



August 5, 2024

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
MCA Unit #146
Incident Number nAPP2321651067
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the MCA Unit #146 (Site). The purpose of the assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil and produced water at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number nAPP2321651067.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 27, Township 17 South, Range 32 East, in Lea County, New Mexico (32.8073564° N, -103.7518694° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On August 4, 2023, a flowline rupture resulted in the release of approximately 10 barrels (bbls) of produced water and 1 bbl of crude oil onto the surface of the well pad. No released fluids were recovered. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on August 23, 2023. The release was assigned Incident Number nAPP2321651067.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess 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 are summarized below and detailed in the NMOCD permitting portal Form C-141 Site Characterization section. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 60 feet below ground surface (bgs) based on the nearest groundwater well data. A borehole (BH-4) was drilled approximately 0.5 miles northeast of the Site on March 23, 2020. The borehole was drilled during remediation activities associated with Incident Number NJXK1621825385. The borehole was advanced to a depth of 60 bgs

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via air rotary drilling rig, and no groundwater was encountered. The boring log is included in Appendix A. The location of borehole BH-4 is presented on Figure 1.

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 (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- 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 was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Assessment activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven assessment soil samples (SS01 through SS06 and SS08) were collected around the visible release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the surface release. Four assessment soil samples (SS07 and SS09 through SS11) were collected within the release extent, to assess the surface soil within the release. The release extent and 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 in Appendix B.

The assessment 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 at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Cardinal Laboratories for analysis of the following constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 4500.

Laboratory analytical results for assessment soil samples SS01 through SS06 and SS08, collected around the release extent, indicated that all COC concentrations were compliant with the most stringent Table I Closure Criteria and confirmed the lateral extent of the surface release. Laboratory analytical results for assessment soil samples SS07 and SS09 through SS11, collected within the release extent, indicated that chloride and/or TPH concentrations exceeded the Site Closure Criteria. Laboratory analytical results are summarized on the attached Table 1. Based on visible staining in the release area and laboratory analytical results for the assessment soil samples, excavation activities were scheduled.

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EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

During June 2024, Ensolum personnel returned to the Site to oversee excavation of impacted soil. To direct excavation activities, soil was field screened for volatile aromatic hydrocarbons (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. Excavation activities were performed using a hydrovac, track-mounted backhoe, and transport vehicles. The excavation was completed to depths ranging from 4 feet to 6 feet bgs.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS22 were collected from the floor of the excavation from depths ranging from 4 feet to 6 feet bgs. Composite soil samples SW01 through SW07 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 6 feet bgs. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3.

Boreholes BH01 and BH02 were advanced within the open excavation to depths of 7 feet and 8 feet bgs, respectively. Soil from the boreholes was field screened for VOCs and chloride. Final depth of the boreholes was determined by field screening results indicating compliance with the most stringent Table I Closure Criteria. Soil samples were selected for laboratory analysis from depths ranging from 6 feet to 8 feet bgs. Borehole BH03 was advanced to a depth of 4 feet bgs west of pumpjack to delineate sidewall sample SW07 to below the most stringent Table I Closure Criteria. Soil from the borehole was field screened for VOCs and chloride. Based on the absence of elevated field screening results, samples were selected for laboratory analysis from depths of 1-foot and 3 feet bgs. Field screening results and observations for the boreholes were logged on lithologic soil sampling logs, which are included in Appendix C. The borehole locations are presented on Figure 2. The excavation and delineation soil samples were handled following the same procedures as described above and submitted to Cardinal Laboratories for analysis of BTEX, TPH, and chloride.

Laboratory analytical results for the excavation floor and sidewall samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements, where applicable. Laboratory analytical results for the delineation samples collected from boreholes BH01 through BH03 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix D.

The excavation measured approximately 4,400 square feet in areal extent. A total of approximately 1,250 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

RECLAMATION ACTIVITIES

Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation was backfilled. One representative 5-point composite sample (BF01) was collected from the backfill material. The backfill soil sample was handled and analyzed following the same procedures as described above. Laboratory analytical results for the backfill soil sample confirmed compliance with the NMOCDC requirement for the reclaimed area to contain non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and TPH concentrations less than 100 mg/kg. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical report is included as Appendix D.



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Following backfill activities, the well pad returned to active production activities and the disturbed pasture area was recontoured to match the surrounding topography. The disturbed pasture area was seeded with the BLM sandy sites seed mix #2 at the rate specified in pounds of pure live seed (PLS) per acre.

Species/Cultivar	PLS/Acre
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sand love grass (<i>Eragrostis trichodes</i>)	1.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

The seed mix was distributed with a broadcast seed spreader and raked in. Photographs of the reclaimed excavation area are provided in Appendix B.

The Site remains a active well pad; therefore, any soil remaining in place on the active well pad that is compliant with the Site Closure Criteria but exceeds reclamation requirements of NMAC 19.15.29.13.D (1) will be removed during plugging and abandonment of the well and final reclamation of the well pad.

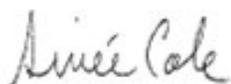
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the August 4, 2023, release of crude oil and produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements in the top four feet of the pasture area. Additionally, the release was laterally and vertically delineated to the most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation is required.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater was estimated to be greater than 60 feet bgs at the Site and no sensitive receptors were identified near the release extent. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident nAPP2321651067.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC



Aimee Cole
 Senior Managing Scientist

cc: Bryce Wagoner, Maverick Natural Resources, LLC

Appendices:

Figure 1 Site Receptor Map
 Figure 2 Assessment Soil Sample Locations
 Figure 3 Excavation Soil Sample Locations



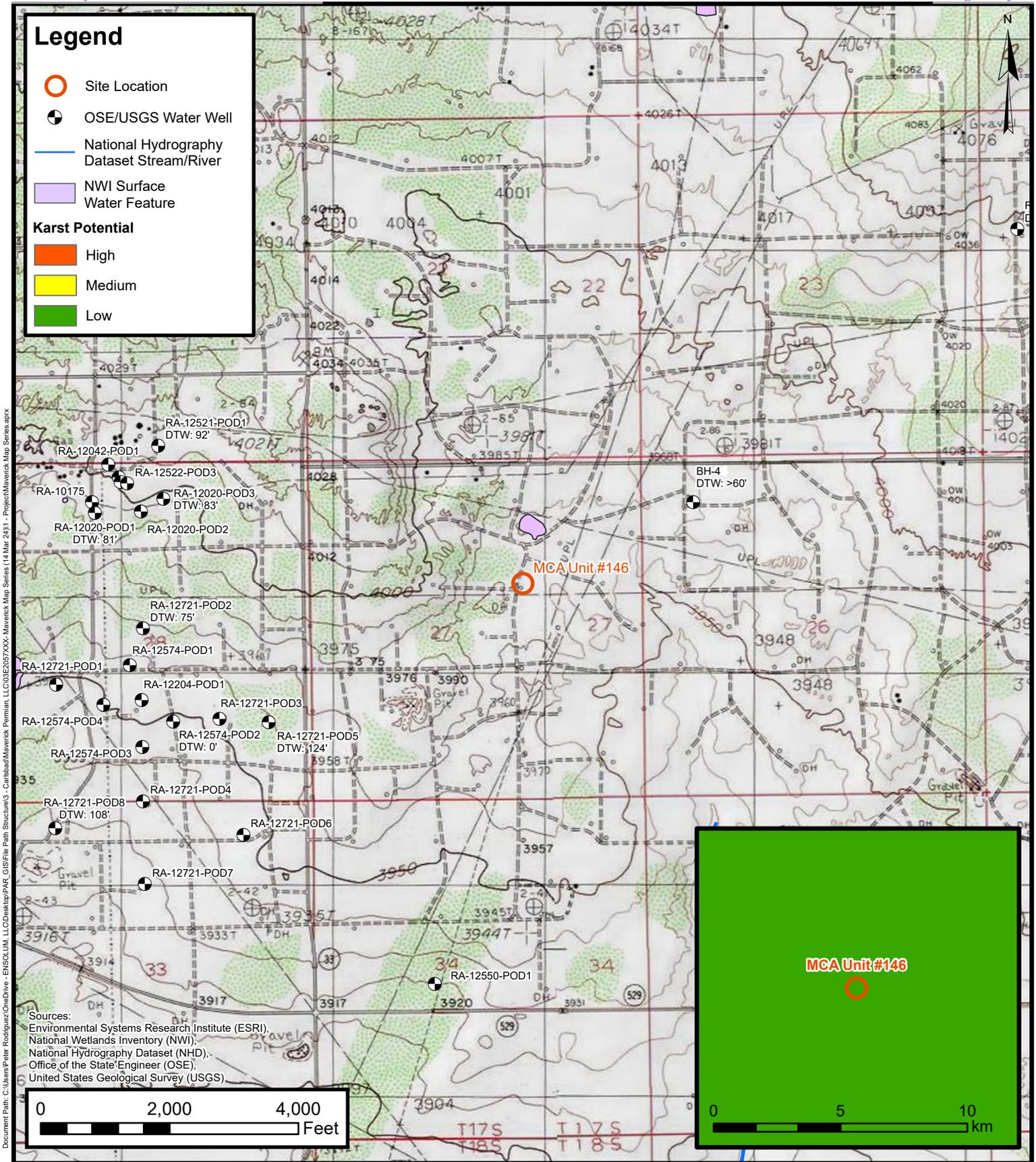
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Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain of Custody Documentation



FIGURES



Document Path: C:\Users\Peter.Rodriguez\OneDrive - ENSOLUM.LLC\Desktop\PAR_GIS\File Path Structure3 - Carlsbad\Maverick Permian.LLC\03E20670XX-Maverick Map Series (14 Mar 2011) - Project\Maverick Map Series.aprx

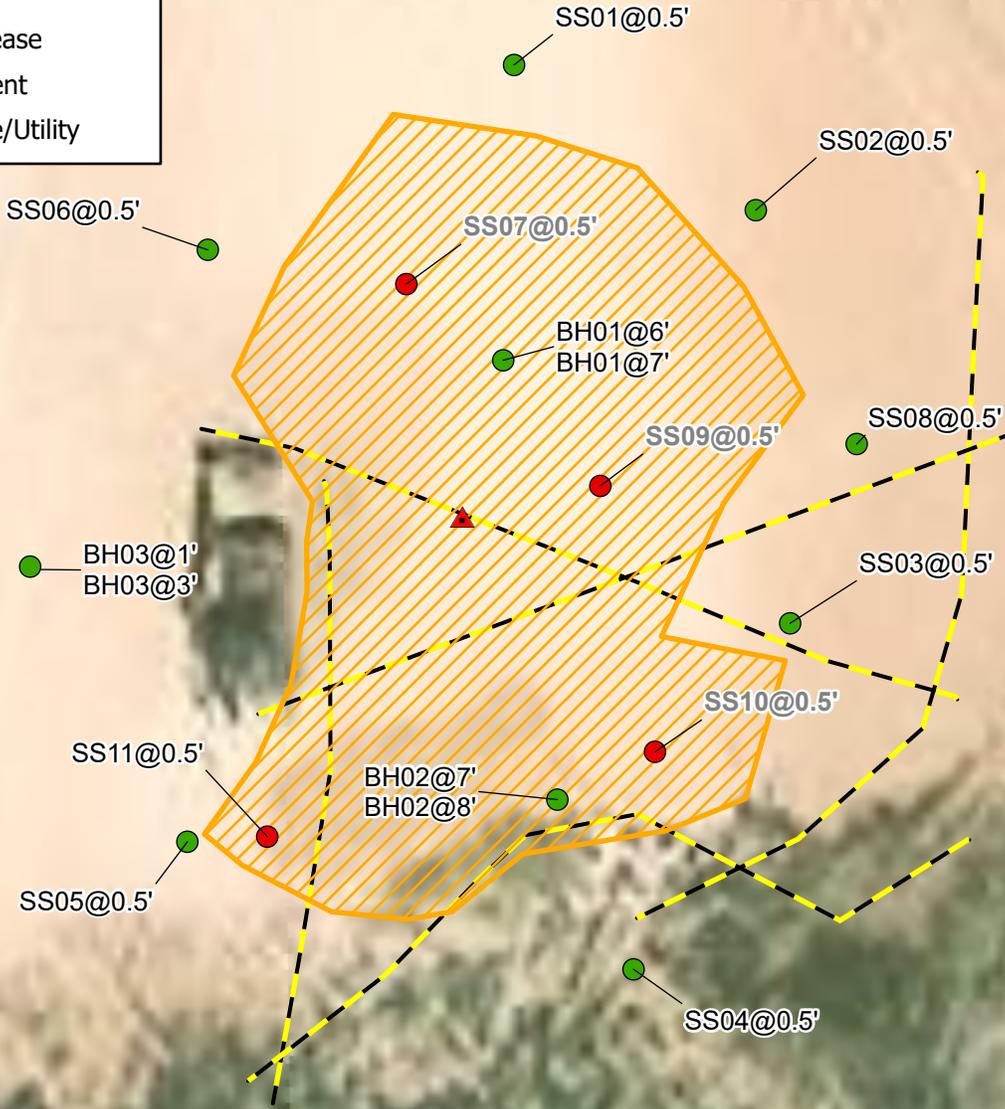


Site Receptor Map
 MCA Unit #146
 Maverick Permian, LLC
 Incident Number: nAPP2321651067
 G-27-17S-32E
 Lea County, New Mexico

FIGURE
1

Legend

- Assessment Soil Samples Compliant with Closure Criteria
- Assessment Soil Samples with Concentrations Exceeding Closure Criteria
- ▲ Point of Release
- Release Extent
- Pipeline/Line/Utility



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable Closure Criteria.
 Samples in gray removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

Delineation Soil Sample Locations

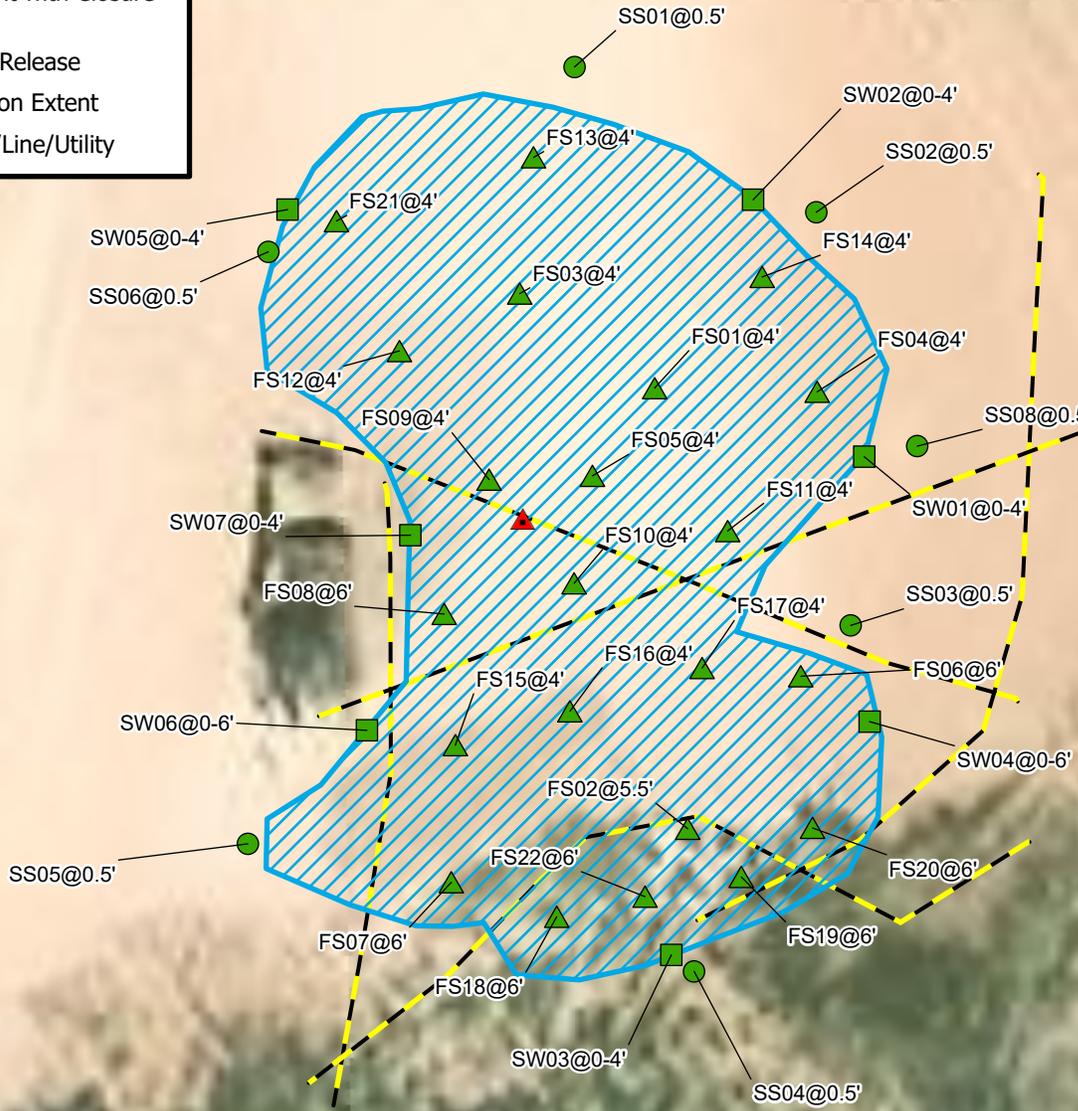
Maverick Permian, LLC
 MCA Unit #146
 Incident Number: nAPP2321651067
 Unit G, Sec 27, T17S, R32E
 Lea County, New Mexico

FIGURE
2

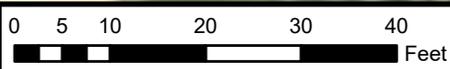


Legend

-  Excavation Floor Soil Samples Compliant with Closure Criteria
-  Excavation Sidewall Soil Samples Compliant with Closure Criteria
-  Assessment Soil Samples Compliant with Closure Criteria
-  Point of Release
-  Excavation Extent
-  Pipeline/Line/Utility



Notes:
 Sample ID @ Depth Below Ground/Surface.



Sources: Environmental Systems Research Institute (ESRI)

Excavation Soil Sample Locations

Maverick Permian, LLC
 MCA Unit #146

Incident Number: nAPP2321651067
 Unit G, Sec 27, T17S, R32E
 Lea County, New Mexico

FIGURE

3





TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS MCA Unit 146 Release Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Sample Date	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
NMOCD Reclamation Requirement for the top four feet of off-pad areas.			NE	NE	NE	NE	NE	NE	100	600
Assessment Soil Samples										
SS01	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS02	03/13/2024	0.5	<0.050	<0.300	<10.0	14.9	10.6	14.9	25.5	96.0
SS03	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS04	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
SS05	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
SS06	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
SS07	03/13/2024	0.5	0.109	0.788	11.0	6,220	1,870	6,231	8,101	1,760
SS08	03/13/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS09	03/13/2024	0.5	<0.050	<0.300	<10.0	6,570	1,750	6,570	8,320	16,600
SS10	03/13/2024	0.5	0.870	82.4	1,640	33,600	5,640	35,240	40,880	4,800
SS11	03/13/2024	0.5	1.400	90.1	1,830	27,200	4,400	29,030	33,430	8,000
Delineation Soil Samples										
BH01	06/05/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH01	06/05/2024	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH02	06/05/2024	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH02	06/05/2024	8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH03	07/30/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH03	07/30/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
Excavation Floor Soil Samples										
FS01	06/04/2024	4	<0.050	15.1	65.1	94.3	59.9	159	219	32.0
FS02	06/04/2024	5.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	512
FS03	06/07/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560
FS04	06/07/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	592
FS05	06/07/2024	4	<0.050	<0.300	<10.0	43.3	38.2	43.3	81.5	512
FS06	06/07/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS MCA Unit 146 Release Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Sample Date	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
NMOCD Reclamation Requirement for the top four feet of off-pad areas.			NE	NE	NE	NE	NE	NE	100	600
FS07	06/20/2024	6	<0.050	<0.300	<10.0	13.4	<10.0	13.4	13.4	448
FS08	06/07/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS09	06/13/2024	4	<0.050	<0.300	<10.0	233	200	233	433	672
FS10	06/13/2024	4	<0.050	<0.300	<10.0	61	53.3	60.7	114	912
FS11	06/13/2024	4	<0.050	<0.300	<10.0	43	46.1	42.5	88.6	256
FS12	06/13/2024	4	0.144	3.67	22	481	548	503	1,051	976
FS13	06/13/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	512
FS14	06/13/2024	4	<0.050	<0.300	<10.0	313	278	313	591	864
FS15	06/14/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	896
FS16	06/14/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	944
FS17	06/14/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS18	06/17/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS19	06/17/2024	6	<0.050	<0.300	<10.0	44	26.7	43.7	70.4	864
FS20	06/17/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	640
FS21	06/13/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	928
FS22	06/17/2024	6	<0.050	<0.300	<10.0	52	19	52	70.4	496
Excavation Sidewall Soil Samples										
SW01	6/7/2024	0 - 4	<0.050	<0.300	<10.0	16.3	<10.0	16.3	16.3	704
SW02	6/7/2024	0 - 4	<0.050	<0.300	<10.0	10.6	<10.0	10.6	10.6	144
SW03*	6/7/2024	0 - 4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW04	6/7/2024	0 - 6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
SW05	6/14/2024	0 - 4	<0.050	0.7	<10.0	11	<10.0	<10.0	<10.0	368
SW06	6/14/2024	0 - 6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW07	6/14/2024	0 - 4	<0.050	0.432	<10.0	234	36.4	234	270	2,880



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS MCA Unit 146 Release Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Sample Date	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
NMOCD Reclamation Requirement for the top four feet of off-pad areas.			NE	NE	NE	NE	NE	NE	100	600
Backfill Soil Sample										
BF01	6/18/2024	NA	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

NA: Not Analyzed

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Grey text represents samples that have been excavated

** indicates sample was collected in area to be reclaimed after remediation is complete; reclamation requirement in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.*

*Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.*



APPENDIX A

Referenced Well Records

212C-MD-02067	TETRA TECH	LOG OF BORING BH-4	Page 1 of 3
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Project Name: MCA 123 Injection Line Release

Borehole Location: GPS: 32.810847°, -103.743217° Surface Elevation: 3973 ft

Borehole Number: BH-4 Borehole Diameter (in.): 8 Date Started: 3/23/2020 Date Finished: 3/23/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS	
												While Drilling	Upon Completion of Drilling
												WATER LEVEL OBSERVATIONS While Drilling <input checked="" type="checkbox"/> DRY ft Upon Completion of Drilling <input checked="" type="checkbox"/> DRY ft Remarks:	
5			208	1.6								-SM- SILTY SAND; Brown, dense, dry, with no odor, with no staining.	BH-4 (0'-1')
			361	1.7									BH-4 (2'-3')
			657	1.9									BH-4 (3'-4')
			2.0	2.1								-SM- SILTY SAND; Tan, dense, dry, with no odor, with no staining.	BH-4 (4'-5')
			2.03	1.9									BH-4 (6'-7')
10			1.95	2									BH-4 (9'-10')
15			9.45	3.1								-SM- SILTY SAND; Light brown, dense, dry, with no odor, with no staining.	BH-4 (14'-15')
20			3.75	3.2									BH-4 (19'-20')
25			2.81	1.4									BH-4 (24'-25')

Sampler Types: <input checked="" type="checkbox"/> Split Spoon <input checked="" type="checkbox"/> Shelby <input checked="" type="checkbox"/> Bulk Sample <input checked="" type="checkbox"/> Grab Sample	<input checked="" type="checkbox"/> Acetate Liner <input checked="" type="checkbox"/> Vane Shear <input checked="" type="checkbox"/> California <input checked="" type="checkbox"/> Test Pit	Operation Types: <input checked="" type="checkbox"/> Mud Rotary <input checked="" type="checkbox"/> Continuous Flight Auger <input checked="" type="checkbox"/> Wash Rotary	<input checked="" type="checkbox"/> Hand Auger <input checked="" type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Direct Push <input checked="" type="checkbox"/> Core Barrel	Notes: Analytical samples are shown in the "Remarks" column. Surface elevation is an estimated value.
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Logger: Devin Dominguez Drilling Equipment: Air Rotary Driller: Scarborough Drilling

212C-MD-02067	TETRA TECH	LOG OF BORING BH-4	Page 2 of 3
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Project Name: MCA 123 Injection Line Release

Borehole Location: GPS: 32.810847°, -103.743217° Surface Elevation: 3973 ft

Borehole Number: BH-4 Borehole Diameter (in.): 8 Date Started: 3/23/2020 Date Finished: 3/23/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		
												While Drilling	Upon Completion of Drilling	DEPTH (ft)
												WATER LEVEL OBSERVATIONS While Drilling <input checked="" type="checkbox"/> DRY ft Upon Completion of Drilling <input checked="" type="checkbox"/> DRY ft Remarks:		
30		X	1.87	1.7							[Symbol]	29	-SM- SILTY SAND; Tan, dense, dry, with no odor, with no staining.	BH-4 (29'-30')
35		X									[Symbol]			BH-4 (34'-35')
40		X	1.67	1.8							[Symbol]	39	-CL- CLAYSTONE; Red, moderately hard, moist, with no odor, with no staining.	BH-4 (39'-40')
45											[Symbol]			
50		X	587	1.7							[Symbol]			BH-4 (49'-50')

Sampler Types: <input checked="" type="checkbox"/> Split Spoon <input type="checkbox"/> Acetate Liner <input type="checkbox"/> Shelby <input type="checkbox"/> Vane Shear <input type="checkbox"/> Bulk Sample <input checked="" type="checkbox"/> California <input type="checkbox"/> Grab Sample <input type="checkbox"/> Test Pit	Operation Types: <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Hand Auger <input type="checkbox"/> Continuous Flight Auger <input type="checkbox"/> Air Rotary <input type="checkbox"/> Wash Rotary <input type="checkbox"/> Direct Push <input type="checkbox"/> Core Barrel	Notes: Analytical samples are shown in the "Remarks" column. Surface elevation is an estimated value.
---	---	--

Logger: Devin Dominguez Drilling Equipment: Air Rotary Driller: Scarborough Drilling

212C-MD-02067	TETRA TECH	LOG OF BORING BH-4	Page 3 of 3
---------------	-------------------	---------------------------	----------------

Project Name: MCA 123 Injection Line Release

Borehole Location: GPS: 32.810847°, -103.743217° Surface Elevation: 3973 ft

Borehole Number: BH-4 Borehole Diameter (in.): 8 Date Started: 3/23/2020 Date Finished: 3/23/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS				
												Remarks:				
												While Drilling <input type="checkbox"/> DRY ft Upon Completion of Drilling <input type="checkbox"/> DRY ft				
												REMARKS				
55																
60			491	1.4											60	BH-4 (59'-60')

Bottom of borehole at 60.0 feet.

Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary	Hand Auger Air Rotary Direct Push Core Barrel	Notes: Analytical samples are shown in the "Remarks" column. Surface elevation is an estimated value.
--	---	---	--	--

Logger: Devin Dominguez Drilling Equipment: Air Rotary Driller: Scarborough Drilling



APPENDIX B

Photographic Log

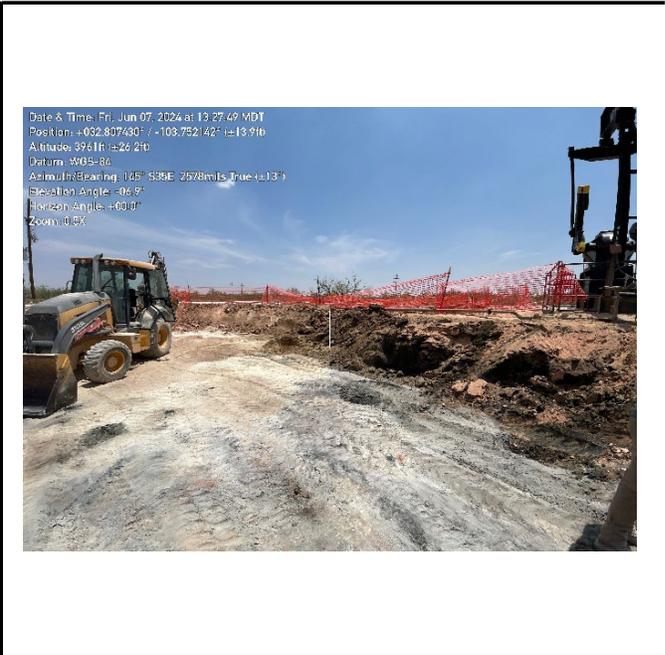


Photographic Log
Maverick Permian, LLC
MCA Unit #146
Incident Number nAPP2321651067



Photograph 1 Date: 8/4/2023
Description: Initial release
View: Southeast

Photograph 2 Date: 5/29/2024
Description: Excavation activities
View: Southwest



Photograph 3 Date: 6/4/2024
Description: Excavation activities
View: West

Photograph 4 Date: 6/7/2024
Description: Excavation activities
View: Southeast



Photographic Log
Maverick Permian, LLC
MCA Unit #146
Incident Number nAPP2321651067



Photograph 5 Date: 6/10/2024
Description: Excavation activities
View: Southwest



Photograph 6 Date: 6/12/2024
Description: Excavation activities
View: Northeast



Photograph 7 Date: 6/26/2024
Description: Backfilled excavation
View: Southeast

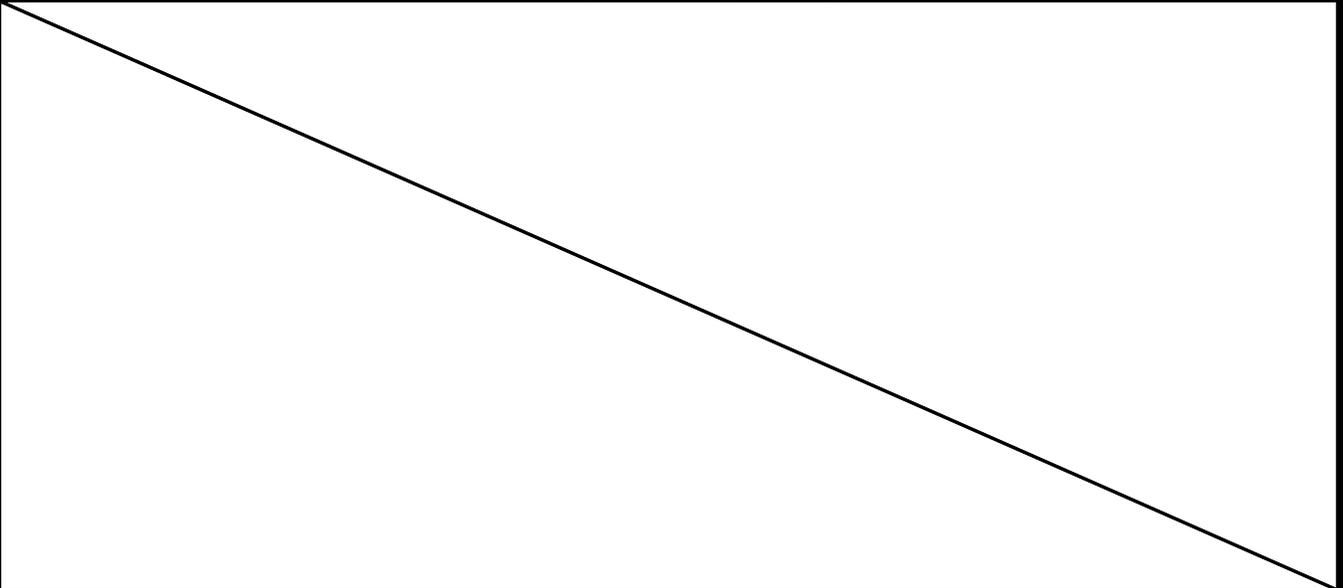


Photograph 8 Date: 6/26/2024
Description: Backfilled excavation
View: Southeast



APPENDIX C

Lithologic Soil Sampling Logs

					Sample Name: BH03		Date: 7/30/2024	
					Site Name: MCA Unit #146			
					Incident Number: nAPP2321651067			
					Job Number: 03E2057101			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Mario Sarkis		Method: Hand Auger	
Coordinates: 32.80725°N, -103.75201°W					Hole Diameter: 3 in		Total Depth: 4 ft bgs	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<173	1.1	N	BH03	0.5	0.5		Fine sand: Brown, very fine grain, non plastic, non cohesive
D	<173	1.2	N	BH03	1	1		Same as above
D	<173	1.1	N	BH03	2	2		Same as above
D	<173	1.2	N	BH03	3	3		Same as above
D	<173	1.7	N	BH03	3	4		Fine sand: Light gray, very fine grain, non plastic, non cohesive
Total depth of boring is 4 ft bgs								
								



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

March 18, 2024

AIMEE COLE
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: MCA UNIT 146 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/13/24 15:14.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: SS 07 0.5' (H241296-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.109	0.050	03/14/2024	ND	1.70	84.9	2.00	19.3	
Toluene*	0.314	0.050	03/14/2024	ND	1.84	92.2	2.00	19.7	
Ethylbenzene*	0.176	0.050	03/14/2024	ND	1.91	95.5	2.00	20.1	
Total Xylenes*	0.189	0.150	03/14/2024	ND	5.69	94.9	6.00	19.9	
Total BTEX	0.788	0.300	03/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1760	16.0	03/14/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	11.0	10.0	03/14/2024	ND	210	105	200	2.71		
DRO >C10-C28*	6220	10.0	03/14/2024	ND	209	104	200	6.83		
EXT DRO >C28-C36	1870	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 201 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: SS 08 0.5' (H241296-02)

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	03/14/2024	ND	1.70	84.9	2.00	19.3		
Toluene*	<0.050	0.050	03/14/2024	ND	1.84	92.2	2.00	19.7		
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.91	95.5	2.00	20.1		
Total Xylenes*	<0.150	0.150	03/14/2024	ND	5.69	94.9	6.00	19.9		
Total BTEX	<0.300	0.300	03/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/14/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	210	105	200	2.71		
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	209	104	200	6.83		
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: SS 09 0.5' (H241296-03)

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	03/14/2024	ND	1.70	84.9	2.00	19.3	
Toluene*	<0.050	0.050	03/14/2024	ND	1.84	92.2	2.00	19.7	
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.91	95.5	2.00	20.1	
Total Xylenes*	<0.150	0.150	03/14/2024	ND	5.69	94.9	6.00	19.9	
Total BTEX	<0.300	0.300	03/14/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16600	16.0	03/14/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	210	105	200	2.71		
DRO >C10-C28*	6570	10.0	03/14/2024	ND	209	104	200	6.83		
EXT DRO >C28-C36	1750	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 184 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: SS 10 0.5' (H241296-04)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.870	0.500	03/15/2024	ND	1.70	84.9	2.00	19.3	
Toluene*	14.1	0.500	03/15/2024	ND	1.84	92.2	2.00	19.7	
Ethylbenzene*	21.5	0.500	03/15/2024	ND	1.91	95.5	2.00	20.1	
Total Xylenes*	45.9	1.50	03/15/2024	ND	5.69	94.9	6.00	19.9	
Total BTEX	82.4	3.00	03/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 165 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	03/14/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1640	50.0	03/14/2024	ND	210	105	200	2.71	
DRO >C10-C28*	33600	50.0	03/14/2024	ND	209	104	200	6.83	
EXT DRO >C28-C36	5640	50.0	03/14/2024	ND					

Surrogate: 1-Chlorooctane 193 % 48.2-134

Surrogate: 1-Chlorooctadecane 706 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Shalyn Rodriguez
Project Location:	NONE GIVEN		

Sample ID: SS 11 0.5' (H241296-05)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.40	0.500	03/15/2024	ND	1.70	84.9	2.00	19.3	
Toluene*	17.0	0.500	03/15/2024	ND	1.84	92.2	2.00	19.7	
Ethylbenzene*	25.3	0.500	03/15/2024	ND	1.91	95.5	2.00	20.1	
Total Xylenes*	46.5	1.50	03/15/2024	ND	5.69	94.9	6.00	19.9	
Total BTEX	90.1	3.00	03/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 147 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8000	16.0	03/14/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1830	50.0	03/14/2024	ND	210	105	200	2.71	
DRO >C10-C28*	27200	50.0	03/14/2024	ND	209	104	200	6.83	
EXT DRO >C28-C36	4400	50.0	03/14/2024	ND					

Surrogate: 1-Chlorooctane 176 % 48.2-134

Surrogate: 1-Chlorooctadecane 558 % 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

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04 The RPD for the BS/BSD was outside of historical limits.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensbury, LLC P.O. #: _____
 Project Manager: Almer Cole Company: Ensbury, LLC
 Address: 601 N. Montford St. Ste. 400 Attn: Almer Cole
 City: Midland State: TX Zip: 79701
 Phone #: 720-384-7365 Fax #: _____
 Project #: 03E207101 Project Owner: Motormk
 Project Name: MCA Unit 146 Releaser State: _____ Zip: _____
 Project Location: _____
 Sampler Name: Nech Meter Phone #: _____
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	REMARKS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
12412914	5507	0.5'	G	1								3/13/24	1225	BTEX
	5508	0.5'	G	1								3/13/24	1230	TPH
	5509	0.5'	G	1								3/13/24	1235	Chlorides
	5510	0.5'	G	1								3/13/24	1240	
	5511	0.5'	G	1								3/13/24	1245	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of, or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the "how stated" reasons or otherwise.

Relinquished By: _____
 Date: _____
 Time: _____
 Received By: Stoddig
 Date: 5-13-24
 Time: 15:14
 Received By: _____

Delivered By: (Circle One) Observed Temp. °C: 3.4
 Sampler - UPS - Bus - Other: Corrected Temp. °C: _____
 Sample Condition: Cool Intact Yes No
 Checked By: SR
 Turnaround Time: _____
 Thermometer ID #140 Correction Factor 0°C: _____
 Standard Rush
 Bacteria (only) Sample Condition: Cool Intact Yes No Yes No
 Observed Temp. °C: _____
 Corrected Temp. °C: _____

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



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

March 19, 2024

AIMEE COLE
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: MCA UNIT 146 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/14/24 8:53.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 01 0.5' (H241315-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2024	ND	1.93	96.3	2.00	12.7	
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9	
Total BTEX	<0.300	0.300	03/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	03/14/2024	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	03/14/2024	ND	207	103	200	0.730	
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	205	103	200	1.10	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 02 0.5' (H241315-02)

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	03/14/2024	ND	1.93	96.3	2.00	12.7		
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7		
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9		
Total BTEX	<0.300	0.300	03/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	03/14/2024	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	03/14/2024	ND	207	103	200	0.730		
DRO >C10-C28*	14.9	10.0	03/14/2024	ND	205	103	200	1.10		
EXT DRO >C28-C36	10.6	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 96.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 03 0.5' (H241315-03)

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	03/14/2024	ND	1.93	96.3	2.00	12.7	
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7	
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9	
Total BTEX	<0.300	0.300	03/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	03/14/2024	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	03/14/2024	ND	207	103	200	0.730	
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	205	103	200	1.10	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					

Surrogate: 1-Chlorooctane 96.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 04 0.5' (H241315-04)

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	03/14/2024	ND	1.93	96.3	2.00	12.7		
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7		
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9		
Total BTEX	<0.300	0.300	03/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/14/2024	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	03/14/2024	ND	207	103	200	0.730		
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	205	103	200	1.10		
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 98.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 05 0.5' (H241315-05)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/14/2024	ND	1.93	96.3	2.00	12.7		
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7		
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9		
Total BTEX	<0.300	0.300	03/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	208	16.0	03/14/2024	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	03/14/2024	ND	207	103	200	0.730		
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	205	103	200	1.10		
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 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, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	03/14/2024	Sampling Date:	03/13/2024
Reported:	03/19/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2097101	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK		

Sample ID: SS 06 0.5' (H241315-06)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/14/2024	ND	1.93	96.3	2.00	12.7		
Toluene*	<0.050	0.050	03/14/2024	ND	2.01	100	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/14/2024	ND	1.96	98.0	2.00	13.7		
Total Xylenes*	<0.150	0.150	03/14/2024	ND	6.02	100	6.00	13.9		
Total BTEX	<0.300	0.300	03/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	448	16.0	03/14/2024	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	03/14/2024	ND	207	103	200	0.730		
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	205	103	200	1.10		
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND						

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 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

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensbury, LLC P.O. #: _____
 Project Manager: Aimee Cole Company: Ensbury, LLC
 Address: 601 N. Mandeville St. Ste. 400 Attn: Aimee Cole
 City: Milledale State: TX Zip: 79701
 Phone #: 720-384-7365 Fax #: _____
 Project #: 03E2057101 Project Owner: Maverick
 Project Name: N/A with 146 Release City: _____ State: _____ Zip: _____
 Project Location: _____ Phone #: _____
 Sampler Name: Noah Duker Fax #: _____

Sample I.D.	Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	Chlorides
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
83756			1	X						3/13/24	1130	X	X	X
5501			1	X						3/13/24	1140	X	X	X
5502			1	X						3/13/24	1150	X	X	X
5503			1	X						3/13/24	1200	X	X	X
5504			1	X						3/13/24	1210	X	X	X
5505			1	X						3/13/24	1220	X	X	X
5506			1	X						3/13/24	1225	X	X	X
NFE														

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Relinquished By: Noah Duker Date: 3-14-24 Received By: _____
 Date: 3-14-24 Time: 8:53 Received By: _____

Delivered By: (Circle One) Observed Temp. °C 33.00 Sample Condition Intact Cool Yes No
 Sampler - UPS - Bus - Other: Corrected Temp. °C _____
 CHECKED BY: _____ (Initials)
 Turnaround Time: _____ Standard Rush
 Thermometer ID #140 Bacteria (only) Sample Condition Intact Cool Yes No
 Correction Factor 0°C _____ Corrected Temp. °C _____

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



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

June 06, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA UNIT 146 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 06/04/24 13:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073, -103.7518		

Sample ID: FS 01 4 (H243145-01)

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.06	103	2.00	1.40	
Toluene*	1.95	0.050	06/04/2024	ND	2.21	111	2.00	0.368	
Ethylbenzene*	4.56	0.050	06/04/2024	ND	2.23	112	2.00	1.64	
Total Xylenes*	8.51	0.150	06/04/2024	ND	6.83	114	6.00	2.00	
Total BTEX	15.1	0.300	06/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 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	06/05/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	65.1	10.0	06/04/2024	ND	190	95.0	200	0.789	
DRO >C10-C28*	94.3	10.0	06/04/2024	ND	184	91.9	200	0.999	
EXT DRO >C28-C36	59.9	10.0	06/04/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.8 % 49.1-148

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*=Accredited Analyte

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



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MCA UNIT 146 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073, -103.7518		

Sample ID: FS 02 5.5 (H243145-02)

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	06/04/2024	ND	2.06	103	2.00	1.40		
Toluene*	<0.050	0.050	06/04/2024	ND	2.21	111	2.00	0.368		
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.23	112	2.00	1.64		
Total Xylenes*	<0.150	0.150	06/04/2024	ND	6.83	114	6.00	2.00		
Total BTEX	<0.300	0.300	06/04/2024	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	512	16.0	06/05/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	190	95.0	200	0.789		
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	184	91.9	200	0.999		
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND						

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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Handwritten signature of Mike Snyder

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



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

June 11, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/05/24 14:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/05/2024	Sampling Date:	06/05/2024
Reported:	06/11/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073-103.7518		

Sample ID: BH 01 6' (H243200-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2024	ND	1.88	94.0	2.00	8.16	
Toluene*	<0.050	0.050	06/07/2024	ND	1.98	99.0	2.00	9.03	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.00	100	2.00	9.96	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.23	104	6.00	8.62	
Total BTEX	<0.300	0.300	06/07/2024	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	16.0	16.0	06/07/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/05/2024	Sampling Date:	06/05/2024
Reported:	06/11/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073-103.7518		

Sample ID: BH 01 7' (H243200-02)

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	06/07/2024	ND	1.88	94.0	2.00	8.16		
Toluene*	<0.050	0.050	06/07/2024	ND	1.98	99.0	2.00	9.03		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.00	100	2.00	9.96		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.23	104	6.00	8.62		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	06/07/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	193	96.3	200	1.94		
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	214	107	200	0.944		
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND						

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/05/2024	Sampling Date:	06/05/2024
Reported:	06/11/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073-103.7518		

Sample ID: BH 02 7' (H243200-03)

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	06/07/2024	ND	1.88	94.0	2.00	8.16		
Toluene*	<0.050	0.050	06/07/2024	ND	1.98	99.0	2.00	9.03		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.00	100	2.00	9.96		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.23	104	6.00	8.62		
Total BTEX	<0.300	0.300	06/07/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	193	96.3	200	1.94		
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	214	107	200	0.944		
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND						

Surrogate: 1-Chlorooctane 126 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/05/2024	Sampling Date:	06/05/2024
Reported:	06/11/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073-103.7518		

Sample ID: BH 02 8' (H243200-04)

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	06/07/2024	ND	1.88	94.0	2.00	8.16	
Toluene*	<0.050	0.050	06/07/2024	ND	1.98	99.0	2.00	9.03	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.00	100	2.00	9.96	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.23	104	6.00	8.62	
Total BTEX	<0.300	0.300	06/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	06/07/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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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*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Project Manager: Beau Jernigan ^{MS} *Aime Cole*
Address: 604 N Marientfeld Street, Suite 400 3122 National Parks Hwy
City: Midland ^{MS} *Callisbad* **State:** TX ^{MS} **Zip:** 79701 **88220**
Phone #: 214-219-0958 ^{MS} 720-344-7363 **Fax #:**
Project #: 03E2057101 **Project Owner:**
Project Name: MCA 146
Project Location: 32, 8073, -103, 75-18
Sampler Name: Marcio Sarrhis

P.O. #: **Company:** Ensolium LLC
Attn: Wade Dittich ^{MS}
Address:
City:
State: **Zip:**
Phone #: 575-390-2028 ^{MS}
Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
H443800	BH01	6		1								6/5/24	1039	BTEX
	BH01	7		1									1043	TPH
	BH02	7		1									1030	Chlorides
	BH02	8		1									1034	

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Relinquished By: *[Signature]* **Date:** 6/5/24 **Received By:** *[Signature]* **Date:** 6/5/24

Relinquished By: *[Signature]* **Date:** 6/5/24 **Received By:** *[Signature]* **Date:** 6/5/24

Delivered By: (Circle One) **Observed Temp. °C:** 5.92 **Sample Condition:** Cool Intact Yes No **CHECKED BY:** *[Signature]*

Sampler - UPS - Bus - Other: **Corrected Temp. °C:** **Thermometer ID #:** #113 **Standard:** Standard Rush **Bacteria (only) Cool Intact:** Yes No **Sample Condition:** Observed Temp. °C Corrected Temp. °C

REMARKS: Acole@ensolium.com / msarrhis@ensolium.com

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



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

June 13, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/07/24 15:04.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 01 0-4' (H243285-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	6.36	
Toluene*	<0.050	0.050	06/11/2024	ND	1.85	92.6	2.00	4.76	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.92	96.1	2.00	2.89	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.59	93.1	6.00	2.69	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 89.8 % 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	06/11/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44	
DRO >C10-C28*	16.3	10.0	06/10/2024	ND	166	83.1	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 67.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.5 % 49.1-148

Cardinal Laboratories

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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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 02 0-4' (H243285-02)

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	06/11/2024	ND	1.84	91.8	2.00	6.36	
Toluene*	<0.050	0.050	06/11/2024	ND	1.85	92.6	2.00	4.76	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.92	96.1	2.00	2.89	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.59	93.1	6.00	2.69	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/11/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44	
DRO >C10-C28*	10.6	10.0	06/10/2024	ND	166	83.1	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 67.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.1 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 03 4' (H243285-03)

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	06/11/2024	ND	1.84	91.8	2.00	6.36		
Toluene*	<0.050	0.050	06/11/2024	ND	1.85	92.6	2.00	4.76		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.92	96.1	2.00	2.89		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.59	93.1	6.00	2.69		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.1 % 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	560	16.0	06/11/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44		
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	166	83.1	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND						

Surrogate: 1-Chlorooctane 71.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.5 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 04 4' (H243285-04)

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	06/11/2024	ND	1.84	91.8	2.00	6.36		
Toluene*	<0.050	0.050	06/11/2024	ND	1.85	92.6	2.00	4.76		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.92	96.1	2.00	2.89		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.59	93.1	6.00	2.69		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	06/11/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44		
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	166	83.1	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND						

Surrogate: 1-Chlorooctane 67.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 05 4' (H243285-05)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	6.36		
Toluene*	<0.050	0.050	06/11/2024	ND	1.85	92.6	2.00	4.76		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.92	96.1	2.00	2.89		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.59	93.1	6.00	2.69		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.7 % 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	512	16.0	06/11/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44		
DRO >C10-C28*	43.3	10.0	06/10/2024	ND	166	83.1	200	4.14		
EXT DRO >C28-C36	38.2	10.0	06/10/2024	ND						

Surrogate: 1-Chlorooctane 54.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 53.9 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 06 6' (H243285-06)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.02	101	2.00	0.275		
Toluene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	0.753		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.13	107	2.00	0.930		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.57	110	6.00	1.86		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/11/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44		
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	166	83.1	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND						

Surrogate: 1-Chlorooctane 71.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.9 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 08 6' (H243285-07)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.02	101	2.00	0.275		
Toluene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	0.753		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.13	107	2.00	0.930		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.57	110	6.00	1.86		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	208	16.0	06/11/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	168	83.9	200	1.44		
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	166	83.1	200	4.14		
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND						

Surrogate: 1-Chlorooctane 69.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.2 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 03 0-4' (H243285-08)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.02	101	2.00	0.275	
Toluene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	0.753	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.13	107	2.00	0.930	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.57	110	6.00	1.86	
Total BTEX	<0.300	0.300	06/11/2024	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	64.0	16.0	06/11/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	168	83.9	200	1.44	
DRO >C10-C28*	<10.0	10.0	06/11/2024	ND	166	83.1	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.4 % 49.1-148

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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/13/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 04 0-6' (H243285-09)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.02	101	2.00	0.275	
Toluene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	0.753	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.13	107	2.00	0.930	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.57	110	6.00	1.86	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	288	16.0	06/11/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	168	83.9	200	1.44	
DRO >C10-C28*	<10.0	10.0	06/11/2024	ND	166	83.1	200	4.14	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 73.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.0 % 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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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensolium, LLC
 Project Manager: Aimee Cole
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: (720) 384-7865 Fax #: _____
 Project #: 03E2057101 Project Owner: Maverick
 Project Name: MCA 146
 Project Location: 32.8073564, -103.7518694
 Sampler Name: Omer Hamdy
 P.O. #: _____ Company: Ensolium
 Attn: Aimee Cole
 Address: 3122 National Parks Hwy
 City: Carlsbad State: NM Zip: 88220
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	REMARKS	BTEX	TPH	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						
1213285	SWD1	0-4'	C		X						6/7/24	8:55				
	SWD2	0-4'	C									9:00				
	ESD3	4'										12:30				
	ES04	4'										9:10				
	ES05	4'										9:15				
	ES06	6'										9:55				
	ES07-OH	6'										10:05				
	ES08	0-4'										9:45				
	SW03	0-4'										9:50				
	SW04	0-6'														

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Relinquished By: _____ Date: 6/17/24 Time: 14:10
 Received By: _____ Date: 6/17/24 Time: 15:04
 Delivered By: (Circle One) _____
 Sampler - UPS - Bus - Other: _____
 Observed Temp. °C: 5.7 Corrected Temp. °C: _____
 Sample Condition: Open
 Cool Intact: Yes No
 Checked By: (Initials) APD
 Turnaround Time: _____ Standard Rush
 Thermometer ID #443 Correction Factor: -0.3°C 142
 Bacteria (only) Sample Condition: Yes No
 Cool Intact: Yes No
 Corrected Temp. °C: _____

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



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

June 19, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/13/24 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 09 4' (H243444-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2024	ND	1.96	97.8	2.00	1.74	
Toluene*	<0.050	0.050	06/18/2024	ND	1.97	98.4	2.00	1.41	
Ethylbenzene*	<0.050	0.050	06/18/2024	ND	1.88	93.8	2.00	1.19	
Total Xylenes*	<0.150	0.150	06/18/2024	ND	5.84	97.3	6.00	1.19	
Total BTEX	<0.300	0.300	06/18/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/18/2024	ND	199	99.4	200	1.73	
DRO >C10-C28*	233	10.0	06/18/2024	ND	230	115	200	1.78	
EXT DRO >C28-C36	200	10.0	06/18/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 10 4' (H243444-02)

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	06/17/2024	ND	1.96	97.8	2.00	1.74		
Toluene*	<0.050	0.050	06/17/2024	ND	1.97	98.4	2.00	1.41		
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	1.88	93.8	2.00	1.19		
Total Xylenes*	<0.150	0.150	06/17/2024	ND	5.84	97.3	6.00	1.19		
Total BTEX	<0.300	0.300	06/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	06/17/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/18/2024	ND	199	99.4	200	1.73		
DRO >C10-C28*	60.7	10.0	06/18/2024	ND	230	115	200	1.78		
EXT DRO >C28-C36	53.3	10.0	06/18/2024	ND						

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 11 4' (H243444-03)

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	06/17/2024	ND	1.96	97.8	2.00	1.74		
Toluene*	<0.050	0.050	06/17/2024	ND	1.97	98.4	2.00	1.41		
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	1.88	93.8	2.00	1.19		
Total Xylenes*	<0.150	0.150	06/17/2024	ND	5.84	97.3	6.00	1.19		
Total BTEX	<0.300	0.300	06/17/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/17/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/17/2024	ND	199	99.4	200	1.73		
DRO >C10-C28*	42.5	10.0	06/17/2024	ND	230	115	200	1.78		
EXT DRO >C28-C36	46.1	10.0	06/17/2024	ND						

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 12 4' (H243444-04)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.144	0.050	06/18/2024	ND	1.96	97.8	2.00	1.74	
Toluene*	0.952	0.050	06/18/2024	ND	1.97	98.4	2.00	1.41	
Ethylbenzene*	0.935	0.050	06/18/2024	ND	1.88	93.8	2.00	1.19	
Total Xylenes*	1.64	0.150	06/18/2024	ND	5.84	97.3	6.00	1.19	
Total BTEX	3.67	0.300	06/18/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	21.9	10.0	06/18/2024	ND	199	99.4	200	1.73	
DRO >C10-C28*	481	10.0	06/18/2024	ND	230	115	200	1.78	
EXT DRO >C28-C36	548	10.0	06/18/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 13 4' (H243444-05)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2024	ND	1.96	97.8	2.00	1.74	
Toluene*	<0.050	0.050	06/17/2024	ND	1.97	98.4	2.00	1.41	
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	1.88	93.8	2.00	1.19	
Total Xylenes*	<0.150	0.150	06/17/2024	ND	5.84	97.3	6.00	1.19	
Total BTEX	<0.300	0.300	06/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/17/2024	ND	199	99.4	200	1.73	
DRO >C10-C28*	<10.0	10.0	06/17/2024	ND	230	115	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	06/17/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 14 4' (H243444-06)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2024	ND	1.96	97.8	2.00	1.74	
Toluene*	<0.050	0.050	06/17/2024	ND	1.97	98.4	2.00	1.41	
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	1.88	93.8	2.00	1.19	
Total Xylenes*	<0.150	0.150	06/17/2024	ND	5.84	97.3	6.00	1.19	
Total BTEX	<0.300	0.300	06/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/18/2024	ND	199	99.4	200	1.73	
DRO >C10-C28*	313	10.0	06/18/2024	ND	230	115	200	1.78	
EXT DRO >C28-C36	278	10.0	06/18/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/13/2024	Sampling Date:	06/13/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	** (See Notes)
Project Number:	03E2057103	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 21 4' (H243444-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2024	ND	1.96	97.8	2.00	1.74	
Toluene*	<0.050	0.050	06/17/2024	ND	1.97	98.4	2.00	1.41	
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	1.88	93.8	2.00	1.19	
Total Xylenes*	<0.150	0.150	06/17/2024	ND	5.84	97.3	6.00	1.19	
Total BTEX	<0.300	0.300	06/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/17/2024	ND	199	99.4	200	1.73	
DRO >C10-C28*	<10.0	10.0	06/17/2024	ND	230	115	200	1.78	
EXT DRO >C28-C36	<10.0	10.0	06/17/2024	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC

BILL TO

ANALYSIS REQUEST

Project Manager: Aimee Cole

P.O. #:

Address: 3122 National Parks Hwy

Company: Ensolum

City: Carlisbad State: NM Zip: 88220

Attn: Aimee Cole

Phone #: 844500 7995 Fax #:

Address: 3122 National Parks Hwy

Project #: 03E2057103 Project Owner: Maverick

City: Carlisbad

Project Name: MCA 146

State: NM Zip: 88220

Project Location: 328073564

Phone #:

Sampler Name: Omer Handy

Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)COMP.	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
1	FS09	4'	C								6/13/24	10:20			
2	FS10	↓									6:25	10:38			
3	FS11	↓									10:35	10:40			
4	FS12	↓									11:05	11:10			
5	FS13	↓													
6	FS14	↓													
7	FS21	↓													

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Relinquished By: *[Signature]* Date: 8/3/24 Time: 1:30

Received By: *[Signature]*

Turnaround Time: Yes No Add'l Phone #:

Remarks: a cole@ensolum.com m.sarkis@ensolum.com

Delivered By: (Circle One) UPS - Bus - Other: Corrected Temp. °C

Observed Temp. °C: 7.4 Corrected Temp. °C: Yes No

Sample Condition: Cool Intact Yes No

Checked By: (Initials) *[Signature]*

Thermometer ID: #113 Standard Rush Bacteria (only) Sample Condition: Cool Intact Yes No

Correction Factor: -0.5°C Yes No Corrected Temp. °C

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



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

June 18, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/14/24 14:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 06/14/2024
 Reported: 06/18/2024
 Project Name: MCA 146
 Project Number: 03E2057101
 Project Location: 32.8073564,-103.7518694

Sampling Date: 06/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: SW 07 0-4 (H243471-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/14/2024	ND	2.00	100	2.00	0.552	
Toluene*	<0.050	0.050	06/14/2024	ND	1.98	98.9	2.00	0.457	
Ethylbenzene*	0.102	0.050	06/14/2024	ND	2.01	101	2.00	0.651	
Total Xylenes*	0.330	0.150	06/14/2024	ND	5.83	97.2	6.00	0.698	
Total BTEX	0.432	0.300	06/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/14/2024	ND	185	92.5	200	2.28	
DRO >C10-C28*	234	10.0	06/14/2024	ND	180	90.2	200	2.72	
EXT DRO >C28-C36	36.4	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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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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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: <u>Ensolium, LLC</u>		P.O. #:	
Project Manager: <u>Aimee Cole</u>		Company: <u>ENSIUM, LLC</u>	
Address: <u>3122 National Parks Hwy</u>		Attn: <u>Aimee Cole</u>	
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88320</u>		Address:	
Phone #: <u>720-384-7365</u> Fax #:		City:	
Project #: <u>03E2059101</u> Project Owner:		State:	
Project Name: <u>MLA 146</u>		Zip:	
Project Location: <u>3A, 8073, -103, 7518</u>		Phone #: <u>720-384-7365</u>	
Sampler Name: <u>Mario Sarquis</u>		Fax #:	
FOR LAB USE ONLY			
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.
<u>H243471</u>	<u>SW07</u>	<u>0-4</u>	<u>C</u>
			# CONTAINERS
			GROUNDWATER
			WASTEWATER
			SOIL
			OIL
			SLUDGE
			OTHER:
			ACID/BASE:
			ICE / COOL
			OTHER:
			DATE
			TIME
			<u>6/14/15</u>
			<u>56</u>
			<u>BTEX</u>
			<u>TPH</u>
			<u>Chlorides</u>

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Relinquished By: _____ Date: 6/14/14 Received By: _____

Relinquished By: _____ Date: _____ Received By: _____

Delivered By: (Circle One) Observed Temp. °C 5.4 Sample Condition Cool Intact Yes No

Sampler - UPS - Bus - Other: _____ Corrected Temp. °C _____

Turnaround Time: APR 4 Standard Rush Bacteria (only) Yes No

Thermometer ID # 144 Yes No

Correction Factor 0.5 Yes No

Corrected Temp. °C 4.9 Yes No

Checked By: (Initials) AP

Remarks: ADIC@ensolum.com / MSARQUIS@ensolum.com

Verbal Result: Yes No Add'l Phone #:

All Results are emailed. Please provide Email address:



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

June 18, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/14/24 14:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/14/2024	Sampling Date:	06/14/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 05 0-4 (H243472-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/14/2024	ND	2.00	100	2.00	0.552	
Toluene*	0.068	0.050	06/14/2024	ND	1.98	98.9	2.00	0.457	
Ethylbenzene*	0.181	0.050	06/14/2024	ND	2.01	101	2.00	0.651	
Total Xylenes*	0.453	0.150	06/14/2024	ND	5.83	97.2	6.00	0.698	
Total BTEX	0.702	0.300	06/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/14/2024	ND	185	92.5	200	2.28	
DRO >C10-C28*	11.4	10.0	06/14/2024	ND	180	90.2	200	2.72	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/14/2024	Sampling Date:	06/14/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: SW 06 0-6 (H243472-02)

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	06/14/2024	ND	2.00	100	2.00	0.552	
Toluene*	<0.050	0.050	06/14/2024	ND	1.98	98.9	2.00	0.457	
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	2.01	101	2.00	0.651	
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.83	97.2	6.00	0.698	
Total BTEX	<0.300	0.300	06/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/14/2024	ND	185	92.5	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	180	90.2	200	2.72	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/14/2024	Sampling Date:	06/14/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 15 4 (H243472-03)

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	06/14/2024	ND	2.00	100	2.00	0.552		
Toluene*	<0.050	0.050	06/14/2024	ND	1.98	98.9	2.00	0.457		
Ethylbenzene*	<0.050	0.050	06/14/2024	ND	2.01	101	2.00	0.651		
Total Xylenes*	<0.150	0.150	06/14/2024	ND	5.83	97.2	6.00	0.698		
Total BTEX	<0.300	0.300	06/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	896	16.0	06/17/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/14/2024	ND	185	92.5	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	180	90.2	200	2.72		
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND						

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

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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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/14/2024	Sampling Date:	06/14/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 16 4 (H243472-04)

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	06/17/2024	ND	2.08	104	2.00	0.854		
Toluene*	<0.050	0.050	06/17/2024	ND	2.21	111	2.00	0.484		
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	2.21	110	2.00	0.347		
Total Xylenes*	<0.150	0.150	06/17/2024	ND	6.75	112	6.00	1.04		
Total BTEX	<0.300	0.300	06/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	944	16.0	06/17/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/15/2024	ND	185	92.5	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/15/2024	ND	180	90.2	200	2.72		
EXT DRO >C28-C36	<10.0	10.0	06/15/2024	ND						

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/14/2024	Sampling Date:	06/14/2024
Reported:	06/18/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Alyssa Parras
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 17 4 (H243472-05)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2024	ND	2.08	104	2.00	0.854	
Toluene*	<0.050	0.050	06/17/2024	ND	2.21	111	2.00	0.484	
Ethylbenzene*	<0.050	0.050	06/17/2024	ND	2.21	110	2.00	0.347	
Total Xylenes*	<0.150	0.150	06/17/2024	ND	6.75	112	6.00	1.04	
Total BTEX	<0.300	0.300	06/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/17/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/14/2024	ND	221	110	200	1.99	
DRO >C10-C28*	<10.0	10.0	06/14/2024	ND	233	116	200	1.14	
EXT DRO >C28-C36	<10.0	10.0	06/14/2024	ND					

Surrogate: 1-Chlorooctane 126 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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*=Accredited Analyte

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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

Cardinal Laboratories

*=Accredited Analyte

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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

BW TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC Project Manager: Aimee Cole Address: 3122 National Parks Hwy City: Carlsbad State: NM Zip: 88220 Phone #: (720) 384-7365 Fax #: _____ Project #: 3E2057101 Project Owner: _____ Project Name: MCA 146 Project Location: 38.8073, -103.7518 Sampler Name: Mario Sarbis FOR LAB USE ONLY		P.O. #: _____ Company: Ensolum, LLC Attn: Aimee Cole Address: _____ State: _____ Zip: _____ City: _____ State: _____ Zip: _____ Phone #: 720-384-7365 Fax #: _____					
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP. # CONTAINERS	MATRIX	PRESERV.	SAMPLING	ANALYSIS REQUEST
				<input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE OTHER : _____	<input checked="" type="checkbox"/> ACID/BASE <input type="checkbox"/> ICE / COOL OTHER : _____	DATE TIME	BTEX TPH Chlorides
H243472	SW05	0-4	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6/14/24 1154	<input checked="" type="checkbox"/>
	SW06	0-6	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1224	<input checked="" type="checkbox"/>
	FS15	4	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1227	<input checked="" type="checkbox"/>
	FS16	4	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1228	<input checked="" type="checkbox"/>
	FS17	4	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1229	<input checked="" type="checkbox"/>
PLEASE NOTE: Liability and damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.							
Relinquished By: _____ Date: 6/14/24 Time: 1449		Received By: <i>Adrian</i> Date: _____ Time: _____		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____		All Results are emailed. Please provide Email address: <i>ALC@ENSOLUM.COM / MSARBIS@ENSOLUM.COM</i>	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____ Observed Temp.: 5.4C Corrected Temp.: 5.4C		Sample Condition <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: <i>AD</i> Initials: _____		Turnaround Time: <i>10:14:24</i> Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Thermostat ID #115 <i>142</i> 48-hr <input type="checkbox"/> Correction Factor: -0.5C <input type="checkbox"/> No <input type="checkbox"/> No	
REMARKS: _____							

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



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

June 19, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/17/24 14:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	06/17/2024	Sampling Date:	06/17/2024
Reported:	06/19/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057101	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073564,-103.7518694		

Sample ID: FS 18 6' (H243509-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2024	ND	1.80	90.2	2.00	9.11	
Toluene*	<0.050	0.050	06/18/2024	ND	1.82	91.1	2.00	6.57	
Ethylbenzene*	<0.050	0.050	06/18/2024	ND	1.89	94.3	2.00	4.36	
Total Xylenes*	<0.150	0.150	06/18/2024	ND	5.54	92.3	6.00	4.25	
Total BTEX	<0.300	0.300	06/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 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	144	16.0	06/19/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/18/2024	ND	207	103	200	2.81	
DRO >C10-C28*	<10.0	10.0	06/18/2024	ND	217	108	200	0.405	
EXT DRO >C28-C36	<10.0	10.0	06/18/2024	ND					

Surrogate: 1-Chlorooctane 132 % 48.2-134

Surrogate: 1-Chlorooctadecane 137 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 06/17/2024
 Reported: 06/19/2024
 Project Name: MCA 146
 Project Number: 03E2057101
 Project Location: 32.8073564,-103.7518694

Sampling Date: 06/17/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 19 6' (H243509-02)

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	06/18/2024	ND	1.80	90.2	2.00	9.11	
Toluene*	<0.050	0.050	06/18/2024	ND	1.82	91.1	2.00	6.57	
Ethylbenzene*	<0.050	0.050	06/18/2024	ND	1.89	94.3	2.00	4.36	
Total Xylenes*	<0.150	0.150	06/18/2024	ND	5.54	92.3	6.00	4.25	
Total BTEX	<0.300	0.300	06/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	06/19/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2024	ND	207	103	200	2.81	
DRO >C10-C28*	43.7	10.0	06/19/2024	ND	217	108	200	0.405	
EXT DRO >C28-C36	26.7	10.0	06/19/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 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
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 06/17/2024
 Reported: 06/19/2024
 Project Name: MCA 146
 Project Number: 03E2057101
 Project Location: 32.8073564,-103.7518694

Sampling Date: 06/17/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 20 6' (H243509-03)

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	06/18/2024	ND	1.80	90.2	2.00	9.11		
Toluene*	<0.050	0.050	06/18/2024	ND	1.82	91.1	2.00	6.57		
Ethylbenzene*	<0.050	0.050	06/18/2024	ND	1.89	94.3	2.00	4.36		
Total Xylenes*	<0.150	0.150	06/18/2024	ND	5.54	92.3	6.00	4.25		
Total BTEX	<0.300	0.300	06/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	06/19/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/18/2024	ND	207	103	200	2.81		
DRO >C10-C28*	<10.0	10.0	06/18/2024	ND	217	108	200	0.405		
EXT DRO >C28-C36	<10.0	10.0	06/18/2024	ND						

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 139 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 06/17/2024
 Reported: 06/19/2024
 Project Name: MCA 146
 Project Number: 03E2057101
 Project Location: 32.8073564,-103.7518694

Sampling Date: 06/17/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 22 6' (H243509-04)

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	06/18/2024	ND	1.80	90.2	2.00	9.11	
Toluene*	<0.050	0.050	06/18/2024	ND	1.82	91.1	2.00	6.57	
Ethylbenzene*	<0.050	0.050	06/18/2024	ND	1.89	94.3	2.00	4.36	
Total Xylenes*	<0.150	0.150	06/18/2024	ND	5.54	92.3	6.00	4.25	
Total BTEX	<0.300	0.300	06/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/19/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/19/2024	ND	207	103	200	2.81	
DRO >C10-C28*	51.8	10.0	06/19/2024	ND	217	108	200	0.405	
EXT DRO >C28-C36	18.6	10.0	06/19/2024	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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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

BLW TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST														
Project Manager: Aimee Cole		Company: Ensolum, LLC																
Address: 3122 National Parks Hwy		Attn: Aimee Cole																
City: Carlsbad		State: NM Zip: 88220																
Phone #: (720) 384-7365		Fax #:																
Project #: 03E2057101		Project Owner:																
Project Name: Mkt 146		City:																
Project Location: 3A, 8073, -103, 7518		State: Zip:																
Sampler Name: Mkt 146		Phone #: 720-384-7365																
FOR LAB USE ONLY		Fax #:																
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	BTEX	TPH	Chlorides						
H243509	1	6'		1	GROUNDWATER			6/17/24	1145									
	2	6'		1	WASTEWATER				1113									
	3	6'		1	SOIL				1114									
	4	6'		1	OIL				1111									
					SLUDGE													
					OTHER :													
					ACID/BASE:													
					ICE / COOL													
					OTHER :													

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature]
 Date: 6/17/24
 Received By: [Signature]
 Date: 6/17/24

Delivered By: (Circle One) UPS Bus Other: Corrected Temp. °C: 2.3
 Sample Condition: Cool Intact Yes No
 CHECKED BY: [Signature] (Initials)
 Turnaround Time: #449 Standard Rush Bacteria (only) Cool Intact Yes No
 Thermometer ID: #449 Correction Factor: 0.5°C
 Verbal Result: Yes No Add'l Phone #: Add'l Email address: Corrected Temp. °C

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



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

June 26, 2024

AIMEE COLE
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/20/24 13:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 AIMEE COLE
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	06/20/2024	Sampling Date:	06/20/2024
Reported:	06/26/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057103	Sample Received By:	Tamara Oldaker
Project Location:	32.8073, -103.7518		

Sample ID: FS 07 6' (H243664-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/25/2024	ND	2.05	102	2.00	1.31	
Toluene*	<0.050	0.050	06/25/2024	ND	2.14	107	2.00	1.43	
Ethylbenzene*	<0.050	0.050	06/25/2024	ND	2.11	106	2.00	1.19	
Total Xylenes*	<0.150	0.150	06/25/2024	ND	6.52	109	6.00	0.742	
Total BTEX	<0.300	0.300	06/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	06/21/2024	ND	432	108	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	06/24/2024	ND	202	101	200	0.403	
DRO >C10-C28*	13.4	10.0	06/24/2024	ND	201	101	200	4.95	
EXT DRO >C28-C36	<10.0	10.0	06/24/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

June 24, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 06/18/24 13:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 06/18/2024
 Reported: 06/24/2024
 Project Name: MCA 146
 Project Number: 03E2057101
 Project Location: 32.8073564,-103.7518694

Sampling Date: 06/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BF 01 (H243572-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/21/2024	ND	1.99	99.5	2.00	4.24	
Toluene*	<0.050	0.050	06/21/2024	ND	2.08	104	2.00	4.23	
Ethylbenzene*	<0.050	0.050	06/21/2024	ND	2.13	106	2.00	3.88	
Total Xylenes*	<0.150	0.150	06/21/2024	ND	6.36	106	6.00	3.83	
Total BTEX	<0.300	0.300	06/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	06/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	175	87.7	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	175	87.4	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 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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Celey D. Keene, Lab Director/Quality Manager



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August 02, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 146

Enclosed are the results of analyses for samples received by the laboratory on 07/30/24 15:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	07/30/2024	Sampling Date:	07/30/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	MCA 146	Sampling Condition:	Cool & Intact
Project Number:	03E2057103	Sample Received By:	Shalyn Rodriguez
Project Location:	32.8073564,-103.7518694		

Sample ID: BH 03 1 (H244541-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9	
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	08/01/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 AIMEE COLE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/30/2024
 Reported: 08/02/2024
 Project Name: MCA 146
 Project Number: 03E2057103
 Project Location: 32.8073564,-103.7518694

Sampling Date: 07/30/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH 03 3 (H244541-02)

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	07/31/2024	ND	2.25	112	2.00	10.9	
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	08/01/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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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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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST								
Project Manager: Aimee Cole		Company: ENSOLUM LLC										
Address: 3122 National Parks Hwy		Address: Aimee Cole										
City: Carlsbad		State: NM Zip: 88220										
Phone #: (720) 384-7365		Fax #:										
Project #: 03E2057103		Project Owner:										
Project Name: MUA 146		City:										
Project Location: 32,8073564-103,7518694		State:										
Sampler Name: Mario Sarchis		Phone #:										
FOR LAB USE ONLY		Fax #:										
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	BTEX	SPH	Chlorides
1244541	BH03	1	G	1	SOIL	✓		7/30/24	1215	✓	✓	✓
2	BH03	3	G	1	SOIL	✓		7/30/24	1218	✓	✓	✓
PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.												
Relinquished By: <i>[Signature]</i>		Date: 7/30/24		Received By: <i>[Signature]</i>		Date: 7/30/24		Time: 1552		REMARKS: ALOPE@ENSOLUM.COM/MARIO.SARCHIS@ENSOLUM.COM		
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard		
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact		<i>[Signature]</i>		Thermometer ID #495		Kush		
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Correction Factor -0.5°C		#140		
				Yes <input type="checkbox"/> No <input type="checkbox"/>				Bacteria (only)		Sample Condition		
				Yes <input type="checkbox"/> No <input type="checkbox"/>				Cool Intact		Observed Temp. °C		
				Yes <input type="checkbox"/> No <input type="checkbox"/>				Corrected Temp. °C				

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

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

QUESTIONS

Action 370435

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2321651067
Incident Name	NAPP2321651067 MCA UNIT #146 @ 30-025-00717
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-025-00717] MCA UNIT #146

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	MCA UNIT #146
Date Release Discovered	08/04/2023
Surface Owner	Federal

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Corrosion Flow Line - Production Crude Oil Released: 1 BBL Recovered: 0 BBL Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion Flow Line - Production Produced Water Released: 10 BBL Recovered: 0 BBL Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	A flowline rupture resulted in the release of 1 bbl of oil and 10 bbls of produced water onto the facility pad. The release was constrained to the wellpad and did not flow off into the adjacent pasture.

District I
 1625 N. French Dr., Hobbs, NM 88240
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District II
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 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

QUESTIONS, Page 2

Action 370435

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 08/05/2024
--	---

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

District II
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Phone:(575) 748-1283 Fax:(575) 748-9720

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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

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	2880
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	1051
GRO+DRO	(EPA SW-846 Method 8015M)	503
BTEX	(EPA SW-846 Method 8021B or 8260B)	15
Benzene	(EPA SW-846 Method 8021B or 8260B)	0.1

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	05/29/2024
On what date will (or did) the final sampling or liner inspection occur	06/17/2024
On what date will (or was) the remediation complete(d)	06/17/2024
What is the estimated surface area (in square feet) that will be reclaimed	4400
What is the estimated volume (in cubic yards) that will be reclaimed	1250
What is the estimated surface area (in square feet) that will be remediated	4400
What is the estimated volume (in cubic yards) that will be remediated	1250

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 370435

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	R360 ARTESIA LLC LANDFARM [FEEM0112340644]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 08/05/2024
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 370435

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission	No
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QUESTIONS, Page 6

Action 370435

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	370435
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	368289
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/31/2024
What was the (estimated) number of samples that were to be gathered	3
What was the sampling surface area in square feet	600

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	4400
What was the total volume (cubic yards) remediated	1250
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	4400
What was the total volume (in cubic yards) reclaimed	1250
Summarize any additional remediation activities not included by answers (above)	See attached Closure Request for details regarding remediation activities and soil sample results.

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 08/05/2024
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QUESTIONS, Page 7

Action 370435

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 370435
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 370435

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID:	331199
	Action Number:	370435
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation closure approved.	8/5/2024
amaxwell	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	8/5/2024
amaxwell	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	8/5/2024