

September 8, 2023

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

Re: Remediation Work Plan Chiso 14 State Jet Pump and Excavation Incident Number nAPP2205837214 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared this *Remediation Work Plan (RWP)* to document assessment, delineation, excavation, and soil sampling activities completed to date at the Chiso 14 State Jet Pump (Site). The purpose of the Site activities was to address impacts to soil resulting from a release of produced water at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, BTA is submitting this *RWP* for Incident Number nAPP2205837214, describing Site assessment, delineation, and excavation activities that have occurred to date and proposing additional delineation and excavation of residual total petroleum hydrocarbon (TPH) and chloride impacts in the immediate vicinity and underneath production equipment and flowlines to the maximum extent practicable (MEP).

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 14, Township 22 South, Range 34 East, in Lea County, New Mexico (32.38511°, -103.43594°) and is associated with oil and gas exploration and production operations on New Mexico State Land Trust managed by the New Mexico State Land Office (NMSLO).

On February 22, 2022, a plug on a jet pump failed and allowed water from the supply tank to drain from the pump and proceed westward directly into an active excavation associated with a previous release. The release included approximately 165 barrels (bbls) of produced water. A vacuum truck was immediately dispatched, which recovered approximately 70 bbls of produced water. BTA reported the release to the New Mexico Oil Conservation Division (NMOCD) through the online Notice of Release (NOR) portal on February 27, 2022, and followed up on a Release Notification Form C-141 (Form C-141) on March 8, 2022. The release was assigned Incident Number nAPP2205837214.

According to a *Remediation Workplan*, prepared by Tetra Tech, Inc. (Tetra Tech) and submitted to NMOCD on May 12, 2023, the prior excavation depths ranged between 3 feet and 9 feet below ground surface (bgs). Following the February 2022 release, the previous excavation was extended to depths ranging from 3 feet to 19 feet bgs between February 28, 2022, and June 7, 2022. Following excavation activities, a 20-mil poly liner was installed over the 19-foot excavation at a depth of 13 feet bgs. Due to the presence of the jet pump, Tetra Tech proposed vertically and horizontally delineating soil around the jet pump and collecting new confirmation soil samples in the excavated area. The May 2023 *Remediation Workplan* was approved by NMOCD on June 13, 2023, and can be viewed on NMOCD's website portal.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be less than 50 feet bgs based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP-1682-POD1 South 2, located approximately 0.13-miles south-southeast of the Site. The groundwater well has a reported depth to groundwater of 42 feet bgs and a total depth of 294 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

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, continuously flowing or significant watercourse, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

CULTURAL RESOURCES SURVEYS

The excavation and liner installation were initiated prior to implementation of the Cultural Properties Protection Rule on December 1, 2022. The excavation occurred less than 30 feet from the edge of the well pad disturbance area and appears to be within the clearance buffer of the original siting. No additional cultural resource surveys were completed in connection with this release.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between June 8 and July 24, 2023, Ensolum personnel were at the Site to oversee additional confirmation sampling and excavation activities based on previous soil analytical results, field screening and visible observations documented in Tetra Tech's *Remediation Workplan*. Excavation activities were performed utilizing a track hoe and transport vehicles. To direct excavation activities, soil was screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. During excavation activities, the poly liner that was installed at 13 feet bgs was removed and is no longer present in the excavation. The excavation was completed to depths ranging from 1.5 feet to 19 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewall of the excavation extent. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 and FS23 were collected from the floor of the excavation at depths ranging from 1.5 feet to 19 feet bgs. Confirmation soil samples SW01 and



SW22 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 19 feet bgs. The confirmation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH- GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500.

Laboratory analytical results for all excavation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria except for the following floor and sidewall soil samples:

- Floor Soil Samples: FS18 and FS20 through FS23
- Sidewall Soil Samples: SW07, SW13 through SW15, SW21, and SW22

The confirmation floor and sidewall soil samples that exceeded the Closure Criteria are located within and around production equipment and pipelines on pad. Excavation of impacted soil was completed to the maximum extent practicable (MEP) without compromising the integrity of the equipment and/or pipelines as well as the safety of personnel onsite. The excavation extent and excavation soil sample locations are presented on Figure 2. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.

The excavation areas measured approximately 4,462 square feet in areal extent. A total of approximately 1,195 cubic yards of impacted soil were removed during all excavation activities. The impacted soil was transported and properly disposed of at the R360 Environmental Solutions in Hobbs, New Mexico.

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Since all impacted soil could not safely be excavated, areas around production equipment and pipelines needed to be fully delineated. On July 6, 2023, Ensolum returned to the Site to collect delineation soil samples. Delineation soil samples H-1 through H-6 were collected outside of the release extent, at a depth of 0.5 feet bgs, to define the lateral extent of the release. Delineation soil samples AH-1 through AH-6 were collected around the jet pump and east of the proposed deferral area to depths ranging from 1-foot to 3.5 feet bgs to define the vertical extent of impacts. All delineation soil samples were collected via hand auger and field screened for VOCs and chloride. The locations of delineation soil samples are depicted on Figure 3. Lithologic / Soil Sampling Logs are included in Appendix D describing soil encountered for each soil boring and field screening results.

Laboratory analytical results indicated all COC concentrations in lateral delineation soil samples (H-1 through H-6) were compliant with the Site Closure Criteria, confirming the lateral extent of the release to the north, east, and south of the jet pump. The chloride concentration in vertical delineation soil samples AH-2 through AH-5 exceeded the Closure Criteria at their highest field screening interval depth and terminus depths ranging from 2 feet to 3.5 feet bgs; however, advancement to greater depths was limited by refusal while utilizing a hand auger. Laboratory analytical results for vertical delineation soil sample AH-6 indicated the concentration of TPH exceeded the Closure Criteria at 2 feet bgs. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.



RECLAMATION PLAN

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

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. Approximately 1 foot of topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil in the vicinity of the release include: poorly graded sand, fine to medium-grained with trace silt and clay;
- The backfilled areas will be seeded utilizing a weed-free seed mix designed by the NMSLO to meet reclamation standards for this region, which will be: Sandy Loam (SL) seed mixture as described in the NMSLO *Revegetation Guidelines Handbook for Southeastern New Mexico*, dated 2018;
- The seed mixture will be distributed with etiher a push broadcaster seed spreader, tractor operated broadcast seed spreader, and/or drill seeding method(s);
- Application of the seed mixutre will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distrbution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;
- If necessary, erosion control management will potentially include:
 - o The placement of waddles in areas with a propensity for high run off rates;
 - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
 - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Backfilling of the excavation will be completed upon approval of this *Closure Request* and prior to reseeding efforts;
- Seeding is anticipated to be completed in the Fall when temperatures and precipitation is most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be adhered to for this Site;
- If seeding occurs outside of the 180 days approved in the current fully executed ROE Permit, a new ROE Permit will be executed prior to entering the pasture for reclamation activities;
- Annual inspections (at a minimum), will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Spring/Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion;

Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.



PROPOSED REMEDIAL ACTIONS

Site assessment, excavation, and delineation activities were conducted at the Site to address impacted soil resulting from the February 2022 release of produced water into an existing excavation for an unrelated release. Excavation of impacted soil west of the jet pump and away from active production equipment and pipelines was completed to the MEP; however, residual TPH and chloride-impacted soil remains under and around projection equipment, pipelines, and the jet pump itself. Residual impacts have been defined laterally to the west through the excavation and to the north, east, and south from lateral delineation soil samples H-1 through H-6. The vertical extent of soil impacts appears to extend to depths ranging from 4 feet to 9 feet bgs. The areal extent of residual soil impacts is approximately 2,750 square feet, as depicted on Figure 4. Approximately 662 cubic yards of soil has been left in place due to the presence of the jet pump; however, the jet pump as recently been removed and as such, BTA proposes the following remedial actions:

- Complete vertical delineation in the vicinity of the jet pump to meet the Site Closure Criteria;
- Continue excavation of residually impacted soil beneath the former jet pump and to the MEP around active production equipment and lines;
- Complete confirmation sampling of the floor and sidewalls of the expanded excavation area on a frequency of every 200 square feet. Soil samples will be submitted for laboratory analysis of BTEX, TPH, and chloride; and
- Prepare a report detailing the actions described above within 90 days of receiving approval from NMOCD of this RWP.

Excavation of impacted soil has been completed to the MEP to date and supports mitigation of impacts at this Site. With the jet pump removed, BTA believes the remedial actions completed to-date and proposed in this RWP are protective of human health, the environment, and groundwater. As such, BTA respectfully requests approval of this RWP for remedial actions associated with Incident Number nAPP2205837214. Notifications submitted to the NMOCD are included in Appendix E and the final Form C-141 is included in Appendix F.



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

Sincerely, **Ensolum**, LLC

Daniel R. Moir, PG Senior Managing Geologist

CC: Kelton Beaird, BTA New Mexico State Land Office Merchant Livestock Company

Ashley L. Ager, M.S., PG

Principal

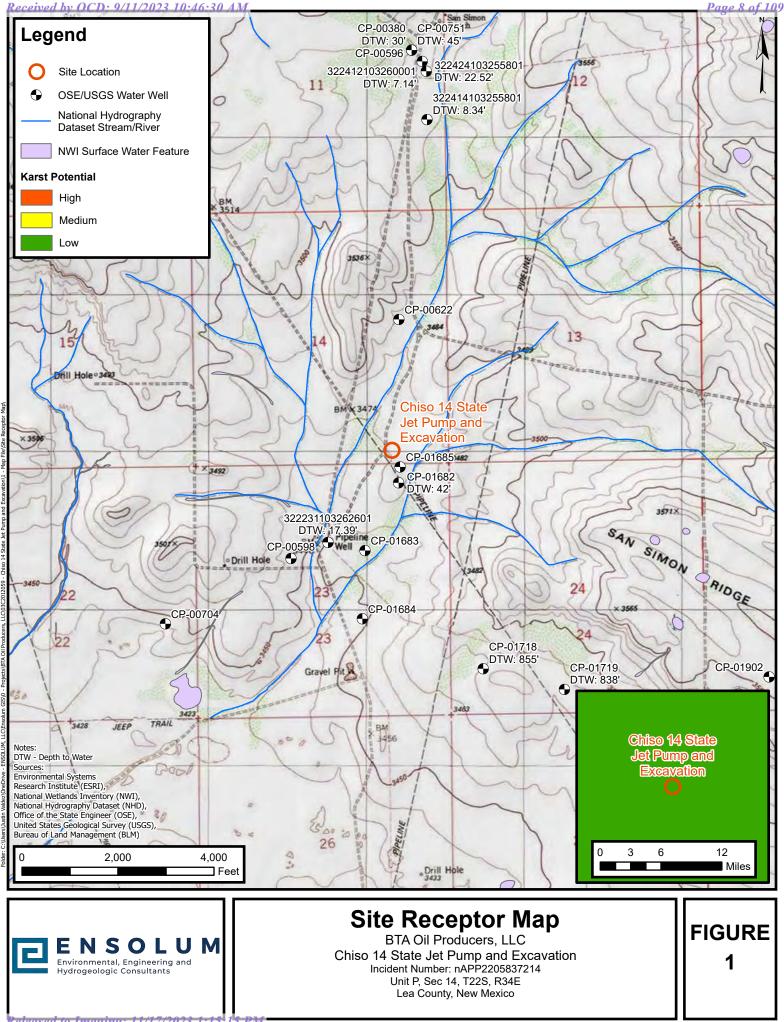
Appendices:

- Figure 1 Site Receptor Map
- Figure 2 **Excavation Soil Sample Locations**
- **Delineation Soil Sample Locations** Figure 3
- Table 1 Soil Sample Analytical Results
- Appendix A **Referenced Well Records**
- Appendix B Photographic Log
- Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix D Lithologic/Soil Sampling Logs
- NMOCD Notifications Appendix E
- Appendix F Final C-141

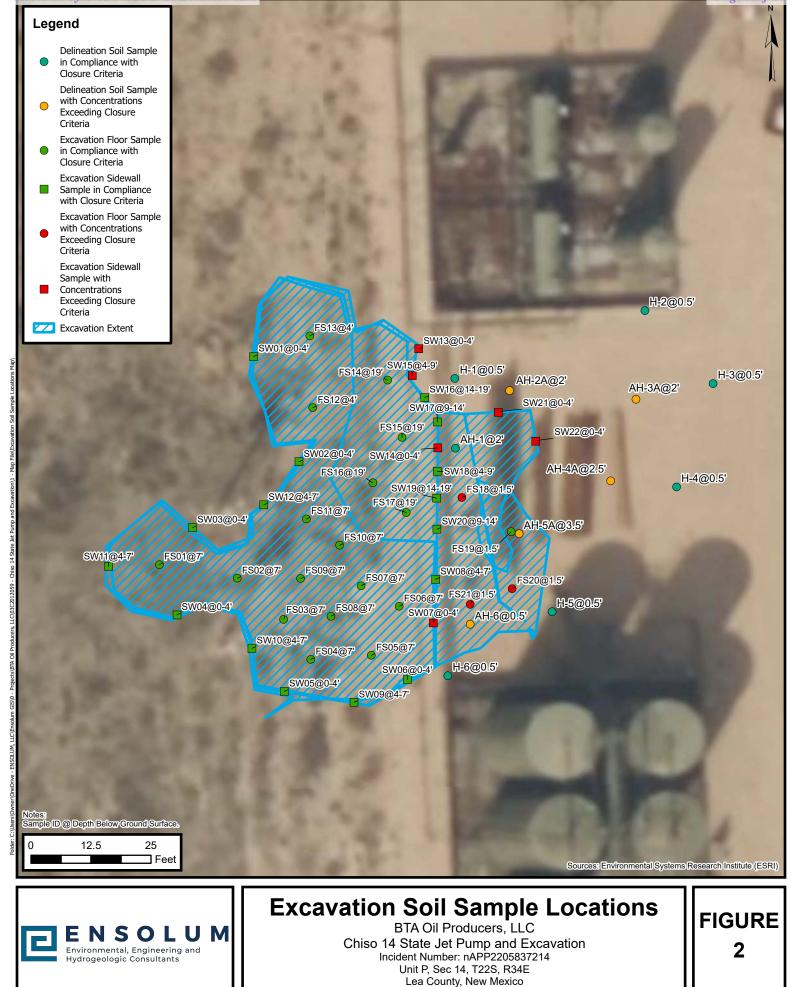




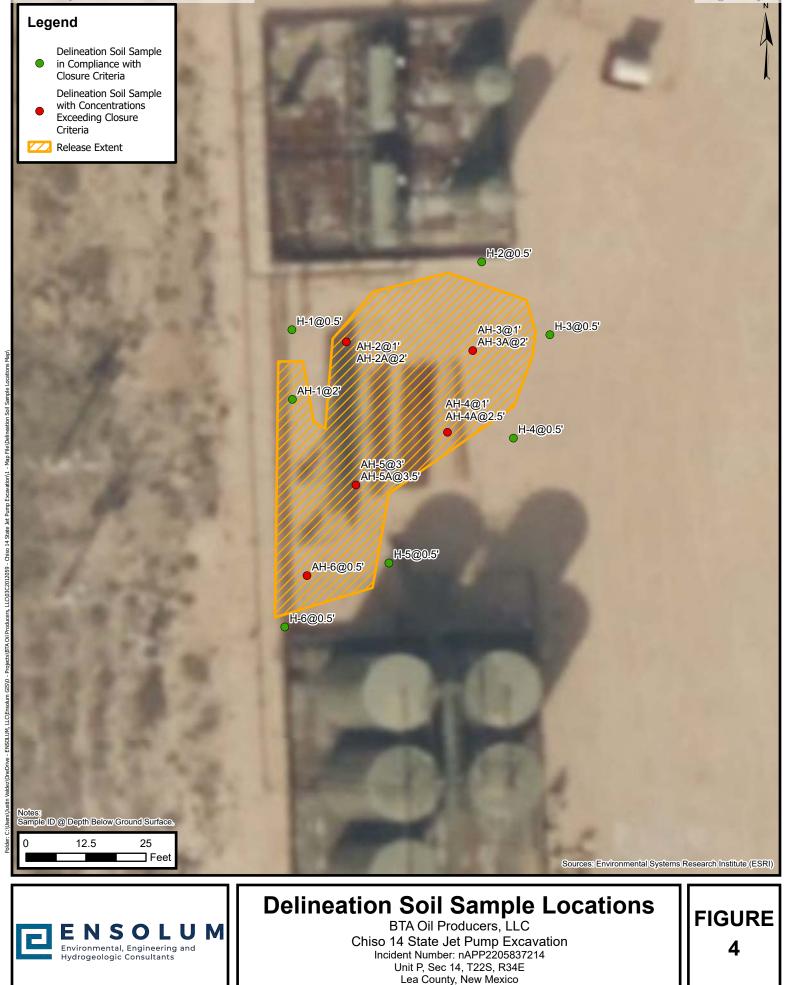
Figures



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Table

ENSOLUM

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Chiso 14 State Jet Pump and Excavation BTA Oil Producers, LLC Lea 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 C	losure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600	
Confirmation Soil Samples											
FS01	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS02	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS03	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS04	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS05	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0	
FS06	06/13/2023	7	<0.050	<0.300	<10.0	860	204	860	1,064	32.0	
FS06A	07/12/2023	8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS07	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS08	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0	
FS09	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0	
FS10	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0	
FS11	06/13/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS12	06/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS13	06/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0	
FS14	06/13/2023	19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS15	06/13/2023	19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS16	06/13/2023	19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176	
FS17	06/13/2023	19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0	
FS18	06/13/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,400	
FS19	06/13/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144	
FS20	06/13/2023	1.5	<0.050	<0.300	<10.0	359	97.0	359	456	400	
FS21	06/13/2023	1.5	<0.050	<0.300	<10.0	25.6	<10.0	25.6	25.6	736	
FS22	07/27/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,330	
FS23	07/24/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,170	

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TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Chiso 14 State Jet Pump and Excavation BTA Oil Producers, LLC Lea 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 C	Closure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600
SW01	06/13/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW02	06/12/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW03	06/13/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW04	06/13/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW05	06/12/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW06	06/12/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW07	06/12/2023	0-4	<0.050	<0.300	<10.0	176	38.6	176	215	1,340
SW08	06/12/2023	4-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW09	06/12/2023	4-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW10	06/12/2023	4-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW11	06/13/2023	4-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW12	06/12/2023	4-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW13	06/12/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,120
SW14	06/12/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,920
SW15	06/12/2023	4-9	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
SW16	06/12/2023	14-19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW17	06/12/2023	9-14	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW18	06/12/2023	4-9	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW19	06/12/2023	14-19	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW20	06/12/2023	9-14	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW21	07/31/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	18,000
SW22	07/31/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	11,600

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TABLE 1SOIL SAMPLE ANALYTICAL RESULTSChiso 14 State Jet Pump and ExcavationBTA Oil Producers, LLCLea 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 C	Closure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
AH-1	07/06/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
AH-2	07/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	9,600
AH-2A	07/06/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,440
AH-3	07/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,520
AH-3A	07/06/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,080
AH-4	07/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,840
AH-4A	07/06/2023	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,440
AH-5	07/06/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,130
AH-5A	07/06/2023	3.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,560
AH-6	07/06/2023	2	<0.050	<0.300	<10.0	115	20.8	115	136	96.0
H-1	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-2	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
H-3	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
H-4	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
H-5	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
H-6	07/06/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

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



APPENDIX A

Well Log Record



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

										Trouting.			
NO	OSE POD NO	-			WELL TAG ID NO. 2062A			OSE FILE NO(S CP-1682	S).	· · · · · · · · · · · · · · · · · · ·			
OCATI	WELL OWN		(S) ck Company/Glenn'	s Water Well	Service, Inc.			PHONE (OPTIC 575-398-242		13			
GENERAL AND WELL LOCATION	WELL OWN PO Box 6		NG ADDRESS					CITY Tatum		STATE NM 88	¹ 21P 3267		
Ę	WELL			DEGREES	MINUTES	SECOND	s						
L A	LOCATIO	N L	ATITUDE	32	22	59.66	, N	* ACCURACY	REQUIRED: ONE TEN	TH OF A SECOND			
NERA	(FROM GF	PS) L	ONGITUDE	-103	w	* DATUM REC	QUIRED: WGS 84						
1. GE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW1/4 NE1/4 NE1/4 Section 23, Township 22 South, Range 34 East on Merchant Livestock Company Land												
	LICENSE NO).	NAME OF LICENSE	D DRILLER					NAME OF WELL DR	ILLING COMPANY			
	WD	421			Corky Glenn				Gienn's V	Vater Well Service, In	nc.		
	DRILLING STARTEDDRILLING ENDEDDEPTH OF COMPLETED WELL (FT)BORE HOLE DEP09/10/1909/13/19294294								DEPTH WATER FIR	ST ENCOUNTERED (FI 42	")		
Z	COMPLETED WELL IS: ARTESIAN DRY HOLE SHALLOW (UNCONFINED)								STATIC WATER LEV	VEL IN COMPLETED W 31	ELL (FT)		
TIO	DRILLING F	LUID:	AIR	MUD	ADDITIVI	ES – SPECIF	FY:						
ORMA	DRILLING M	ETHOD:	ROTARY			DOL [OTHE	R - SPECIFY:					
INFC	DEPTH	(feet bgl)) BORE HOLE	CASING	MATERIAL AND	/OR	CA	SING	CASING	CASING WALL	SLOT		
DRILLING & CASING INFORMATION	FROM	то	DIAM (inches)		GRADE each casing string, s sections of screen)	1	CONN	VECTION YPE ing diameter)	INSIDE DIAM. (inches)	THICKNESS (inches)	SIZE (inches)		
& C/	0	22.5	· 20"	S	teel 12 3/4" OD			in End	12.25	.25			
UN C	0	294	20"	Steel Cas	ing 8 5/8" / 8.625"	OD	Pla	in End	8.125	.25	1/8"		
LL1				Bott	om 252 Perforated								
DRI													
3							_						
							-						
				-									
	DEPTH	(feet bgl)) BORE HOLE		ST ANNULAR SE	AL MATE	ERIAL A	ND	AMOUNT	METHO	DD OF		
IAL	FROM	то	DIAM. (inches	GRA	VEL PACK SIZE-	RANGE B	BY INTE	RVAL	(cubic feet)	PLACE	MENT		
TER	0	22.5	20"		Cemented	d Redi Mix	ĸ		Fill to Top	Top I	our		
ANNULAR MATERIAL	0	294	20"		3/8" Veiln	nore Grave	el		18.52 CY	Top F	our		
AR													
INN											i		
				+									
Э.									<i>_</i>				
									L	l			
FOR	OSE INTER	NAL US	E					WR-20	WELL RECORD	& LOG (Version 06/3	30/17)		

FOR USE IN	IERNAL USE					WR-20 WE	LL RECORD & LOG	(Version 06/30/17)
FILE NO.	CP- 1682	-		POD NO	. 1	TRN NO.	632044	
LOCATION	212	Ser 23	T225	R 34E		WELL TAG ID NO.	2062A	PAGE 1 OF 2
Released to In	naging: 11/17/	/2023 1:15:1	5 PM	<i>,</i> .				

3

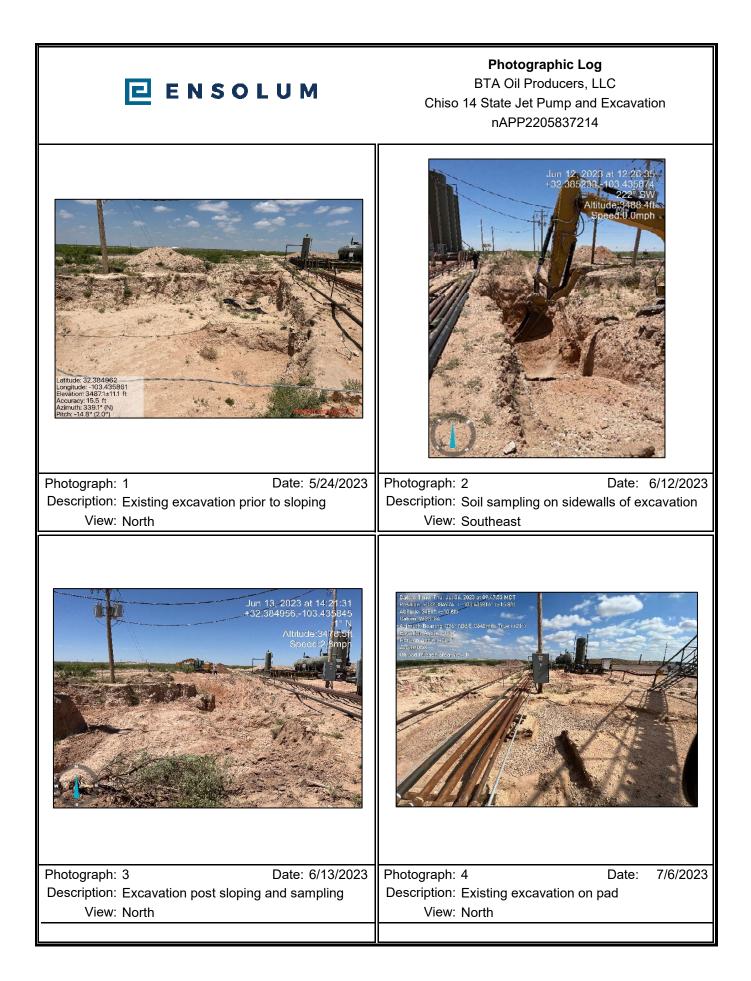
				L		
	DEPTH (feet bgl)				ESTIMATED
	FROM	то	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	YIELD FOR WATER- BEARING ZONES (gpm)
	0	6	6	Soil	Y VN	
	6	9	3	Soil & Sand	Y √N	
	9	16	7	Caliche	Y √N	
	16	20	4	Clay & Sand	Y √N	
	20	42	22	Red Clay	Y √N	
T	42	56	14	Brown Sandrock	✓Y N	5.00
4. HYDROGEOLOGIC LOG OF WELL	56	63	7	Red Clay	Y VN	
OF	63	68	5	White & Green Clay	Y VN	
00	68	92	24	Brown Sandrock	✓Y N	9.00
ac I	92	122	30	Red Clay	Y √N	1
LOG	122	128	6	Brown Shale	Y √N	
3EO	128	165	37	Red Clay with Stringers of Brown Sandrock	Y √N	
ROC	165	187	22	Brown Shale	Y √N	1
αXH	187	225	38	Red Clay & Red Shale	Y √N	
4	225	242	17	Brown Shale	Y √N	
	242	274	32	Blue Sandrock & Shale	✓Y N	1.00
	274	294	20	Red Shale	Y VN	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD U	SED TO ES	TIMATE YIELD		TOTAL ESTIMATED	
	🖌 PUMI		IR LIFT	BAILER OTHER - SPECIFY:	WELL YIELD (gpm)	15.00
NO	WELL TES	T TEST	RESULTS - ATT T TIME, END TI	ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCL ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER	UDING DISCHARGE	METHOD, OD.
TEST; RIG SUPERVISION	MISCELLA	NEOUS INF	ORMATION:			
PER						
3 SU						
; RI(
EST	PRINT NAM	(E(S) OF D	RILL RIG SUPER	VISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONST	RUCTION OTHER T	HAN LICENSEE:
5. T				Water Well Service, Inc.)		
	THE UNDE	RSIGNED H	IEREBY CERTII	IES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIE	F, THE FOREGOING	IS A TRUE AND
SIGNATURE				DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RE 10 DAYS AFTER COMPLETION OF WELL DRILLING:	CORD WITH THE \$7	ATE ENGINEER
TAT		<u> </u>	1 0.	\cap	/ /	
SIG	1	- A		Corky Glenn	9/17/1	9
6.		SIGNAT	URE OF DRILLE	R / PRINT SIGNEE NAME	DATE	
	R OSE INTER	110-			RECORD & LOG (V	ersion 06/30/2017)
—	ENO. CP	- 1687	6 77	700 / 0 7	32044	
I LO	CATION	/ 17	Suls	1223 K SYE WELL TAG ID NO.	10067	PAGE 2 OF 2

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APPENDIX B

Photographic Log





APPENDIX C

Laboratory Analytical Reports & Chain-of-Custody Documentation



July 17, 2023

HADLIE GREEN ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: CHISO 14 STATE JET PUMP EXCAVATION

Enclosed are the results of analyses for samples received by the laboratory on 07/12/23 12:30.

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

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



ENSOLUM HADLIE GREEN 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38511-103.43594		

Sample ID: AH - 3B 3' (H233555-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/13/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.87	97.8	6.00	1.40	
Total BTEX	<0.300	0.300	07/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/13/2023	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	<10.0	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	<10.0	10.0	07/14/2023	ND					
Surrogate: 1-Chlorooctane	99.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM HADLIE GREEN 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38511-103.43594		

Sample ID: AH - 4B 3.5' (H233555-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/13/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.87	97.8	6.00	1.40	
Total BTEX	<0.300	0.300	07/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/13/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	<10.0	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	<10.0	10.0	07/14/2023	ND					
Surrogate: 1-Chlorooctane	95.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM HADLIE GREEN 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38511-103.43594		

Sample ID: AH - 5B 4.5' (H233555-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/13/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.87	97.8	6.00	1.40	
Total BTEX	<0.300	0.300	07/13/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/13/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	<10.0	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	<10.0	10.0	07/14/2023	ND					
Surrogate: 1-Chlorooctane	91.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.2	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 9/11/2023 10:46:30 AM

CHAIN-OF-CUSTODY AND ANALYSIS OTICS Bill NM 8824 Grospany BTL TO ANALYSIS Record Company: BTA OL Address: Id+ S. Rucs St Company: BTA OL Address: Id+ S. Rucs St Name: NV Zp: E803-3	Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Relinquished By:	Relinquished By:	2 5 5 5	DEPENDENCE LINER and Dunne			5	2-				Sampler Name: M	Project Location: 3	Project Name: Chiso	Project #: 03C20	Φ	city: Cansbad	Address: 3122	Project Manager: Hadlie Green	Company Name: Ensolum, LLC	101 L (57	
CHAIN-OF-CUSTODY AND ANALYSIS (575) 393-2476 BILL TO ANALYSIS REGUE (575) 393-2476 Intel: NUM 20: 689-3-0 Attr: Kaken Baard Commany: BTA OL State: TV 20: 7970) PERSENV State: TV 20: 7970) State: TV 20: 7970) PERSENV State: TV 20: 7970) PERSENV State: TV 20: 7970) PERSENV State: TV 20: 7970 PERSENV State: TV 20: 7970 <th></th> <th></th> <th>Rel</th> <th>or negligence and any other tor negligence and any other e liable for incidental or consi or related to the performance</th> <th>and FassionTe Robility and of</th> <th></th> <th></th> <th>4H-58</th> <th>THIOD</th> <th>1-20</th> <th>ample I.D.</th> <th></th> <th>2</th> <th></th> <th>14 5</th> <th>12059</th> <th>· L.</th> <th></th> <th></th> <th>Polic Gree</th> <th>olum, LLC</th> <th>East Marland, H 5) 393-2326 F/</th> <th>borat</th>			Rel	or negligence and any other tor negligence and any other e liable for incidental or consi or related to the performance	and FassionTe Robility and of			4H-58	THIOD	1-20	ample I.D.		2		14 5	12059	· L.			Polic Gree	olum, LLC	East Marland, H 5) 393-2326 F/	borat
CHAIN-OF-CUSTODY AND ANALYSIS PILL TO AMALYSIS REQUE P.O. #: Company: BTA CU Chip: Mildude PA: State: TX Zp: Phone #: Rest Park #: Park #: Park #: Park	°°°°	Date: Time:	Date: 7:/2-23 Time:230	cause whatsoever shall be c equental damages, including e of services hereunder by C			4.4	4.5'	100	121	Depth (feet)		Ct rade	3.43	1ª	Project Owner		RN.		5		łobbs, NM 882 AX (575) 393-24	INAL
ANALYSIS REQUE	×	Received By:	Received By:	dermed waived unless mad without limitation, business ardinal, regardless of wheth	1			<		- +	# CONTAINERS GROUNDWATER WASTEWATER	M		4.	mp	**			L.			,40 ,76	01
ANALYSIS REQUE	Intact Intact No I No		linka r	de in writing and received b interruptions, loss of use, her such claim is based up	contract or			<	- 2		DIL SLUDGE OTHER :		Fax #:	Phone	State:	City:	Addre		Comp	P.O. #			
ANALYSIS REQUE	(Initials)	J	What he	y Cardinal within 30 days a or loss of profils incurred b on any of the above stated	I be limited to the amount			*	alali v	T	OTHER :			7 井	TX Zip:	Midland	ŝ		BTA	a	BILL TO		
ANALYSIS REQUE	Turnaround T Thermometer ID Corrosuon Face	REMARKS:	All Results an	fter completion of the app y client, its subsidiaries, reasons or otherwise.	aid by the client for the			1		-	TIME	APLING			10701		ELLOS ST	and	Si I				CHAIN-O
ANALYSIS REQUEST	23	lent #	emailed. Pl	4						X	Chlorides			_	_		_						F-CUST
TPhone #: TPhone #: Tense: To the contract of the condition Cool Intact Observed Temp. *C	andard I	: NAPP226	ease provide E				+ MP	1		X											ANA		ODY AN
Sample Condition	Bacteria (only) Cool Intact Ves Ves Nc No	5837214	mail address:																				D ANALY
	Sample Condition Observed Temp. °C Corrected Temp. °C		no ensolum com																		UEST		SIS REQUES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 26 of 109



June 20, 2023

TACOMA MORRISSEY ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: CHISO 14 STATE JET PUMP EXCAVATION

Enclosed are the results of analyses for samples received by the laboratory on 06/14/23 13:45.

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

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 01 7' (H233049-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	122	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 02 7' (H233049-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	111 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 03 7' (H233049-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	112 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	124	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 04 7' (H233049-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	107 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	116 9	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 05 7' (H233049-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	115 9	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 06 7' (H233049-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	860	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	204	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	100 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	152 9	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 07 7' (H233049-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/19/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/19/2023	ND					
Surrogate: 1-Chlorooctane	106	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109	% 49.1-14	8						

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Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 08 7' (H233049-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/16/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/16/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/16/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/16/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/16/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	197	98.4	200	0.977	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	178	89.0	200	0.171	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	100	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 09 7' (H233049-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/17/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	91.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 10 7' (H233049-10)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	1.55	77.7	2.00	23.8	
Toluene*	<0.050	0.050	06/17/2023	ND	1.83	91.6	2.00	5.54	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	1.95	97.4	2.00	1.48	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	5.87	97.8	6.00	3.26	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	89.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 11 7' (H233049-11)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	109	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	132	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 12 4' (H233049-12)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/16/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/16/2023	ND					
Surrogate: 1-Chlorooctane	110 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	137	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 13 4' (H233049-13)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	94.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 14 19' (H233049-14)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	83.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.4	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 15 19' (H233049-15)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	108 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	129 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 16 19' (H233049-16)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	105 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	128 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 17 19' (H233049-17)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/15/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	107 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	125 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 18 1.5' (H233049-18)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10400	16.0	06/15/2023	ND	416	104	400	0.00	QM-07, QR-03
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	108	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	122	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 19 1.5' (H233049-19)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	104 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	124 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 20 1.5' (H233049-20)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	359	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	97.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	143	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 21 1.5' (H233049-21)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	25.6	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	99.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 01 0-4' (H233049-22)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	99.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	122 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 02 0-4' (H233049-23)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	85.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	101	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 03 0-4' (H233049-24)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	97.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	119 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 04 0-4' (H233049-25)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	88.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 05 0-4' (H233049-26)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	82.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.3	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 06 0-4' (H233049-27)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	96.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	116 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 07 0-4' (H233049-28)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1340	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	188	93.8	200	0.865	
DRO >C10-C28*	176	10.0	06/15/2023	ND	210	105	200	2.74	
EXT DRO >C28-C36	38.6	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	78.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

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ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 08 4-7' (H233049-29)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	90.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	91.1	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 09 4-7' (H233049-30)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.09	105	2.00	0.859	
Toluene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	2.30	
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.28	114	2.00	3.29	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	6.93	116	6.00	3.30	
Total BTEX	<0.300	0.300	06/17/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	87.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	84.5	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 10 4-7' (H233049-31)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	83.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	81.8	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/13/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 11 4-7' (H233049-32)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	89.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.0	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 12 4-7' (H233049-33)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	74.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	80.3	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 13 0-4' (H233049-34)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	75.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	76.7	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 14 0-4' (H233049-35)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	101 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 15 4-9' (H233049-36)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	78.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	77.1	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 16 14-19' (H233049-37)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/15/2023	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	79.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	81.8	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 17 9-14' (H233049-38)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/15/2023	ND	432	108	400	0.00	QR-03
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	101 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 18 4-9' (H233049-39)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/15/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	98.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 19 14-19' (H233049-40)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/15/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	78.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	84.8	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



ENSOLUM TACOMA MORRISSEY 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	06/14/2023	Sampling Date:	06/12/2023
Reported:	06/20/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA 32.38511-103.43594		

Sample ID: SW 20 9-14' (H233049-41)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2023	ND	1.89	94.4	2.00	23.7	
Toluene*	<0.050	0.050	06/15/2023	ND	1.99	99.4	2.00	8.79	
Ethylbenzene*	<0.050	0.050	06/15/2023	ND	2.09	104	2.00	3.19	
Total Xylenes*	<0.150	0.150	06/15/2023	ND	6.23	104	6.00	2.82	
Total BTEX	<0.300	0.300	06/15/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/15/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/15/2023	ND	228	114	200	7.26	
DRO >C10-C28*	<10.0	10.0	06/15/2023	ND	233	116	200	5.54	
EXT DRO >C28-C36	<10.0	10.0	06/15/2023	ND					
Surrogate: 1-Chlorooctane	81.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.3	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Relinquished By:	Relinguished By:	talyses. All claims including t rvice, ih no event shall Card fillates or successors arising r	PLEASE NOTE: Liabley and Da	7	00	2	26	S	4	CN	2	-	1633049	Lab I.D.	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name: Chiso	Project #: 03	Phone #: 33	city: Carisbad	Address: 3122	Project Manager:	Company Name: Ensolum, LLC		
		K	Day	ding those for negligence and any Cardinal be liable for incidential or sing out of or related to the perform	FS 10 Jamages, Cardinal's liability a	FSOG	FS08	FSOT	FS06	FS05	FS04	FS03	FSO2	FSOI		Sample I.D.		Meredith	32.385	14	0362012059	337-257-8307		Nat'l Pa	Tacoma	Ensolum, LLC	101 East Marlai (575) 393-232	abor
Observed Temp. *C Corrected Temp. *C	Time:	Date:	Date H-23	analyses. All claims including those for negligence and any other cause whatboever shall be deer service. In no event shall Cardinal be fable for incidential or consequential damages, including with iffinizes or successors arising out of or related to the performance of services hereunder by Cardi	nd client's exclusive remedy for									7.		Depth (feet)		Roberts	-103.4	State Jet		OT Fax #:	State: NM	Parks Hwy	Momissey		101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	ratories
20 In Samp		Received By:	Received By:	ned waive hout limitat	any claim arising whether ba								-	CI	# CON GROU	B OR (C)ON TAINERS NDWATER EWATER				Pumo Excavation	ler:		Zip: 88220				18240 -2476	S
Sample Condition Cool Inflact		and	10:2	new average in the second s	Sed in contract or tort shall									X	SOIL OIL SLUDO OTHEI ACID/E	2:	MATRIX	Fax #:			City:			Com	P.O. #:			
CHECKED BY:		Parry		thy Cardinal within 30 days a c, et bass of profits incurred b pon any of the above stated										X 6/13/23		OOL 5	PRESERV. SJ	AT .	*	TX Zin: "	Midland		Kelton	Company: BTA (BILL TO		
Turnaround Time: Thermometer ID #1	Incident	hareen e	Verbal Result: All Results are	plana by any client for the app after completion of the app by client, its subsidiaries, by reasons or otherwise.	2	1315	1310	1305	1300	1255	1250	1245	1240	23 1235 2	TIME		SAMPLING			19701		Perme St	Beaind	oil		0		CHAIN-
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Bacteria (only)	NAPP22058377214	3] Yes II No Add'I Phone #: Illed. Please provide Email address:			10																			_	ANALYSIS RE	PAGE	AND ANAL
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C		mroberts@ensolum.co									7															IEST .	л – оп л	CHAIN-UF-CUSTODY AND ANALYSIS REQUEST

Page 70 of 109

Delivered By: (Circle One) Sampler - UPS - Bus - Otl	menniquistied by.	MUU	Relinquished By:	analyses. All claims including service. In no event shall Card affiliates or successors arising	PLEASE NOTE: Liability and Da	21	81	41	16	51	14	El.	12	11	H233049	Lab I.D.	-	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name: Chiso	Project #: 03	Phone #:	City:	Address:	Project Manager:	Company Name:	
(Circle One) - Bus - Other:	(JKC	Ś	alyses. Al claims including those for negligence and any of rvice. It no event shall Cardinal be Fable for incidental or co factor of successors arising out of or related to the performa	FS20 Damages, Cardinafe liability ar	FSIG	FS18	FSIT	FSI6	FS15	FSIA	FS13	FS12	FSIL		Sample I.D.			Meredith	" 32.385 M	14	0302012059	*		-	r: See Pa	: Ensolum, LLC	- 0
Observed Temp. °C	Time:	Sheilun	Date: U-D-22	other cause whatsoever shall be a consequential damages, including nance of services hereunder by C.	nd client's exclusive remedy for a		1.5'	4		-	19'	4	4	٦,		. Depth		and the second	1 Roberts	-163.435	tate Jet	Project Owner:	Fax #:	State:		1		101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476
2.0 Sample Condition	Neceived By:	troops.	Received By:	analyses. All claims including those for negligence and any other cause whatsoever shall be deemed valved unters made is writing and received by Carderal within 30 days after completion of the applicable service. In no event shall Cardinal be fashe for incidential or consequential damages, including without limitation, business interruptore, loss of use, or bass of profile incurred by Client, its subadiarise, Ifflings or successors arising out of or related to the performance of services hereunder by Cardinal, regardees of whether such claim is based upon any of the above stated reasons or otherwae.	any claim arising whether based in contra									×	# CON GROU WASTE SOIL OIL	B OR (C TAINER NDWAT	S ER R	MATRIX		94	Pump Excavation	er:		Zip:				8240 2476
thon CHECKED BY:	c	timent		and received by Cardinal within 30 days s, loss of use, or loss of profits incurred m is haved upon any of the above state	ctor tort shall be limited to the amount									X	SLUDG OTHER ACID/B ICE / C OTHER DATE	ASE:		PRESERVI S	Fax #:	Phone #:	State: Zipt	City:	-	Attn: See F	Company: BTA	P.O. #:	BILL	
Turnaround Time:	REMARKS:	All Nesults an	Verbal Result:	30 days after completion of the ap incurred by client, its subsidiaries, ove stated reasons or otherwate.	1230	1220	1215	1355	1350	1345	1240	1335	1		TIME			SAMPLING					C	Pa 1	011		10	
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Cardinal cannot accept verbal changes. Please email changes to celey keene@cardinallabsnm.com	1.4 Sample Condition Cool Intact Tes Tyes		-	analyses. All claims including those for negligence and any other cause whatsower shall be deemed valued unless made in writing and received by Cardinal writin 30 days after completion of the ap service. In no event shall Cardinal be fable for incidental or consequented damages, including without on bunden instrumptions, bas of true, or bas of profile incurred by client, its subvidiaries, strikter 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. Refinquished By: Date: Received By: Date: Received By: Received By: Norther By: Norther By:	claim arising whether based in cont				F		# CO GRO	AB OR (C NTAINER JNDWA TEWATE	RS TER	MATRIX		1	np Excavation	n		Zip:				240 476	νL
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Page 74 of 109



July 13, 2023

HADLIE GREEN ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: CHISO 14 STATE JET PUMP EXCAVATION

Enclosed are the results of analyses for samples received by the laboratory on 07/12/23 12:30.

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

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



ENSOLUM HADLIE GREEN 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/13/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP EXCAVATION	Sampling Condition:	Cool & Intact
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38511-103.43594		

Sample ID: FS 06 A 8' (H233554-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	1.82	91.0	2.00	0.314	
Toluene*	<0.050	0.050	07/12/2023	ND	1.81	90.4	2.00	1.01	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.79	89.4	2.00	0.0992	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.44	90.6	6.00	0.976	
Total BTEX	<0.300	0.300	07/12/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/13/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/13/2023	ND	205	103	200	5.13	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	222	111	200	6.09	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					
Surrogate: 1-Chlorooctane	98.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	118 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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.
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 SM4500CI-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

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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(575) 3\$3-2326	(575) 393-2326 FAX (575) 393-2476	
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July 31, 2023

HADLIE GREEN ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND, TX 79705

RE: CHISO 14 STATE JET PUMP

Enclosed are the results of analyses for samples received by the laboratory on 07/24/23 12:35.

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

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



ENSOLUM, LLC HADLIE GREEN 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received:	07/24/2023	Sampling Date:	07/24/2023
Reported:	07/31/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP	Sampling Condition:	** (See Notes)
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA (32.38511-103.43594)		

Sample ID: FS 22 4' (H233846-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2023	ND	1.96	98.2	2.00	6.04	
Toluene*	<0.050	0.050	07/28/2023	ND	2.07	103	2.00	2.52	
Ethylbenzene*	<0.050	0.050	07/28/2023	ND	2.05	102	2.00	6.01	
Total Xylenes*	<0.150	0.150	07/28/2023	ND	6.17	103	6.00	7.34	
Total BTEX	<0.300	0.300	07/28/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	123	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7330	16.0	07/26/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/27/2023	ND	195	97.6	200	11.6	
DRO >C10-C28*	<10.0	10.0	07/27/2023	ND	216	108	200	11.6	
EXT DRO >C28-C36	<10.0	10.0	07/27/2023	ND					
Surrogate: 1-Chlorooctane	91.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM, LLC HADLIE GREEN 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received:	07/24/2023	Sampling Date:	07/24/2023
Reported:	07/31/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP	Sampling Condition:	** (See Notes)
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA (32.38511-103.43594)		

Sample ID: FS 23 4' (H233846-02)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2023	ND	1.96	98.2	2.00	6.04	
Toluene*	<0.050	0.050	07/28/2023	ND	2.07	103	2.00	2.52	
Ethylbenzene*	<0.050	0.050	07/28/2023	ND	2.05	102	2.00	6.01	
Total Xylenes*	<0.150	0.150	07/28/2023	ND	6.17	103	6.00	7.34	
Total BTEX	<0.300	0.300	07/28/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	07/26/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/27/2023	ND	195	97.6	200	11.6	
DRO >C10-C28*	<10.0	10.0	07/27/2023	ND	216	108	200	11.6	
EXT DRO >C28-C36	<10.0	10.0	07/27/2023	ND					
Surrogate: 1-Chlorooctane	88.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.4	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM, LLC HADLIE GREEN 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received:	07/24/2023	Sampling Date:	07/24/2023
Reported:	07/31/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP	Sampling Condition:	** (See Notes)
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA (32.38511-103.43594)		

Sample ID: SW 21 0-4' (H233846-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2023	ND	1.96	98.2	2.00	6.04	
Toluene*	<0.050	0.050	07/28/2023	ND	2.07	103	2.00	2.52	
Ethylbenzene*	<0.050	0.050	07/28/2023	ND	2.05	102	2.00	6.01	
Total Xylenes*	<0.150	0.150	07/28/2023	ND	6.17	103	6.00	7.34	
Total BTEX	<0.300	0.300	07/28/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	123 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18000	16.0	07/26/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/27/2023	ND	195	97.6	200	11.6	
DRO >C10-C28*	<10.0	10.0	07/27/2023	ND	216	108	200	11.6	
EXT DRO >C28-C36	<10.0	10.0	07/27/2023	ND					
Surrogate: 1-Chlorooctane	90.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	100 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



ENSOLUM, LLC HADLIE GREEN 705 W WADLEY AVE. MIDLAND TX, 79705 Fax To:

Received:	07/24/2023	Sampling Date:	07/24/2023
Reported:	07/31/2023	Sampling Type:	Soil
Project Name:	CHISO 14 STATE JET PUMP	Sampling Condition:	** (See Notes)
Project Number:	03C2012059	Sample Received By:	Tamara Oldaker
Project Location:	BTA (32.38511-103.43594)		

Sample ID: SW 22 0-4' (H233846-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2023	ND	1.96	98.2	2.00	6.04	
Toluene*	<0.050	0.050	07/28/2023	ND	2.07	103	2.00	2.52	
Ethylbenzene*	<0.050	0.050	07/28/2023	ND	2.05	102	2.00	6.01	
Total Xylenes*	<0.150	0.150	07/28/2023	ND	6.17	103	6.00	7.34	
Total BTEX	<0.300	0.300	07/28/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	119 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	07/26/2023	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/27/2023	ND	195	97.6	200	11.6	
DRO >C10-C28*	<10.0	10.0	07/27/2023	ND	216	108	200	11.6	
EXT DRO >C28-C36	<10.0	10.0	07/27/2023	ND					
Surrogate: 1-Chlorooctane	90.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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ait's liability and clerify exclusive remidely the annoting whether based in contract or bott, shall be limited to the amount paid by the client for the completion of the applicable incidental or consequence at whethere with the client for the completion of the applicable incidental or consequence at exclusive sharer, with Cardinal, regardless of whether such claim is based upon any of the above stand to the annount paid by the client for the completion of the applicable. Date: Date: Received By: Verbal Result: Yes Yes Mol Add'I Time: Date: Received By: Mol Multi				
o the performance of services here, for the claim is based upon any of the above stated reasons or ordenwate. Date: P-2y(-2:3 Received By: Verbal Result: Yes No Add1 Time: 1/2:3 Pate: Received By: No All Result: Yes D/A (Add1) Date: Time: Received By: No All Result: Yes D/No Add1 Date: Received By: Received By: No No<	LEASE INUTE: LIADINY and Damages. Cardina's nalyses. All claims including those for negligence invice. In no event shall Cardinal be liable for incid	ility and cli any other I or conse	act or tort, shall be limited to the amount paid by the client and received by Cardinal within 30 days after completion o 5. loss of use or loss of profile incurred by client its animum	for the applicable series of the applicable se
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† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



APPENDIX D

Lithologic / Soil Sampling Logs

								Sample Name: AH-1	Date: 7/6/2023	
				~				Site Name: Chiso 14 State Jet Pum		
				S	OL	. U		Incident Number: nAPP22058372		
								Job Number: 03C2012059	14	
					AMPLING	106		Logged By: MR Method: Hand Auger		
Coordin	ates: 32.3			•			Hole Diameter: 4"	Total Depth: 2'		
					HACH Chlor					
Comments: Field screening conducted with HACH Chloride Test Strips and PID with 1:4 dilution factor of soil to distilled water. A 40% error factor is included									,	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De		
М	280	0.7	N	AH-1	1 - - - 2		SP	0-1.5' bgs PREVIOUSLY EXC. 1.5-2' SAND with trace silt, medium grained, poorly moist.	Medium to dark brown,	
	280				4			Total Depth @ 2' bgs; auger	r refusal	

								Comple Nemer All 2	Data: 7/6/2022
				-				Sample Name: AH-2 Site Name: Chiso 14 State Jet Pu	Date: 7/6/2023
				S		. U	M	Incident Number: nAPP2205837	•
			-	_					214
 						00		Job Number: 03C2012059	
					MPLING L	.UG		Logged By: MR	Method: Hand Auger
	ates: 32.385	-				Hole Diameter: 4"	Total Depth: 2'		
						or chloride and vapor, respectivel n all chloride screenings.	iy. Chioride test performed		
Moisture Content	Moisture Content (ppm) (ppm) (ppm) (ppm) (ppm) (ppm) (pbm) (tr pgg) (pottent (tr pgg) (pottent (tr pgg) (pottent (tr pgg) (pottent (tr pgg) (pottent) (pr pgg) (pr pr p						Lithologic De		
							CCHE	0-1' CALICHE, red/ brown, rounded grains, mediun moist.	poorly sorted, sub- n grained, no stain/odor,
М	14,476	3.2	Ν	AH-2	1		SP	1-2' SAND with trace silt, d sorted, medium to fine moist.	ark brown, poorly grained, no stain/odor,
М	3,589.6	1.3	Ν	AH-2A	2	2 TD		Total Depth @ 2' bgs; auge	
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								Sample Name: AH-3	Date: 7/6/2023	
				C				Site Name: Chiso 14 State Jet Pu		
				5 (U	M	Incident Number: nAPP2205837		
_								Job Number: 03C2012059	214	
	117				MPLING L	06				
Coordina	ates: 32.385					00		Logged By: MR Method: Hand Auger Hole Diameter: 4" Total Depth: 2'		
					ACH Chlorid					
Comments: Field screening conducted with HACH Chloride Test Strips and PID f with 1:4 dilution factor of soil to distilled water. A 40% error factor is included i										
Moisture Content	Chloride (ppm) (ppm) (pp					Lithologic D				
					- -	0 	CCHE	0-1' CALICHE, red/ brown, rounded grains, mediur moist.	poorly sorted, sub- n grained, no stain/odo	
М	2,872.8	2.6	Ν	AH-3	1	1 	SP	1-2' SAND with trace silt, c poorly sorted, medium moist.	lark to medium brown, grained, no stain/odor,	
м	2,178.4	1.1	Ν	AH-3A	2	2				
	·				-	2 TD		Total Depth @ 2' bgs; auge	er refusal	
					-	-				
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12								Sample Name: AH-4	Date: 7/6/2023
				C				Site Name: Chiso 14 State Jet P	
				2	O L			Incident Number: nAPP220583	
								Job Number: 03C2012059	
	LI	THOLO	GIC /	SOIL SA	MPLING L	OG		Logged By: MR	Method: Hand Auger
Coordina	ates: 32.385							Hole Diameter: 4"	Total Depth: 2.5'
						or chloride and vapor, respective n all chloride screenings.	ely. Chloride test performed		
Moisture Content	Content Content (ppm) (ppm) (p						Lithologic D	escriptions	
							0-1' CALICHE, red/ brown rounded grains, mediu moist.	, poorly sorted, sub- m grained, no stain/odor,	
М	5,964 1.3 N AH-4 1 1 SP						SP	1-2' SAND with trace silt, sorted, medium to fine moist.	dark brown, poorly grained, no stain/odor,
М	1,036	0.3	Ν			2			
м	1,215.2	0.9	Ν	AH-4A	2.5	ŀ		2.5' SAA, medium brown	
	1,21012	0.5		//.		TD		Total Depth @ 2.5' bgs; au	uger refusal
						· · · · · · · · · · · · · · · · · · ·			

								Sample Name: AH-5	Date: 7/6/2023
				S				Site Name: Chiso 14 State Jet Pum	
				9				Incident Number: nAPP22058372	14
						<u> </u>		Job Number: 03C2012059	
	LI	THOLOG	GIC /	SOIL SA	MPLING L	.0G		Logged By: MR	Method: Hand Auger
	ates: 32.385	-				Hole Diameter: 4"	Total Depth: 3.5'		
						or chloride and vapor, respectively	. Chloride test performed		
with 1:4	vith 1:4 dilution factor of soil to distilled water. A 40% error factor is included in							n all chioride screenings.	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	
					_	0		0-1.5' bgs PREVIOUSLY EXCA	AVATED
						ŧ			
					-	Ţ,			
					-	1			
						1	SP-SM	1.5-2.5' SAND with silt, dark	brown, medium to fine
М	11,110.4	2.3	N			2		grained, poorly sorted, no	o stain/ odor, moist.
101	11,110.4	2.5	IN		-	<u>†</u>			
1					-	╞	SP-SC	2.5-3.5' SAND with clay, me	dium brown/red, fine
М	12,986.4	0.6	Ν	AH-5	3	3		grained, poorly sorted, no	u stain/uuur, moist.
м	2,329.60		N	AH-5A	3.5	Ŧ			
IVI	2,329.00	1.5	IN	АП-ЭА	3.5	TD		Total Depth @ 3.5' bgs; aug	er refusal
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								Sample Name: AH-6	Date: 7/6/2023
				C				Site Name: Chiso 14 State Jet Pum	
				3		. U		Incident Number: nAPP2205837214	
							Job Number: 03C2012059		
	LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR	Method: Hand Auger	
Coordina	ates: 32.38			-				Hole Diameter: 4"	Total Depth: 2'
					HACH Chlor	ide Test Stri	os and PID	for chloride and vapor, respective	
							is include	d in all chloride screenings.	
Moisture Content	Moisture ContentContent ChlorideChloride (ppm)Chloride 		USCS/Rock Symbol	Lithologic Descriptions					
						0		0-1.5' bgs PREVIOUSLY EXC/	AVATED
					-		SP-SC	1.5-2' SAND with clay, dark	brown fine grained
	202	26 -		AL: C			51-50	poorly sorted, odorous, r	no stain, moist.
Μ	280	26.7	Ν	AH-6	2	2 TD		Total Depth @ 2' bgs; auger	refusal
						- ''			
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APPENDIX E

NMOCD Correspondance

Dan Moir

From:	Buchanan, Michael, EMNRD <michael.buchanan@emnrd.nm.gov></michael.buchanan@emnrd.nm.gov>
Sent:	Friday, June 2, 2023 11:55 PM
То:	Hadlie Green; Enviro, OCD, EMNRD
Cc:	Tacoma Morrissey; Peter Van Patten; Kelton Beaird; Nathan Sirgo
Subject:	RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/05/2023

[**EXTERNAL EMAIL**]

Received.

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Mike Buchanan ● Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 8801 Horizon Blvd. NE | Albuquerque, NM 87113 | <u>michael.buchanan@emnrd.nm.gov</u> http://www.emnrd.nm.gov/ocd_



From: Hadlie Green <hgreen@ensolum.com>
Sent: Friday, June 2, 2023 9:25 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Peter Van Patten <pvanpatten@ensolum.com>; Kelton Beaird
<KBeaird@btaoil.com>; Nathan Sirgo <nsirgo@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 06/05/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of June 5, 2023.

- Harroun East Tank Battery / nAPP2202845563
 - Sampling Date: 6/5/2023 @ 9:00 AM MST
 - Vaca Draw 9418 JV-P 001 / nCH1835540209
 - Sampling Date: 6/6/2023 @ 9:00 AM MST
- Carrasco 14-1H / nAPP2313656375
 - Sampling Date: 6/6/2023 @ 9:00 AM MST
- Chiso 14 State Jet Pump Excavation / nAPP2205837214

.

o Sampling Date: 6/5/2023 @ 9:00 AM MST

Thank you,



Dan Moir

From:	Enviro, OCD, EMNRD <ocd.enviro@emnrd.nm.gov></ocd.enviro@emnrd.nm.gov>
Sent:	Friday, June 9, 2023 4:22 PM
То:	Hadlie Green
Cc:	Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD
Subject:	RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/12/2023

[**EXTERNAL EMAIL**]

Hadlie,

Please be aware that notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

JH

Jocelyn Harimon • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1220 South St. Francis Drive | Santa Fe, NM 87505 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov http:// www.emnrd.nm.gov



From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, June 8, 2023 9:14 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Kelton Beaird <KBeaird@btaoil.com>; Nathan Sirgo
<nsirgo@btaoil.com>; Peter Van Patten <pvanpatten@ensolum.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 06/12/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of June 12, 2023.

- Chiso 14 State Jet Pump Excavation / nAPP2205837214
 Sampling Date: 6/12-13/2023 @ 9:00 AM MST
- Chiso 14 State 8711 #003H Wellhead / nAB1917652490
 - Sampling Date: 6/14-15/2023 @ 9:00 AM MST
- Chiso 14 State 8711 Flowline / nRM2034960665

- o Sampling Date: 6/14-15/2023 @ 9:00 AM MST
- Mesa 30 31 Tank Battery / nAPP2106930621
 - o Sampling Date: 6/14/2023 @ 9:00 AM MST
- Rojo 10-13/34-37 / nAPP2313055442
 - o Sampling Date: 6/15-16/2023 @ 9:00 AM MST

Thank you,

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Hadlie Green Project Geologist 432-557-8895 hgreen@ensolum.com Ensolum, LLC in f

Dan Moir

From:	Enviro, OCD, EMNRD <ocd.enviro@emnrd.nm.gov></ocd.enviro@emnrd.nm.gov>
Sent:	Thursday, June 29, 2023 10:48 PM
То:	Hadlie Green
Cc:	Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD
Subject:	RE: [EXTERNAL] BTA - Sampling Notification - Week of 07/3/2023

[**EXTERNAL EMAIL**]

Hadlie,

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

JH

Jocelyn Harimon • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1220 South St. Francis Drive | Santa Fe, NM 87505 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov http:// www.emnrd.nm.gov



From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, June 29, 2023 8:18 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Kelton Beaird <KBeaird@btaoil.com>; Peter Van Patten
<pvanpatten@ensolum.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 07/3/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of July 3, 2023.

- Vacuum SWD H 35 Pipeline / nAPP2313058428
 Sampling Date: 7/5/2023 @ 9:00 AM MST
- Chiso 14 State Jet Pump Excavation / nAPP2205837214
 Sampling Date: 7/6/2023 @ 9:00 AM MST
- Mesa B #25 / nAPP2112744758
 - o Sampling Date: 7/6-7/2023 @ 9:00 AM MST

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- Mesa #16H Flowline / nAPP2123156473
 - o Sampling Date: 7/7/2023 @ 9:00 AM MST

Thank you,



Hadlie Green Project Geologist 432-557-8895 hgreen@ensolum.com Ensolum, LLC

Dan Moir

From:	Wells, Shelly, EMNRD <shelly.wells@emnrd.nm.gov></shelly.wells@emnrd.nm.gov>
Sent:	Wednesday, July 19, 2023 10:52 PM
То:	Hadlie Green
Cc:	Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Velez, Nelson, EMNRD
Subject:	RE: [EXTERNAL] BTA - Sampling Notification - Week of 07/24/2023

[**EXTERNAL EMAIL**]

Good afternoon Hadlie,

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

Thank you,

Shelly

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

From: Hadlie Green <hgreen@ensolum.com>
Sent: Wednesday, July 19, 2023 1:36 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Kelton Beaird <KBeaird@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 07/24/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of July 24, 2023.

- Chiso 14 State Jet Pump and Excavation / nAPP2205837214
 - Sampling Date: 7/25-26/2023 @ 9:00 AM MST
- Mesa #2H Tank Battery / NRM2026945362
 Sampling Date: 7/27/2023 @ 9:00 AM MST
- Mesa B #2 Tank Battery / nAPP2113973789
 Sampling Date: 7/28/2023 @ 9:00 AM MST

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Thank you,





APPENDIX F

Final C-141

Released to Imaging: 11/17/2023 1:15:15 PM

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	nAPP2205837214
District RP	
Facility ID	fAPP2129434580
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # (assigned by OCD) nAPP2205837214
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.38511 Longitude: -103.43594

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chiso 14 State Jet Pump and Excavation	Site Type: Tank Battery
Date Release Discovered: 2/26/2022	API# (if applicable) Nearest well:

Unit Letter	Section	Township	Range	County
Р	14	225	34E	Lea

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

Nature and Volume of Release

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 165 BBL	Volume Recovered (bbls) 70 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Jet Pump Failure.

A plug on the manifold of a Jet Pump failed and allowed water from the supply tank to drain from the pump and proceed westward directly into an active excavation being conducted to remove previously contaminated soil. The volume of recovered water was taken from the excavation. The estimate of the volume of water released was calculated from tank gauge data (attached).

Received by OCD: 9/11/2023 10:46:30 AM

Earma (C 141	State of New Mexico	F	
Form C-141		Incident ID	nAPP2205837214
Page 2	Oil Conservation Division	District RP	
		Facility ID	fAPP2129434580
		Application ID	

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by	
19.15.29.7(A) NMAC?	The volume of the release exceeds 25 BBL.
🛛 Yes 🗌 No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by filing a Notice	e of Release (NOR) on the NMOCD Permitting website on 2/27/2022. The Incident ID listed

above was assigned after the NOR was acknowledged by the NMOCD.

Initial Response

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

 \boxtimes The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

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

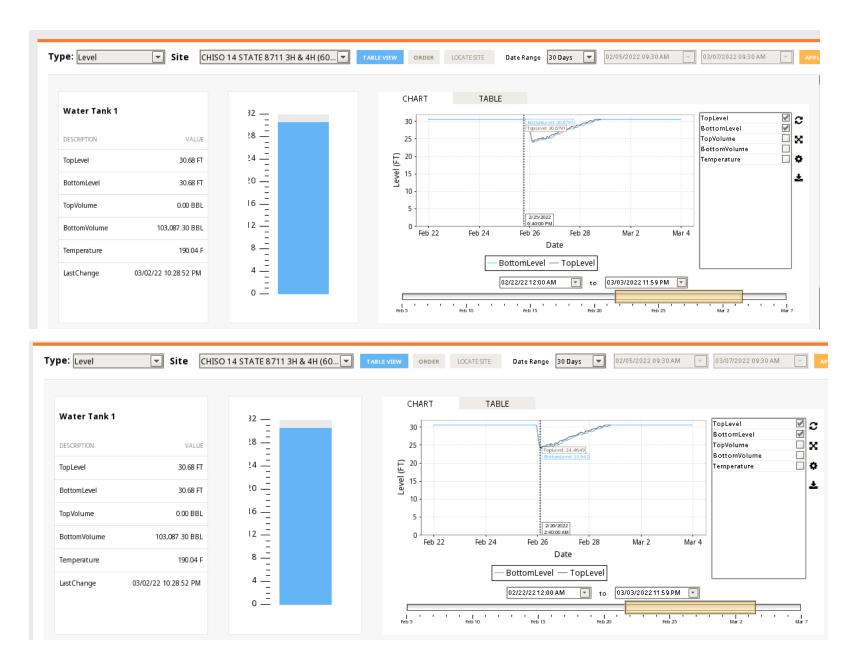
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 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: Bob Hall Title: Environmental Manager

Signature: Bollfalf	Date: 3/8/2022	
email: bhall@btaoil.com	Telephone: 432-682-3753	
OCD Only		
Received by:	Date:	

Chiso 14 State Water Tank Gauge – 2/26/2022



Page 3

Oil Conservation Division

Incident ID	nAPP2205837214
District RP	
Facility ID	
Application I	D

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

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

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

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

Received by OCD: 9/11/2023 10:46:30 AM Form C-141 State of New Mexico			Page 107 of 109	
			Incident ID	nAPP2205837214
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all operators are re public health or the environme failed to adequately investigat	6	tifications and perform cc OCD does not relieve the eat to groundwater, surfa f responsibility for compl 	prrective actions for rele c operator of liability sho ce water, human health liance with any other feo ll Manager	ases which may endanger ould their operations have or the environment. In leral, state, or local laws
OCD Only Received by:		Data		
		Date:		

Received by OCD: 9/11/2023 10:46:30 AM Form C-141 State of New Mexico

Oil Conservation Division

Incident ID	nAPP2205837214
District RP	
Facility ID	
Application ID	

Remediation Plan

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

X Detailed description of proposed remediation technique

x Scaled sitemap with GPS coordinates showing delineation points

 $\underline{\mathbf{x}}$ Estimated volume of material to be remediated

Page 5

X Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC

X Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

<u>Deferral Requests Only</u> : Each of the following items must be con	girmea as part of any request for deferral of remealation.
Contamination must be in areas immediately under or around pro deconstruction.	duction equipment where remediation could cause a major facility
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 complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptan liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local la	ertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: Kelton Beaird	Title:
Signature:	Date:
email:KBeaird@btaoil.com	Telephone:432-312-2203
OCD Only	
Received by: <u>Shelly Wells</u>	Date: <u>9/11/2023</u>
Approved Approved with Attached Conditions of A	Approval Denied Deferral Approved
Signature: Nelson Velez	Date: 11/17/2024

-

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
BTA OIL PRODUCERS, LLC	260297
104 S Pecos	Action Number:
Midland, TX 79701	263757
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation plan approved as written. Remediation Due date updated to February 15, 2024 to submits its appropriate or final closure report.	11/17/2023

Action 263757