



October 30, 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: Closure Request
Mesa 30 31 Tank Battery
Incident Number NAPP2106930621
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 assessment, excavation, and soil sampling activities performed at the Mesa 30 31 Tank Battery (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a historical crude oil release at the Site. Based on field observations, excavation activities, and soil sample laboratory analytical results, BTA is submitting this *Closure Request*, requesting no further action for Incident Number NAPP2106930621.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit A, Section 1, Township 26 South, Range 32 East, in Lea County, New Mexico (32.07841°, -103.63152°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On February 11, 2021, freezing temperatures froze the supply gas regulator, which resulted in failure of the dump valve and pressure build up in the separator. The pressure relief valve on the separator popped off and crude oil sprayed onto the surface of the well pad and adjacent lease road. Approximately 25 barrels (bbls) of crude oil were released. Due to the low temperature, the crude oil solidified on the ground surface and a backhoe was used to immediately scrape up the crude oil and impacted surface soil. Approximately 48 cubic yards of impacted soil was removed for disposal, and approximately 25 bbls of the released crude oil was recovered. BTA immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email and submitted a Release Notification Form C-141 (Form C-141) on February 12, 2021. The release was assigned Incident Number NAPP2106930621.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be between 51 and 100 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-POD1, located

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approximately 1.1 miles south of the Site. The well was drilled during October 2020 to a total depth of 55 feet bgs and no groundwater was encountered. All wells used for depth to groundwater determination are presented on Figure 1. The associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse is greater than 300 feet from 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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On May 3, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141, the documented release extent, and visual observations. Seven assessment soil samples (SS01 through SS07) were collected within and around the documented release extent at a depth of approximately 0.25 feet bgs, to assess for the presence or absence of impacted soil associated with the historical release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included as Appendix B.

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

Laboratory analytical results for assessment soil samples SS02 and SS03, collected within the release extent, and SS04 through SS07, collected around the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results for assessment soil sample SS01, collected within the release extent, indicated chloride concentrations exceeded the reclamation requirement. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix C. Based on the laboratory analytical results, additional assessment activities were warranted.

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DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On June 28, 2023, Ensolum personnel returned to the Site to complete additional assessment activities within the historical release extent. Boreholes were advanced via hand auger at the location of assessment samples SS02 and SS03 to further confirm the absence of impacted soil. The boreholes were advanced to a depth of 1-foot bgs. Soil from the boreholes was field screened for VOCs and chloride. Based on the absence of elevated field screening results, discrete delineation soil samples SS02A and SS03A were collected from the boreholes at a depth of 1-foot bgs. The delineation soil samples were collected, handled, and analyzed following the same procedures previously described. The delineation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

Laboratory analytical results for delineation soil samples SS02A and SS03A indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and further confirmed the absence of impacted soil in the areas around assessment samples SS02 and SS03. Based on laboratory analytical results for the assessment and delineation soil samples, excavation activities were warranted in the area around assessment soil sample SS01. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix C.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On October 13, 2023, Ensolum personnel oversaw excavation of impacted soil from the release area as indicated by laboratory analytical results for assessment sample SS01. Excavation activities were performed via backhoe to a depth of 1-foot bgs. To direct excavation activities, soil was field screened for VOCs and chloride as previously described. Photographic documentation is included in Appendix B.

Following removal of impacted soil, one 5-point composite soil sample was collected from the floor of the 174 square foot excavation. The 5-point composite soil sample was collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample FS01 was collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, soil from the excavation sidewalls was included in the floor sample. The excavation soil sample was handled and analyzed as previously described. The excavation extent and excavation soil sample location were mapped utilizing a handheld GPS unit and are depicted on Figure 3.

Laboratory analytical results for excavation floor sample FS01 indicated all COC concentrations were compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The aerial footprint of the excavation measured approximately 174 square feet. A total of approximately 7 cubic yards of soil were removed during excavation activities. The impacted soil was transported and properly disposed of at the Northern Delaware Basin Landfill in Jal, New Mexico.

CLOSURE REQUEST

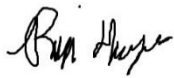
Site assessment and excavation activities were conducted at the Site to address the impacted soil resulting from the February 11, 2021, release of crude oil. Laboratory analytical results for the excavation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements. Additionally, the release was laterally and vertically delineated to the most stringent Table I Closure Criteria. Based on laboratory analytical results, the impacted soil was excavated, and no further remediation is required.

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Initial response efforts, excavation of impacted soil, and natural attenuation have mitigated impacts at this Site. Depth to groundwater is estimated to be between 51 and 100 feet bgs and no other sensitive receptors were identified near the release extent. BTA believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Number NAPP2106930621. Notifications submitted to the NMOCD are included in Appendix D and the final Form C-141 is included in Appendix E.

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

Sincerely,
Ensolum, LLC



Ronni Hayes
Assistant Geologist



Aimee Cole
Senior Managing Scientist

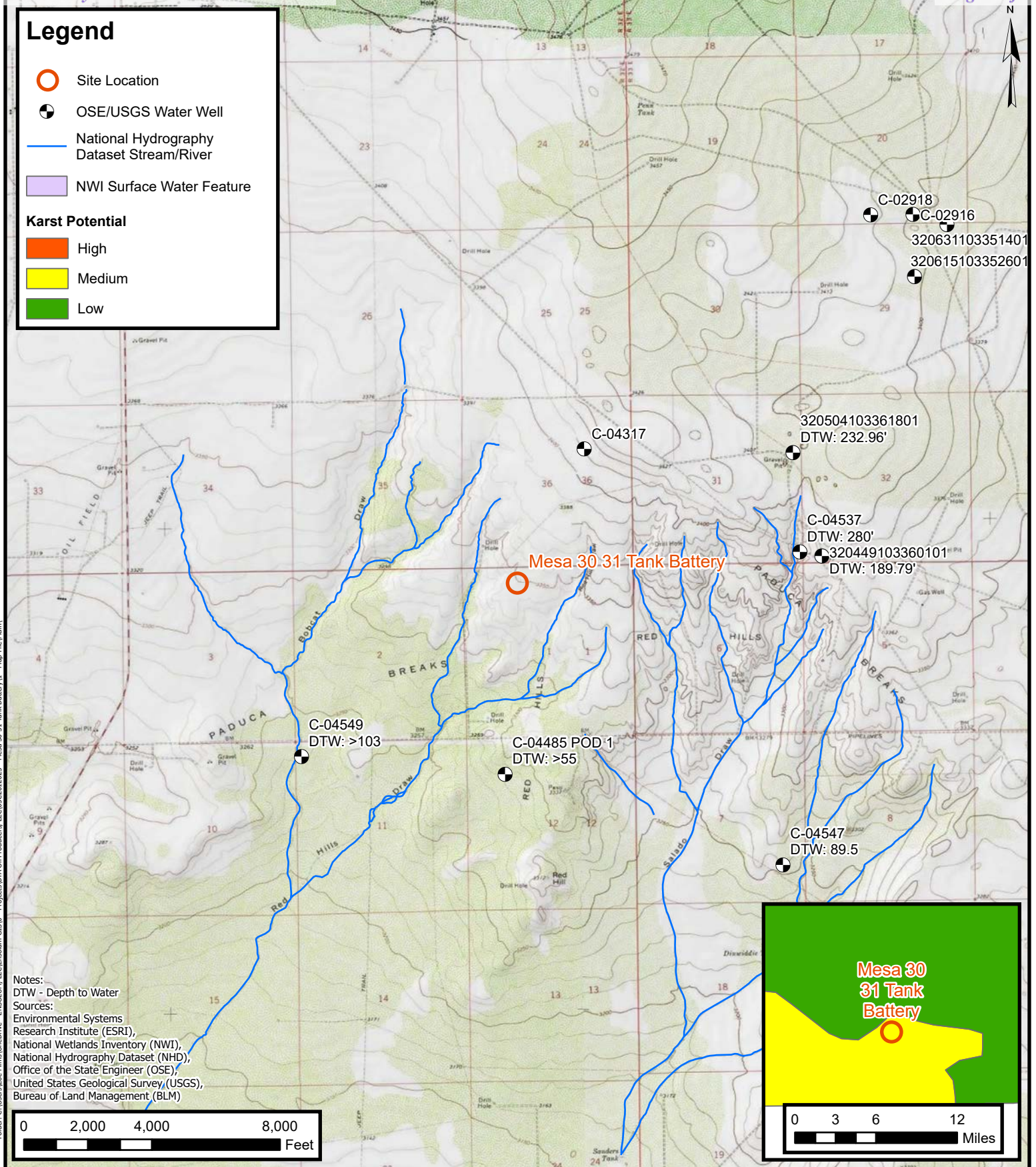
cc: Kelton Beaird, BTA
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Assessment Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications
Appendix E	Form C-141



FIGURES



Site Receptor Map

BTA Oil Producers, LLC
Mesa 30 31 Tank Battery
Incident Number: nAPP2106930621
Unit A, Sec 1, T26S, R32E
Lea County, New Mexico

FIGURE

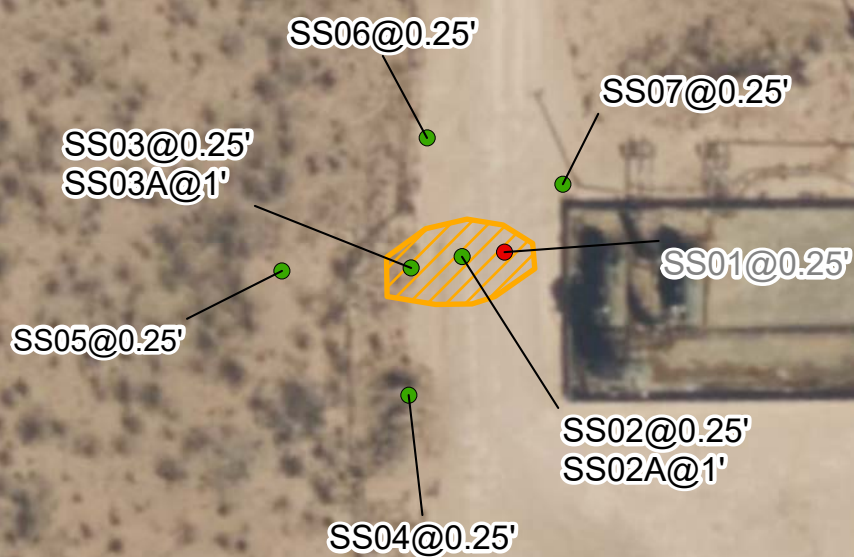
1

Legend

- Assessment Soil Samples in Compliance with Closure Criteria

- Assessment Soil Samples Exceeding Closure Criteria

 Release Extent



Notes:
 Sample ID @ Depth Below Ground Surface.
 Grey text indicate soil sample was removed during excavation activities.

0 12.5 25 50 75 100
 Feet

Sources: Environmental Systems Research Institute (ESRI)





Assessment Soil Sample Locations

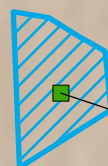
BTA Oil Producers, LLC
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 Unit A, Sec 1, T26S, R32E
 Lea County, New Mexico

FIGURE

2

Legend

-  Excavation Floor Soil Samples in Compliance with NMOCD Closure Criteria
-  Excavation Extent



FS01@1'

Notes:
Sample ID @ Depth Below Ground Surface.

0 5 10 20 30 40
Feet

Sources: Environmental Systems Research Institute (ESRI)

**Excavation Soil Sample Locations**

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Incident Number: nAPP2106930621
Unit A, Sec 1, T26S, R32E
Lea County, New Mexico

FIGURE**3**



TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Mesa 30 31 Tank Battery 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
Assessment Soil Samples										
SS01	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	704
SS02	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
SS02A	06/28/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS03	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS03A	06/28/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SS04	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS05	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SS06	05/03/2023	0.25	<0.050	<0.300	<10.0	15.0	<10.0	15.0	15.0	128
SS07	05/03/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
Excavation Soil Samples										
FS01	10/13/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0

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 requirements, where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Grey text indicates sample was excavated.



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		N			
	LONGITUDE		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	TRN NO. 693367
2N-33E-10	WELL TAG ID NO. 2N-33E-10
	PAGE 1 OF 2

603 AL-PLANEER OFFICE

Released to Imaging: 12/29/2023 3:28:00 PM



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
20E6C	C 04537 POD1	4	4	4	31	25S	33E	631847	3550243

x

Driller License: 1706 **Driller Company:** ELITE DRILLERS CORPORATION

Driller Name: WALLACE, BRYCE J.LEE.NER

Drill Start Date: 06/11/2021

Drill Finish Date: 06/12/2021

Plug Date:

Log File Date: 06/21/2021

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 5 GPM

Casing Size: 4.00

Depth Well: 500 feet

Depth Water: 280 feet

x

Water Bearing Stratifications:

Top	Bottom	Description
220	340	Sandstone/Gravel/Conglomerate

x

Casing Perforations:

Top	Bottom
300	500

x

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/4/23 11:41 AM

POINT OF DIVERSION SUMMARY



[USGS Home](#)
[Contact USGS](#)
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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater ▼

Geographic Area:

United States ▼

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for the Nation

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

Search Results -- 1 sites found

site_no list =

- 320504103361801

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320504103361801 25S.33E.31.24232

Available data for this site

Groundwater: Field measurements ▼

GO

Lea County, New Mexico

Hydrologic Unit Code 13070001

Latitude 32°05'21.6", Longitude 103°36'12.7" NAD83

Land-surface elevation 3,403.00 feet above NGVD29

The depth of the well is 320 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

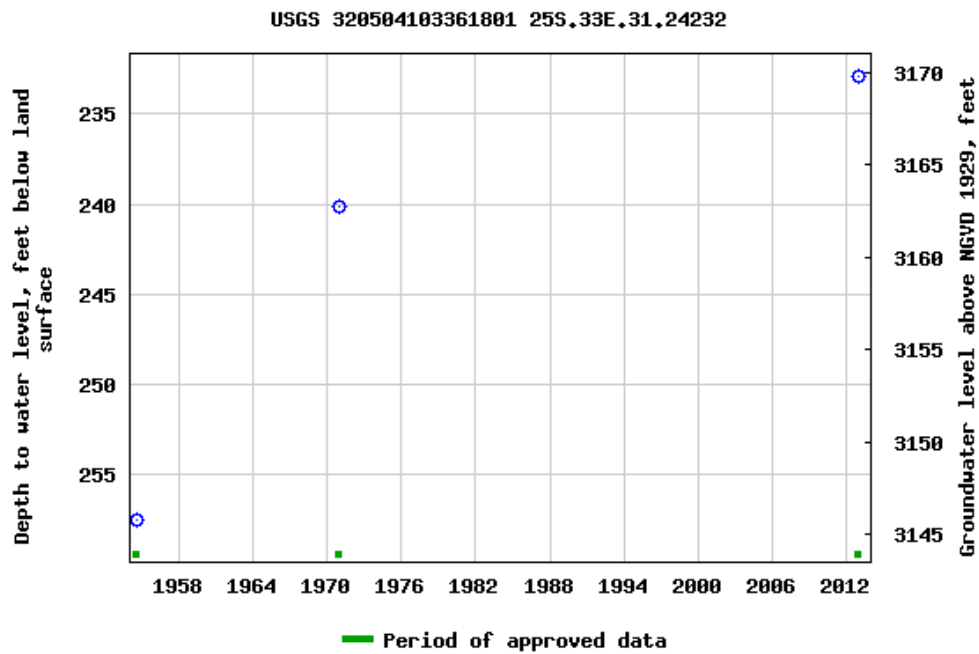
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2023-10-20 15:39:01 EDT

0.58 0.49 nadww02





APPENDIX B

Photographic Log

**Photographic Log**

BTA Oil Producers, LLC
Mesa 30 31 Tank Battery
nAPP2106930621



Photograph: 1 Date: 2/11/2021
Description: Soil staining in release footprint
View: Northeast

Photograph: 2 Date: 5/3/2023
Description: Release footprint
View: Northeast



Photograph: 3 Date: 10/13/2023
Description: Excavation activities
View: South

Photograph: 4 Date: 10/13/2023
Description: Post-excavation
View: Southeast



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



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

May 08, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 30-31 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/03/23 14:35.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 04 0.25' (H232193-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2023	ND	2.07	104	2.00	1.59	
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.29	
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	2.15	107	2.00	5.60	
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.27	105	6.00	6.21	
Total BTX	<0.300	0.300	05/06/2023	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	80.0	16.0	05/04/2023	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	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 57.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 05 0.25' (H232193-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2023	ND	2.07	104	2.00	1.59	
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.29	
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	2.15	107	2.00	5.60	
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.27	105	6.00	6.21	
Total BTEX	<0.300	0.300	05/06/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/04/2023	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	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 52.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 56.4 % 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: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 06 0.25' (H232193-03)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2023	ND	2.07	104	2.00	1.59	
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.29	
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	2.15	107	2.00	5.60	
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.27	105	6.00	6.21	
Total BTEX	<0.300	0.300	05/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	05/04/2023	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	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	15.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 66.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.5 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 07 0.25' (H232193-04)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	2.07	103	2.00	0.795		
Toluene*	<0.050	0.050	05/05/2023	ND	2.15	107	2.00	2.82		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.03	102	2.00	0.0957		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.36	106	6.00	1.77		
Total BTEx	<0.300	0.300	05/05/2023	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	32.0	16.0	05/04/2023	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	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 67.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC Project Manager: Hadley Green Address: 3122 National Parks Hwy City: Lovisbad State: NM Zip: 88220 Phone #: 4325548895 Fax #: Project #: 03C2012025 Project Owner: BTA OH Project Name: Mesa 30-31 Tank Battery Project Location: 32.0484/-103.63152 Sampler Name: Dmitry Nikanorov				P.O. #: Company: BTA OH Attn: Kevin Jones Address: 104 S Pecosa St City: Lordsburg State: NM Zip: 88701 Phone #: 4325123203 Fax #:																																																																																																																																																																																																																																																																																																																																																	
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<table border="1"> <thead> <tr> <th rowspan="2">Lab I.D.</th> <th rowspan="2">Sample I.D.</th> <th rowspan="2">Depth (feet)</th> <th rowspan="2">(G)RAB OR (C)OMP.</th> <th rowspan="2"># CONTAINERS</th> <th colspan="6">MATRIX</th> <th rowspan="2">DATE</th> <th rowspan="2">TIME</th> <th colspan="3">ANALYSIS REQUEST</th> </tr> <tr> <th>GROUNDWATER</th> <th>WASTEWATER</th> <th>SOIL</th> <th>OIL</th> <th>SLUDGE</th> <th>OTHER :</th> <th>ACID/BASE:</th> <th>ICE / COOL</th> <th>OTHER :</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>H232P3</td> <td>SS04</td> <td>0.15'</td> <td>G</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5/3/23</td> <td>11:00</td> <td>X</td> <td>BTEX</td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS05</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>11:10</td> <td>X</td> <td>TPH</td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS06</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>11:20</td> <td>X</td> <td>CHLORIDE</td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS07</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS08</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS09</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS13</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS16</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SS20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :				H232P3	SS04	0.15'	G	1								5/3/23	11:00	X	BTEX				SS05												11:10	X	TPH				SS06												11:20	X	CHLORIDE				SS07																		SS08																		SS09																		SS10																		SS11																		SS12																		SS13																		SS14																		SS15																		SS16																		SS17																		SS18																		SS19																		SS20																
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† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

May 08, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 30-31 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/03/23 14:35.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 01 0.25' (H232194-01)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/05/2023	ND	2.07	103	2.00	0.795	
Toluene*	<0.050	0.050	05/05/2023	ND	2.15	107	2.00	2.82	
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.03	102	2.00	0.0957	
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.36	106	6.00	1.77	
Total BTX	<0.300	0.300	05/05/2023	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	704	16.0	05/04/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	61.7	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	11.8	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 49.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 53.3 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 02 0.25' (H232194-02)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	2.07	103	2.00	0.795		
Toluene*	<0.050	0.050	05/05/2023	ND	2.15	107	2.00	2.82		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.03	102	2.00	0.0957		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.36	106	6.00	1.77		
Total BTEx	<0.300	0.300	05/05/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	05/04/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 70.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.2 % 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: 05/03/2023
Reported: 05/08/2023
Project Name: MESA 30-31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 05/03/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 03 0.25' (H232194-03)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	2.07	103	2.00	0.795		
Toluene*	<0.050	0.050	05/05/2023	ND	2.15	107	2.00	2.82		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.03	102	2.00	0.0957		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.36	106	6.00	1.77		
Total BTEx	<0.300	0.300	05/05/2023	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	05/04/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/04/2023	ND	182	90.8	200	1.44	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	174	87.0	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 71.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



Company Name: Ensolum, LLC

Page 6 of 6



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

October 19, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 30 31 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/13/23 11:55.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 10/13/2023
Reported: 10/19/2023
Project Name: MESA 30 31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 10/13/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Dionica Hinojos

Sample ID: FS 01 1' (H235602-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2023	ND	1.95	97.6	2.00	1.43	
Toluene*	<0.050	0.050	10/15/2023	ND	1.97	98.6	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/15/2023	ND	2.01	101	2.00	1.52	
Total Xylenes*	<0.150	0.150	10/15/2023	ND	6.03	101	6.00	1.74	
Total BTEX	<0.300	0.300	10/15/2023	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	64.0	16.0	10/16/2023	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2023	ND	198	99.2	200	0.491	
DRO >C10-C28*	<10.0	10.0	10/13/2023	ND	188	94.1	200	0.272	
EXT DRO >C28-C36	<10.0	10.0	10/13/2023	ND					

Surrogate: 1-Chlorooctane 59.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.5 % 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: 10/13/2023
Reported: 10/19/2023
Project Name: MESA 30 31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 10/13/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Dionica Hinojos

Sample ID: SS 02A 1' (H235602-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2023	ND	1.95	97.6	2.00	1.43	
Toluene*	<0.050	0.050	10/15/2023	ND	1.97	98.6	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/15/2023	ND	2.01	101	2.00	1.52	
Total Xylenes*	<0.150	0.150	10/15/2023	ND	6.03	101	6.00	1.74	
Total BTEX	<0.300	0.300	10/15/2023	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	96.0	16.0	10/16/2023	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2023	ND	198	99.2	200	0.491	
DRO >C10-C28*	<10.0	10.0	10/13/2023	ND	188	94.1	200	0.272	
EXT DRO >C28-C36	<10.0	10.0	10/13/2023	ND					

Surrogate: 1-Chlorooctane 76.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.6 % 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: 10/13/2023
Reported: 10/19/2023
Project Name: MESA 30 31 TANK BATTERY
Project Number: 03C2012025
Project Location: BTA 32.07841,-103.03152

Sampling Date: 10/13/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Dionica Hinojos

Sample ID: SS 03A 1' (H235602-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2023	ND	1.95	97.6	2.00	1.43	
Toluene*	<0.050	0.050	10/15/2023	ND	1.97	98.6	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/15/2023	ND	2.01	101	2.00	1.52	
Total Xylenes*	<0.150	0.150	10/15/2023	ND	6.03	101	6.00	1.74	
Total BTX	<0.300	0.300	10/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/16/2023	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2023	ND	198	99.2	200	0.491	
DRO >C10-C28*	<10.0	10.0	10/13/2023	ND	188	94.1	200	0.272	
EXT DRO >C28-C36	<10.0	10.0	10/13/2023	ND					

Surrogate: 1-Chlorooctane 74.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: <u>Eusolium, LLC</u>		P.O. #:	
Project Manager: <u>Hadlie Green</u>		Company: <u>BTA Oil</u>	
Address: <u>3122 National Bkgs Hwy</u>		Attn: <u>Kelton Beard</u>	
City: <u>Carlsbad</u>		Address: <u>104 S. Ross St</u>	
State: <u>NM</u> Zip: <u>88220</u>		City: <u>Midland</u>	
Phone #: <u>432 557 8895</u> Fax #: _____		State: <u>TX</u> Zip: <u>79701</u>	
Project #: <u>03C2012025</u> Project Owner: _____		Phone #: <u>432 372 2203</u>	
Project Name: <u>Mesa 3031 Tank Battery</u>		Fax #: _____	
Project Location: <u>32,07841, -103,63152</u>			
Sampler Name: <u>Pete Van Ratten</u>			

Lab I.D.	Sample I.D.	Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH	BTEX	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
	F501		C	1												
	5502A		C	1												
	5503A		C	1												

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Relinquished By: Pete Van Ratten Date: 10-13-23 Received By: Hadlie Green Date: 11-15

Delivered By: (Circle One) Observed Temp. °C 11.4°C Sample Condition: Intact CHECKED BY: (Initials) Hadlie Green

Sampler - UPS - Bus - Other: Corrected Temp. °C _____ Thermometer ID #140 Correction Factor 0°C _____ Bacteria (only) Sample Condition: Intact Observed Temp. °C _____ Corrected Temp. °C _____

REMARKS: order TB D.80c

Verbal Result: ☐ Yes ☒ No Add'l Phone #: _____

All Results are emailed. Please provide Email address: hgreen@eusolium.com

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



APPENDIX D

NMOCD Notifications

From: [Wells, Shelly, EMNRD](#)
To: [Hadlie Green](#); [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Cc: [Kelton Beaird](#); [Aimee Cole](#); [Tacoma Morrissey](#)
Subject: RE: [EXTERNAL] BTA - Sampling Notification - 10/13/2023
Date: Wednesday, October 11, 2023 11:41:12 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

[**EXTERNAL EMAIL**]

Hi Hadlie,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

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

From: Hadlie Green <hgreen@ensolum.com>
Sent: Wednesday, October 11, 2023 11:32 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kelton Beaird <KBeaird@btaoil.com>; Aimee Cole <acole@ensolum.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] BTA - Sampling Notification - 10/13/2023

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 on October 13, 2023.

- Mesa 30 31 Tank Battery / nAPP2106930621
 - Sampling Date: 10/13/2023 @ 9:00 AM MST

Thank you,



Hadlie Green

Project Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Hadlie Green](#)
Cc: [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/12/2023
Date: Friday, June 9, 2023 8:21:41 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

Hadlie,

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

JH

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



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

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

All,

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

- Chiso 14 State Jet Pump Excavation / nAPP2205837214
 - Sampling Date: 6/12-13/2023 @ 9:00 AM MST
- Chiso 14 State 8711 #003H Wellhead / nAB1917652490
 - Sampling Date: 6/14-15/2023 @ 9:00 AM MST
- Chiso 14 State 8711 Flowline / nRM2034960665
 - Sampling Date: 6/14-15/2023 @ 9:00 AM MST
- Mesa 30 31 Tank Battery / nAPP2106930621
 - Sampling Date: 6/14/2023 @ 9:00 AM MST
- Rojo 10-13/34-37 / nAPP2313055442
 - Sampling Date: 6/15-16/2023 @ 9:00 AM MST

Thank you,



Hadlie Green

Project Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Hadlie Green](#); [Bratcher, Michael, EMNRD](#)
Cc: [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/19/2023
Date: Friday, June 16, 2023 2:39:46 PM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

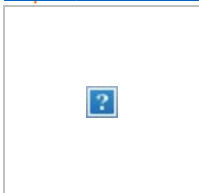
[**EXTERNAL EMAIL**]

Hadlie,

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

JH

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



From: Hadlie Green <hgreen@ensolum.com>
Sent: Friday, June 16, 2023 10:54 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Kelton Beaird <KBeaird@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 06/19/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of June 19, 2023.

- Mesa 30 31 Tank Battery / nAPP2106930621

- Sampling Date: 6/19/2023 @ 9:00 AM MST
- Mesa 8105 JVP #3 Produced Water Line / nRM2016045357
 - Sampling Date: 6/19-20/2023 @ 9:00 AM MST
- Mesa #16H Flowline / nAPP2123156473
 - Sampling Date: 6/21-22/2023 @ 9:00 AM MST
- Harroun Ranch #005 / nAPP2200455573
 - Sampling Date: 6/21/2023 @ 9:00 AM MST

Thank you,



Hadlie Green

Project Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Hadlie Green](#)
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/26/2023
Date: Wednesday, June 21, 2023 2:35:45 PM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

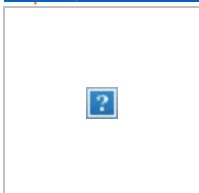
[**EXTERNAL EMAIL**]

Hadlie,

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

JH

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



From: Hadlie Green <hgreen@ensolum.com>
Sent: Wednesday, June 21, 2023 7:34 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kelton Beaird <KBeaird@btaoil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 06/26/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of June 26, 2023.

- Mesa 30 31 Tank Battery / nAPP2106930621
 - Sampling Date: 6/28/2023 @ 9:00 AM MST

Vacuum SWD H 35 Pipeline / nAPP2313058428

- Sampling Date: 6/28-29/2023 @ 9:00 AM MST

Thank you,



Hadlie Green

Project Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC





APPENDIX E

Form C-141

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	nAPP2106930621
District RP	
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)
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.07841° Longitude: -103.63152°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 30 31 Tank Battery	Site Type: Tank Battery
Date Release Discovered: 2/11/2021	API# (if applicable) Nearest well: Mesa 8105 JV-P #30H API #30-025-43724

Unit Letter	Section	Township	Range	County
A	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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 25 BBL	Volume Recovered (bbls) 25 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

Dump Valve Failure Causing Relief Valve to Pop-off.

The supply gas regulator froze, causing failure of the dump valve operation which allowed pressure to build up in the separator vessel. The relief valve popped off and sprayed crude oil from the separator and across the pad as shown. A backhoe was nearby and scraped up 48 yards of crude oil impacted soil that will be sent to proper disposal. Due to the low ambient temperature, the crude oil had solidified on top of the soil and soaking was minimal. Closure sampling will be conducted in the area of the release.

(See attached spill calculation spreadsheet.)

Form C-141


Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2106930621
District RP	
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? The spill volume was possibly greater than 25 BBL, which the NMOCD Rules define as a major release.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes. Notification is provided by email distribution of this C-141 Initial Response to NMOCD and BLM personnel overseeing the area on 2/12/2021.	

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: <u></u> Date: 2/12/2021 email: bhall@btaoil.com Telephone: 432-682-3753
<u>OCD Only</u> Received by: <u>Ramona Marcus</u> Date: <u>5/14/2021</u>

NAPP2106930621

Location Mesa 30 31 Tank Battery**API #****Spill Date** 2/11/2021**Spill Dimensions****ENTER** - Length of Spill feet**ENTER** - Width of Spill feet**ENTER** - Saturation Depth of Spill inches**ENTER** - Porosity Factor decimal**Oil Cut - Well Test / Vessel Throughput or Contents**

Oil

Water

Calculated Oil Cut

Volume Recovered in Truck / Containment**ENTER** - Recovered Oil BBL**ENTER** - Recovered Water BBL**Calculated Values**

Release of Oil in Soil - Unrecovered

calculated
 BBL

Release of Water in Soil - Unrecovered

 BBL

Unrecovered Total Release

 BBL**Calculated Values**

Total Release of Oil

calculated
 BBL

Total Release of Water

 BBL

Total Release

 BBL

Types of Soil	Porosity Factor
Gravel	0.25
Sand	0.20
Clay/silt/sand Mix	0.15
Clay	0.05
Caliche	0.03
Unknown	0.25

(Length X Width X Depth X 1 ft/12 in) X Porosity5.615 ft³ / BBL

X

Oil Cut
(or Water Cut)

Mesa 30 31 Tank Battery
February 11, 2021

NAPP2106930621



NAPP2106930621

Mesa 30 31 Tank Battery
February 11, 2021



Mesa 30 31 Tank Battery
February 11, 2021

NAPP2106930621



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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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 27338

CONDITIONS OF APPROVAL

Operator:				OGRID:	Action Number:	Action Type:
BTA OIL PRODUCERS, LLC	104 S Pecos	Midland, TX79701		260297	27338	C-141
OCD Reviewer	Condition					
marcus	None					

Incident ID	nAPP2106930621
District RP	
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>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas 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

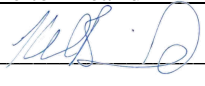
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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	nAPP2106930621
District RP	
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 Manager
Signature:  Date: 10/27/2023
email: KBeaird@btaoil Telephone: 432-312-2203

OCD Only

Received by: Shelly Wells Date: 10/31/2023

Incident ID	nAPP2106930621
District RP	
Facility ID	
Application ID	


Closure

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

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

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

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

Printed Name: Kelton Beaird Title: Environmental Manager
Signature:  Date: 10/27/2023
email: KBeaird@btaoil Telephone: 432-312-2203

OCD Only

Received by: Shelly Wells Date: 10/31/2023

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: Scott Rodgers Date: 12/29/2023
Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

District I
1625 N. French Dr., Hobbs, NM 88240
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1000 Rio Brazos Rd., Aztec, NM 87410
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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 280927

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 280927
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	12/29/2023