ENSOLUM

August 2, 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
Ogden 20509 32-29 Fed Com #5 & #6 Battery
Incident Number NRM2013250898
Eddy 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 and soil sampling activities performed at the Ogden 20509 32-29 Fed Com #5 & #6 Battery (Site). The purpose of the Site assessment and soil sampling activities was to assess the integrity of the lined containment and assess for the presence or absence of impacts to soil outside of the containment following a release of produced water within a lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, BTA is submitting this *Closure Request*, describing Site assessment and delineation activities that have occurred and requesting no further action and closure for Incident Number NRM2013250898.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 32, Township 23 South, Range 28 East, in Eddy County, New Mexico (32.26202°, -104.11765°) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On May 7, 2020, a transfer pump failed and resulted in the release of approximately 650 barrels (bbls) of produced water into the lined containment. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately all 650 bbls of produced water were recovered. BTA reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a *Release Notification Form C-141* (Form C-141) on May 11, 2020. The release was assigned Incident Number NRM2013250898.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized for 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 04037 POD 1, located approximately 0.3 miles Northwest of the Site. The groundwater well has a reported depth to groundwater of 60 feet bgs and a total depth of 99 feet bgs. Ground surface elevation at the groundwater

well location is 3,117 feet above mean sea level (amsl), which is approximately 3 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 2,373 feet southeast 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 underlain by unstable geology (high 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): 100 mg/kg
- Chloride: 600 mg/kg

CULTURAL RESOURCES SURVEY

Since the release remained on pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release.

SITE ASSESSMENT ACTIVITIES

A 48-hour advance notice of the liner inspection was provided via email on June 19, 2023, to the NMOCD. A liner integrity inspection was conducted by Ensolum personnel on June 22, 2023. Upon inspection, no rips, tears, holes, or damage was observed. The liner was determined to be sufficient and all released fluids have been removed.

In addition to evaluating the integrity of the lined containment, which was determined to not be compromised, four discrete delineation soil samples, SS01 through SS04, were collected at a depth of 0.5 feet bgs to confirm the lateral release extent did not extend outside/breach the containment. Delineation 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 delineation soil sample locations are depicted on Figure 2. Photographic documentation was conducted at the Site. A photographic log is included in Appendix B.

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

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS01 through SS04 indicated all COC concentrations were compliant with most stringent Table I Closure Criteria and successfully defined the lateral extent of the release and confirmed produced water did not breach the walls of the lined containment. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

RECLAMATION PLAN

The release remained on the well pad in the lined containment, which was not breached, that is currently in operation for oil and gas production purposes. As such, reclamation is not required as it relates to this release and reclamation of the full well pad will be completed when the the oil and gas well is plugged and abandoned (P&A'd). The Reclamation Plan for this release will default to the NMSLO-approved Reclamation Plan for the well pad per 19.2.100.67 NMAC.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to evaluate the integrity of the lined containment and assess for the presence or absence of impacted soil surrounding the lined containment resulting from the historical May 7, 2020, produced water release within the lined containment. A liner integrity inspection was conducted by Ensolum personnel on June 22, 2023. Upon inspection, no rips, tears, holes, or damage was observed, and the liner was determined to be sufficient. Laboratory analytical results for the delineation soil samples, collected around the lined containment, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. The release was contained laterally by the lined containment and the liner was performing as designed.

A cultural resources survey was not completed since the release occurred on pad, which was already cleared of any cultural resources. As such, the CPP has been followed for this release. In addition, there is no reclamation plan related to the release since the fluids were contained with the lined containment and recovered, and soil analytical data confirms impacted and waste-containing soil is not present as they relate to this release.

Based on initial response efforts, the liner operating as designed, and soil sample laboratory analytical results confirming the absence of impacted soil outside containment, BTA respectfully requests closure for Incident Number NRM2013250898. 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

Julianna Falcomata
Staff Geologist

Daniel R. Moir, PG
Senior Managing Geologist

cc: Kelton Beaird, BTA
Nathan Sirgo, BTA
New Mexico State Land Office

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation 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	Final C-141

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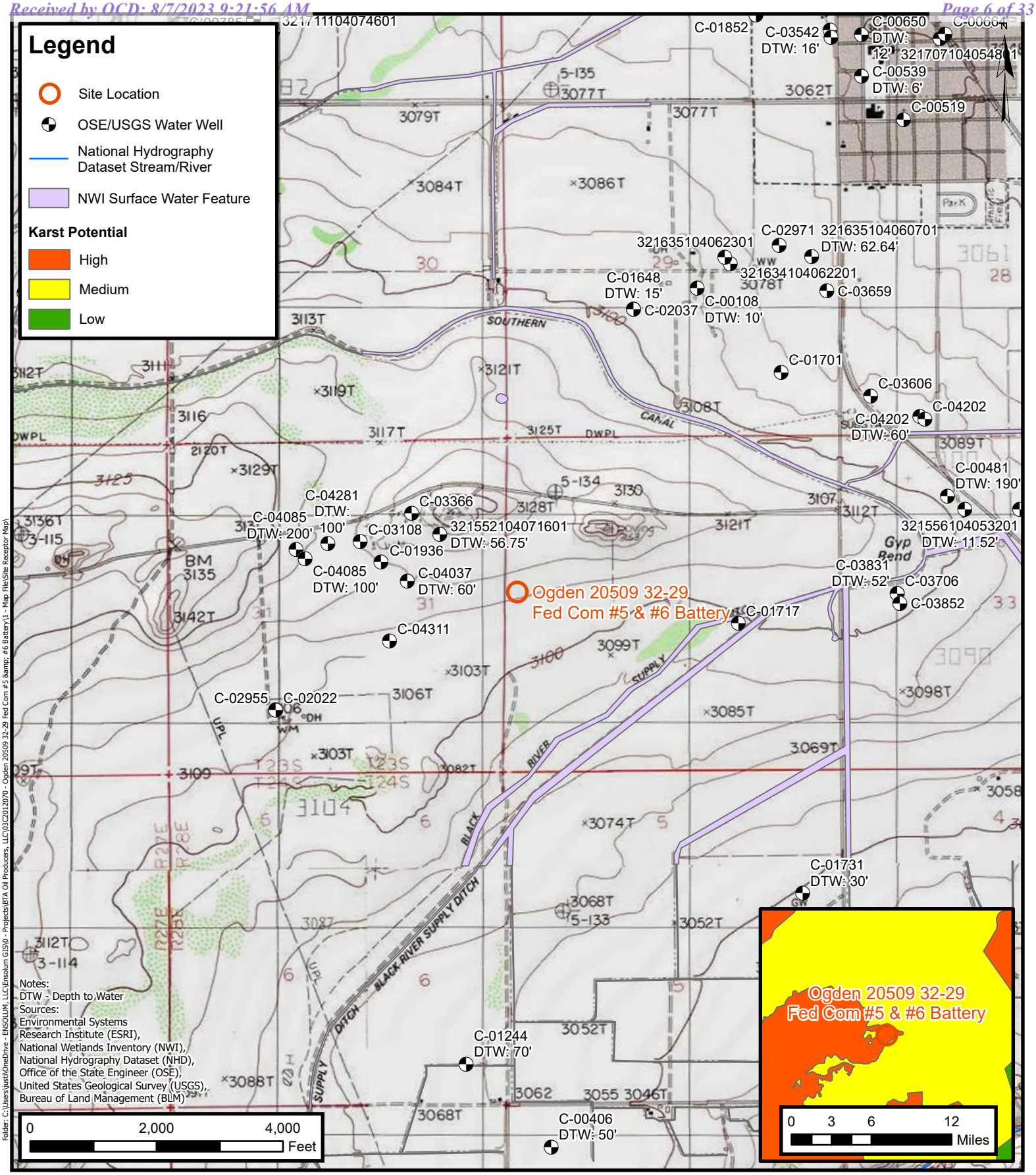
FIGURES



Folder: C:\Users\just\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012070 - Ogden 20509 32-29 Fed Com #5 & #6 Battery\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

BTA Oil Producers, LLC
Ogden 20509 32-29 Fed Com #5 & #6 Battery
Incident Number: NRM2013250898
Unit E, Sec 32, T23S, R28E
Eddy County, New Mexico

FIGURE 1

Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012070 - Ogden 20509 32-29 Fed Com #5 & #6 Battery\1 - Map File\Delineation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

BTA Oil Producers, LLC
Ogden 20509 32-29 Fed Com #5 & #6 Battery
Incident Number: NRM2013250898
Unit E, Sec 32, T23S, R28E
Eddy County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Ogden 20509 32-29 Fed Com #5 & #6 Battery
BTA Oil Producers, LLC
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Delineation Soil Samples										
SS01	06/22/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS02	06/22/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS03	06/22/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS04	06/22/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0

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

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APPENDIX A

Referenced Well Records

Click to hideNews 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

Agency code = usgs
site_no list =
- 321635104060701

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321635104060701 23S.28E.29.24333

Eddy County, New Mexico
Latitude 32°16'35", Longitude 104°06'07" NAD27
Land-surface elevation 3,075 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1954-11-02		D	62610		3000.71	NGVD29	1	Z		
1954-11-02		D	62611		3002.30	NAVD88	1	Z		
1954-11-02		D	72019	72.70			1	Z		
1978-01-04		D	62610		2999.32	NGVD29	1	Z		
1978-01-04		D	62611		3000.91	NAVD88	1	Z		
1978-01-04		D	72019	74.09			1	Z		
1983-01-26		D	62610		3021.69	NGVD29	1	Z		
1983-01-26		D	62611		3023.28	NAVD88	1	Z		
1983-01-26		D	72019	51.72			1	Z		
1988-02-11		D	62610		3027.87	NGVD29	1	Z		
1988-02-11		D	62611		3029.46	NAVD88	1	Z		
1988-02-11		D	72019	45.54			1	Z		
1993-02-03		D	62610		3028.11	NGVD29	1	S		
1993-02-03		D	62611		3029.70	NAVD88	1	S		
1993-02-03		D	72019	45.30			1	S		
1995-07-19		D	62610		3024.37	NGVD29	1	S		
1995-07-19		D	62611		3025.96	NAVD88	1	S		

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1995-07-19		D	72019	49.04			1	S		
1996-01-25		D	62610		3027.05	NGVD29	1	S		
1996-01-25		D	62611		3028.64	NAVD88	1	S		
1996-01-25		D	72019	46.36			1	S		
2003-01-29		D	62610		3010.77	NGVD29	1	S	USGS	
2003-01-29		D	62611		3012.36	NAVD88	1	S	USGS	
2003-01-29		D	72019	62.64			1	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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
	C 04037 POD1	4	3	2	31	23S	28E	582576	3569872

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name: TAYLOR, CLINTON E.

Drill Start Date: 07/17/2017 **Drill Finish Date:** 07/18/2017 **Plug Date:**

Log File Date: 08/28/2017 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 8 GPM

Casing Size: 4.50 **Depth Well:** 99 feet **Depth Water:** 60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	60	82	Shale/Mudstone/Siltstone
	82	99	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	59	99

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APPENDIX B

Photographic Log

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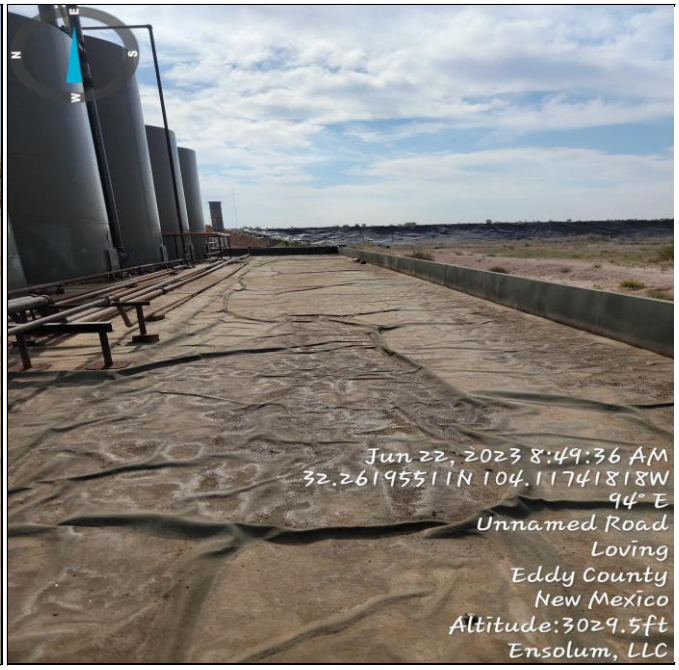
Photographic Log
BTA Oil Producers-LLC
Odgen 20509 32-29 Fed Com #5 & #6 Battery
NRM2013250898

Photograph 1 Date:6-22-23
Description: Well location sign facing south.

Photograph 2 Date:6-22-23
Description: View of lined containment deemed to be in good condition facing west

Photograph 3 Date:6-22-23
Description: View of lined containment deemed to be in good condition facing south.



Photograph 4 Date:6-22-23
Description: View of lined containment deemed to be in good condition facing east.

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

June 27, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ODGEN 20509 32-29 FED COM #5 & #6 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/23/23 9:29.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/23/2023	Sampling Date:	06/22/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	ODGEN 20509 32-29 FED COM #5 & #6	Sampling Condition:	Cool & Intact
Project Number:	03C2012070	Sample Received By:	Shalyn Rodriguez
Project Location:	32.26202,-104.11765		

Sample ID: SS 01 .5' (H233252-01)

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	06/24/2023	ND	2.32	116	2.00	9.06	
Toluene*	<0.050	0.050	06/24/2023	ND	2.25	113	2.00	8.28	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.19	109	2.00	7.07	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.59	110	6.00	6.62	
Total BTEX	<0.300	0.300	06/24/2023	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	<16.0	16.0	06/23/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	173	86.4	200	0.328	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	163	81.6	200	0.0809	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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:	06/23/2023	Sampling Date:	06/22/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	ODGEN 20509 32-29 FED COM #5 & #6	Sampling Condition:	Cool & Intact
Project Number:	03C2012070	Sample Received By:	Shalyn Rodriguez
Project Location:	32.26202,-104.11765		

Sample ID: SS 02 .5' (H233252-02)

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	06/24/2023	ND	2.32	116	2.00	9.06	
Toluene*	<0.050	0.050	06/24/2023	ND	2.25	113	2.00	8.28	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.19	109	2.00	7.07	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.59	110	6.00	6.62	
Total BTEX	<0.300	0.300	06/24/2023	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	<16.0	16.0	06/23/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	173	86.4	200	0.328	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	163	81.6	200	0.0809	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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:	06/23/2023	Sampling Date:	06/22/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	ODGEN 20509 32-29 FED COM #5 & #6	Sampling Condition:	Cool & Intact
Project Number:	03C2012070	Sample Received By:	Shalyn Rodriguez
Project Location:	32.26202,-104.11765		

Sample ID: SS 03 .5' (H233252-03)

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	06/24/2023	ND	2.32	116	2.00	9.06	
Toluene*	<0.050	0.050	06/24/2023	ND	2.25	113	2.00	8.28	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.19	109	2.00	7.07	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.59	110	6.00	6.62	
Total BTEX	<0.300	0.300	06/24/2023	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
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DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	163	81.6	200	0.0809	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane *113 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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:	06/23/2023	Sampling Date:	06/22/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	ODGEN 20509 32-29 FED COM #5 & #6	Sampling Condition:	Cool & Intact
Project Number:	03C2012070	Sample Received By:	Shalyn Rodriguez
Project Location:	32.26202,-104.11765		

Sample ID: SS 04 .5' (H233252-04)

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	06/24/2023	ND	2.32	116	2.00	9.06	
Toluene*	<0.050	0.050	06/24/2023	ND	2.25	113	2.00	8.28	
Ethylbenzene*	<0.050	0.050	06/24/2023	ND	2.19	109	2.00	7.07	
Total Xylenes*	<0.150	0.150	06/24/2023	ND	6.59	110	6.00	6.62	
Total BTEX	<0.300	0.300	06/24/2023	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/23/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	173	86.4	200	0.328	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	163	81.6	200	0.0809	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane *110 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

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

CARDINAL Laboratories

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:	Hadlie Green
Address:	3122 National Parks Hwy.
City:	Carlsbad State: NM Zip: 88220
Phone #:	432-557-8895 Fax #:
Project #:	03C2012070 Project Owner: BTA
Project Name:	Odgen 20509 32-29 Fed Com #533H Battery
Project Location:	32.26202, -104.11765
Sampler Name:	Julianna Falcomata

BILL TO

P.O. #:	
Company:	BTA Oil
Attn:	Kelton Beaird
Address:	104 S Pecos St.
City:	Midland
State:	TX Zip: 79701
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH	Chloride
H233252																		
1	SS01	.5'	C	1			X					X		6/22/23	0905	X	X	X
2	SS02	.5'	C	1			X					X		6/22/23	0910	X	X	X
3	SS03	.5'	C	1			X					X		6/22/23	0915	X	X	X
4	SS04	.5'	C	1			X					X		6/22/23	0920	X	X	X

Relinquished By:	Date: 6/23/23	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
	Time: 0805		All Results are emailed. Please provide Email address:
Relinquished By:	Date: 6/23/23	Received By:	hgreen@ensolum.com
	Time: 0929		REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 0.4 Corrected Temp. °C -0.2

Sample Condition: Cool ☐ Yes ☐ No Intact ☑ Yes ☐ No

CHECKED BY: (Initials) SR

Turnaround Time: Standard ☑ Rush ☐

Thermometer ID #113
Correction Factor -0.6°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.3 07/18/22

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

ENSOLUM

APPENDIX D

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Hadlie Green
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] BTA - Containment Inspection - Ogden 20509 32-29 Fed Com #5 &#6 (Incident Number nRM2013250898)
Date: Tuesday, June 20, 2023 1:18:19 PM
Attachments: image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Hadlie,

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**

From: Hadlie Green <hgreen@ensolum.com>
Sent: Monday, June 19, 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 - Containment Inspection - Ogden 20509 32-29 Fed Com #5 &#6 (Incident Number nRM2013250898)

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

To Whom It May Concern,

Below is an email notification for liner inspection at BTA Oil Producers, LLC (BTA) Ogden 20509 32-29 Fed Com #5 &#6 (Incident Number nRM2013250898) / Spill Date 5-7-2020. This is a notification that Ensolum is scheduled to inspect this lined containment on behalf of BTA on Thursday, June 22, 2023.

Please call with any questions or concerns.

GPS: 32.26202, -104.11765

Thank you,

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

ENSOLUM

APPENDIX E

Final 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	NRM2013250898
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: 32.26202° Longitude: -104.11765°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Ogden 20509 32-29 Fed Com #5 & #6 Battery	Site Type: Tank Battery
Date Release Discovered: 5/7/2020	API# *(if applicable)* Nearest well: Ogden 20509 32-29 Fed Com #5 API #30-015-44339

Unit Letter	Section	Township	Range	County
E	32	23S	28E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 650 BBL	Volume Recovered (bbls) 650 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A pipe nipple on the bottom of a filter canister mounted immediately before the transfer pump had failed, which allowed water to drain from the filter canister and into the containment. The volume was determined by the difference between the metered volume of the produced water sent through to be pumped by the transfer pump inside the battery and the volume shown by the gauges of the tanks that received water from the transfer pump. The entire release was contained inside of secondary containment for the tank battery built for the production equipment and tanks for the Ogden **20509 32-29** Fed Com **#5** and **#6** wells.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2013250898
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The spill volume was 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 was provided by an email sent 5/7/2020 to NMOCD and BLM personnel overseeing the area.	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 5/11/2020

email: bhall@btaoil.com Telephone: 432-682-3753

OCD Only

Received by: Ramona Marcus Date: 5/11/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2013250898
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?	51-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ 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
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2013250898
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: 08/3/2023

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

OCD Only

Received by: Shelly Wells Date: 8/7/2023

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2013250898
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: 08/03/2023

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

OCD Only

Received by: Shelly Wells Date: 8/7/2023

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: _____ Date: _____

Printed Name: _____ Title: _____

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 248796

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 248796
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	1/10/2024