329
Parent Sample Id: 655308-001

Matrix: Soil
MS Sample Id: 655308-001 S

Prep Method: SW8015P
Date Prep: 03.11.20
MSD Sample Id: 655308-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	832	83	875	88	70-135	5	35	mg/kg	03.11.20 14:54	
Diesel Range Organics (DRO)	<50.0	1000	883	88	943	94	70-135	7	35	mg/kg	03.11.20 14:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		105		70-135	%	03.11.20 14:54
o-Terphenyl	95		103		70-135	%	03.11.20 14:54

Analytical Method: TPH by SW8015 Mod
Seq Number: 3119334
Parent Sample Id: 655308-002

Matrix: Soil
MS Sample Id: 655308-002 S

Prep Method: SW8015P
Date Prep: 03.11.20
MSD Sample Id: 655308-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	811	81	887	89	70-135	9	35	mg/kg	03.11.20 14:54	
Diesel Range Organics (DRO)	<50.2	1000	869	87	965	97	70-135	10	35	mg/kg	03.11.20 14:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		106		70-135	%	03.11.20 14:54
o-Terphenyl	98		107		70-135	%	03.11.20 14:54

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin Battery #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119320

MB Sample Id: 7698620-1-BLK

Matrix: Solid

LCS Sample Id: 7698620-1-BKS

Prep Method: SW5030B

Date Prep: 03.11.20

LCSD Sample Id: 7698620-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.117	117	0.121	121	70-130	3	35	mg/kg	03.11.20 15:07	
Toluene	<0.00200	0.100	0.106	106	0.109	109	70-130	3	35	mg/kg	03.11.20 15:07	
Ethylbenzene	<0.00200	0.100	0.100	100	0.103	103	71-129	3	35	mg/kg	03.11.20 15:07	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.198	99	70-135	2	35	mg/kg	03.11.20 15:07	
o-Xylene	<0.00200	0.100	0.0992	99	0.102	102	71-133	3	35	mg/kg	03.11.20 15:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		111		111		70-130	%	03.11.20 15:07
4-Bromofluorobenzene	91		90		88		70-130	%	03.11.20 15:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119320

Parent Sample Id: 655308-001

Matrix: Soil

MS Sample Id: 655308-001 S

Prep Method: SW5030B

Date Prep: 03.11.20

MSD Sample Id: 655308-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.117	117	0.113	113	70-130	3	35	mg/kg	03.11.20 15:48	
Toluene	<0.00200	0.0998	0.105	105	0.0991	99	70-130	6	35	mg/kg	03.11.20 15:48	
Ethylbenzene	<0.00200	0.0998	0.0967	97	0.0873	87	71-129	10	35	mg/kg	03.11.20 15:48	
m,p-Xylenes	<0.00399	0.200	0.186	93	0.167	84	70-135	11	35	mg/kg	03.11.20 15:48	
o-Xylene	<0.00200	0.0998	0.0935	94	0.0848	85	71-133	10	35	mg/kg	03.11.20 15:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		111		70-130	%	03.11.20 15:48
4-Bromofluorobenzene	86		91		70-130	%	03.11.20 15:48

MS/MSD Percent Recovery
 Relative Percent Difference
 LCS/LCSD Recovery
 Log Difference

[D] = 100*(C-A) / B
 RPD = 200* |(C-E) / (C+E)|
 [D] = 100 * (C) / [B]
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 1655308

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: 432.704.5178
 Email: dmoir@lenv.com cagbor@lenv.com

Bill to: (if different) Kyle Littrel
 Company Name: XTO-Energy
 Address:
 City, State ZIP: Carlsbad, NM

Program: UST/PST PRP Brownfields RC Superfund
 State of Project:
 Reporting Level: Level II Level III ST/UST RRP Level IV
 Deliverables: EDD ADAPT Other:
 www.xenco.com Page 1 of 1

Project Name: REMUDA BASIN PATTERNS # 1 Turn Around
 Project Number: 012918058 Routine
 P.O. Number: Rush: 3 DAYS
 Sampler's Name: Chris Agbor Due Date:

SAMPLE RECEIPT
 Temperature (°C): 1.0 Thermometer ID
 Received Intact: Yes No
 Cooler Custody Seals: Yes No N/A Correction Factor: -0.2
 Sample Custody Seals: Yes No N/A Total Containers: 4

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Work Order Notes
					TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	
PH 10	S	3/9/20	1035	2	1	X	X	COMPOSITE
PH 10A	S	3/9/20	1042	3	1	X	X	COMPOSITE
PH 10B	S	3/9/20	1050	3.5	1	X	X	COMPOSITE
SW 15	S	3/10/20	1600	0-9	1	X	X	COMPOSITE

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 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature) _____ Date/Time: 3/11/20 11:30
 Received by: (Signature) _____ Date/Time: _____

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.11.2020 11.20.00 AM

Work Order #: 655308

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 03.11.2020

Checklist reviewed by:


Jessica Kramer

Date: 03.13.2020

Analytical Report 657640

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

012918058

02-APR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02-APR-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **657640**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657640. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657640 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05A	S	04-01-20 10:30	2 ft	657640-001
SW05B	S	04-01-20 10:50	6 ft	657640-002
SW04A	S	04-01-20 10:40	4 ft	657640-003
SW04B	S	04-01-20 11:00	8 ft	657640-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 012918058
Work Order Number(s): 657640

Report Date: 02-APR-20
Date Received: 04/01/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121698 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3121704 Chloride by EPA 300

Lab Sample ID 657640-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 657640-001, -002, -003, -004.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 657640

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 012918058
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Apr-01-20 04:58 pm
Report Date: 02-APR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	657640-001	657640-002	657640-003	657640-004		
	<i>Field Id:</i>	SW05A	SW05B	SW04A	SW04B		
	<i>Depth:</i>	2- ft	6- ft	4- ft	8- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Apr-01-20 10:30	Apr-01-20 10:50	Apr-01-20 10:40	Apr-01-20 11:00		
BTEX by EPA 8021B	<i>Extracted:</i>	Apr-01-20 20:09	Apr-01-20 20:09	Apr-01-20 20:09	Apr-01-20 20:09		
	<i>Analyzed:</i>	Apr-02-20 03:28	Apr-02-20 03:48	Apr-02-20 04:09	Apr-02-20 04:29		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199		
	Toluene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199		
	Ethylbenzene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199		
	m,p-Xylenes	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398		
	o-Xylene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199		
Total Xylenes	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199			
Total BTEX	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199			
Chloride by EPA 300	<i>Extracted:</i>	Apr-01-20 18:38	Apr-01-20 18:38	Apr-01-20 18:38	Apr-01-20 18:38		
	<i>Analyzed:</i>	Apr-01-20 23:14	Apr-01-20 23:20	Apr-01-20 23:26	Apr-01-20 23:32		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2280 49.9	5470 49.6	2620 49.8	2100 X 50.2		
TPH by SW8015 Mod	<i>Extracted:</i>	Apr-02-20 09:00	Apr-02-20 09:00	Apr-02-20 09:00	Apr-02-20 09:00		
	<i>Analyzed:</i>	Apr-02-20 12:34	Apr-02-20 12:55	Apr-02-20 13:15	Apr-02-20 13:36		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<50.0 50.0	<49.8 49.8	<50.2 50.2		
	Diesel Range Organics (DRO)	<50.3 50.3	<50.0 50.0	<49.8 49.8	<50.2 50.2		
	Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3	<50.0 50.0	<49.8 49.8	<50.2 50.2		
Total GRO-DRO	<50.3 50.3	<50.0 50.0	<49.8 49.8	<50.2 50.2			
Total TPH	<50.3 50.3	<50.0 50.0	<49.8 49.8	<50.2 50.2			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.9%

Jessica Kramer
Project Manager



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW05A** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657640-001 Date Collected: 04.01.20 10.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2280	49.9	mg/kg	04.01.20 23.14		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.02.20 12.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.02.20 12.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.02.20 12.34	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.02.20 12.34	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.02.20 12.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.02.20 12.34	
o-Terphenyl	84-15-1	110	%	70-135	04.02.20 12.34	



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW05A	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657640-001	Date Collected: 04.01.20 10.30	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.02.20 03.28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.02.20 03.28	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94		%	70-130	04.02.20 03.28	
1,4-Difluorobenzene	540-36-3	109		%	70-130	04.02.20 03.28	



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW05B** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657640-002 Date Collected: 04.01.20 10.50 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5470	49.6	mg/kg	04.01.20 23.20		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.02.20 12.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.02.20 12.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.02.20 12.55	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.02.20 12.55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.02.20 12.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.02.20 12.55	
o-Terphenyl	84-15-1	110	%	70-135	04.02.20 12.55	



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW05B	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657640-002	Date Collected: 04.01.20 10.50	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.02.20 03.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.02.20 03.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.02.20 03.48		
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.02.20 03.48		



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW04A** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657640-003 Date Collected: 04.01.20 10.40 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2620	49.8	mg/kg	04.01.20 23.26		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.02.20 13.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.02.20 13.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.02.20 13.15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.02.20 13.15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.02.20 13.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.02.20 13.15	
o-Terphenyl	84-15-1	106	%	70-135	04.02.20 13.15	



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW04A	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657640-003	Date Collected: 04.01.20 10.40	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.02.20 04.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.02.20 04.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.02.20 04.09		
4-Bromofluorobenzene	460-00-4	100	%	70-130	04.02.20 04.09		



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW04B** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657640-004 Date Collected: 04.01.20 11.00 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2100	50.2	mg/kg	04.01.20 23.32	X	5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.20 13.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.20 13.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.20 13.36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.20 13.36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.20 13.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.02.20 13.36	
o-Terphenyl	84-15-1	107	%	70-135	04.02.20 13.36	



Certificate of Analytical Results 657640

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW04B	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657640-004	Date Collected: 04.01.20 11.00	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.02.20 04.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.02.20 04.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.02.20 04.29		
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.02.20 04.29		



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

MB Sample Id: 7700329-1-BLK

Matrix: Solid

LCS Sample Id: 7700329-1-BKS

Prep Method: E300P

Date Prep: 04.01.20

LCSD Sample Id: 7700329-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	253	101	90-110	2	20	mg/kg	04.01.20 21:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657638-003

Matrix: Soil

MS Sample Id: 657638-003 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657638-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	65.5	200	257	96	259	97	90-110	1	20	mg/kg	04.01.20 22:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657640-004

Matrix: Soil

MS Sample Id: 657640-004 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657640-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2100	247	2380	113	2400	121	90-110	1	20	mg/kg	04.01.20 23:38	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

LCS Sample Id: 7700357-1-BKS

Prep Method: SW8015P

Date Prep: 04.02.20

LCSD Sample Id: 7700357-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	990	99	890	89	70-135	11	35	mg/kg	04.02.20 09:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1020	102	70-135	12	35	mg/kg	04.02.20 09:28	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		124		107		70-135	%	04.02.20 09:28
o-Terphenyl	109		121		106		70-135	%	04.02.20 09:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.02.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.02.20 09:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

Parent Sample Id: 657638-007

Matrix: Soil

MS Sample Id: 657638-007 S

Prep Method: SW8015P

Date Prep: 04.02.20

MSD Sample Id: 657638-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	842	85	815	82	70-135	3	35	mg/kg	04.02.20 10:29	
Diesel Range Organics (DRO)	<49.8	995	978	98	948	95	70-135	3	35	mg/kg	04.02.20 10:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		133		70-135	%	04.02.20 10:29
o-Terphenyl	126		122		70-135	%	04.02.20 10:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

MB Sample Id: 7700318-1-BLK

Matrix: Solid

LCS Sample Id: 7700318-1-BKS

Prep Method: SW5030B

Date Prep: 04.01.20

LCSD Sample Id: 7700318-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.104	104	70-130	1	35	mg/kg	04.02.20 01:26	
Toluene	<0.00200	0.100	0.0990	99	0.0988	99	70-130	0	35	mg/kg	04.02.20 01:26	
Ethylbenzene	<0.00200	0.100	0.0926	93	0.0922	92	71-129	0	35	mg/kg	04.02.20 01:26	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.188	94	70-135	1	35	mg/kg	04.02.20 01:26	
o-Xylene	<0.00200	0.100	0.0973	97	0.0965	97	71-133	1	35	mg/kg	04.02.20 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	04.02.20 01:26
4-Bromofluorobenzene	97		92		95		70-130	%	04.02.20 01:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

Parent Sample Id: 657364-045

Matrix: Soil

MS Sample Id: 657364-045 S

Prep Method: SW5030B

Date Prep: 04.01.20

MSD Sample Id: 657364-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0956	96	0.0928	93	70-130	3	35	mg/kg	04.02.20 02:06	
Toluene	<0.00200	0.100	0.0888	89	0.0881	89	70-130	1	35	mg/kg	04.02.20 02:06	
Ethylbenzene	<0.00200	0.100	0.0830	83	0.0816	82	71-129	2	35	mg/kg	04.02.20 02:06	
m,p-Xylenes	<0.00401	0.200	0.171	86	0.168	84	70-135	2	35	mg/kg	04.02.20 02:06	
o-Xylene	<0.00200	0.100	0.0866	87	0.0852	86	71-133	2	35	mg/kg	04.02.20 02:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	04.02.20 02:06
4-Bromofluorobenzene	94		95		70-130	%	04.02.20 02:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No: 10971040

Project Manager: Dan Moir
 Company Name: LT Environmental Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Email: slc@ltenv.com, dmoir@ltenv.com, kkenedy@ltenv.com

Bill to: (if different)
 Company Name: Kyle Littlell
 Address: 3104 East Green Street
 City, State ZIP: Carlsbad, NM 88220

Program: UST/PST RP Brownfields RRC Dupertund
 State of Project: Level I Level II Level III ST/UST RRP Level IV
 Reporting Level: Level I Level II Level III Level IV
 Deliverables: EDD ADAPT Other:

Project Name: Remuda Basin #1 Turn Around
 Project Number: 012918058 Routine
 P.O. Number: Rush: 24H
 Sampler's Name: Spencer Lo Due Date:

SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No
 Temperature (°C): 3.0 Thermometer ID: TMM007
 Received Intact: Yes No Correction Factor: -0.2
 Cooler Custody Seals: Yes No N/A Total Containers: 4
 Sample Custody Seals: Yes No N/A

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	
<u>Sw05A</u>	<u>S</u>	<u>4-1-20</u>	<u>1030</u>	<u>2'</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>Sw05B</u>	<u>S</u>	<u>4-1-20</u>	<u>1050</u>	<u>6'</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>Sw04A</u>	<u>S</u>	<u>4-1-20</u>	<u>1040</u>	<u>4'</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>Sw04B</u>	<u>S</u>	<u>4-1-20</u>	<u>1100</u>	<u>8'</u>	<u>X</u>	<u>X</u>	<u>X</u>	

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
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U
 Circle Method(s) and Metal(s) to be analyzed

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) _____ Date/Time: 4/1/20 10:58
 Received by: (Signature) _____ Date/Time: _____

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.01.2020 04.58.00 PM

Work Order #: 657640

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

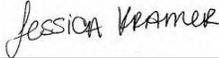
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 04.01.2020

Checklist reviewed by:


Jessica Kramer

Date: 04.02.2020

Analytical Report 657642

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

012918058

02-APR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02-APR-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **657642**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657642. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657642 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, slightly slanted style.

Jessica Kramer
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 657642

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW16	S	04-01-20 14:25	0 - 8 ft	657642-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 012918058
Work Order Number(s): 657642

Report Date: 02-APR-20
Date Received: 04/01/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121698 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 657642

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 012918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Apr-01-20 04:58 pm

Report Date: 02-APR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657642-001				
	Field Id:	SW16				
	Depth:	0-8 ft				
	Matrix:	SOIL				
	Sampled:	Apr-01-20 14:25				
BTEX by EPA 8021B	Extracted:	Apr-01-20 20:09				
	Analyzed:	Apr-02-20 05:10				
	Units/RL:	mg/kg RL				
	Benzene	<0.00200 0.00200				
	Toluene	<0.00200 0.00200				
	Ethylbenzene	<0.00200 0.00200				
	m,p-Xylenes	<0.00401 0.00401				
	o-Xylene	<0.00200 0.00200				
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted:	Apr-01-20 18:38				
	Analyzed:	Apr-02-20 00:08				
	Units/RL:	mg/kg RL				
Chloride	182 50.1					
TPH by SW8015 Mod	Extracted:	Apr-02-20 09:00				
	Analyzed:	Apr-02-20 14:16				
	Units/RL:	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<49.9 49.9				
	Diesel Range Organics (DRO)	<49.9 49.9				
	Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9				
	Total GRO-DRO	<49.9 49.9				
Total TPH	<49.9 49.9					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analytical Results 657642

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **SW16** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657642-001 Date Collected: 04.01.20 14.25 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	50.1	mg/kg	04.02.20 00.08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.02.20 14.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.02.20 14.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.02.20 14.16	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.02.20 14.16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.02.20 14.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.02.20 14.16	
o-Terphenyl	84-15-1	104	%	70-135	04.02.20 14.16	



Certificate of Analytical Results 657642

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: SW16	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657642-001	Date Collected: 04.01.20 14.25	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.02.20 05.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.02.20 05.10	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96		%	70-130	04.02.20 05.10	
1,4-Difluorobenzene	540-36-3	111		%	70-130	04.02.20 05.10	



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

MB Sample Id: 7700329-1-BLK

Matrix: Solid

LCS Sample Id: 7700329-1-BKS

Prep Method: E300P

Date Prep: 04.01.20

LCSD Sample Id: 7700329-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	253	101	90-110	2	20	mg/kg	04.01.20 21:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657638-003

Matrix: Soil

MS Sample Id: 657638-003 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657638-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	65.5	200	257	96	259	97	90-110	1	20	mg/kg	04.01.20 22:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657640-004

Matrix: Soil

MS Sample Id: 657640-004 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657640-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2100	247	2380	113	2400	121	90-110	1	20	mg/kg	04.01.20 23:38	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

LCS Sample Id: 7700357-1-BKS

Prep Method: SW8015P

Date Prep: 04.02.20

LCSD Sample Id: 7700357-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	990	99	890	89	70-135	11	35	mg/kg	04.02.20 09:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1020	102	70-135	12	35	mg/kg	04.02.20 09:28	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		124		107		70-135	%	04.02.20 09:28
o-Terphenyl	109		121		106		70-135	%	04.02.20 09:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.02.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.02.20 09:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

Parent Sample Id: 657638-007

Matrix: Soil

MS Sample Id: 657638-007 S

Prep Method: SW8015P

Date Prep: 04.02.20

MSD Sample Id: 657638-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	842	85	815	82	70-135	3	35	mg/kg	04.02.20 10:29	
Diesel Range Organics (DRO)	<49.8	995	978	98	948	95	70-135	3	35	mg/kg	04.02.20 10:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		133		70-135	%	04.02.20 10:29
o-Terphenyl	126		122		70-135	%	04.02.20 10:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

MB Sample Id: 7700318-1-BLK

Matrix: Solid

LCS Sample Id: 7700318-1-BKS

Prep Method: SW5030B

Date Prep: 04.01.20

LCSD Sample Id: 7700318-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.104	104	70-130	1	35	mg/kg	04.02.20 01:26	
Toluene	<0.00200	0.100	0.0990	99	0.0988	99	70-130	0	35	mg/kg	04.02.20 01:26	
Ethylbenzene	<0.00200	0.100	0.0926	93	0.0922	92	71-129	0	35	mg/kg	04.02.20 01:26	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.188	94	70-135	1	35	mg/kg	04.02.20 01:26	
o-Xylene	<0.00200	0.100	0.0973	97	0.0965	97	71-133	1	35	mg/kg	04.02.20 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	04.02.20 01:26
4-Bromofluorobenzene	97		92		95		70-130	%	04.02.20 01:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

Parent Sample Id: 657364-045

Matrix: Soil

MS Sample Id: 657364-045 S

Prep Method: SW5030B

Date Prep: 04.01.20

MSD Sample Id: 657364-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0956	96	0.0928	93	70-130	3	35	mg/kg	04.02.20 02:06	
Toluene	<0.00200	0.100	0.0888	89	0.0881	89	70-130	1	35	mg/kg	04.02.20 02:06	
Ethylbenzene	<0.00200	0.100	0.0830	83	0.0816	82	71-129	2	35	mg/kg	04.02.20 02:06	
m,p-Xylenes	<0.00401	0.200	0.171	86	0.168	84	70-135	2	35	mg/kg	04.02.20 02:06	
o-Xylene	<0.00200	0.100	0.0866	87	0.0852	86	71-133	2	35	mg/kg	04.02.20 02:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	04.02.20 02:06
4-Bromofluorobenzene	94		95		70-130	%	04.02.20 02:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.01.2020 04.58.00 PM

Work Order #: 657642

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-Nm-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

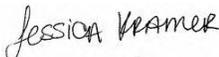
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 04.01.2020

Checklist reviewed by:


Jessica Kramer

Date: 04.02.2020

Analytical Report 657641

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin #1

012918058

02-APR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02-APR-20

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **657641**
Remuda Basin #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657641. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657641 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 657641

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS07	S	04-01-20 14:35	8 ft	657641-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin #1

Project ID: 012918058
Work Order Number(s): 657641

Report Date: 02-APR-20
Date Received: 04/01/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121698 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 657641

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin #1

Project Id: 012918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Apr-01-20 04:58 pm

Report Date: 02-APR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657641-001				
	Field Id:	FS07				
	Depth:	8- ft				
	Matrix:	SOIL				
	Sampled:	Apr-01-20 14:35				
BTEX by EPA 8021B	Extracted:	Apr-01-20 20:09				
	Analyzed:	Apr-02-20 04:50				
	Units/RL:	mg/kg RL				
	Benzene	<0.00200 0.00200				
	Toluene	<0.00200 0.00200				
	Ethylbenzene	<0.00200 0.00200				
	m,p-Xylenes	<0.00400 0.00400				
	o-Xylene	<0.00200 0.00200				
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted:	Apr-01-20 18:38				
	Analyzed:	Apr-01-20 23:50				
	Units/RL:	mg/kg RL				
Chloride	261 50.1					
TPH by SW8015 Mod	Extracted:	Apr-02-20 09:00				
	Analyzed:	Apr-02-20 13:56				
	Units/RL:	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.2 50.2				
	Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2				
	Total GRO-DRO	<50.2 50.2				
Total TPH	<50.2 50.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analytical Results 657641

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: **FS07** Matrix: Soil Date Received: 04.01.20 16.58
 Lab Sample Id: 657641-001 Date Collected: 04.01.20 14.35 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.01.20 18.38 Basis: Wet Weight
 Seq Number: 3121704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	261	50.1	mg/kg	04.01.20 23.50		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.20 09.00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.20 13.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.20 13.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.20 13.56	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.20 13.56	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.20 13.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.02.20 13.56	
o-Terphenyl	84-15-1	109	%	70-135	04.02.20 13.56	



Certificate of Analytical Results 657641

LT Environmental, Inc., Arvada, CO

Remuda Basin #1

Sample Id: FS07	Matrix: Soil	Date Received: 04.01.20 16.58
Lab Sample Id: 657641-001	Date Collected: 04.01.20 14.35	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.01.20 20.09	Basis: Wet Weight
Seq Number: 3121698		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.02.20 04.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.02.20 04.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.02.20 04.50		
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.02.20 04.50		



LT Environmental, Inc.
Remuda Basin #1

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

MB Sample Id: 7700329-1-BLK

Matrix: Solid

LCS Sample Id: 7700329-1-BKS

Prep Method: E300P

Date Prep: 04.01.20

LCSD Sample Id: 7700329-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	253	101	90-110	2	20	mg/kg	04.01.20 21:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657638-003

Matrix: Soil

MS Sample Id: 657638-003 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657638-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	65.5	200	257	96	259	97	90-110	1	20	mg/kg	04.01.20 22:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3121704

Parent Sample Id: 657640-004

Matrix: Soil

MS Sample Id: 657640-004 S

Prep Method: E300P

Date Prep: 04.01.20

MSD Sample Id: 657640-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2100	247	2380	113	2400	121	90-110	1	20	mg/kg	04.01.20 23:38	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

LCS Sample Id: 7700357-1-BKS

Prep Method: SW8015P

Date Prep: 04.02.20

LCSD Sample Id: 7700357-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	990	99	890	89	70-135	11	35	mg/kg	04.02.20 09:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1020	102	70-135	12	35	mg/kg	04.02.20 09:28	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		124		107		70-135	%	04.02.20 09:28
o-Terphenyl	109		121		106		70-135	%	04.02.20 09:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.02.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.02.20 09:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.

Remuda Basin #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

Parent Sample Id: 657638-007

Matrix: Soil

MS Sample Id: 657638-007 S

Prep Method: SW8015P

Date Prep: 04.02.20

MSD Sample Id: 657638-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	842	85	815	82	70-135	3	35	mg/kg	04.02.20 10:29	
Diesel Range Organics (DRO)	<49.8	995	978	98	948	95	70-135	3	35	mg/kg	04.02.20 10:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		133		70-135	%	04.02.20 10:29
o-Terphenyl	126		122		70-135	%	04.02.20 10:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

MB Sample Id: 7700318-1-BLK

Matrix: Solid

LCS Sample Id: 7700318-1-BKS

Prep Method: SW5030B

Date Prep: 04.01.20

LCSD Sample Id: 7700318-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.104	104	70-130	1	35	mg/kg	04.02.20 01:26	
Toluene	<0.00200	0.100	0.0990	99	0.0988	99	70-130	0	35	mg/kg	04.02.20 01:26	
Ethylbenzene	<0.00200	0.100	0.0926	93	0.0922	92	71-129	0	35	mg/kg	04.02.20 01:26	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.188	94	70-135	1	35	mg/kg	04.02.20 01:26	
o-Xylene	<0.00200	0.100	0.0973	97	0.0965	97	71-133	1	35	mg/kg	04.02.20 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	04.02.20 01:26
4-Bromofluorobenzene	97		92		95		70-130	%	04.02.20 01:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121698

Parent Sample Id: 657364-045

Matrix: Soil

MS Sample Id: 657364-045 S

Prep Method: SW5030B

Date Prep: 04.01.20

MSD Sample Id: 657364-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0956	96	0.0928	93	70-130	3	35	mg/kg	04.02.20 02:06	
Toluene	<0.00200	0.100	0.0888	89	0.0881	89	70-130	1	35	mg/kg	04.02.20 02:06	
Ethylbenzene	<0.00200	0.100	0.0830	83	0.0816	82	71-129	2	35	mg/kg	04.02.20 02:06	
m,p-Xylenes	<0.00401	0.200	0.171	86	0.168	84	70-135	2	35	mg/kg	04.02.20 02:06	
o-Xylene	<0.00200	0.100	0.0866	87	0.0852	86	71-133	2	35	mg/kg	04.02.20 02:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	04.02.20 02:06
4-Bromofluorobenzene	94		95		70-130	%	04.02.20 02:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: US7041

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	sluo@ltenv.com, dmoir@ltenv.com, kkennedy@ltenv.com

Program: UST/PST	<input type="checkbox"/> PRP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RRC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RRP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:	Remuda Basin #1	Turn Around	
Project Number:	012918058	Routine	<input type="checkbox"/>
P.O. Number:		Rush:	2/11
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	3.0			Thermometer ID		
Received Intact:	Yes	No			Correction Factor:	FN007
Cooler Custody Seals:	Yes	No			Total Containers:	~0.2
Sample Custody Seals:	Yes	No				1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
F507	S	4-1-20	1435	8'	1	X	X	X											TAT starts the day received by the lab, if received by 4:30pm
																			Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag 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 1631 / 245.1 / 7470 / 7471 : Hg

office: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4/1/20 16:58	<i>[Signature]</i>	<i>[Signature]</i>	

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.01.2020 04.58.00 PM

Work Order #: 657641

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

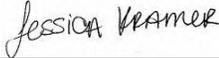
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 04.01.2020

Checklist reviewed by:


Jessica Kramer

Date: 04.02.2020



Analytical Report 660038

for

LT Environmental, Inc.

Project Manager: Dan Moir

Remuda Basin Battery #1

012918058

04.29.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



04.29.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **660038**
Remuda Basin Battery #1
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660038. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660038 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW17	S	04.28.2020 09:11	2.0 ft	660038-001
SW18	S	04.28.2020 09:22	4.0 ft	660038-002
SW05	S	04.28.2020 13:52	12.0 ft	660038-003
SW04	S	04.28.2020 15:03	16.0 ft	660038-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda Basin Battery #1

Project ID: 012918058
Work Order Number(s): 660038

Report Date: 04.29.2020
Date Received: 04.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3124503 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 659919-021 SD.



Certificate of Analysis Summary 660038

LT Environmental, Inc., Arvada, CO

Project Name: Remuda Basin Battery #1

Project Id: 012918058

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 04.28.2020 16:39

Report Date: 04.29.2020 16:23

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660038-001	660038-002	660038-003	660038-004		
	<i>Field Id:</i>	SW17	SW18	SW05	SW04		
	<i>Depth:</i>	2.0- ft	4.0- ft	12.0- ft	16.0- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	04.28.2020 09:11	04.28.2020 09:22	04.28.2020 13:52	04.28.2020 15:03		
BTEX by EPA 8021B	<i>Extracted:</i>	04.28.2020 18:00	04.28.2020 18:00	04.28.2020 18:00	04.28.2020 18:00		
	<i>Analyzed:</i>	04.29.2020 00:20	04.29.2020 00:42	04.29.2020 01:03	04.29.2020 01:24		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201		
Toluene	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201			
Ethylbenzene	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201			
m,p-Xylenes	<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402			
o-Xylene	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201			
Total Xylenes	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201			
Total BTEX	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201			
Chloride by EPA 300	<i>Extracted:</i>	04.28.2020 17:30	04.28.2020 17:30	04.28.2020 17:30	04.28.2020 17:30		
	<i>Analyzed:</i>	04.28.2020 19:19	04.28.2020 19:24	04.28.2020 19:30	04.28.2020 19:47		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride	111 10.0	230 10.1	651 50.5	191 9.94			
TPH by SW8015 Mod	<i>Extracted:</i>	04.28.2020 17:10	04.28.2020 17:10	04.28.2020 17:10	04.28.2020 17:10		
	<i>Analyzed:</i>	04.28.2020 19:18	04.28.2020 19:38	04.28.2020 19:59	04.28.2020 20:19		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<49.9 49.9	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Diesel Range Organics (DRO)	<49.9 49.9	<50.1 50.1	<50.0 50.0	<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9	<50.1 50.1	<50.0 50.0	<49.8 49.8			
Total GRO-DRO	<49.9 49.9	<50.1 50.1	<50.0 50.0	<49.8 49.8			
Total TPH	<49.9 49.9	<50.1 50.1	<50.0 50.0	<49.8 49.8			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **SW17** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-001 Date Collected: 04.28.2020 09:11 Sample Depth: 2.0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 17:30 Basis: Wet Weight
 Seq Number: 3124455

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	10.0	mg/kg	04.28.2020 19:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.28.2020 17:10 Basis: Wet Weight
 Seq Number: 3124503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.28.2020 19:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.28.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.28.2020 19:18	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.28.2020 19:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.28.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	04.28.2020 19:18	
o-Terphenyl	84-15-1	80	%	70-135	04.28.2020 19:18	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **SW17** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-001 Date Collected: 04.28.2020 09:11 Sample Depth: 2.0 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 18:00 Basis: Wet Weight
 Seq Number: 3124449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.29.2020 00:20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.29.2020 00:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.29.2020 00:20	
4-Bromofluorobenzene	460-00-4	107	%	70-130	04.29.2020 00:20	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO Remuda Basin Battery #1

Sample Id: **SW18** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-002 Date Collected: 04.28.2020 09:22 Sample Depth: 4.0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 17:30 Basis: Wet Weight
 Seq Number: 3124455

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	230	10.1	mg/kg	04.28.2020 19:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.28.2020 17:10 Basis: Wet Weight
 Seq Number: 3124503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.28.2020 19:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.28.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.28.2020 19:38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.28.2020 19:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.28.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	04.28.2020 19:38	
o-Terphenyl	84-15-1	79	%	70-135	04.28.2020 19:38	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: SW18	Matrix: Soil	Date Received: 04.28.2020 16:39
Lab Sample Id: 660038-002	Date Collected: 04.28.2020 09:22	Sample Depth: 4.0 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.28.2020 18:00	Basis: Wet Weight
Seq Number: 3124449		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.29.2020 00:42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.29.2020 00:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	04.29.2020 00:42	
1,4-Difluorobenzene	540-36-3	116	%	70-130	04.29.2020 00:42	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO Remuda Basin Battery #1

Sample Id: **SW05** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-003 Date Collected: 04.28.2020 13:52 Sample Depth: 12.0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 17:30 Basis: Wet Weight
 Seq Number: 3124455

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	651	50.5	mg/kg	04.28.2020 19:30		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.28.2020 17:10 Basis: Wet Weight
 Seq Number: 3124503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.28.2020 19:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.28.2020 19:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.28.2020 19:59	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.28.2020 19:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.28.2020 19:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	04.28.2020 19:59	
o-Terphenyl	84-15-1	97	%	70-135	04.28.2020 19:59	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: SW05	Matrix: Soil	Date Received: 04.28.2020 16:39
Lab Sample Id: 660038-003	Date Collected: 04.28.2020 13:52	Sample Depth: 12.0 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 04.28.2020 18:00	Basis: Wet Weight
Seq Number: 3124449		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.29.2020 01:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.29.2020 01:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.29.2020 01:03	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.29.2020 01:03	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **SW04** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-004 Date Collected: 04.28.2020 15:03 Sample Depth: 16.0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 17:30 Basis: Wet Weight
 Seq Number: 3124455

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	191	9.94	mg/kg	04.29.2020 09:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.28.2020 17:10 Basis: Wet Weight
 Seq Number: 3124503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.28.2020 20:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.28.2020 20:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.28.2020 20:19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.28.2020 20:19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.28.2020 20:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.28.2020 20:19	
o-Terphenyl	84-15-1	107	%	70-135	04.28.2020 20:19	



Certificate of Analytical Results 660038

LT Environmental, Inc., Arvada, CO

Remuda Basin Battery #1

Sample Id: **SW04** Matrix: Soil Date Received: 04.28.2020 16:39
 Lab Sample Id: 660038-004 Date Collected: 04.28.2020 15:03 Sample Depth: 16.0 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.28.2020 18:00 Basis: Wet Weight
 Seq Number: 3124449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.29.2020 01:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.29.2020 01:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	04.29.2020 01:24	
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.29.2020 01:24	



LT Environmental, Inc.
Remuda Basin Battery #1

Analytical Method: Chloride by EPA 300

Seq Number: 3124455
MB Sample Id: 7702278-1-BLK

Matrix: Solid
LCS Sample Id: 7702278-1-BKS

Prep Method: E300P
Date Prep: 04.28.2020
LCSD Sample Id: 7702278-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	254	102	90-110	0	20	mg/kg	04.28.2020 18:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3124455
Parent Sample Id: 660027-001

Matrix: Soil
MS Sample Id: 660027-001 S

Prep Method: E300P
Date Prep: 04.28.2020
MSD Sample Id: 660027-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	48.4	200	257	104	258	105	90-110	0	20	mg/kg	04.28.2020 19:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3124455
Parent Sample Id: 660037-003

Matrix: Soil
MS Sample Id: 660037-003 S

Prep Method: E300P
Date Prep: 04.28.2020
MSD Sample Id: 660037-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1130	200	1330	100	1330	100	90-110	0	20	mg/kg	04.28.2020 20:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124503
MB Sample Id: 7702299-1-BLK

Matrix: Solid
LCS Sample Id: 7702299-1-BKS

Prep Method: SW8015P
Date Prep: 04.28.2020
LCSD Sample Id: 7702299-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	933	93	878	88	70-135	6	35	mg/kg	04.28.2020 12:38	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	978	98	70-135	5	35	mg/kg	04.28.2020 12:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		130		127		70-135	%	04.28.2020 12:38
o-Terphenyl	130		132		130		70-135	%	04.28.2020 12:38

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124503

Matrix: Solid
MB Sample Id: 7702299-1-BLK

Prep Method: SW8015P
Date Prep: 04.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.28.2020 12:17	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



LT Environmental, Inc.
Remuda Basin Battery #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124503
Parent Sample Id: 659919-021

Matrix: Soil
MS Sample Id: 659919-021 S

Prep Method: SW8015P
Date Prep: 04.28.2020
MSD Sample Id: 659919-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	956	96	1110	111	70-135	15	35	mg/kg	04.28.2020 16:33	
Diesel Range Organics (DRO)	<50.2	1000	1080	108	1160	116	70-135	7	35	mg/kg	04.28.2020 16:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		132		70-135	%	04.28.2020 16:33
o-Terphenyl	121		137	**	70-135	%	04.28.2020 16:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124449
MB Sample Id: 7702273-1-BLK

Matrix: Solid
LCS Sample Id: 7702273-1-BKS

Prep Method: SW5035A
Date Prep: 04.28.2020
LCSD Sample Id: 7702273-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.117	117	70-130	6	35	mg/kg	04.28.2020 22:12	
Toluene	<0.00200	0.100	0.0984	98	0.106	106	70-130	7	35	mg/kg	04.28.2020 22:12	
Ethylbenzene	<0.00200	0.100	0.0929	93	0.0989	99	71-129	6	35	mg/kg	04.28.2020 22:12	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.193	97	70-135	6	35	mg/kg	04.28.2020 22:12	
o-Xylene	<0.00200	0.100	0.0932	93	0.0996	100	71-133	7	35	mg/kg	04.28.2020 22:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		112		70-130	%	04.28.2020 22:12
4-Bromofluorobenzene	108		98		100		70-130	%	04.28.2020 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124449
Parent Sample Id: 660036-001

Matrix: Soil
MS Sample Id: 660036-001 S

Prep Method: SW5035A
Date Prep: 04.28.2020
MSD Sample Id: 660036-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.126	125	0.120	120	70-130	5	35	mg/kg	04.28.2020 22:55	
Toluene	<0.00202	0.101	0.113	112	0.105	105	70-130	7	35	mg/kg	04.28.2020 22:55	
Ethylbenzene	<0.00202	0.101	0.106	105	0.0982	98	71-129	8	35	mg/kg	04.28.2020 22:55	
m,p-Xylenes	<0.00404	0.202	0.206	102	0.191	96	70-135	8	35	mg/kg	04.28.2020 22:55	
o-Xylene	<0.00202	0.101	0.105	104	0.0989	99	71-133	6	35	mg/kg	04.28.2020 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		70-130	%	04.28.2020 22:55
4-Bromofluorobenzene	92		96		70-130	%	04.28.2020 22:55

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No: 220038

Page 1 of 1

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Bill to: (if different) Kyle Littrell
 Company Name: XTO Energy
 Address: 522 W. Mermod St.
 City, State ZIP: Carlsbad, NM 88220
 Email: jhll@ltenv.com, dmoir@ltenv.com

Program: UST/PST RP Rowfields RC Perfund
 State of Project: Level II Level III FT/UST RP Level IV
 Deliverables: EDD ADAPT Other:

Project Name: Remuck Basin A-1 Turn Around
 Project Number: 012918058 Routine
 P.O. Number: 2RP-2296 Rush: SHR
 Sampler's Name: Jeremy Hill Due Date: 4/21/20
 SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No
 Temperature (°C): 2.4 Thermometer ID
 Received In tact: Yes No Correction Factor: T-Meter
 Cooler Custody Seals: Yes No Total Containers: 4
 Sample Custody Seals: Yes No

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
SW17	S	4/28/20	0911	2.0'	1	X	X	X											
SW18	S	4/28/20	0922	4.0'	1	X	X	X											
SW65	S	4/28/20	1352	12.0'	1	X	X	X											
SW64	S	4/28/20	1503	16.0'	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 1631 / 245.1 / 7470 / 7471 : Hg

office: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 4/28/2014:31

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 4/28/2014:31

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.28.2020 04.39.00 PM

Work Order #: 660038

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 04.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.29.2020



APPENDIX B

Laboratory Analytical Reports and Chain of Custody Documentation (2025)



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

August 06, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 07/31/25 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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,

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 01 16 (H254655-01)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	08/04/2025	ND	464	116	400	10.9	

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	08/01/2025	ND	187	93.7	200	1.62	
DRO >C10-C28*	<10.0	10.0	08/01/2025	ND	172	86.2	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	08/01/2025	ND					

Surrogate: 1-Chlorooctane 89.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 02 16 (H254655-02)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	08/04/2025	ND	464	116	400	10.9		

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	08/01/2025	ND	187	93.7	200	1.62		
DRO >C10-C28*	<10.0	10.0	08/01/2025	ND	172	86.2	200	1.78		
EXT DRO >C28-C36	<10.0	10.0	08/01/2025	ND						

Surrogate: 1-Chlorooctane 93.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 03 16 (H254655-03)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	1360	16.0	08/04/2025	ND	464	116	400	10.9		

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	08/01/2025	ND	187	93.7	200	1.62		
DRO >C10-C28*	<10.0	10.0	08/01/2025	ND	172	86.2	200	1.78		
EXT DRO >C28-C36	<10.0	10.0	08/01/2025	ND						

Surrogate: 1-Chlorooctane 72.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 04 16 (H254655-04)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 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	1340	16.0	08/04/2025	ND	464	116	400	10.9		

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	08/01/2025	ND	187	93.7	200	1.62		
DRO >C10-C28*	<10.0	10.0	08/01/2025	ND	172	86.2	200	1.78		
EXT DRO >C28-C36	<10.0	10.0	08/01/2025	ND						

Surrogate: 1-Chlorooctane 83.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 01 0-4 (H254655-05)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 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	08/04/2025	ND	464	116	400	10.9	

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	08/02/2025	ND	187	93.7	200	1.62	
DRO >C10-C28*	<10.0	10.0	08/02/2025	ND	172	86.2	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	08/02/2025	ND					

Surrogate: 1-Chlorooctane 78.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.4 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 02 0-4 (H254655-06)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	160	16.0	08/04/2025	ND	464	116	400	10.9	

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	08/02/2025	ND	187	93.7	200	1.62	
DRO >C10-C28*	<10.0	10.0	08/02/2025	ND	172	86.2	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	08/02/2025	ND					

Surrogate: 1-Chlorooctane 87.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 03 0-4 (H254655-07)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 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	08/04/2025	ND	464	116	400	10.9	

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	08/02/2025	ND	187	93.7	200	1.62	
DRO >C10-C28*	<10.0	10.0	08/02/2025	ND	172	86.2	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	08/02/2025	ND					

Surrogate: 1-Chlorooctane 82.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.6 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 04 0-4 (H254655-08)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	32.0	16.0	08/04/2025	ND	464	116	400	10.9	

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	08/02/2025	ND	187	93.7	200	1.62	
DRO >C10-C28*	<10.0	10.0	08/02/2025	ND	172	86.2	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	08/02/2025	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 05 16 (H254655-09)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	GC-NC
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 139 % 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	848	16.0	08/04/2025	ND	464	116	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	29.1	10.0	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	838	10.0	08/04/2025	ND	180	89.8	200	0.797	QM-07
EXT DRO >C28-C36	177	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 123 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 06 16 (H254655-10)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 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	608	16.0	08/04/2025	ND	464	116	400	10.9	

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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 05 0-4 (H254655-11)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 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	432	16.0	08/04/2025	ND	464	116	400	10.9	

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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 96.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 94.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 06 0-4 (H254655-12)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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	512	16.0	08/04/2025	ND	464	116	400	10.9	

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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 99.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 07 0-4 (H254655-13)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 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	624	16.0	08/04/2025	ND	464	116	400	10.9		

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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 82.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.7 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 08 0-4 (H254655-14)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 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	08/04/2025	ND	464	116	400	10.9		

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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 106 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 07 16 (H254655-15)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 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	160	16.0	08/04/2025	ND	464	116	400	10.9		

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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 08 16 (H254655-16)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 09 16 (H254655-17)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	624	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 118 % 44.4-145

Surrogate: 1-Chlorooctadecane 115 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/29/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: FS 10 16 (H254655-18)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5600	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 118 % 44.4-145

Surrogate: 1-Chlorooctadecane 116 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 09 4-16 (H254655-19)

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	08/04/2025	ND	1.69	84.7	2.00	3.69	
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 10 4-16 (H254655-20)

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	08/04/2025	ND	1.69	84.7	2.00	3.69		
Toluene*	<0.050	0.050	08/04/2025	ND	1.79	89.4	2.00	2.54		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.80	89.9	2.00	2.26		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.35	89.1	6.00	2.37		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.5 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 11 4-16 (H254655-21)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 98.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 12 4-16 (H254655-22)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 97.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 13 4-16 (H254655-23)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.6 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 14 4-16 (H254655-24)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 83.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.1 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 15 4-16 (H254655-25)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 97.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.4 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 16 4-16 (H254655-26)

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	08/04/2025	ND	1.79	89.5	2.00	6.38		
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 97.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.6 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 17 4-16 (H254655-27)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 106 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 18 4-16 (H254655-28)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	200	99.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	180	89.8	200	0.797	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 124 % 44.4-145

Surrogate: 1-Chlorooctadecane 120 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 19 4-16 (H254655-29)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.4 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 20 4-16 (H254655-30)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9680	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 21 4-16 (H254655-31)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8320	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.1 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 22 4-16 (H254655-32)

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	08/04/2025	ND	1.79	89.5	2.00	6.38		
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39		
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69		
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933		
Total BTEX	<0.300	0.300	08/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1900	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93		
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38		
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND						

Surrogate: 1-Chlorooctane 84.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.1 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 23 4-16 (H254655-33)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1710	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 79.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 24 4-16 (H254655-34)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 82.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 25 4-16 (H254655-35)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/04/2025	ND	416	104	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/31/2025	Sampling Date:	07/30/2025
Reported:	08/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

Sample ID: SW 26 4-16 (H254655-36)

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	08/04/2025	ND	1.79	89.5	2.00	6.38	
Toluene*	<0.050	0.050	08/04/2025	ND	1.85	92.6	2.00	3.39	
Ethylbenzene*	<0.050	0.050	08/04/2025	ND	1.86	92.9	2.00	1.69	
Total Xylenes*	<0.150	0.150	08/04/2025	ND	5.60	93.3	6.00	0.933	
Total BTEX	<0.300	0.300	08/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	08/04/2025	ND	480	120	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	08/04/2025	ND	186	92.9	200	5.93	
DRO >C10-C28*	<10.0	10.0	08/04/2025	ND	204	102	200	7.38	
EXT DRO >C28-C36	<10.0	10.0	08/04/2025	ND					

Surrogate: 1-Chlorooctane 74.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.3 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (30) days after completion of the applicable service.

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

1 of 4

Company Name: Ensolum, LLC
 Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 337 257-8307 Fax #: 337 257-8307
 Project #: 03C1558004 Project Owner: XTO
 Project Name: Remuda Basin Battery 1
 Project Location: Remuda Basin Battery 1
 Sampler Name: Connor Whitman
 P.O. #: _____ Company: XTO Energy Inc.
 Attn: Colton Brown
 Address: 3104 E. Green St.
 City: Carlsbad State: NM Zip: 88220
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
1	FS01	16	C	2								7-27-25	925			
2	FS02	16											930			
3	FS03	16											935			
4	FS04	0-4											940			
5	SW01												1030			
6	SW02												1035			
7	SW03												1040			
8	SW04												1050			
9	FS05	16											1230			
10	FS06	16											1235			

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 interruption, loss of use, or loss of profit 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 releases or otherwise.

Relinquished By: *AK*
 Date: 7-31-25
 Received By: *Remuda Battery*
 Date: 7-31-25
 Time: 1:34P
 Observed Temp. °C: 1.6
 Corrected Temp. °C: 1.9
 Sample Condition: Cool Intact Bacteria (only)
 Checked By: *AK*
 Turnaround Time: Standard Add'l Phone #: _____
 Thermometer ID #13 #14 *RUSB*
 Correction Factor: -0.3 *+0.3*
 Incident ID: NHMP1413240586 (ZRP-2296)

Delivered By: (Circle One) UPS - Bus - Other: _____
 Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 4

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC
 Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 337 257-8307 Fax #: 88220
 Project #: 03C1558004 Project Owner: XTO
 Project Name: Remuda Basin Battery 1
 Project Location: State: NM Zip: 88220
 Sampler Name: Connor Whitman
 P.O. #: Company: XTO Energy Inc.
 Attn: Colton Brown
 Address: 3104 E. Green St.
 City: Carlsbad
 State: NM Zip: 88220
 Phone #: Fax #:

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H254655	SW05	0-4	C	1							7-29-25	1325			
	SW06											1330			
	SW07											1335			
	SW08											1340			
	FS07	16										1420			
	FS08											1425			
	FS09											1430			
	FS10											1435			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 interruption, loss of use, or loss of profits incurred by client, or 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 exceptions or omissions.

Relinquished By: *[Signature]*
 Date: 7-31-25
 Received By: *[Signature]*
 Date: 7-31-25
 Time: 1:34P
 Observed Temp. °C: 14
 Corrected Temp. °C: 1.9
 Sample Condition: Cool Intact Yes No
 CHECKED BY: *[Signature]*
 Turnaround Time: Standard Rush
 Thermometer ID: #13 #140
 Correction Factor: -0.1°C #13, -0.3°C #140
 Bacteria (only) Sample Condition: Cool Intact Yes No
 Incident ID: NHMP 1413240586 (2RP-2296)
 REMARKS: Cost Center: 1081541001
 Email address: KK@ResolutionConsultantsLLC.com, TMorrissey@ensolum.com, kthomason@ensolum.com
 GFCM: 48905000
 AFE: EW.2020.02879.EXP.01

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinaldssnm.com



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 4

Company Name: Ensolum, LLC	P.O. #:	BILL TO
Project Manager: Katherine Kahn	Company: XTO Energy Inc.	ANALYSIS REQUEST
Address: 3122 National Parks Hwy	Attn: Colton Brown	
City: Carlsbad	Address: 3104 E. Green St.	
Phone #: 337 257-8307	City: Carlsbad	
Fax #:	State: NM Zip: 88220	
Project #: 03C1558004	Project Owner: XTO	
Project Name: Remuda Basin Battery 1	Phone #:	
Project Location:	Fax #:	
Sampler Name: Connor Whitman		

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
19	SW09	4-16	C	1							7-30-25	900			
20	SW10											905			
21	SW11											910			
22	SW12											915			
23	SW13											920			
24	SW14											925			
25	SW15											955			
26	SW16											1000			
27	SW17											1005			
28	SW18											1030			

PLEASE NOTE: Lability and Damages, contracts liability and clients exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. 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.

Relinquished By: [Signature]

Date: 7-31-25

Received By: [Signature]

Date: 7-31-25

Turnaround Time: Standard Rush

Thermometer ID: #13 #140

Correction Factor: 0.5

Remarks: Cost Center: 1081541001

Incident ID: NHMP1413240586 (2RP-2296)

Delivered By: (Circle One) Observed Temp. °C: 1.6 Corrected Temp. °C: 1.9

Sampler - UPS - Bus - Other: UPS Bus Other

Sample Condition: Cool Intact Yes No

Checked By: [Signature]

Turnaround Time: Standard Rush

Thermometer ID: #13 #140

Correction Factor: 0.5

Remarks: Cost Center: 1081541001

Incident ID: NHMP1413240586 (2RP-2296)

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

4 of 4

Company Name: Ensolum, LLC
 Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 337 257-8307 Fax #: 337 257-8307
 Project #: 03C1558004 Project Owner: XTO
 Project Name: Remuda Basin Battery 1
 Project Location:
 Sampler Name: Connor Whitman
 P.O. #: Company: XTO Energy Inc.
 Attn: Colton Brown
 Address: 3104 E. Green St.
 City: Carlsbad State: NM Zip: 88220
 Phone #: Fax #:

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H2S4655	SW19	4-16	C	1							7-30-25	1035			
	SW20	4-16	C	1								1040			
	SW21											1045			
	SW22											1050			
	SW23											1055			
	SW24											1215			
	SW25											1220			
	SW26											1225			

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 interruption, 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.

Relinquished By: *[Signature]*
 Date: 7-31-25 Received By: *[Signature]*
 Date: 7-31-25
 Time: 1:34 PM
 Turnaround Time: Standard Rush
 Thermometer ID #13 Correction Factor: -0.35
 Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes No

Delivered By: (Circle One) UPS Bus Other
 Observed Temp. °C: 1.6
 Corrected Temp. °C: 1.9
 Sample Condition Cool Intact Yes No
 CHECKED BY: *[Signature]*
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address:
 REMARKS: Cost Center: 1081541001 Incident ID: NHMP1413240586 (2RP-2296)
 GFCM: 48805000 AFE: EW/2020.02879.EXP.01
 KK@ResolutionConsultantsLLC.com, TMorrissey@ensolum.com, kthomason@ensolum.com
 Turnaround Time: Standard Rush
 Thermometer ID #13 Correction Factor: -0.35
 Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes No



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Ashley Holmes
Ensolum

601 N. Marienfeld St.
Suite 400

Midland, Texas 79701

Generated 8/21/2025 10:18:18 AM

JOB DESCRIPTION

Remuda Basin Batt. #1
03C1558004

JOB NUMBER

890-8688-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.



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



Generated
8/21/2025 10:18:18 AM

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

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

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Laboratory Job ID: 890-8688-1
SDG: 03C1558004

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

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

Definitions/Glossary

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

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
*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.
☼	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: Remuda Basin Batt. #1

Job ID: 890-8688-1

Job ID: 890-8688-1

Eurofins Carlsbad

Job Narrative 890-8688-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/19/2025 4:09 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.4°C.

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-117096 and analytical batch 880-117095 was outside the upper control limits.

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

Diesel Range Organics

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-117024/2-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-117024 and analytical batch 880-117136 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW19 (890-8688-1). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-117097 and analytical batch 880-117113 were outside control limits. 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.

The associated samples are: SW19 (890-8688-1), (890-8688-A-1-B MS) and (890-8688-A-1-C MSD).

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

Client Sample ID: SW19

Lab Sample ID: 890-8688-1

Date Collected: 08/19/25 14:40

Matrix: Solid

Date Received: 08/19/25 16:09

Sample Depth: 4 - 18

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		08/20/25 08:28	08/20/25 14:29	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/20/25 08:28	08/20/25 14:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/20/25 08:28	08/20/25 14:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/20/25 08:28	08/20/25 14:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/20/25 08:28	08/20/25 14:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/20/25 08:28	08/20/25 14:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	08/20/25 08:28	08/20/25 14:29	1
1,4-Difluorobenzene (Surr)	116		70 - 130	08/20/25 08:28	08/20/25 14:29	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			08/20/25 14:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.5		50.0	mg/Kg			08/20/25 16:27	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	<50.0	U *1	50.0	mg/Kg		08/19/25 09:06	08/20/25 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/19/25 09:06	08/20/25 16:27	1
Oil Range Organics (Over C28-C36)	72.5		50.0	mg/Kg		08/19/25 09:06	08/20/25 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	08/19/25 09:06	08/20/25 16:27	1
o-Terphenyl	141	S1+	70 - 130	08/19/25 09:06	08/20/25 16:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	551	F1	10.0	mg/Kg			08/20/25 15:04	1

Surrogate Summary

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

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)
890-8684-A-1-B MS	Matrix Spike	115	101
890-8684-A-1-C MSD	Matrix Spike Duplicate	112	103
890-8688-1	SW19	130	116
LCS 880-117096/1-A	Lab Control Sample	97	101
LCSD 880-117096/2-A	Lab Control Sample Dup	104	111
MB 880-117096/5-A	Method Blank	190 S1+	111

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)
890-8638-A-1-C MS	Matrix Spike	114	116
890-8638-A-1-D MSD	Matrix Spike Duplicate	114	117
890-8688-1	SW19	124	141 S1+
LCS 880-117024/2-A	Lab Control Sample	126	131 S1+
LCSD 880-117024/3-A	Lab Control Sample Dup	105	109
MB 880-117024/1-A	Method Blank	101	114

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-117096/5-A
 Matrix: Solid
 Analysis Batch: 117095

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 117096

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/20/25 08:28	08/20/25 11:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/20/25 08:28	08/20/25 11:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/20/25 08:28	08/20/25 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/20/25 08:28	08/20/25 11:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/20/25 08:28	08/20/25 11:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/20/25 08:28	08/20/25 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	190	S1+	70 - 130	08/20/25 08:28	08/20/25 11:37	1
1,4-Difluorobenzene (Surr)	111		70 - 130	08/20/25 08:28	08/20/25 11:37	1

Lab Sample ID: LCS 880-117096/1-A
 Matrix: Solid
 Analysis Batch: 117095

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 117096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09992		mg/Kg		100	70 - 130
Toluene	0.100	0.09069		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.08078		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	0.200	0.1779		mg/Kg		89	70 - 130
o-Xylene	0.100	0.09661		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-117096/2-A
 Matrix: Solid
 Analysis Batch: 117095

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 117096

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1142		mg/Kg		114	70 - 130	13	35
Toluene	0.100	0.08757		mg/Kg		88	70 - 130	4	35
Ethylbenzene	0.100	0.07802		mg/Kg		78	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1649		mg/Kg		82	70 - 130	8	35
o-Xylene	0.100	0.1127		mg/Kg		113	70 - 130	15	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 890-8684-A-1-B MS
 Matrix: Solid
 Analysis Batch: 117095

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 117096

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.09847		mg/Kg		98	70 - 130
Toluene	<0.00200	U	0.100	0.07934		mg/Kg		79	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

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

Lab Sample ID: 890-8684-A-1-B MS
Matrix: Solid
Analysis Batch: 117095

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 117096

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier		Result	Qualifier					
Ethylbenzene	<0.00200	U	0.100	0.07901		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1841		mg/Kg		92	70 - 130	
o-Xylene	<0.00200	U	0.100	0.1048		mg/Kg		105	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	115		70 - 130							
1,4-Difluorobenzene (Surr)	101		70 - 130							

Lab Sample ID: 890-8684-A-1-C MSD
Matrix: Solid
Analysis Batch: 117095

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 117096

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U	0.100	0.1035		mg/Kg		104	70 - 130	5	35
Toluene	<0.00200	U	0.100	0.08198		mg/Kg		82	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.100	0.07472		mg/Kg		75	70 - 130	6	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1704		mg/Kg		85	70 - 130	8	35
o-Xylene	<0.00200	U	0.100	0.1063		mg/Kg		106	70 - 130	1	35
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	112		70 - 130								
1,4-Difluorobenzene (Surr)	103		70 - 130								

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

Lab Sample ID: MB 880-117024/1-A
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 117024

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		08/19/25 09:06	08/20/25 06:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/19/25 09:06	08/20/25 06:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/19/25 09:06	08/20/25 06:58	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	101		70 - 130	08/19/25 09:06	08/20/25 06:58	1		
o-Terphenyl	114		70 - 130	08/19/25 09:06	08/20/25 06:58	1		

Lab Sample ID: LCS 880-117024/2-A
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 117024

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	1247		mg/Kg		125	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1115		mg/Kg		112	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

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

Lab Sample ID: LCS 880-117024/2-A
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 117024

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	126		70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: LCSD 880-117024/3-A
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 117024

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1010	*1	mg/Kg		101	70 - 130	21	20	
Diesel Range Organics (Over C10-C28)	1000	908.2		mg/Kg		91	70 - 130	20	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	105		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-8638-A-1-C MS
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 117024

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	997.9		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	999	922.8		mg/Kg		92	70 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	114		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 890-8638-A-1-D MSD
Matrix: Solid
Analysis Batch: 117136

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 117024

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	1001		mg/Kg		100	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	999	915.9		mg/Kg		92	70 - 130	1	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	114		70 - 130
o-Terphenyl	117		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-117097/1-A
 Matrix: Solid
 Analysis Batch: 117113

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			08/20/25 12:40	1

Lab Sample ID: LCS 880-117097/2-A
 Matrix: Solid
 Analysis Batch: 117113

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-117097/3-A
 Matrix: Solid
 Analysis Batch: 117113

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	236.6		mg/Kg		95	90 - 110	5	20

Lab Sample ID: 890-8688-1 MS
 Matrix: Solid
 Analysis Batch: 117113

Client Sample ID: SW19
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	551	F1	251	764.1	F1	mg/Kg		85	90 - 110

Lab Sample ID: 890-8688-1 MSD
 Matrix: Solid
 Analysis Batch: 117113

Client Sample ID: SW19
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	551	F1	251	768.9	F1	mg/Kg		87	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

GC VOA

Analysis Batch: 117095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	8021B	117096
MB 880-117096/5-A	Method Blank	Total/NA	Solid	8021B	117096
LCS 880-117096/1-A	Lab Control Sample	Total/NA	Solid	8021B	117096
LCSD 880-117096/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	117096
890-8684-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	117096
890-8684-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	117096

Prep Batch: 117096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	5035	
MB 880-117096/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-117096/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-117096/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8684-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-8684-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 117188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 117024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	8015NM Prep	
MB 880-117024/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-117024/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-117024/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8638-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-8638-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 117136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	8015B NM	117024
MB 880-117024/1-A	Method Blank	Total/NA	Solid	8015B NM	117024
LCS 880-117024/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	117024
LCSD 880-117024/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	117024
890-8638-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	117024
890-8638-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	117024

Analysis Batch: 117194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 117097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Soluble	Solid	DI Leach	
MB 880-117097/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-117097/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-117097/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

HPLC/IC (Continued)

Leach Batch: 117097 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1 MS	SW19	Soluble	Solid	DI Leach	
890-8688-1 MSD	SW19	Soluble	Solid	DI Leach	

Analysis Batch: 117113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8688-1	SW19	Soluble	Solid	300.0	117097
MB 880-117097/1-A	Method Blank	Soluble	Solid	300.0	117097
LCS 880-117097/2-A	Lab Control Sample	Soluble	Solid	300.0	117097
LCSD 880-117097/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	117097
890-8688-1 MS	SW19	Soluble	Solid	300.0	117097
890-8688-1 MSD	SW19	Soluble	Solid	300.0	117097

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

Lab Chronicle

Client: Ensolum
 Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
 SDG: 03C1558004

Client Sample ID: SW19

Lab Sample ID: 890-8688-1

Date Collected: 08/19/25 14:40

Matrix: Solid

Date Received: 08/19/25 16:09

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	117096	08/20/25 08:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	117095	08/20/25 14:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			117188	08/20/25 14:29	SA	EET MID
Total/NA	Analysis	8015 NM		1			117194	08/20/25 16:27	SA	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	117024	08/19/25 09:06	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	117136	08/20/25 16:27	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	117097	08/20/25 08:46	SA	EET MID
Soluble	Analysis	300.0		1			117113	08/20/25 15:04	SMC	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

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	06-30-26

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: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

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: Remuda Basin Batt. #1

Job ID: 890-8688-1
SDG: 03C1558004

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8688-1	SW19	Solid	08/19/25 14:40	08/19/25 16:09	4 - 18

- 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) 794-1286
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	KATHERINE KAHN	Bill to: (if different)	LOREN REARD
Company Name:	Ensolium LLC	Company Name:	XTO ENERGY, INC
Address:	3122 NATIONAL PARKS HWY	Address:	3104 E GREENE ST
City, State ZIP:	CARLSBAD, NM 88220	City, State ZIP:	CARLSBAD, NM 88220
Phone:	303-319-9604	Email:	KK@Ensolium.com

Project Name:	REMUDA BASIN BAR #1	Turn Around	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush
Project Number:	03015596004	Pres. Code	
Project Location:	32.258625 -105.936333	Due Date:	4/8/22
Sampler's Name:	CHAD WELCH	TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Wellce:	Yes No



Project Name:	REMUDA BASIN BAR #1	Turn Around	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush
Project Number:	03015596004	Pres. Code	
Project Location:	32.258625 -105.936333	Due Date:	4/8/22
Sampler's Name:	CHAD WELCH	TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Wellce:	Yes No
SAMPLE RECEIPT	Temp Blank:	Yes No	Wellce: Yes No
Samples Received Intact:	Yes No	Thermometer ID:	1111111111
Cooler Custody Seals:	Yes No	Correction Factor:	-0.2
Sample Custody Seals:	Yes No	Temperature Reading:	6.6
Total Containers:	Yes No	Corrected Temperature:	6.4

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters
SM19	S	8/19/25	1940	4-18 C	I	1	BTEX TPH CHLORIDES
CHAD WELCH							
Incident ID: NHMP1913240586							
CRP-2296							
ATE NUMBER: EN 2020-02879 EXP 01							
POST CENTER: 1681541061							
GFCM: 48605000-SPILLS							

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 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 \$65.00 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
CHAD WELCH	CHAD WELCH	4:09 8/19/22			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-8688-1

SDG Number: 03C1558004

Login Number: 8688

List Number: 1

Creator: Lee, Randall

List Source: Eurofins Carlsbad

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	

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-8688-1

SDG Number: 03C1558004

Login Number: 8688

List Number: 2

Creator: Lee, Randall

List Source: Eurofins Midland

List Creation: 08/20/25 08:39 AM

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

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



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

August 25, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 08/21/25 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	08/21/2025	Sampling Date:	08/20/2025
Reported:	08/25/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 20 4-18 (H255221-01)

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	08/22/2025	ND	1.64	81.9	2.00	2.43	
Toluene*	<0.050	0.050	08/22/2025	ND	1.81	90.3	2.00	4.21	
Ethylbenzene*	<0.050	0.050	08/22/2025	ND	1.84	91.8	2.00	5.51	
Total Xylenes*	<0.150	0.150	08/22/2025	ND	5.67	94.6	6.00	5.83	
Total BTEX	<0.300	0.300	08/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	08/22/2025	ND	432	108	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	08/22/2025	ND	200	100	200	6.74	
DRO >C10-C28*	<10.0	10.0	08/22/2025	ND	194	97.0	200	5.91	
EXT DRO >C28-C36	<10.0	10.0	08/22/2025	ND					

Surrogate: 1-Chlorooctane 80.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.1 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	08/21/2025	Sampling Date:	08/20/2025
Reported:	08/25/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 21 4-18 (H255221-02)

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	08/22/2025	ND	1.64	81.9	2.00	2.43		
Toluene*	<0.050	0.050	08/22/2025	ND	1.81	90.3	2.00	4.21		
Ethylbenzene*	<0.050	0.050	08/22/2025	ND	1.84	91.8	2.00	5.51		
Total Xylenes*	<0.150	0.150	08/22/2025	ND	5.67	94.6	6.00	5.83		
Total BTEX	<0.300	0.300	08/22/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	08/22/2025	ND	432	108	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	08/22/2025	ND	200	100	200	6.74		
DRO >C10-C28*	<10.0	10.0	08/22/2025	ND	194	97.0	200	5.91		
EXT DRO >C28-C36	<10.0	10.0	08/22/2025	ND						

Surrogate: 1-Chlorooctane 82.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

September 11, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 09/09/25 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 27 0-4 (H255635-01)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	174	86.9	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.7 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 20A 4-16 (H255635-02)

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	09/10/2025	ND	1.89	94.7	2.00	0.601		
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304		
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197		
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18		
Total BTEX	<0.300	0.300	09/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29		
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	174	86.9	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND						

Surrogate: 1-Chlorooctane 93.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 21A 4-16 (H255635-03)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	174	86.9	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 97.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.5 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 22A 4-16 (H255635-04)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	174	86.9	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 23A 4-16 (H255635-05)

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	09/10/2025	ND	1.89	94.7	2.00	0.601		
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304		
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197		
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18		
Total BTEX	<0.300	0.300	09/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5640	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29		
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	174	86.9	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.8 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 28 4-16 (H255635-06)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1650	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	173	86.4	200	2.29	
DRO >C10-C28*	91.7	10.0	09/09/2025	ND	174	86.9	200	4.14	
EXT DRO >C28-C36	18.4	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 98.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.6 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 29 4-16 (H255635-07)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	22.9	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 30 16-19.5 (H255635-08)

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	09/10/2025	ND	1.89	94.7	2.00	0.601		
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304		
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197		
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18		
Total BTEX	<0.300	0.300	09/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7680	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14		
DRO >C10-C28*	19.5	10.0	09/09/2025	ND	165	82.7	200	1.77		
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND						

Surrogate: 1-Chlorooctane 76.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.7 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 31 16-19.5 (H255635-09)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1760	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 77.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.8 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 32 16-19.5 (H255635-10)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1860	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.9 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: SW 33 16-19.5 (H255635-11)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 77.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.2 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 01 19.5 (H255635-12)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 76.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.3 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 02 19.5 (H255635-13)

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	09/10/2025	ND	1.89	94.7	2.00	0.601		
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304		
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197		
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18		
Total BTEX	<0.300	0.300	09/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2280	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14		
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77		
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND						

Surrogate: 1-Chlorooctane 80.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.3 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: FS 03 19.5 (H255635-14)

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	09/10/2025	ND	1.89	94.7	2.00	0.601	
Toluene*	<0.050	0.050	09/10/2025	ND	1.94	96.9	2.00	0.304	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	1.97	98.3	2.00	0.197	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	6.16	103	6.00	1.18	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 04 19.5 (H255635-15)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	QM-07
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	QM-07
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	09/10/2025	ND	416	104	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 99.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.4 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 05 19.5 (H255635-16)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	09/10/2025	ND	432	108	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	09/09/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/09/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/09/2025	ND					

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: FS 06 19.5 (H255635-17)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	09/10/2025	ND	432	108	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	09/10/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/10/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/10/2025	ND					

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 09/09/2025
 Reported: 09/11/2025
 Project Name: REMUDA BASIN BATTERY 1
 Project Number: 03C1558004
 Project Location: XTO 32.288623,-103.936333

Sampling Date: 09/08/2025
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 07 19.5 (H255635-18)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	09/10/2025	ND	432	108	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	09/10/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/10/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/10/2025	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.0 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: FS 08 19.5 (H255635-19)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	09/10/2025	ND	432	108	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	09/10/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/10/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/10/2025	ND					

Surrogate: 1-Chlorooctane 98.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.4 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: FS 09 19.5 (H255635-20)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	09/10/2025	ND	432	108	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	09/10/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/10/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/10/2025	ND					

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/09/2025	Sampling Date:	09/08/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.288623,-103.936333		

Sample ID: FS 10 19.5 (H255635-21)

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	09/10/2025	ND	1.81	90.5	2.00	2.36	
Toluene*	<0.050	0.050	09/10/2025	ND	2.11	106	2.00	4.51	
Ethylbenzene*	<0.050	0.050	09/10/2025	ND	2.26	113	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/10/2025	ND	7.04	117	6.00	7.20	
Total BTEX	<0.300	0.300	09/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	09/10/2025	ND	432	108	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	09/10/2025	ND	168	84.1	200	1.14	
DRO >C10-C28*	<10.0	10.0	09/10/2025	ND	165	82.7	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	09/10/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

1 of 3

Company Name: Ensolum, LLC
 Project Manager: Katharine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 303.319.9604 Fax #:
 Project #: 03C 1558 604 Project Owner:
 Project Name: REMUDA BASIN BATTERY #1
 Project Location: 32.288623, -103.936333
 Sampler Name: Chris Weigher
 P.O. #:
 Company: XTO Energy, Inc
 Attn: Dale Woodall
 Address: 304 E. Green St
 City: Carlsbad State: NM Zip: 88220
 Phone #:
 Fax #:
BILL TO ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						ICE / COOL
1	SM27	0-4	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1357	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
2	SM20A	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1155	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
3	SM21A	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1154	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
4	SM22A	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1152	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
5	SM25A	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1149	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
6	SM28	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1359	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
7	SM29	4-16	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1401	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
8	SM30	16-19.5	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1210	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
9	SM31	16-19.5	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1241	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
10	SM32	16-19.5	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9/8/25	1244	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising from this report shall be limited to the amount paid by the client for the analysis. 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.

Relinquished By: *CFW*
 Date: 9/9/25
 Time: 13:10
 Received By: *Stoddiguy*
 Date:
 Time:
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address:
 REMARKS:
 Incident:
 Cost Center:
 Turnaround Time: Standard Rush
 Thermonator ID: #110
 Correction Factor: 10.3
 Bacteria (only) Sample Condition
 Cool Intact Yes No Observed Temp. °C
 Corrected Temp. °C

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other:
 Observed Temp. °C: 15.1
 Corrected Temp. °C: 18.2
 Sample Condition
 Cool Intact Yes No
 Checked By: *SW*
 FORM-006-R 3.2 1/00/7/21
 † Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 3

Company Name: Ensolium, LLC

BILL TO

ANALYSIS REQUEST

Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 505.319.9604 Fax #: _____
 Project #: 03C 1558 004 Project Owner: _____
 Project Name: REMUDA BASIN BATTERY #1
 Project Location: 32.288623, -103.936333
 Sampler Name: Charles Mearns
 P.O. #: _____
 Company: XTO Energy, Inc
 Attn: DALE WOODALL
 Address: 304 E. GREENE ST
 City: CARLSBAD
 State: NM Zip: 88220
 Phone #: _____
 Fax #: _____

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HS5635	SN35	16-19.5	C	1								9/8/25	1207	✓	✓	✓
	FS01	19.5	C	1	✓							9/8/25	1242	✓	✓	✓
	FS02	19.5	C	1	✓							9/8/25	1233	✓	✓	✓
	FS03	19.5	C	1	✓							9/8/25	1236	✓	✓	✓
	FS04	19.5	C	1	✓							9/8/25	1239	✓	✓	✓
	FS05	19.5	C	1	✓							9/8/25	1215	✓	✓	✓
	FS06	19.5	C	1	✓							9/8/25	1213	✓	✓	✓
	FS07	19.5	C	1	✓							9/8/25	1220	✓	✓	✓
	FS08	19.5	C	1	✓							9/8/25	1218	✓	✓	✓
	FS09	19.5	C	1	✓							9/8/25	1226	✓	✓	✓

PLEASE NOTE: Labey and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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.

Relinquished By: _____
 Date: _____
 Received By: Steedraign
 Date: 9/8/25
 Time: 1340
 Received By: _____
 Date: _____
 Time: _____

Delivered By: (Circle One) _____
 Sampler - UPS - Bus - Other: _____
 Observed Temp. °C: 15.1
 Corrected Temp. °C: 1.82
 Sample Condition: Intact Cool Yes No
 CHECKED BY: SR (Initials)
 Turnaround Time: 48 Hr Standard Rush
 Thermometer ID: #140
 Correction Factor: 10.3
 Bacteria (only) Sample Condition: Intact Observed Temp. °C: _____
 Corrected Temp. °C: _____



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

September 24, 2025

KATHERINE KHAN
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: REMUDA BASIN BATTERY #1

Enclosed are the results of analyses for samples received by the laboratory on 09/18/25 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 KATHERINE KHAN
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	09/18/2025	Sampling Date:	09/17/2025
Reported:	09/24/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY #1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623, -103.936333		

Sample ID: SW 07 A 0-4 (H255840-01)

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	09/20/2025	ND	1.94	96.8	2.00	1.15	
Toluene*	<0.050	0.050	09/20/2025	ND	2.04	102	2.00	0.779	
Ethylbenzene*	<0.050	0.050	09/20/2025	ND	2.04	102	2.00	0.146	
Total Xylenes*	<0.150	0.150	09/20/2025	ND	5.97	99.6	6.00	0.0908	
Total BTEX	<0.300	0.300	09/20/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	09/19/2025	ND	448	112	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	09/19/2025	ND	234	117	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/19/2025	ND	225	112	200	2.04	
EXT DRO >C28-C36	<10.0	10.0	09/19/2025	ND					

Surrogate: 1-Chlorooctane 106 % 52.4-130

Surrogate: 1-Chlorooctadecane 103 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 KATHERINE KHAN
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	09/18/2025	Sampling Date:	09/17/2025
Reported:	09/24/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY #1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623, -103.936333		

Sample ID: SW 28 A 4-16 (H255840-02)

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	09/20/2025	ND	1.94	96.8	2.00	1.15	
Toluene*	<0.050	0.050	09/20/2025	ND	2.04	102	2.00	0.779	
Ethylbenzene*	<0.050	0.050	09/20/2025	ND	2.04	102	2.00	0.146	
Total Xylenes*	<0.150	0.150	09/20/2025	ND	5.97	99.6	6.00	0.0908	
Total BTEX	<0.300	0.300	09/20/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	09/19/2025	ND	448	112	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	09/19/2025	ND	234	117	200	1.16	
DRO >C10-C28*	<10.0	10.0	09/19/2025	ND	225	112	200	2.04	
EXT DRO >C28-C36	<10.0	10.0	09/19/2025	ND					

Surrogate: 1-Chlorooctane 98.1 % 52.4-130

Surrogate: 1-Chlorooctadecane 95.4 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

BILL TO

ANALYSIS REQUEST

1 of 1

Company Name: Ensolum, LLC		P.O. #:	
Project Manager: Katherine Kahn		Company: XTO Energy, Inc	
Address: 601 N Marland Street, Suite 400		Attn: Colton Brown	
City: Midland	State: TX	Zip: 79701	Address: 3104 E Greene St
Phone #: 575-937-3906	Fax #:	Project Owner: XTO Energy	City: Carlsbad
Project #: 03C1558004	Project Name: Remuda Basin Battery #1	- SPILLS	State: NM Zip: 88220
Project Location: 32.288623, -103.936333	Sampler Name: Evan Roe	Phone #:	Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :					
	SW07A	0-4	C	1									9/17/2025	1525	✓	✓	✓	
	SW28A	4-16	C	1									9/17/2025	1111	✓	✓	✓	

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims regarding 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.

Relinquished By: *[Signature]* Date: 9-18-25
 Received By: *[Signature]* Date: 9-18-25
 Time: 1315

Delivered By: (Circle One) Observed Temp. °C: 28.8
 Sampler - UPS - Bus - Other: Corrected Temp. °C: 3.1
 Sample Condition: Cool Intact Yes No
 CHECKED BY: (Initials) *[Signature]*
 Turnaround Time: Standard Rush
 Thermometer ID #13 #140
 Correction Factor: 0.1°C #103.1

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsntr.com



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

October 01, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 09/29/25 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH01 A 20 (H256083-01)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.7 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 86.8 % 52.4-130

Surrogate: 1-Chlorooctadecane 83.9 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH01 B 22 (H256083-02)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.7 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 76.5 % 52.4-130

Surrogate: 1-Chlorooctadecane 75.0 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH01 C 24 (H256083-03)

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	09/30/2025	ND	1.80	90.1	2.00	13.2		
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43		
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77		
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69		
Total BTEX	<0.300	0.300	09/30/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.5 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24		
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 91.0 % 52.4-130

Surrogate: 1-Chlorooctadecane 88.3 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH01 D 26 (H256083-04)

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	09/30/2025	ND	1.80	90.1	2.00	13.2		
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43		
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77		
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69		
Total BTEX	<0.300	0.300	09/30/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.4 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24		
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 86.7 % 52.4-130

Surrogate: 1-Chlorooctadecane 83.1 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH01 E 28 (H256083-05)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.1 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 83.2 % 52.4-130

Surrogate: 1-Chlorooctadecane 82.0 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH02 A 20 (H256083-06)

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	09/30/2025	ND	1.80	90.1	2.00	13.2		
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43		
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77		
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69		
Total BTEX	<0.300	0.300	09/30/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2020	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24		
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 82.8 % 52.4-130

Surrogate: 1-Chlorooctadecane 81.1 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH02 B 22 (H256083-07)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1970	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 83.1 % 52.4-130

Surrogate: 1-Chlorooctadecane 80.5 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH02 C 26 (H256083-08)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.7 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 91.3 % 52.4-130

Surrogate: 1-Chlorooctadecane 86.9 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/29/2025	Sampling Date:	09/26/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH02 D 28 (H256083-09)

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	09/30/2025	ND	1.80	90.1	2.00	13.2	
Toluene*	<0.050	0.050	09/30/2025	ND	1.80	90.1	2.00	8.43	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.76	88.1	2.00	4.77	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.16	86.1	6.00	4.69	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	09/30/2025	ND	416	104	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	09/30/2025	ND	212	106	200	1.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	218	109	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 93.1 % 52.4-130

Surrogate: 1-Chlorooctadecane 89.0 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

BILL TO

ANALYSIS REQUEST

Company Name: Ensolium, LLC
 Project Manager: Katherine Kahn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 303.319.9604 Fax #:
 Project #: 03C1558004 Project Owner:
 Project Name: Remuda Basin Battery 1
 Project Location: S2.288623, -103.956333
 Sampler Name: Chris Wright
 P.O. #:
 Company: XTO Energy, Inc
 Attn: DALE HODDALL
 Address: 5101 E Avenue St
 City: CARLSBAD
 State: NM Zip: 88220
 Phone #: 505
 Fax #: 505

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
<u>H576083</u>																
1	BH01A	20	G	1								9/26/15	1124	✓	✓	✓
2	BH01B	22	G	1								9/26/15	1137	✓	✓	✓
3	BH01C	24	G	1								9/26/15	1149	✓	✓	✓
4	BH01D	26	G	1								9/26/15	1221	✓	✓	✓
5	BH01E	28	G	1								9/26/15	1420	✓	✓	✓
6	BH02A	20	G	1								9/26/15	1427	✓	✓	✓
7	BH02B	22	G	1								9/26/15	1448	✓	✓	✓
8	BH02C	26	G	1								9/26/15	1505	✓	✓	✓
9	BH02D	28	G	1								9/26/15	1403	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. 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.

Relinquished By: [Signature] Date: 9-29-15 Received By: [Signature] Date: 9-30-15
 Time: 1830 Received By: [Signature]
 Relinquished By: [Signature] Time: [Blank] Received By: [Signature]

Delivered By: (Circle One) Observed Temp. °C: 24 Sample Condition: Cool Intact
 Corrected Temp. °C: 27 Yes No
 Checked By: [Signature]
 Turbidity Time: 48 Standard Rush
 Thermometer ID: #1410 Bacteria (only) Sample Condition: Cool Intact
 Correction Factor: +0.3 Yes No Observed Temp. °C: [Blank]
 Corrected Temp. °C: [Blank]



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

October 01, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 09/30/25 13:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 A 0.5' (H256107-01)

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	09/30/2025	ND	1.73	86.7	2.00	1.21	
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 89.3 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	10/01/2025	ND	416	104	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	09/30/2025	ND	216	108	200	2.24	
DRO >C10-C28*	64.1	10.0	09/30/2025	ND	217	109	200	2.93	
EXT DRO >C28-C36	21.5	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 93.1 % 52.4-130

Surrogate: 1-Chlorooctadecane 98.4 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 B 5' (H256107-02)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/30/2025	ND	1.73	86.7	2.00	1.21		
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604	GC-NC	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05	GC-NC	
Total Xylenes*	1.32	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13	GC-NC1	
Total BTEX	1.32	0.300	09/30/2025	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 237 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	10/01/2025	ND	416	104	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*	58.7	10.0	09/30/2025	ND	216	108	200	2.24		
DRO >C10-C28*	430	10.0	09/30/2025	ND	217	109	200	2.93		
EXT DRO >C28-C36	55.2	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 96.9 % 52.4-130

Surrogate: 1-Chlorooctadecane 105 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 C 10' (H256107-03)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.077	0.050	09/30/2025	ND	1.73	86.7	2.00	1.21		
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604	GC-NC	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05	GC-NC	
Total Xylenes*	1.64	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13	GC-NC1	
Total BTEX	1.72	0.300	09/30/2025	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 171 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	10/01/2025	ND	416	104	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*	27.4	10.0	09/30/2025	ND	216	108	200	2.24		
DRO >C10-C28*	154	10.0	09/30/2025	ND	217	109	200	2.93		
EXT DRO >C28-C36	15.7	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 94.5 % 52.4-130

Surrogate: 1-Chlorooctadecane 97.8 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 D 15' (H256107-04)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.118	0.050	09/30/2025	ND	1.73	86.7	2.00	1.21		
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604	GC-NC	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05	GC-NC	
Total Xylenes*	1.58	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13	GC-NC1	
Total BTEX	1.70	0.300	09/30/2025	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 152 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	10/01/2025	ND	416	104	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*	23.6	10.0	09/30/2025	ND	216	108	200	2.24		
DRO >C10-C28*	74.2	10.0	09/30/2025	ND	217	109	200	2.93		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 92.7 % 52.4-130

Surrogate: 1-Chlorooctadecane 96.1 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 E 18' (H256107-05)

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	09/30/2025	ND	1.73	86.7	2.00	1.21		
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604		
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13		
Total BTEX	<0.300	0.300	09/30/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/01/2025	ND	416	104	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	09/30/2025	ND	216	108	200	2.24		
DRO >C10-C28*	54.8	10.0	09/30/2025	ND	217	109	200	2.93		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 93.3 % 52.4-130

Surrogate: 1-Chlorooctadecane 98.2 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH07 A 0.5' (H256107-06)

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	09/30/2025	ND	1.73	86.7	2.00	1.21	
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604	
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05	
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13	
Total BTEX	<0.300	0.300	09/30/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	10/01/2025	ND	416	104	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	09/30/2025	ND	216	108	200	2.24	
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	217	109	200	2.93	
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND					

Surrogate: 1-Chlorooctane 84.9 % 52.4-130

Surrogate: 1-Chlorooctadecane 83.7 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	09/30/2025	Sampling Date:	09/29/2025
Reported:	10/01/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH07 B 5' (H256107-07)

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	09/30/2025	ND	1.73	86.7	2.00	1.21		
Toluene*	<0.050	0.050	09/30/2025	ND	1.78	88.8	2.00	0.604		
Ethylbenzene*	<0.050	0.050	09/30/2025	ND	1.75	87.6	2.00	1.05		
Total Xylenes*	<0.150	0.150	09/30/2025	ND	5.11	85.2	6.00	1.13		
Total BTEX	<0.300	0.300	09/30/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.8 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1060	16.0	10/01/2025	ND	416	104	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	09/30/2025	ND	216	108	200	2.24		
DRO >C10-C28*	<10.0	10.0	09/30/2025	ND	217	109	200	2.93		
EXT DRO >C28-C36	<10.0	10.0	09/30/2025	ND						

Surrogate: 1-Chlorooctane 90.3 % 52.4-130

Surrogate: 1-Chlorooctadecane 90.4 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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: KATIELINE KAHN P.O. #:
Address: 3122 National Parks Hwy Company: XTO Energy, Inc
City: Carlsbad State: NM Zip: 88220 Attn: DALE WOODALL
Phone #: 303.319.9604 Fax #: Address: 5101 E Greave St
Project #: 03C1558004 Project Owner: City: ALBUQUERQUE
Project Name: Lemuda Basin Battery 1 State: NM Zip: 88700
Project Location: S2.288623, -103.956333 Phone #: Fax #:
Sampler Name: CHRIS WRIGHT

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV	DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						
H56107	BH06A	0.5	G	1	✓								9/29/25	0925	✓	✓	✓
	BH06B	5	G	1	✓								9/29/25	1020	✓	✓	✓
	BH06C	10	G	1	✓								9/29/25	1128	✓	✓	✓
	BH06D	15	G	1	✓								9/29/25	1223	✓	✓	✓
	BH06E	18	G	1	✓								9/29/25	1422	✓	✓	✓
	BH07A	0.5	G	1	✓								9/29/25	1516	✓	✓	✓
	BH07B	5	G	1	✓								9/29/25	1553	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether stated 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.

Relinquished By: [Signature] Date: 9-30-25 Received By: [Signature] Date: 9-30-25
Relinquished By: [Signature] Date: 1305 Received By: [Signature]

Delivered By: (Circle One) Observed Temp. °C 3.4 Sample Condition Cool Intact Yes No
Sampler - UPS - Bus - Other: Corrected Temp. °C 3.7 CHECKED BY: [Signature] (Initials) [Signature]
Turnaround Time: Standard Rush Bacteria (only) Cool Intact Yes No Corrected Temp. °C
Thermometer ID: #148 Rush
Correction Factor: +0.3°C



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

October 06, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 10/02/25 14:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	09/30/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH 03A 20 (H256161-01)

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	10/03/2025	ND	1.66	83.2	2.00	7.62	
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43	
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24	
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28	
Total BTEX	<0.300	0.300	10/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.4 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518	
DRO >C10-C28*	<10.0	10.0	10/03/2025	ND	211	105	200	1.63	
EXT DRO >C28-C36	<10.0	10.0	10/03/2025	ND					

Surrogate: 1-Chlorooctane 92.8 % 52.4-130

Surrogate: 1-Chlorooctadecane 91.7 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	09/30/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH 03B 22 (H256161-02)

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	10/03/2025	ND	1.66	83.2	2.00	7.62		
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.4 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518		
DRO >C10-C28*	26.8	10.0	10/03/2025	ND	211	105	200	1.63		
EXT DRO >C28-C36	20.4	10.0	10/03/2025	ND						

Surrogate: 1-Chlorooctane 94.7 % 52.4-130

Surrogate: 1-Chlorooctadecane 93.2 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	09/30/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH 03C 24 (H256161-03)

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	10/03/2025	ND	1.66	83.2	2.00	7.62		
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.4 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518		
DRO >C10-C28*	<10.0	10.0	10/03/2025	ND	211	105	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	10/03/2025	ND						

Surrogate: 1-Chlorooctane 97.5 % 52.4-130

Surrogate: 1-Chlorooctadecane 95.1 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	09/30/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH 06F 20 (H256161-04)

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	10/03/2025	ND	1.66	83.2	2.00	7.62		
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.5 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518		
DRO >C10-C28*	21.6	10.0	10/03/2025	ND	211	105	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	10/03/2025	ND						

Surrogate: 1-Chlorooctane 95.7 % 52.4-130

Surrogate: 1-Chlorooctadecane 94.0 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC
 Project Manager: KATHERINE KAHN
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 303.319.9604 Fax #: _____
 Project #: 03C1558004 Project Owner: _____
 Project Name: REMUDA BASIN BARBER 1
 Project Location: S2.288623, -103.956333
 Sampler Name: GREG MUEHRT
 P.O. #: _____
 Company: XTO Energy, Inc
 Attn: DALE WOODALL
 Address: 5104 E. GARBAR ST
 City: CARLSBAD
 State: NM Zip: 88220
 Phone #: _____
 Fax #: _____

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H256161	BHD3A	20	G	1								9/30/25	0829	✓	✓	✓
	BHD3B	22	G	1								9/30/25	0853	✓	✓	✓
	BHD3C	24	G	1								9/30/25	0941	✓	✓	✓
	BHD6F	20	G	1								9/30/25	1441	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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.

Relinquished By: [Signature]
 Date: 10-2-25
 Time: 1410
 Received By: [Signature]
 Date: _____
 Time: _____
 Received By: _____

Delivered By: (Circle One) Observed Temp. °C: 0.5
 Corrected Temp. °C: 0.2
 Sample Condition: Cool Intact Yes No
 Checked By: [Signature]
 Turbidity Time: 48 Hrs Standard Rush
 Thermometer ID: #140
 Correction Factor: +0.32
 Bacteria (only) Sample Condition: Cool Intact Yes No
 Observed Temp. °C: _____
 Corrected Temp. °C: _____

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabnm.com



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

October 06, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 10/02/25 14:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	10/01/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH06 G 26' (H256162-01)

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	10/03/2025	ND	1.66	83.2	2.00	7.62	
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43	
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24	
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28	
Total BTEX	<0.300	0.300	10/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.4 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518	
DRO >C10-C28*	<10.0	10.0	10/03/2025	ND	211	105	200	1.63	
EXT DRO >C28-C36	<10.0	10.0	10/03/2025	ND					

Surrogate: 1-Chlorooctane 95.7 % 52.4-130

Surrogate: 1-Chlorooctadecane 93.7 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/02/2025	Sampling Date:	10/01/2025
Reported:	10/06/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH07 C 10' (H256162-02)

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	10/03/2025	ND	1.66	83.2	2.00	7.62		
Toluene*	<0.050	0.050	10/03/2025	ND	1.70	85.0	2.00	7.43		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.68	83.9	2.00	8.24		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	4.91	81.8	6.00	8.28		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.3 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	10/03/2025	ND	416	104	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	10/03/2025	ND	220	110	200	0.518		
DRO >C10-C28*	<10.0	10.0	10/03/2025	ND	211	105	200	1.63		
EXT DRO >C28-C36	<10.0	10.0	10/03/2025	ND						

Surrogate: 1-Chlorooctane 94.0 % 52.4-130

Surrogate: 1-Chlorooctadecane 92.3 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC
 Project Manager: Katherine Lynn
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: 303.319.9604 Fax #:
 Project #: 03CL558004 Project Owner:
 Project Name: REMUDA BASIN BATTERY 1
 Project Location: S2.288623, -103.956333
 Sampler Name: CHRIS MIGHT
 P.O. #:
 Company: XTO Energy, Inc
 Attn: DALE WOODRALL
 Address: 3101 E GREEN ST
 City: CARLSBAD
 State: NM Zip: 88220
 Phone #:
 Fax #:
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HS26162	1 BHD06G	26	G	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10/1/25	1229	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	2 BHD7C	10	G	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10/1/25	1534	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising from this contract or tort, shall be limited to the amount paid by the client for the analysis. 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 remedies or otherwise.

Relinquished By: *[Signature]* Date: 10-2-25
 Received By: *[Signature]* Date: 10/1/25
 Relinquished By: *[Signature]* Date: 10/1/25
 Received By: *[Signature]* Date: 10/1/25

Delivered By: (Circle One) UPS Bus Other:
 Observed Temp. °C: -0.5 Corrected Temp. °C: -0.2
 Sample Condition: Intact Cool Yes No Yes No
 Checked By: *[Signature]*
 Turbidity Time: 48 HL Standard Rush
 Thermometer ID: #140 Correction Factor: +0.3°C
 Bacteria (only) Cool Intact Yes No Yes No
 Sample Condition Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabnsnm.com



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

October 07, 2025

KATHERINE KHAN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: REMUDA BASIN BATTERY 1

Enclosed are the results of analyses for samples received by the laboratory on 10/03/25 11:43.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. 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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04A 0.5' (H256190-01)

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	10/03/2025	ND	1.65	82.3	2.00	9.12	
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24	
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28	
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72	
Total BTEX	<0.300	0.300	10/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77	
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND					

Surrogate: 1-Chlorooctane 93.5 % 52.4-130

Surrogate: 1-Chlorooctadecane 90.8 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04B 5' (H256190-02)

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	10/03/2025	ND	1.65	82.3	2.00	9.12	
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24	
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28	
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72	
Total BTEX	<0.300	0.300	10/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77	
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND					

Surrogate: 1-Chlorooctane 103 % 52.4-130

Surrogate: 1-Chlorooctadecane 100 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04C 10' (H256190-03)

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	10/03/2025	ND	1.65	82.3	2.00	9.12		
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77		
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29		
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND						

Surrogate: 1-Chlorooctane 99.9 % 52.4-130

Surrogate: 1-Chlorooctadecane 92.3 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04D 15' (H256190-04)

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	10/03/2025	ND	1.65	82.3	2.00	9.12		
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77		
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29		
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND						

Surrogate: 1-Chlorooctane 105 % 52.4-130

Surrogate: 1-Chlorooctadecane 96.1 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04E 20' (H256190-05)

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	10/03/2025	ND	1.65	82.3	2.00	9.12		
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77		
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29		
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND						

Surrogate: 1-Chlorooctane 107 % 52.4-130

Surrogate: 1-Chlorooctadecane 97.8 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04F 25' (H256190-06)

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	10/03/2025	ND	1.65	82.3	2.00	9.12	
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24	
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28	
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72	
Total BTEX	<0.300	0.300	10/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77	
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND					

Surrogate: 1-Chlorooctane 86.9 % 52.4-130

Surrogate: 1-Chlorooctadecane 81.6 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 KATHERINE KHAN
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	10/03/2025	Sampling Date:	10/02/2025
Reported:	10/07/2025	Sampling Type:	Soil
Project Name:	REMUDA BASIN BATTERY 1	Sampling Condition:	Cool & Intact
Project Number:	03C1558004	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.288623,-103.936333		

Sample ID: BH04G 26' (H256190-07)

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	10/03/2025	ND	1.65	82.3	2.00	9.12		
Toluene*	<0.050	0.050	10/03/2025	ND	1.75	87.5	2.00	6.24		
Ethylbenzene*	<0.050	0.050	10/03/2025	ND	1.80	89.9	2.00	4.28		
Total Xylenes*	<0.150	0.150	10/03/2025	ND	5.61	93.5	6.00	3.72		
Total BTEX	<0.300	0.300	10/03/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 70.4-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/06/2025	ND	416	104	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	10/04/2025	ND	191	95.7	200	2.77		
DRO >C10-C28*	<10.0	10.0	10/04/2025	ND	215	107	200	4.29		
EXT DRO >C28-C36	<10.0	10.0	10/04/2025	ND						

Surrogate: 1-Chlorooctane 100 % 52.4-130

Surrogate: 1-Chlorooctadecane 94.2 % 39.9-141

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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: Katherine Kahn

Address: 3122 National Parks Hwy

City: Carlsbad

Phone #: 303.319.9604

Project #: 03C1558004

Project Name: Lemuda Basin Battery 1

Project Location: S2.288623, -103.956333

Sampler Name: CELEY KEENE

P.O. #:

Company: XTO Energy, Inc

Attn: DALE WOODRILL

Address: 5101 E Green St

City: CARLSBAD

State: NM Zip: 88220

Phone #:

Fax #:

FOR LAB USE ONLY

MATRIX

PRESERV

SAMPLING

Lab I.D.

Sample I.D.

Depth (feet)

H25 L040

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
	BH04A	0.5	G	1			<input checked="" type="checkbox"/>							10/2/25	0942
	BH04B	5	G	1			<input checked="" type="checkbox"/>							10/2/25	1031
	BH04C	10	G	1			<input checked="" type="checkbox"/>							10/2/25	1152
	BH04D	15	G	1			<input checked="" type="checkbox"/>							10/2/25	1347
	BH04E	20	G	1			<input checked="" type="checkbox"/>							10/2/25	1538
	BH04F	25	G	1			<input checked="" type="checkbox"/>							10/2/25	1608
	BH04G	26	G	1			<input checked="" type="checkbox"/>							10/2/25	1633

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusions extend to any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 interruption, 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 requests or otherwise.

Relinquished By: [Signature]

Date: 10/03/25

Received By: [Signature]

Relinquished By: [Signature]

Date: 7/14/25

Received By: [Signature]

Relinquished By: [Signature]

Date: 10/3/25

Received By: [Signature]

Delivered By: (Circle One) [Signature]

Observed Temp. °C: 8.12

Sample Condition: Cool Intact

CHECKED BY: [Signature]

Sampler - UPS - Bus - Other:

Corrected Temp. °C: 3.41

Sample Condition: Cool Intact

CHECKED BY: [Signature]

D40240115

Verbal Result: Yes No Add'l Phone #:

All Results are emailed. Please provide Email address:

REMARKS: Turround Time: Standard

Thermometer ID: #149

Correction Factor: +0.3

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 547785

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nHMP1413240586
Incident Name	NHMP1413240586 REMUDA BASIN BATTERY UNIT #1 @ 30-015-03691
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-03691] REMUDA BASIN UNIT #001

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	REMUDA BASIN BATTERY UNIT #1
Date Release Discovered	04/27/2014
Surface Owner	State

Incident Details	
<i>Please answer all the questions in this group.</i>	
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	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Tank (Any) Produced Water Released: 15 BBL Recovered: 0 BBL Lost: 15 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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 2

Action 547785

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	<i>Unavailable.</i>

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	<i>Not answered.</i>

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: Richard Kotzur Title: Senior Project Manager Email: NMEEnvNotifications@exxonmobil.com Date: 01/28/2026
--	--

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 3

Action 547785

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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 26 and 50 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
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 200 and 300 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (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 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
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
<i>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.</i>	
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)	9680
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1044
GRO+DRO (EPA SW-846 Method 8015M)	867
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	11/17/2020
On what date will (or did) the final sampling or liner inspection occur	03/15/2026
On what date will (or was) the remediation complete(d)	09/15/2025
What is the estimated surface area (in square feet) that will be reclaimed	11000
What is the estimated volume (in cubic yards) that will be reclaimed	4750
What is the estimated surface area (in square feet) that will be remediated	11000
What is the estimated volume (in cubic yards) that will be remediated	4750

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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 4

Action 547785

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	FEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
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)	Yes
Other Non-listed Remedial Process. Please specify	XTO proposes to backfill the excavation, and any additional excavation proposed based on the delineation data, with clean, locally purchased material to a depth of 4 feet bgs and install a Bentomat ST clay liner at a depth of 4 feet bgs. The Bentomat ST clay liner is the most commonly used reinforced geosynthetic clay liner and consists of a layer of sodium bentonite between a woven and nonwoven geotextile to provide an artificial hydraulic barrier. The liner will prevent precipitation from infiltrating through the impacted soil and stop downward migration of the impacts towards groundwater. The liner will also inhibit chloride from migrating vertically toward the surface or laterally to the nearby ephemeral stream, which will add additional protection to the surface and groundwater.

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: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 01/28/2026
--	---

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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 5

Action 547785

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 6

Action 547785

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	509013
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/03/2025
What was the (estimated) number of samples that were to be gathered	45
What was the sampling surface area in square feet	18000

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	No
--	-----------

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 547785

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 547785
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	The remediation plan is conditionally approved to include the following condition of approval: 1. Liners that are placed on top of contamination in an effort solely to ensure contamination does not migrate further is not equal or better protection, as contamination will remain in place. The proposal to install a 4' Bentomat clay liner is not approved. Before liners may be considered, the excavation must be completed to the maximum extent, unless extenuating circumstances arise in the process. Due to the multitude of environmental receptors nearby, including; an intermittent stream less than 300 feet away, shallow groundwater, and high karst, release being less than 1,000' from a freshwater source, a liner placed at 4' is not equal or more protective of public health, groundwater and the environment.	2/9/2026