



September 18, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request
Mesa 8105 JV-P 013H/18 Compressor
Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared this *Closure Request* to document delineation and soil sampling activities performed at the Mesa 8105 JV-P 013H/18 Compressor (Site), in accordance with an approved *Revised Remediation Work Plan (Revised Work Plan)*, submitted June 8, 2023. The *Revised Work Plan* detailed Site assessment activities and delineation of the release. Based on delineation activities completed and laboratory analytical results from the soil sampling events in accordance with the *Revised Work Plan*, BTA is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740.

Details regarding the release, Site characterization, and proposed remediation activities can be referenced in the original *Work Plan* submitted on June 8, 2023. The *Revised Work Plan* is included as Appendix A. On June 23, 2023, the New Mexico Oil Conservation Division (NMOCD) approved the *Work Plan* with the following conditions:

This Workplan/Remediation proposal is approved with the following conditions: • All (floor/sidewall) closure samples on pad will need to meet closure criteria standards for depth to water of 51'-100' in Table 1 of the Spill Rule. • Please have soil samples analyzed for all components in Table 1 of the spill rule. The link to the current spill rule as well as the Procedures for Implementation are provided for your convenience. • Please note that, when the well or facility is plugged or abandoned, the final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations. The OCD wants to clarify that the entire release area will not be deferred, only the sample points that are around production equipment such as production tanks, wellheads, and pipelines. The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water.

BACKGROUND

The Site is located in Unit P, Section 1, Township 26 South, Range 32 East, in Lea County, New Mexico (32.06584°, -103.62410°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

BTA Oil Producers, LLC
Mesa 8105 JV-P 013H
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On November 24, 2018, a malfunction on a compressor caused the slop tank to overflow. Approximately 20 barrels (bbls) of produced water and 10 bbls of condensate were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water and 5 bbls of condensate were recovered. BTA reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on November 26, 2018. The release was assigned Remediation Permit (RP) Number 2RP-5289 and Incident Number NCH1835547953.

On February 8, 2019, an equipment failure on a compressor caused the slop tank to overflow. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 1RP-5383 and Incident Number NAB1906552791.

On February 9, 2019, the same equipment failure occurred on the compressor and caused the slop tank to overflow again. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 1RP-5383 and Incident Number NAB1906551740.

On June 6, 2023, Ensolum proposed further delineation activities via hand auger in the *Revised Work Plan*, with the intention of confirming removal of impacted soil in the top 2 feet and field screening at 1-foot intervals for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuantTab® test strips. The response from the NMOCD, on June 23, 2023, approved the *Revised Work Plan* with conditions that the closure samples must meet Closure Criteria for depth to water of 51 feet to 100 feet below ground surface (bgs) in Table I of the Spill Rule and all samples must be analyzed for all components in Table I of the Spill Rule.

As documented in the approved *Revised Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

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

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between August 4, 2023 and September 13, 2023, Ensolum personnel were at the Site to oversee delineation activities. Ten boreholes (BH01 through BH10) were advanced to 1-foot bgs. Following auger refusal at a depth of 1-foot bgs, Ensolum personnel returned to the Site with a mini track-mounted backhoe to continue delineation in all 10 boreholes to a maximum depth of 4 feet bgs. Samples were field screened as described above. The delineation soil sample locations are depicted on Figure 1. A photographic log can be found in Appendix B. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C.

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

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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 delineation soil samples BH01 through BH10, collected within and around the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and confirmed the absence of impacted soil within and around the inferred release area. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix D.

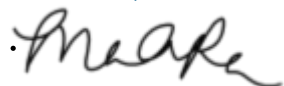
CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site as described in the approved *Revised Work Plan*. Laboratory analytical results for the delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. Based on laboratory analytical results, no impacted soil was identified and no further remediation appears required.

BTA believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740. Notifications submitted to the NMOCD are included in Appendix E and the Final Form C-141s are 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



Meredith Roberts
Staff Geologist



Daniel R. Moir, PG
Senior Managing Geologist

cc: Kelton Beaird, BTA
Bureau of Land Management



Appendices:

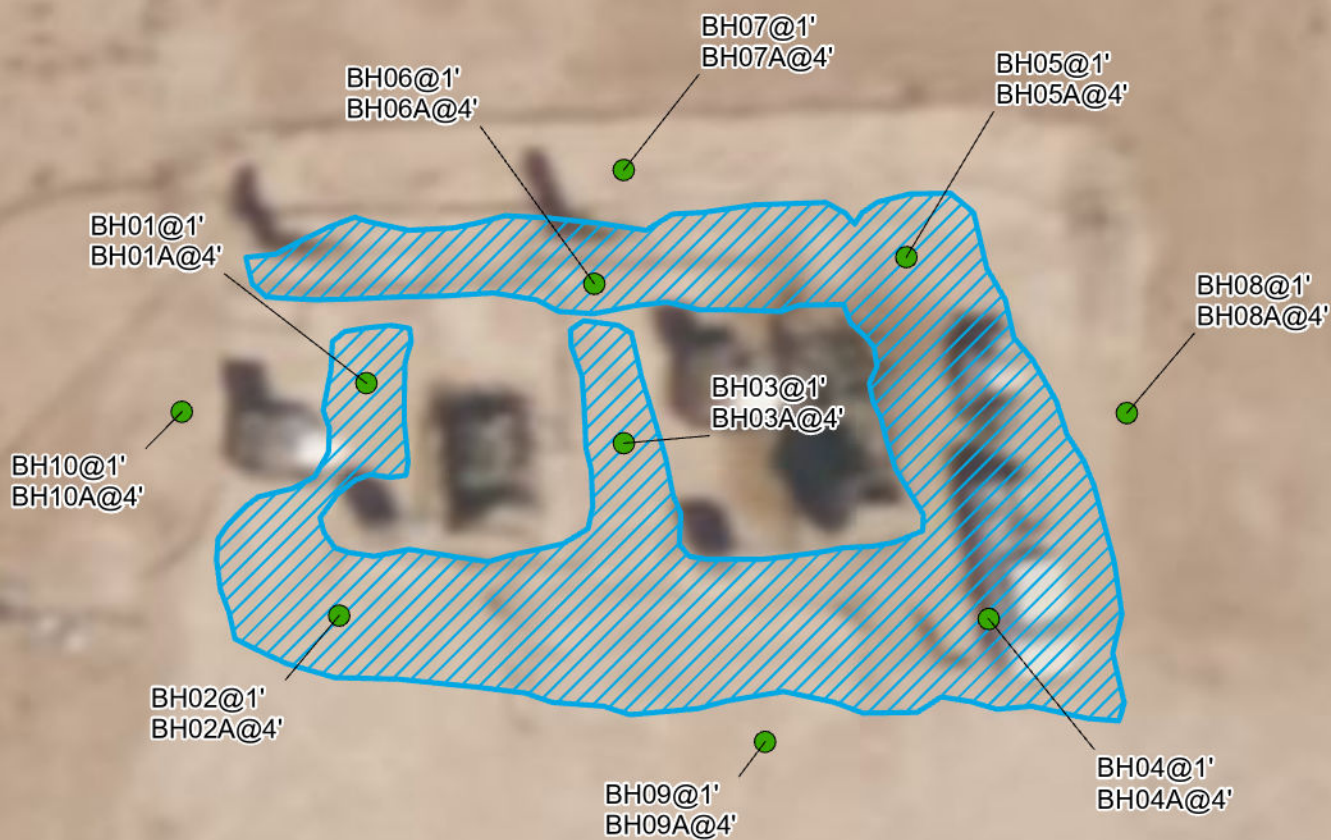
Figure 1	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Revised Remediation Work Plan
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications
Appendix F	Final C-141s



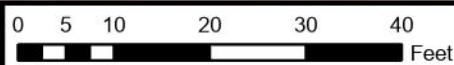
FIGURES

Legend

-  Excavation Extent
-  Delineation soil samples in compliance with closure criteria selection



Notes:
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

BTA Oil Producers, LLC
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Unit P, Sec 1, T26S, R32E
Lea County, New Mexico

FIGURE

1



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Mesa 8105 JV-P 013H
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 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
BH01	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
BH01A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	13.7	<10.0	13.7	240
BH02	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
BH02A	09/13/2023	4	<0.050	<0.300	<10.0	512	148	512	660	80.0
BH03	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
BH03A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH04	08/04/2023	1	<0.050	<0.300	<10.0	135	52.6	135	188	176
BH04A	09/13/2023	4	<0.050	<0.300	10.5	756	153	767	920	128
BH05	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	35.9	<10.0	35.9	816
BH05A	09/13/2023	4	<0.050	<0.300	<10.0	18.6	18.2	18.6	36.8	48.0
BH06	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,170
BH06A	09/13/2023	4	<0.050	<0.300	<10.0	389	81.5	389	471	320
BH07	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH07A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH08	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
BH08A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH09	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH09A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH10	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH10A	09/13/2023	4	<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

Original Revised Remediation Work Plan



June 6, 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: Revised Remediation Work Plan
Mesa 8105 JV-P 013H
Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared the following *Revised Remediation Work Plan (Revised Work Plan)* as a follow up to the original *Remediation Work Plan (Work Plan)* dated September 25, 2019. This *Revised Work Plan* proposes to complete additional delineation activities at the Mesa 8105 JV-P 013H (Site) in response to the denial of the original *Work Plan* by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD indicated that the impacted soil left in place had not been properly delineated. The following *Revised Work Plan* proposes full lateral and vertical delineation of the impacted soil left in place.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 1, Township 26 South, Range 32 East, in Lea County, New Mexico (32.06584°, -103.62410°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 24, 2018, a malfunction on a compressor caused the slop tank to overflow. Approximately 20 barrels (bbls) of produced water and 10 bbls of condensate were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water and 5 bbls of condensate were recovered. BTA reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on November 26, 2018. The release was assigned Remediation Permit Number (RP) Number 2RP-5289 and Incident Number NCH1835547953.

On February 8, 2019, an equipment failure on a compressor caused the slop tank to overflow. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 2RP-5383 and Incident Number NAB1906552791.

On February 9, 2019, the same equipment failure occurred on the compressor and caused the slop tank to overflow again. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported

BTA Oil Producers, LLC
Revised Remediation Work Plan
Mesa 8105 JV-P 013H

the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 2RP-5383 and Incident Number NAB1906551740.

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, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 55 feet below ground surface (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 C-04485, located approximately 0.5 miles southwest of the Site. The well was drilled to a depth of 55 feet during October 2020, and no groundwater was encountered. All wells used for depth to groundwater determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 380 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). 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
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

BACKGROUND

Between November 2018 and August 2019, delineation and excavation activities were conducted at the Site to address the impacted soil resulting from the three slop tank overflow releases into an area of active production equipment. Impacted soil was excavated to a depth of 2 feet bgs around the active compressors and production equipment, and beneath the surface lines. A total of approximately 128 cubic yards of impacted soil were excavated. However, impacted soil was left in place immediately adjacent to and beneath the active compressors and production equipment where remediation would cause a major facility deconstruction. Impacted soil within the release extent was vertically delineated to below the most stringent Table I Closure Criteria. Delineation sample points SP1 and SP2 confirmed that impacted soil did not extend deeper than 4 feet bgs. The excavation extent and delineation soil sample locations are presented on the attached Figure 2. The laboratory analytical results are summarized in the attached Table 1. There was limited area to continue deeper excavation due to two compressors, two vertical separator vessels, hard-piped gas meter runs, high-pressure gas lines, and buried electrical lines within the release area. A *Work Plan* was submitted to NMOCD on September 25, 2019, proposing to defer the impacted soil left in place and install a 20 mil impermeable liner in the base

BTA Oil Producers, LLC
Revised Remediation Work Plan
Mesa 8105 JV-P 013H

of the 2-foot excavation prior to backfilling. Additional details can be referenced in the original *Work Plan*, submitted to NMOCD on September 25, 2019.

On December 11, 2019, NMOCD denied the *Work Plan* for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740 for the following reasons:

- *The OCD can't approve this remediation plan because there aren't enough soil sample points in the spill area. Looking at the analytical table, SP1 and SP2 have the first clean sample points for TPH at 4' bgs and have only been excavated to 1' bgs. The areas that prevent further excavation because of the compressors, installed production equipment, lines, and rock refusal will need to be delineated with lab tested soil samples to quantify the amount of contaminated soil left in place. These samples will need to be included in a formal deferral request, once the rest of the excavation is delineated and excavated. The entire spill will not be deferred, please use a hydrovac to remove contaminated soil in places that can be excavated.*

PROPOSED REMEDIATION WORKPLAN

Upon review of the September 25, 2019, *Work Plan*, it was noted that impacted soil was excavated to a depth of 2 feet bgs not 1-foot bgs as described in the denial language. Additionally, upon review of the 2018/2019 site photographs, it appears that impacted soil was excavated as close as possible to the active compressors and production equipment, including areas beneath surface lines. Additional excavation does not appear to be safely practical. A photographic log of the 2018/2019 excavation activities is provided in Appendix B along with photos from May 2023 showing the backfilled excavation area. BTA agrees that the delineation activities completed in 2019 were not adequate for deferral of the impacted soil left in place. As such, BTA requests approval to complete the following additional remediation activities:

- Full lateral and vertical delineation the impacted soil that was left in-place.
 - Boreholes will be advanced via hand auger outside of the historical release/excavation extent to determine the lateral extent of the impacted soil that was left in place and confirm the horizontal extent of the surface release.
 - Boreholes will be advanced via hand auger within the historical release/excavation extent to confirm removal of the top two feet of impacted soil, determine if a liner was installed prior to backfilling the excavation, and confirm the vertical extent of the impacted soil that was left in place.
 - Soil from the boreholes will be field screened at 1-foot intervals for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations will be logged on lithologic/soil sampling logs. Two delineation samples from each borehole will be submitted for laboratory analysis; the sample with the highest field screening result and the sample from the final borehole depth.
 - Final depth of the boreholes will be determined by field screening results indicating compliance with the Site Closure Criteria. In the absence of elevated field screening results, the boreholes will be advanced to a depth of 4 feet bgs.
 - If a liner is encountered in the boreholes, the liner will be patched/repaired following vertical delineation activities.
 - The proposed borehole locations are shown on the attached Figure 3. Borehole locations may need to be adjusted slightly during field activities based on the location of underground utilities.

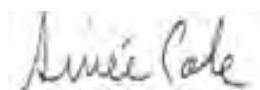
BTA Oil Producers, LLC
Revised Remediation Work Plan
Mesa 8105 JV-P 013H

- The delineation samples will be analyzed for BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.
- Upon completion of the lateral and vertical delineation activities and receipt of the laboratory analytical results, BTA will prepare a *Deferral Request* quantifying the volume of impacted soil left in place and requesting deferral until major well pad construction/alteration or final plugging and abandonment.

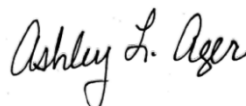
BTA will complete the delineation activities within 90 days of the date of approval of this *Revised Work Plan* by the NMOCD. BTA believes the scope of work described above meets the requirements set forth in 19.15.29.13 NMAC and is protective of human health, the environment, and groundwater. As such, BTA respectfully requests approval of this *Revised Work Plan* for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740.

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

Sincerely,
Ensolum, LLC



Aimee Cole
Senior Managing Scientist



Ashley Ager, M.S., PG
Principal

cc: Kelton Beaird, BTA
Nathan Sirgo, BTA
Bureau of Land Management





Appendices:

Figure 1	Site Location Map (2023)
Figure 2	Excavation Extent and Delineation Soil Sample Locations (2018/2019)
Figure 3	Proposed Delineation Soil Sample Locations (2023)
Table 1	Soil Sample Analytical Results (2018/2019)
Appendix A	Referenced Well Records
Appendix B	Photographic Log (2019/2023)
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation (2019)
Appendix D	Final C-141s





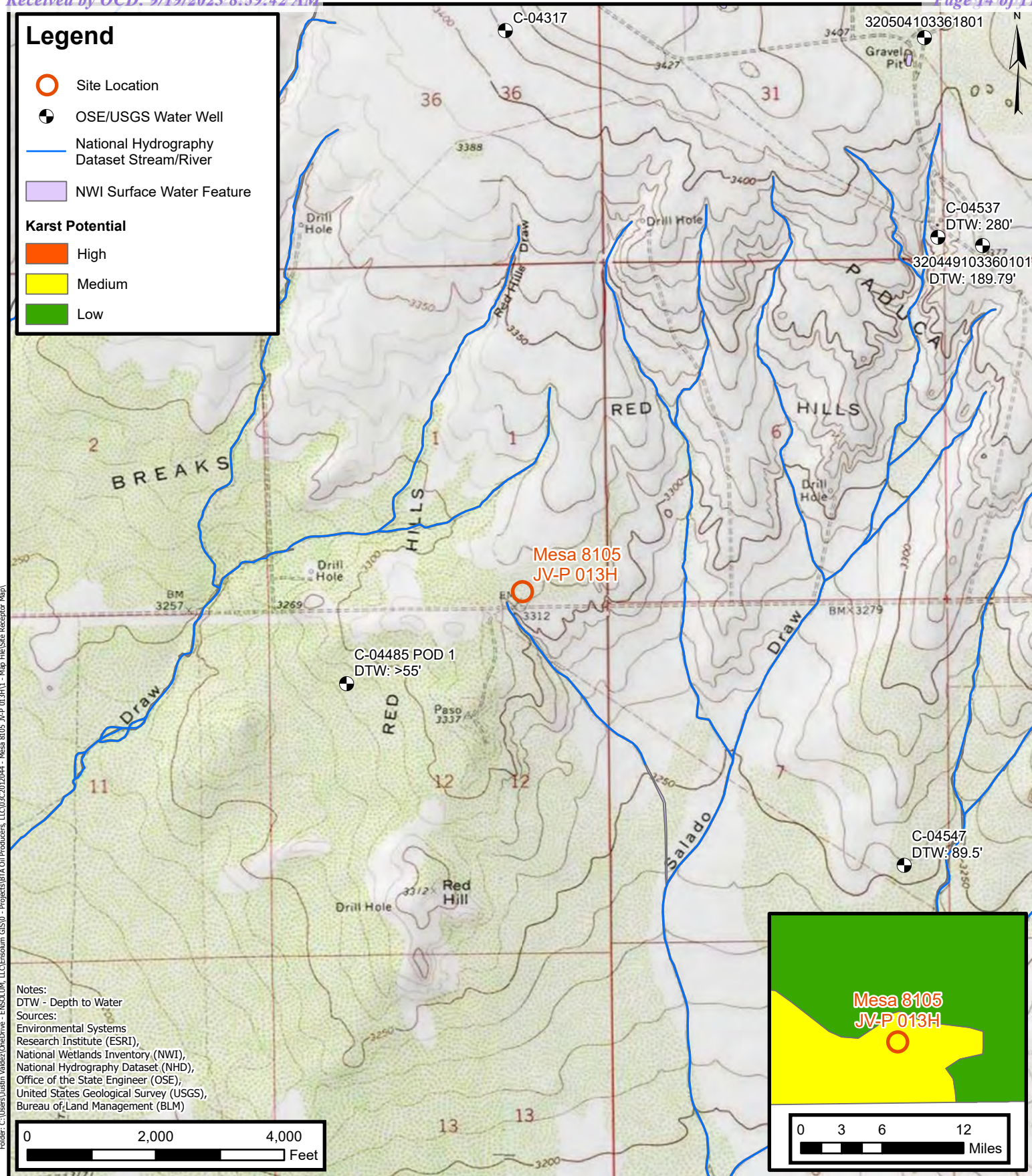
FIGURES

Legend

-  Site Location
-  OSE/USGS Water Well
-  National Hydrography Dataset Stream/River
-  NWI Surface Water Feature

Karst Potential

-  High
-  Medium
-  Low

**Site Receptor Map**

BTA Oil Producers, LLC

Mesa 8105 JV-P 013H

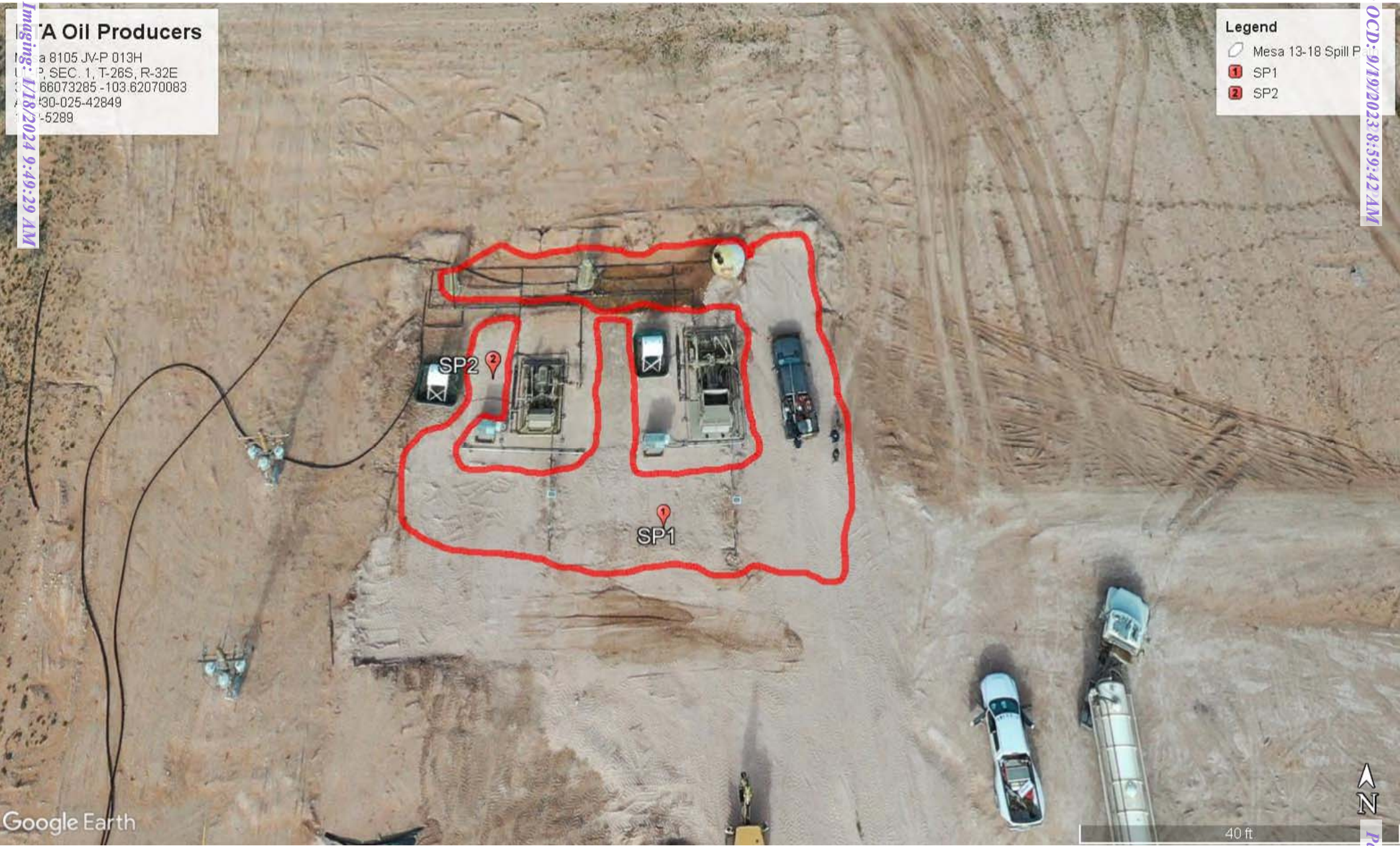
Incident Number: NCH1835547953, NAB1906552791, and NAB1906551740

Unit P, Section 1, Township 26 South, Range 32 East

Lea County, New Mexico

FIGURE**1**



Figure 2 - Excavation Extent and Delineation Soil Sample Locations (2018/2019)

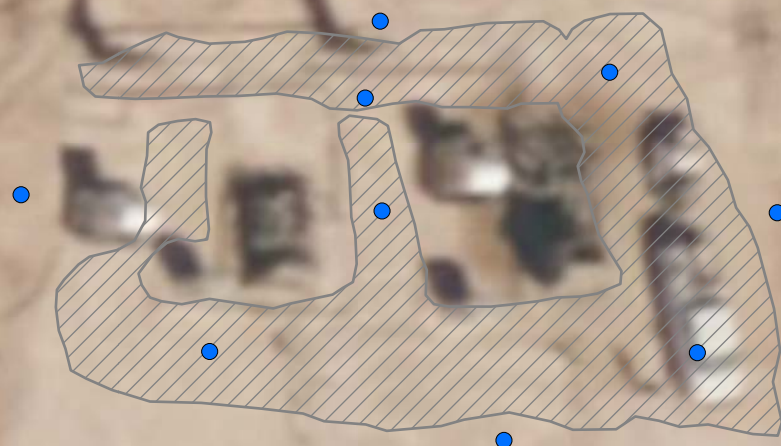


Released to Imaging: 1/18/2024 9:49:29 AM

Received by OCD: 9/19/2023 8:59:42 AM

Legend

-  Proposed Borehole Locations
-  Former Release/Excavation Extent



0 25 50
Feet

Sources: Environmental Systems Research Institute (ESRI)

**Proposed Delineation Soil Sample Locations**

BTA Oil Producers, LLC

Mesa 8105 JV-P 013H

Incident Number: NCH1835547953, NAB1906552791, and NAB1906551740

Unit P, Section 1, Township 26 South, Range 32 East

Lea County, New Mexico

FIGURE**3**



TABLES

Mesa 13/18 Compressor Slop Tank Release - November 24, 2018; February 8, 2019; and February 9, 2019

OCD Tracking #: 1RP-5289 and 1RP-5383

Location	Status	Sample Date	Sample Depth (feet BGS)	Field Screening		Laboratory Results										
				PID Result (PPM)	Titration Result (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)	TPH GRO + DRO (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH Ext DRO (mg/kg)
SP1	Removed	11/25/18	Surface	15,000+	149											
SP1	Removed	11/25/18	1	9,800	105											
SP1	In Situ	11/25/18	2	12,300	98											
SP1	In Situ	8/23/19	2			48	22,422	16,532	16.9	0.424	5.36	1.71	9.36	232	16,300	5,890
SP1	In Situ	11/25/18	3	1,700	174											
SP1	In Situ	8/23/19	4	2.9	98	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP1	In Situ	8/23/19	7	0	98	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP2	Removed	11/25/18	Surface	15,000+	1,149											
SP2	Removed	11/25/18	1	8,547	549											
SP2	In Situ	11/25/18	2	8,500	174											
SP2	In Situ	8/23/19	2			16	10,623	7,743	3.47	ND	0.365	0.416	2.69	52.5	7,690	2,880
SP2	In Situ	11/25/18	3	100	98											
SP2	In Situ	8/23/19	4	1.8	105	ND	10.1	ND	ND	ND	ND	ND	ND	ND	ND	10.1
SP2	In Situ	8/23/19	5	0	98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NMOCD Table 1 - Closure Criteria for Soils Impacted by a Release (19.15.29.12)

Minimum Depth to GW less than 10,000 mg/l TDS

<= 50'	600	100	-	50	10
51' - 100'	10,000	2,500	1,000	50	10
>100'	20,000	2,500	1,000	50	10

Reporting Limits:

Chloride: 16.0 mg/kg

Benzene, Toluene, Ethylbenzene: 0.050 mg/kg for each analyte

Total Xylenes: 0.150 mg/kg

Total BTEX: 0.300 mg/kg

GRO (C6 - C10), DRO (>C10 - C28), Ext DRO (>C28 - C36): 10.0 mg/kg for each analyte



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.) C-04485		OWL 362	WELL TAG ID NO. NA	OSE FILE NO(S). C-04485
WELL OWNER NAME(S) KJ ENVIRONMENTAL			PHONE (OPTIONAL) 214-287-5875	
WELL OWNER MAILING ADDRESS 500 MOSSELEY ROAD			CITY CROSS ROADS	STATE TX ZIP 76227
WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84
	LATITUDE	3548560 N		
	LONGITUDE	629271 W		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE				

2. DRILLING & CASING INFORMATION

LICENSE NO. WD 1186	NAME OF LICENSED DRILLER RODNEY HAMMER		NAME OF WELL DRILLING COMPANY ENVIRO-DRILL, INC.				
DRILLING STARTED 10/05/2020	DRILLING ENDED 10/06/2020	DEPTH OF COMPLETED WELL (FT) 55'	BORE HOLE DEPTH (FT) 55'	DEPTH WATER FIRST ENCOUNTERED (FT) None (Dry)			
COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT)			
DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: HSA							
DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
FROM	TO						
55	45	8"	Screen	FJT	2"	2"	.010
45	0	8"	Blank	11	11	11	

3. ANNULAR MATERIAL

DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
FROM	TO				
55	43	8"	Sand 10/20	10	tremie
43	41	8"	Hole Plug	1	
41	0	8"	Grout	100 gal.	↓

FOR OSE INTERNAL USE

FILE NO. C-0-2599	WR-20 WELL RECORD & LOG (Version 06/30/17)
LOCATION 2-2-4	POD NO. 2N-33E-10
WELL TAG ID NO. 693367	PAGE 1 OF 2

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO				
	0	10		Sand + gravel	Y N	
	10	25		gravel + caliche	Y N	
	25	45		caliche	Y N	
	45	55		sandstone	Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm):	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					0.00	
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION:					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:					
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE	

FOR OSE INTERNAL USE

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

FILE NO.

POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

PAGE 2 OF 2



APPENDIX B

Photographic Log

2019 - Photo Log



Facing North



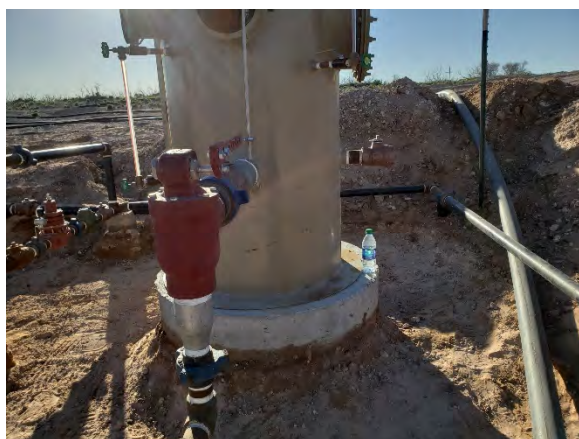
Spill Excavated



Digging up release



Spill Excavated



Spill excavated



Aerial View -South View

2019 - Photo Log



Facing west



Facing North



Facing South



Facing Northwest



2019 - Photo Log



Northeast



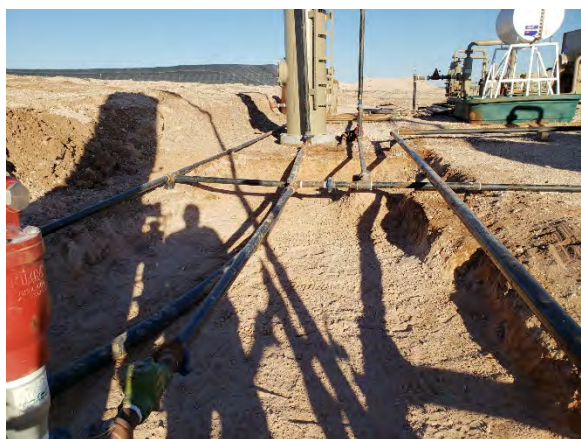
North



Facing West



South



Facing East



Spill Area Facing South



Photographic Log
BTA Oil Producers, LLC
Mesa 8105 JV-P 013H

Date & Time: Tue, May 30, 2023 at 12:04:57 MDT
Position: +032 066180° / -103 624564° (±15.7ft)
Altitude: 3323ft (±10.8ft)
Datum: WGS-84
Azimuth/Bearing: 010° N10E 0178mils True (±11°)
Elevation Angle: -02.4°
Horizon Angle: +00.6°
Zoom: 0.5X
Facing north
Mariana O'Dell



Photograph: 1 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: North

Date & Time: Tue, May 30, 2023 at 12:05:31 MDT
Position: +032 066279° / -103 624314° (±15.6ft)
Altitude: 3324ft (±11.0ft)
Datum: WGS-84
Azimuth/Bearing: 285° N75W 5067mils True (±12°)
Elevation Angle: -03.4°
Horizon Angle: +00.1°
Zoom: 0.5X
Facing west backfill
Mariana O'Dell



Photograph: 2 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: West

Date & Time: Tue, May 30, 2023 at 12:06:36 MDT
Position: +032 066369° / -103 624673° (±15.5ft)
Altitude: 3324ft (±11.1ft)
Datum: WGS-84
Azimuth/Bearing: 096° S84E 1797mils True (±12°)
Elevation Angle: -04.2°
Horizon Angle: +00.9°
Zoom: 0.5X
Facing east backfill
Mariana O'Dell



Photograph: 3 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: East

Date & Time: Tue, May 30, 2023 at 12:09:17 MDT
Position: +032 066454° / -103 624436° (±15.6ft)
Altitude: 3320ft (±11.0ft)
Datum: WGS-84
Azimuth/Bearing: 201° S21W 3573mils True (±12°)
Elevation Angle: -02.6°
Horizon Angle: +00.6°
Zoom: 0.5X
Facing south backfill
Mariana O'Dell



Photograph: 4 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: South



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



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

August 27, 2019

BOB HALL

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: MESA 13 - 18

Enclosed are the results of analyses for samples received by the laboratory on 08/26/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received: 08/26/2019
Reported: 08/27/2019
Project Name: MESA 13 - 18
Project Number: COMPRESSOR 3 SPILLS
Project Location: LEA CO

Sampling Date: 08/23/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2' (H902935-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.424	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	5.36	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	1.71	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	9.36	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTX	16.9	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	232	50.0	08/27/2019	ND	207	103	200	2.02		
DRO >C10-C28*	16300	50.0	08/27/2019	ND	203	101	200	2.56		
EXT DRO >C28-C36	5890	50.0	08/27/2019	ND						

Surrogate: 1-Chlorooctane 127 % 41-142

Surrogate: 1-Chlorooctadecane 916 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received: 08/26/2019
Reported: 08/27/2019
Project Name: MESA 13 - 18
Project Number: COMPRESSOR 3 SPILLS
Project Location: LEA CO

Sampling Date: 08/23/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 4' (H902935-02)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTEX	<0.300	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.0 % 73.3-129

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 113 % 41-142

Surrogate: 1-Chlorooctadecane 123 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 08/26/2019
 Reported: 08/27/2019
 Project Name: MESA 13 - 18
 Project Number: COMPRESSOR 3 SPILLS
 Project Location: LEA CO

Sampling Date: 08/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 7' (H902935-03)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTX	<0.300	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/27/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 135 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 08/26/2019
 Reported: 08/27/2019
 Project Name: MESA 13 - 18
 Project Number: COMPRESSOR 3 SPILLS
 Project Location: LEA CO

Sampling Date: 08/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 2' (H902935-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	0.365	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	0.416	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	2.69	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEx	3.47	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 73.3-129

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	52.5	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	7690	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	2880	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 497 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 08/26/2019
 Reported: 08/27/2019
 Project Name: MESA 13 - 18
 Project Number: COMPRESSOR 3 SPILLS
 Project Location: LEA CO

Sampling Date: 08/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 4' (H902935-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

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	08/27/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	10.1	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 115 % 41-142

Surrogate: 1-Chlorooctadecane 126 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 08/26/2019
 Reported: 08/27/2019
 Project Name: MESA 13 - 18
 Project Number: COMPRESSOR 3 SPILLS
 Project Location: LEA CO

Sampling Date: 08/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 5' (H902935-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

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	08/27/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane 114 % 41-142

Surrogate: 1-Chlorooctadecane 124 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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 SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

Celey D. Keene, Lab Director/Quality Manager

6 jo 6 abed



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: BTA Oil Producers Project Manager: Bob Hall Address: City: State: Zip: Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: Mesa 13-18 - COMPRESSOR STATION Sample Name: M. ALTA		BILL TO P.O. #: Company: BTA Attn: Bob Hall Address: City: State: Zip: Phone #: Fax #:	
FOR LAB USE ONLY		ANALYSIS REQUEST	
Lab I.D. HQ02935 1 2 3 4 5 6	Sample I.D. SP.1021 SP.1041 SP.1071 SP.2021 SP.2041 SP.2051	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	MATRIX PRESERV. SAMPLING
DATE 8/24/19 8/27/19 8/27/19 8/23/19 8/23/19 8/23/19		TIME 9:30 9:40 9:52 10:15 10:30 10:43	
Relinquished By: [Signature] Relinquished By: [Signature] Date: 8-26-19 Time: 15:15 Received By: [Signature] Date: 8-26-19 Time: 15:15		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Add'l Fax #: REMARKS: Rosh	
Delivered By: (Circle One) 4.42 #97 Sampler - UPS - Bus - Other: Checked By: (Initials) 40		Sample Condition Cool Intact Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



APPENDIX D

Final C-141s

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	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.0660734285 Longitude 103.624070083
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mesa 8105 JV-P 013H (compressor)	Site Type well pad
Date Release Discovered 11/24/2018	API# (if applicable) 30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 10	Volume Recovered (bbls) 5
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Malfunction on compressor caused slop tank to overflow.

Form C-141

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Yes 19.15.29.7 (A) defines 25 BBL or more a major release
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Ben Grimes</u>	Title: <u>Production Manager</u>
Signature: <u>Ben Grimes</u>	Date: <u>11/26/2018</u>
email: <u>BGrimes@PTAOIL.com</u>	Telephone: <u>432-682-3753</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

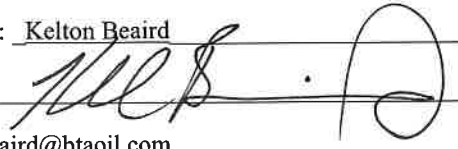
Form C-141

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

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

Printed Name: Kelton BeardSignature: email: kbeard@btaoil.comTitle: Environmental ManagerDate: 6-6-23Telephone: 432-312-2203**OCD Only**Received by: Jocelyn HarimonDate: 06/08/2023

Form C-141

Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Kelton BeairdTitle: Environmental ManagerSignature: Date: 6-6-23email: kbeaird@btaoil.comTelephone: 432-312-2203**OCD Only**Received by: Jocelyn Harimon Date: 06/08/2023

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

Signature: _____

Date: _____

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	NAB1906552791
District RP	1RP-5383
Facility ID	
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) NAB1906552791
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/8/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private ()

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release



Due to an equipment failure on the compressor, oil was pushed over to the slop tank, which overflowed. The oil was recovered with a vacuum truck.

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Initial Response

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

<div style="display: flex; flex-direction: column; gap: 5px;"><div><input checked="" type="checkbox"/> The source of the release has been stopped.</div><div><input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.</div><div><input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.</div><div><input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.</div></div>	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Bob Hall Title: Environmental Manager	
Signature: 	Date: 2/22/2018
email: bhall@btaoil.com Telephone: 432-682-3753	
<div style="display: flex; justify-content: space-between;"><div><u>OCD Only</u></div><div></div></div>	
Received by: 	Date: 3/06/2019

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

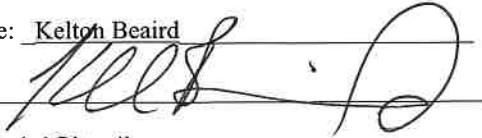
Form C-141

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: Kelton BeairdTitle: Environmental ManagerSignature: Date: 6-6-23email: kbeaird@btaoil.comTelephone: 432-312-2203**OCD Only**

Received by: _____

Date: _____

Form C-141

Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

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

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

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

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

Printed Name: Kelton BeairdTitle: Environmental ManagerSignature: Date: 6-6-23email: kbeaird@btaoil.comTelephone: 432-312-2203**OCD Only**

Received by: _____ Date: _____

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

Signature: _____

Date: _____

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	NAB1906551740
District RP	1RP-5383
Facility ID	
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) NAB1906551740
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/9/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private ()

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release



The same equipment failure on the compressor, as occurred as a separate event and reported for 2/8/2019, pushed oil over to the slop tank and caused the tank to overflow. The oil was recovered with a vacuum truck.

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Bob Hall Title: Environmental Manager	
Signature: 	Date: 2/22/2018
email: bhall@btaoil.com	Telephone: 432-682-3753
<u>OCD Only</u>	
Received by: 	Date: 3/6/2019

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

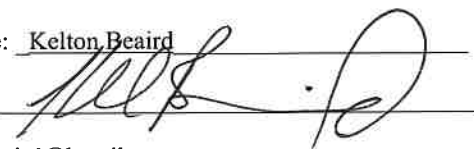
Form C-141

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: Kelton BeairdTitle: Environmental ManagerSignature: Date: 6-6-23email: kbeaird@btaoil.comTelephone: 432-312-2203**OCD Only**

Received by: _____

Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 5

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Kelton BeairdTitle: Environmental Manager

Signature: _____

Date: 6-6-23email: kbeaird@btaoil.comTelephone: 432-312-2203**OCD Only**

Received by: _____ Date: _____

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

Signature: _____

Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 225624

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 225624
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	This Workplan/Remediation proposal is approved with the following conditions: • All (floor/sidewall) closure samples on pad will need to meet closure criteria standards for depth to water of 51'-100' in Table 1 of the Spill Rule. • Please have soil samples analyzed for all components in Table 1 of the spill rule. The link to the current spill rule as well as the Procedures for Implementation are provided for your convenience. • Please note that, when the well or facility is plugged or abandoned, the final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.	6/23/2023
jharimon	The OCD wants to clarify that the entire release area will not be deferred, only the sample points that are around production equipment such as production tanks, wellheads, and pipelines. The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water.	6/23/2023

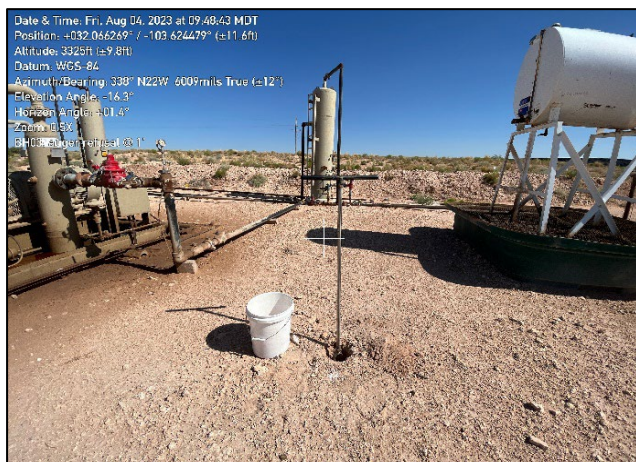


APPENDIX B

Photographic Log



Photographic Log
BTA Oil Producers, LLC
Mesa 8105 JV-P 013H/18 Compressor



Photograph: 1 Date: 8/4/2023
Description: Hand auger delineation at BH03.
View: Northwest



Photograph: 2 Date: 9/13/2023
Description: Delineation activities with mini-excavator.
View: Southwest



Photograph: 3 Date: 9/13/2023
Description: Delineation activities with mini-excavator.
View: East





Photograph: 4 Date: 9/13/2023
Description: Backfill activities with mini excavator.
View: Southwest





APPENDIX C


Lithologic Soil Sampling Logs


						Sample Name: BH01		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066309, -103.624585						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	398	5.3	N	BH01	1	0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	280	0.2	N			1			
M	<173.6	0.1	N			2			
M	240.8	0	N	BH01A	4	3			
						4		Total Depth @ 4' bgs.	
						TD			


						Sample Name: BH02		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066243, -103.624595						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	174	2.7	N	BH02	1	0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1			
M	<173.6	0.0	N			2			
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH02A	4	4			
						TD		Total Depth @ 4' bgs.	


						Sample Name: BH03		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066291, -103.624498						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	<173.6	1.3	N	BH03	1	0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.3	N			1			
M	<173.6	0.0	N			2		2-4' CALICHE, red/ medium brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH03A	4	4			
						TD		Total Depth @ 4' bgs.	


						Sample Name: BH04		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066239, -103.624376						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	302	4.2	N	BH04	1	1		1-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			2			
M	<173.6	0.1	N			3			
M	<173.6	0.0	N	BH04A	4	4			
						TD		Total Depth @ 4' bgs.	


						Sample Name: BH05		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066343, -103.624402						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	1,002	6.1	N	BH05	1	0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1			
M	<173.6	0.0	N			2			
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH05A	4	4		Total Depth @ 4' bgs.	
						TD			

						Sample Name: BH06		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066337, -103.624507						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	1,271	7.3	N	BH06	1	0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1		1-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	241	0.1	N			2			
M	280	0.0	N	BH06A	4	3			
						4			
						TD		Total Depth @ 4' bgs.	

						Sample Name: BH07		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066369, -103.624497						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	<173.6	5.0	N	BH07	1	0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1			
M	<173.6	0.2	N			2		2-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH07A	4	4			
						TD		Total Depth @ 4' bgs.	

						Sample Name: BH08		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066298, -103.624329						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	459	1.5	N	BH08	1	0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1			
M	<173.6	0.3	N			2		2-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.4	N	BH08A	4	3			
M	<173.6	0.4	N			4			
						TD		Total Depth @ 4' bgs.	

						Sample Name: BH09		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066205, -103.624452						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	1.5	N	BH09	1	1		1-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			2			
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH09A	4	4			
						TD		Total Depth @ 4' bgs.	

						Sample Name: BH10		Date: 9/13/2023	
						Site Name: Mesa 8105 JV-P 013H			
						Incident Number: nCH1835547953			
						Job Number: 03C2012044			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: MR		Method: Mini Excavator	
Coordinates: 32.066302, -103.624647						Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% error factor is included in all chloride screenings.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
M	<173.6	1.0	N	BH10	1	0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.	
M	<173.6	0.0	N			1			
M	<173.6	0.0	N			2			
M	<173.6	0.0	N			3			
M	<173.6	0.0	N	BH10A	4	4		Total Depth @ 4' bgs.	
						TD			



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

August 10, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 8105 JV-P 013H

Enclosed are the results of analyses for samples received by the laboratory on 08/04/23 13:15.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 01 1' (H234166-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 78.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 02 1' (H234166-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/08/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 61.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 03 1' (H234166-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/08/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 67.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 04 1' (H234166-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/08/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	135	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	52.6	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 73.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 05 1' (H234166-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	35.9	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 76.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.0 % 49.1-148

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Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 06 1' (H234166-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEX	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	08/08/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 07 1' (H234166-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/08/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane 84.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 08 1' (H234166-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	08/08/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 09 1' (H234166-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/08/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/04/2023
Reported: 08/10/2023
Project Name: MESA 8105 JV-P 013H
Project Number: 03C2012044
Project Location: BTA 32.066073425,-103.624070083

Sampling Date: 08/04/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BH 10 1' (H234166-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03		
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61		
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77		
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20		
Total BTEx	<0.300	0.300	08/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/08/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

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

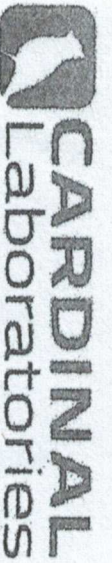
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST					
Project Manager: Hadlie Green		Company: BTA 01							
Address: 3122 National Parks Hwy		Attn: KATHY BROWN							
City: CARLSBAD		Address: 1045 PECOS ST							
State: NM Zip: 88220		City: MIDLAND							
Phone #: 532-557-8888 Fax #:		State: TX Zip: 79701							
Project #: 03C20120		Phone #:							
Project Name: MESA 8125 SV-1 013H		Fax #:							
Project Location: 32.06607 34205-103.62907083									
Sample Name: Weedith Roberts / See Tab Weelona									
FOR LAB USE ONLY									
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	Chlorides	BTex	TPH
1	BH01	2'	G	1	8/23/23	9:45			
2	BH02	2'	G	1	8/23/23	9:50			
3	BH03	2'	G	1	8/23/23	9:55			
4	BH04	2'	G	1	8/23/23	10:00			
5	BH05	2'	G	1	8/23/23	10:05			
6	BH06	2'	G	1	8/23/23	10:10			
7	BH07	2'	G	1	8/23/23	10:15			
8	BH08	2'	G	1	8/23/23	10:20			
9	BH09	2'	G	1	8/23/23	10:25			
10	BH10	2'	G	1	8/23/23	10:30			
Relinquished By: [Signature]		Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:			
Relinquished Date: 8/23/23		Received Date: 8/23/23		All Results are emailed. Please provide Email address:		HGreen@ensolum.com			
Delivered By: (Circle One)		Observed Temp. °C: 41		Sample Condition		CHECKED BY: (Initials)			
Sampler - UPS - Bus - Other:		Corrected Temp. °C:		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Thermometer ID #49-446			
				No <input type="checkbox"/> Yes <input type="checkbox"/>		Correction Factor: -0.5°C			
				No <input type="checkbox"/> Yes <input type="checkbox"/>		Bacteria (only) Sample Condition			
				No <input type="checkbox"/> Yes <input type="checkbox"/>		Observed Temp. °C			
				No <input type="checkbox"/> Yes <input type="checkbox"/>		Corrected Temp. °C			
REMARKS: Incident #1: M Roberts @ ensolum.com									
NC H 183654 79153									

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalhsnm.com



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

September 15, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 8105 JV-P 013H

Enclosed are the results of analyses for samples received by the laboratory on 09/14/23 8:13.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 01 A 4' (H234960-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	13.7	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 02 A 4' (H234960-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTX	<0.300	0.300	09/14/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	512	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	148	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 03 A 4' (H234960-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 04 A 4' (H234960-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEX	<0.300	0.300	09/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	10.5	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	756	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	153	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 05 A 4' (H234960-05)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	18.6	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	18.2	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 06 A 4' (H234960-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	GC-NC	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEx	<0.300	0.300	09/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	389	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	81.5	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 07 A 4' (H234960-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEx	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 08 A 4' (H234960-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 09 A 4' (H234960-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 10 A 4' (H234960-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05		
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84		
Total BTEX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/14/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.6 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

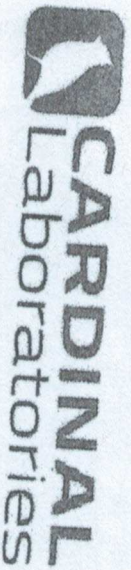
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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476
Company Name: Ensolum, LLC

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Project Manager: Heddie Green		P.O. #:		BILL TO		ANALYSIS REQUEST	
Address: 3122 Nat'l Parks Hwy		City: Carlsbad		State: NM Zip: 88220		Company: BTA Oil	
Phone #: 432-557-8895		Fax #: 432-557-8895		Attn: Keith Beal		Address: 104 S Pecos St	
Project #: 03C2012044		Project Owner: Mesa 8105 JV-P 0134		City: Midland		State: TX Zip: 79701	
Project Location: 32.06584, -103.62410		Sampler Name: Meredith Roberts		Phone #:		Fax #:	
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		Depth (feet)	
H334960		1		BH01A		4'	
2		BH02A		3		BH03A	
3		BH04A		4		BH05A	
4		BH06A		5		BH07A	
5		BH08A		6		BH09A	
6		BH10A		7		BH11A	
7		BH12A		8		BH13A	
8		BH14A		9		BH15A	
9		BH16A		10		BH17A	
10		BH18A		11		BH19A	
11		BH20A		12		BH21A	
12		BH22A		13		BH23A	
13		BH24A		14		BH25A	
14		BH26A		15		BH27A	
15		BH28A		16		BH29A	
16		BH30A		17		BH31A	
17		BH32A		18		BH33A	
18		BH34A		19		BH35A	
19		BH36A		20		BH37A	
20		BH38A		21		BH39A	
21		BH40A		22		BH41A	
22		BH42A		23		BH43A	
23		BH44A		24		BH45A	
24		BH46A		25		BH47A	
25		BH48A		26		BH49A	
26		BH50A		27		BH51A	
27		BH52A		28		BH53A	
28		BH54A		29		BH55A	
29		BH56A		30		BH57A	
30		BH58A		31		BH59A	
31		BH60A		32		BH61A	
32		BH62A		33		BH63A	
33		BH64A		34		BH65A	
34		BH66A		35		BH67A	
35		BH68A		36		BH69A	
36		BH70A		37		BH71A	
37		BH72A		38		BH73A	
38		BH74A		39		BH75A	
39		BH76A		40		BH77A	
40		BH78A		41		BH79A	
41		BH80A		42		BH81A	
42		BH82A		43		BH83A	
43		BH84A		44		BH85A	
44		BH86A		45		BH87A	
45		BH88A		46		BH89A	
46		BH90A		47		BH91A	
47		BH92A		48		BH93A	
48		BH94A		49		BH95A	
49		BH96A		50		BH97A	
50		BH98A		51		BH99A	
51		BH100A		52		BH101A	
52		BH102A		53		BH103A	
53		BH104A		54		BH105A	
54		BH106A		55		BH107A	
55		BH108A		56		BH109A	
56		BH110A		57		BH111A	
57		BH112A		58		BH113A	
58		BH114A		59		BH115A	
59		BH116A		60		BH117A	
60		BH118A		61		BH119A	
61		BH120A		62		BH121A	
62		BH122A		63		BH123A	
63		BH124A		64		BH125A	
64		BH126A		65		BH127A	
65		BH128A		66		BH129A	
66		BH130A		67		BH131A	
67		BH132A		68		BH133A	
68		BH134A		69		BH135A	
69		BH136A		70		BH137A	
70		BH138A		71		BH139A	
71		BH140A		72		BH141A	
72		BH142A		73		BH143A	
73		BH144A		74		BH145A	
74		BH146A		75		BH147A	
75		BH148A		76		BH149A	
76		BH150A		77		BH151A	
77		BH152A		78		BH153A	
78		BH154A		79		BH155A	
79		BH156A		80		BH157A	
80		BH158A		81		BH159A	
81		BH160A		82		BH161A	
82		BH162A		83		BH163A	
83		BH164A		84		BH165A	
84		BH166A		85		BH167A	
85		BH168A		86		BH169A	
86		BH170A		87		BH171A	
87		BH172A		88		BH173A	
88		BH174A		89		BH175A	
89		BH176A		90		BH177A	
90		BH178A		91		BH179A	
91		BH180A		92		BH181A	
92		BH182A		93		BH183A	
93		BH184A		94		BH185A	
94		BH186A		95		BH187A	
95		BH188A		96		BH189A	
96		BH190A		97		BH191A	
97		BH192A		98		BH193A	
98		BH194A		99		BH195A	
99		BH196A		100		BH197A	
100		BH198A		101		BH199A	
101		BH200A		102		BH201A	
102		BH202A		103		BH203A	
103		BH204A		104		BH205A	
104		BH206A		105		BH207A	
105		BH208A		106		BH209A	
106		BH210A		107		BH211A	
107		BH212A		108		BH213A	
108		BH214A		109		BH215A	
109		BH216A		110		BH217A	
110		BH218A		111		BH219A	
111		BH220A		112		BH221A	
112		BH222A		113		BH223A	
113		BH224A		114		BH225A	
114		BH226A		115		BH227A	
115		BH228A		116		BH229A	
116		BH230A		117		BH231A	
117		BH232A		118		BH233A	
118		BH234A		119		BH235A	
119		BH236A		120		BH237A	
120		BH238A		121		BH239A	
121		BH240A		122		BH241A	
122		BH242A		123		BH243A	
123		BH244A		124		BH245A	
124		BH246A		125		BH247A	
125		BH248A		126		BH249A	
126		BH250A		127		BH251A	
127		BH252A		128		BH253A	
128		BH254A		129		BH255A	
129		BH256A		130		BH257A	
130		BH258A		131		BH259A	
131		BH260A		132		BH261A	
132		BH262A		133		BH263A	
133		BH264A		134		BH265A	
134		BH266A		135		BH267A	
135		BH268A		136		BH269A	
136		BH270A		137		BH271A	
137		BH272A		138		BH273A	
138		BH274A		139		BH275A	
139		BH276A		140		BH277A	
140		BH278A		141		BH279A	
141		BH280A		142		BH281A	
142		BH282A		143		BH283A	
143		BH284A		144		BH285A	
144		BH286A		145		BH287A	
145		BH288A		146		BH289A	
146		BH290A		147		BH291A	
147		BH292A		148		BH293A	
148		BH294A		149		BH295A	
149		BH296A		150		BH297A	
150		BH298A		151		BH299A	
151		BH300A		152		BH301A	
152		BH302A		153		BH303A	
153		BH304A		154		BH305A	
154		BH306A		155		BH307A	
155		BH308A		156		BH309A	
156		BH310A		157		BH311A	
157		BH312A		158		BH313A	
158		BH314A		159		BH315A	
159		BH316A		160		BH317A	
160		BH318A		161		BH319A	
161		BH320A		162		BH321A	
162		BH322A		163		BH323A	
163		BH324A		164		BH325A	
164		BH326A		165		BH327A	
165		BH328A		166		BH329A	
166		BH330A		167		BH331A	
167		BH332A		168		BH333A	
168		BH334A		169		BH335A	
169		BH336A		170		BH337A	
170		BH338A		171		BH339A	
171		BH340A		172		BH341A	
172		BH342A		173		BH343A	
173		BH344A		174		BH345A	
174		BH346A		175		BH347A	
175		BH348A		176		BH349A	
176		BH350A		177		BH351A	
177		BH352A		178		BH353A	
178		BH354A		179		BH355A	
179		BH356A		180		BH357A	
180		BH358A		181		BH359A	
181		BH360A		182		BH361A	
182		BH362A		183		BH363A	
183		BH364A		184		BH365A	
184		BH366A		185		BH367A	
185		BH368A		186		BH369A	
186		BH370A		187		BH371A	
187		BH372A		188		BH373A	
188		BH374A		189		BH375A	
189		BH376A		190		BH377A	
190		BH378A		191		BH379A	
191		BH380A		192		BH381A	
192		BH382A		193		BH383A	
193		BH384A		194		BH385A	
194		BH386A		195		BH387A	
195		BH388A		196		BH389A	
196		BH390A		197		BH391A	
197		BH392A		198		BH393A	
198		BH394A		199		BH395A	
199		BH396A		200		BH397A	
200		BH398A		201		BH399A	
201		BH400A		202		BH401A	
2							



APPENDIX E

NMOCD Notifications

From: [Wells, Shelly, EMNRD](#)
To: [Hadlie Green](#)
Cc: [Bratcher, Michael, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 07/31/2023
Date: Thursday, July 27, 2023 2:30:30 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

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

[**EXTERNAL EMAIL**]

Hi 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 | Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, July 27, 2023 1:22 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kelton Beaird <KBeaird@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 07/31/2023

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 location the week of July 31, 2023.

- Mesa 8105 JV-P 013H / NCH1835547953
 - Sampling Date: 8/3-4/2023 @ 9:00 AM MST

Thank you,



Hadlie Green

Project Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC





APPENDIX F

Final C-141s

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	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.0660734285 Longitude 103.624070083
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mesa 8105 JV-P 013H (compressor)	Site Type well pad
Date Release Discovered 11/24/2018	API# (if applicable) 30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 10	Volume Recovered (bbls) 5
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Malfunction on compressor caused slop tank to overflow.

Form C-141

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Yes 19.15.29.7 (A) defines 25 BBL or more a major release
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Ben Grimes</u>	Title: <u>Production Manager</u>
Signature: <u>Ben Grimes</u>	Date: <u>11/26/2018</u>
email: <u>BGrimes@PTAOIL.com</u>	Telephone: <u>432-682-3753</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird Title: Environmental ManagerSignature:  Date: 9/20/2023email: kbeaird@btaoil.com Telephone: 432-312-2203**OCD Only**

Received by: _____ Date: _____

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Kelton Beaird Title: Environmental Manager
Signature:  Date: 9/20/2023
email: kbeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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	NAB1906552791
District RP	1RP-5383
Facility ID	
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) NAB1906552791
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/8/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private ()

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Due to an equipment failure on the compressor, oil was pushed over to the slop tank, which overflowed. The oil was recovered with a vacuum truck.



State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Bob Hall Title: Environmental Manager	
Signature: 	Date: 2/22/2018
email: bhall@btaoil.com Telephone: 432-682-3753	
<u>OCD Only</u>	
Received by: 	Date: 3/06/2019

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird Title: Environmental ManagerSignature:  Date: 9/20/2023email: kbeaird@btaoil.com Telephone: 432-312-2203**OCD Only**

Received by: _____ Date: _____

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Kelton Beaird Title: Environmental Manager
Signature:  Date: 9/20/2023
email: kbeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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	NAB1906551740
District RP	1RP-5383
Facility ID	
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) NAB1906551740
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/9/2019	API# (if applicable) Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private ()

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release



The same equipment failure on the compressor, as occurred as a separate event and reported for 2/8/2019, pushed oil over to the slop tank and caused the tank to overflow. The oil was recovered with a vacuum truck.

Incident ID	NAB1906551740
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Facility ID	
Application ID	pAB1906551401

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Bob Hall Title: Environmental Manager	
Signature: 	Date: 2/22/2018
email: bhall@btaoil.com	Telephone: 432-682-3753
<u>OCD Only</u>	
Received by: 	Date: 3/6/2019

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Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

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Printed Name: Kelton Beaird Title: Environmental Manager

Signature:  Date: 9/20/2023

email: kbeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1906551740
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Closure

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

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

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

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

Printed Name: Kelton Beard Title: Environmental Manager
Signature:  Date: 9/20/2023
email: kbeard@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Nelson Velez Date: 01/18/2024
Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 266757

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 266757
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.	1/18/2024