



August 10, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request
MCA 204
Incident Number NAPP2311751602
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the MCA 204 (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 NAPP2311751602.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 27, Township 17 South, Range 32 East, in Lea County, New Mexico (32.8001257° N, -103.7520913° W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On April 20, 2023, a leak developed in the stuffing box and resulted in the release of approximately 5 barrels (bbls) of crude oil and 10 bbls of produced water onto the surface of the well pad and lease road. 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 May 1, 2023. The release was assigned Incident Number NAPP2311751602.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well RA-12721 POD 5, located

approximately 3,850 feet west of the Site. The groundwater well has a reported depth to groundwater of 124 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix A.

The closest continuously flowing or significant watercourse is greater than 300 feet from the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (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: 20,000 mg/kg

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On May 4, 2023, site assessment and delineation activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Six assessment soil samples (SW1 through SW6) were collected around the visible release extent at a depth of 0.5 feet bgs to confirm the lateral extent of the release. Four soil borings (S1 through S4) were advanced within the release extent to assess the vertical extent of the release. Discrete delineation soil samples were collected from soil borings S1 through S4 at depths ranging from 1-foot to 5 feet bgs. 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 visits and a photographic log is included in Appendix B.

The assessment and delineation 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 Envirotech Inc. Laboratory 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 300.0.

Laboratory analytical results for assessment soil samples SW1 through SW6, collected around the release extent, indicated that all COC concentrations were compliant with the most stringent Table I Closure Criteria and defined the lateral extent of the release. Laboratory analytical results for the delineation soil samples collected within the release extent from soil borings S1 through S4 indicated that TPH concentrations exceeded the most stringent Table I Closure Criteria at depths ranging from 1-foot to 4 feet bgs. All terminal depth delineation soil samples were compliant with the most stringent

Table I Closure Criteria and defined the vertical extent of the release. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix C. Based on visible staining in the release area and laboratory analytical results for the delineation soil samples, excavation activities were warranted.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between July 10, 2023 and July 21, 2023, Ensolum personnel were at the Site to oversee excavation of impacted soil as indicated by visible staining in the release area and laboratory analytical results for the delineation soil samples. 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 utilizing a track-mounted backhoe and transport vehicles. The excavation was completed to depths ranging from 1.5 feet to 4.5 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 FS29, FS01A through FS03A, FS09A, FS14A, FS26A, FS27A, and FS29A were collected from the floor of the excavation at depths ranging from 1.5 feet to 4.5 feet bgs. Composite soil samples SW01 through SW13, SW01A, and SW12A were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. The excavation soil samples were submitted to Cardinal Laboratories and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3.

Laboratory analytical results for excavation floor samples FS01A through FS03A, FS04 through FS08, FS09A, FS10 through FS13, FS14A, FS15 through FS25, FS26A, FS27A, FS28, and FS29A and excavation sidewall samples SW01A, SW02 through SW11, SW12A, and SW13 collected from the final excavation extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results for excavation floor samples FS01 through FS03, FS09, FS14, FS26, FS27, and FS29 and excavation sidewall samples SW01 and SW12 initially exceeded the most stringent Table I Closure Criteria for TPH; additional soil was removed from these areas and subsequent excavation samples FS01A through FS03A, FS09A, FS14A, FS26A, FS27A, FS29A, SW01A and SW12A were compliant. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 4,500 square feet in areal extent. A total of approximately 410 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.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 20, 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 most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation is required. Maverick backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing conditions.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no sensitive receptors were identified near the release extent.



Maverick Permian, LLC
Closure Request
MCA 204

Page 4

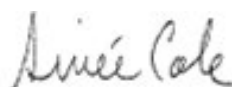
Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident NAPP2311751602. NMOCD Notifications are included in Appendix D and the final Form C-141 is included in Appendix E.

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

Sincerely,
Ensolum, LLC



Julianna Falcomata
Staff Geologist



Aimee Cole
Senior Managing Scientist

cc: Bryce Wagoner, Maverick Natural Resources
Bureau of Land Management

Appendices:

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

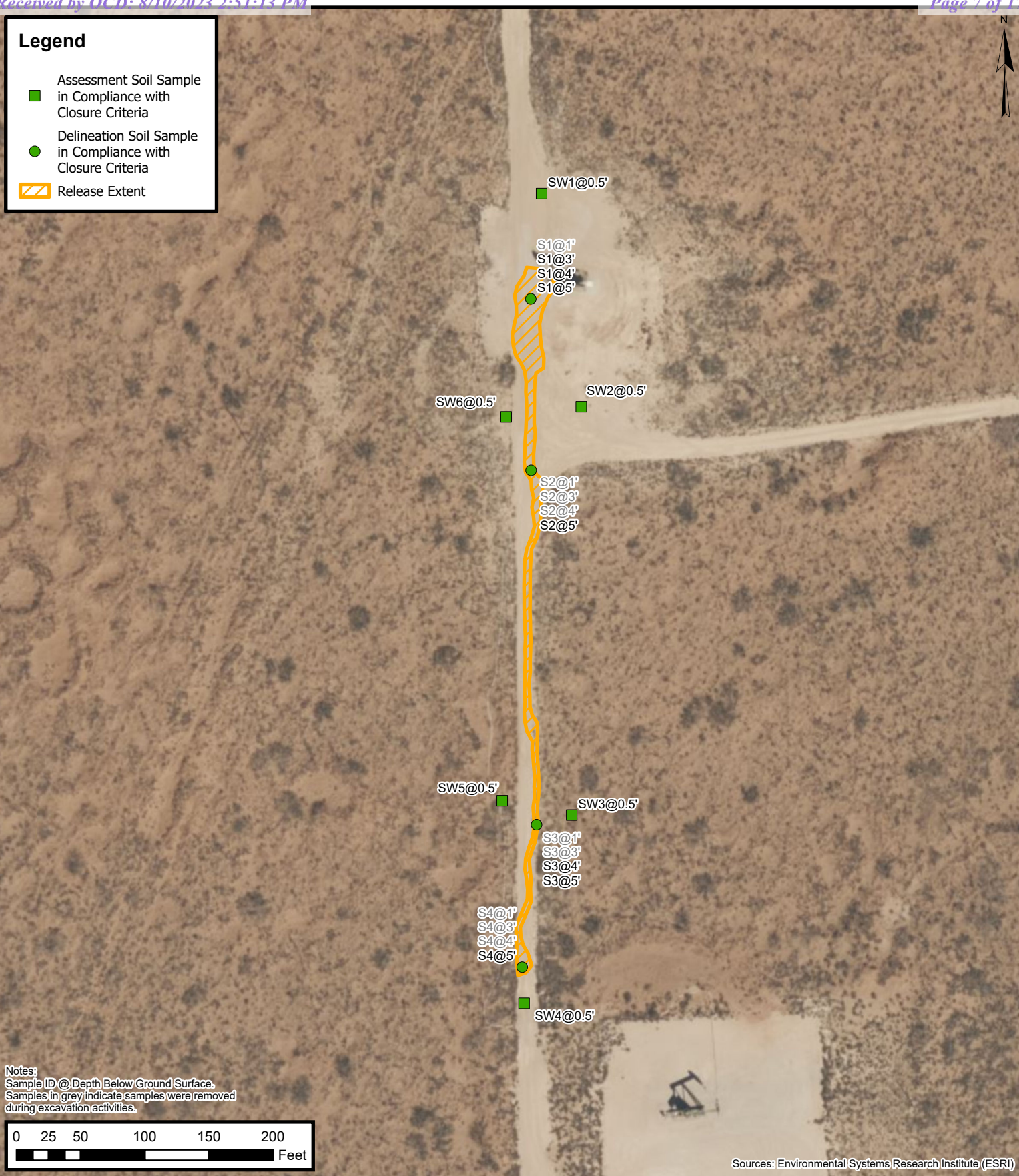


FIGURES

1

Legend

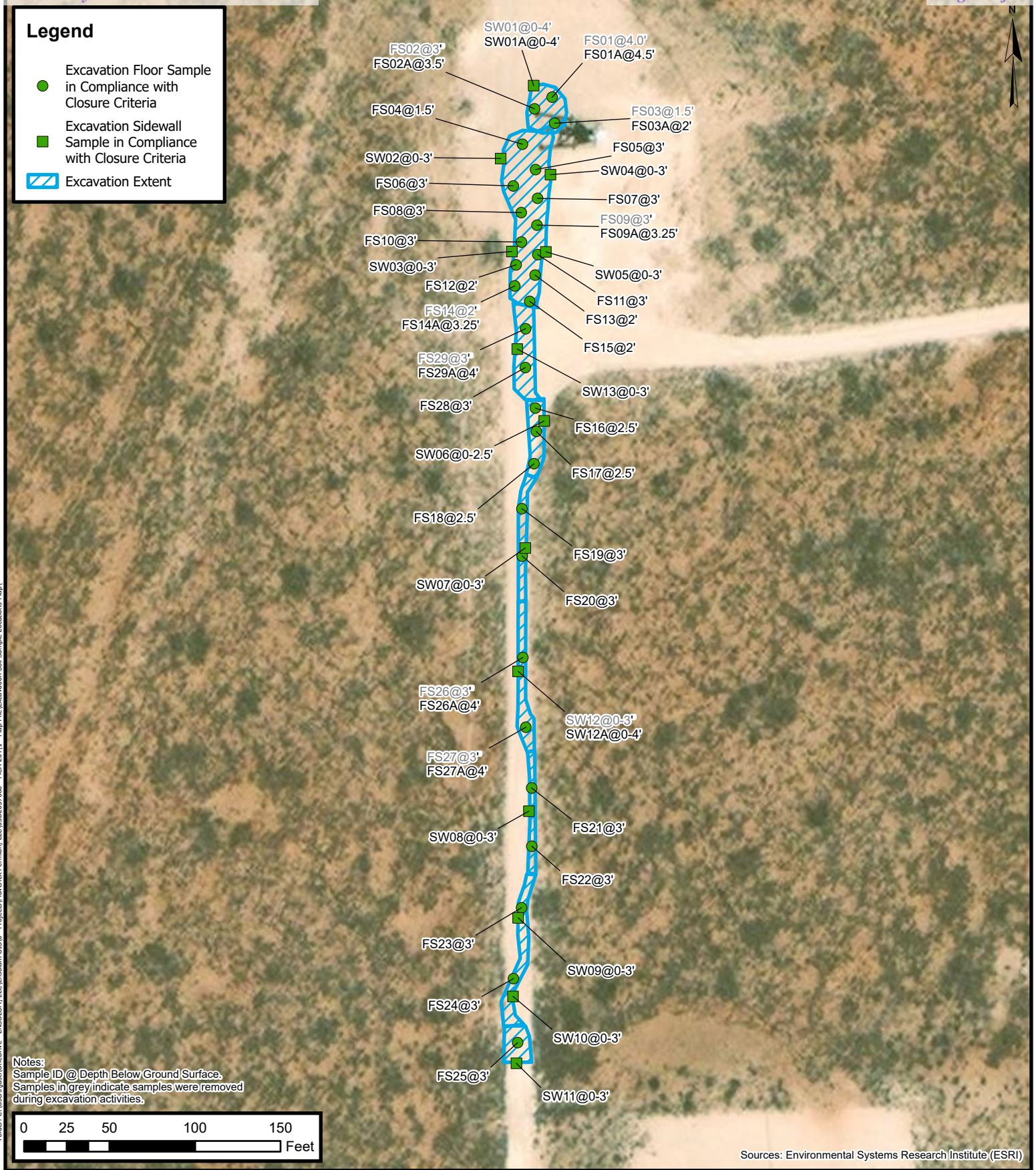
- Assessment Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample in Compliance with Closure Criteria
- ▨ Release Extent



Assessment and Delineation Soil Sample Locations

Maverick Permian, LLC
MCA 204
Incident Number: NAPP2311751602
Unit O, Sec 27, T17S, R32E
Lea County, New Mexico

FIGURE
2





TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA 204
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Assessment Soil Samples										
SW1	5/4/2023	0.5	<0.0250	ND	ND	ND	ND	ND	ND	ND
SW2	5/4/2023	0.5	ND	ND	ND	ND	ND	ND	ND	ND
SW3	5/4/2023	0.5	ND	ND	ND	ND	ND	ND	ND	ND
SW4	5/4/2023	0.5	ND	ND	ND	ND	ND	ND	ND	ND
SW5	5/4/2023	0.5	ND	ND	ND	ND	ND	ND	ND	ND
SW6	5/4/2023	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Delineation Soil Samples										
S1	5/4/2023	1	ND	0.99	ND	698	293	991	991	495
S1	5/4/2023	3	ND	ND	ND	ND	ND	ND	ND	272
S1	5/4/2023	4	ND	ND	ND	ND	ND	ND	ND	86.0
S1	5/4/2023	5	ND	2.15	ND	ND	ND	ND	ND	ND
S2	5/4/2023	1	ND	ND	36.9	950	370	1,320	1,357	ND
S2	5/4/2023	3	ND	ND	ND	ND	ND	ND	ND	ND
S2	5/4/2023	4	ND	ND	ND	110	51.4	161	161	24.8
S2	5/4/2023	5	ND	ND	ND	ND	ND	ND	ND	ND
S3	5/4/2023	1	ND	1.76	21.5	1,280	559	1,302	1,861	ND
S3	5/4/2023	3	ND	0.88	ND	1,220	ND	1,220	1,220	175
S3	5/4/2023	4	ND	ND	ND	ND	ND	ND	ND	73.7
S3	5/4/2023	5	ND	ND	ND	ND	ND	ND	ND	ND
S4	5/4/2023	1	ND	0.300	ND	53.7	98.9	53.7	153	ND
S4	5/4/2023	3	ND	ND	ND	ND	ND	ND	ND	ND
S4	5/4/2023	4	ND	ND	ND	111	51.5	111	163	ND
S4	5/4/2023	5	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA 204
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Floor Soil Samples										
FS01	7/10/2023	4	<0.050	<0.300	<10.0	62.1	62.4	62.1	125	256
FS01A	7/14/2023	4.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	82.3
FS02	7/10/2023	3	<0.050	<0.300	<10.0	61.4	94.3	61.4	156	208
FS02A	7/14/2023	3.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	31.1
FS03	7/10/2023	1.5	<0.050	<0.300	<10.0	177	147	177	324	304
FS03A	7/14/2023	2	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	43.6
FS04	7/12/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS05	7/11/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS06	7/11/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS07	7/11/2023	3	<0.050	<0.300	<10.0	16.6	<10.0	16.6	16.6	240
FS08	7/11/2023	3	<0.050	<0.300	<10.0	13.6	<10.0	13.6	13.6	256
FS09	7/11/2023	3	<0.050	<0.300	<10.0	75.9	29.3	75.9	105	192
FS09A	7/12/2023	3.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS10	7/11/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS11	7/11/2023	3	<0.050	<0.300	<10.0	20.6	<10.0	20.6	20.6	192
FS12	7/11/2023	2	<0.050	<0.300	<10.0	15.4	<10.0	15.4	15.4	272
FS13	7/11/2023	2	<0.050	<0.300	<10.0	22.7	<10.0	22.7	22.7	256
FS14	7/11/2023	2	<0.050	<0.300	<10.0	86.4	25.6	86.4	112	208
FS14A	7/12/2023	3.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS15	7/11/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS16	7/12/2023	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS17	7/12/2023	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS18	7/12/2023	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS19	7/14/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS20	7/14/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS21	7/14/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS22	7/14/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS23	7/17/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA 204
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	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)
NMOCDC Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS24	7/17/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS25	7/17/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS26	7/18/2023	3	<0.050	<0.300	<10.0	102	49.3	102	151	32.0
FS26A	7/19/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS27	7/18/2023	3	<0.050	<0.300	<10.0	89.7	65.7	89.7	155	16.0
FS27A	7/19/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS28	7/18/2023	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS29	7/18/2023	3	<0.050	<0.300	<10.0	136	77.1	136	213	16.0
FS29A	7/19/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
Excavation Sidewall Soil Samples										
SW01	7/10/2023	0-4	<0.050	<0.300	<10.0	177	216	177	393	208
SW01A	7/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW02	7/11/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW03	7/11/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW04	7/11/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW05	7/11/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW06	7/12/2023	0-2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW07	7/14/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW08	7/14/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW09	7/17/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SW10	7/17/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SW11	7/17/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW12	7/18/2023	0-3	<0.050	<0.300	<10.0	78.6	67.7	78.6	146	<16.0
SW12A	7/19/2023	0-4	<0.050	<0.300	<10.0	136	77.1	136	<10.0	16.0
SW13	7/18/2023	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0

Notes:

ND: non-detectable

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCDC: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

TPH: Total Petroleum Hydrocarbon

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

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

Grey text represents samples that have been excavated



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) MW-10 70DS		WELL TAG ID NO.		OSE FILE NO(S). RA-12721			
	WELL OWNER NAME(S) ConocoPhillips Company				PHONE (OPTIONAL) 432-258-3451			
	WELL OWNER MAILING ADDRESS 901 W Wall St, Suite 100				CITY Midland	STATE TX	ZIP 79701	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 48	SECONDS 5.56 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
	LONGITUDE 103 45 53.23 W							
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE MCA 357								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.		
	DRILLING STARTED 04/27/2020	DRILLING ENDED 04/28/2020	DEPTH OF COMPLETED WELL (FT) 130.0		BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT) 124.25		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 124.25		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	-2.7	90.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	
	90.0	130.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	.010
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0.0	10.0	6.0	Type 2 Portland Cement w/5% Bentonite Grout	1.963	Pump Mix w/Tremie Pipe		
	10.0	87.0	6.0	Bentonite Chips	22 Bags	Hand Mix		
	87.0	130.0	6.0	20/40 Sand	16 Bags	Hand Mix		

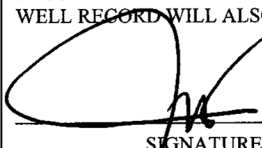
FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. RA-12721	POD NO. 5	TRN NO. 670406
LOCATION 175.32E.28.442		WELL TAG ID NO. _____
		PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0.0	0.5	0.5	Caliche base	Y ✓ N	
	0.5	2.0	1.5	Brown sand/sandstone	Y ✓ N	
	2.0	3.0	1.0	Red/brown sand/sandstone	Y ✓ N	
	3.0	17.0	14.0	Caliche	Y ✓ N	
	17.0	28.0	11.0	Light brown sand/sandstone	Y ✓ N	
	28.0	37.0	9.0	Red/brown sand/sandstone	Y ✓ N	
	37.0	42.0	5.0	Light brown sand/sandstone	Y ✓ N	
	42.0	49.0	7.0	Red/brown silty sandstone	Y ✓ N	
	49.0	52.0	3.0	Gray sandstone	Y ✓ N	
	52.0	60.0	8.0	Purple, gray and light brown layers of sandstone	Y ✓ N	
	60.0	80.0	20.0	Purple/brown sandstone	Y ✓ N	
	80.0	98.0	18.0	Brown and tan sandstone	Y ✓ N	
	98.0	109.0	11.0	Light gray tan sandstone	Y ✓ N	
	109.0	121.0	12.0	Green and brown mixes sandstone	✓ Y N	
	121.0	125.0	4.0	Yellow, brown and gray silty sandstone	✓ Y N	
	125.0	130.0	5.0	Green brown silty sandstone	✓ Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm):	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: William B. Atkins	

6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.	
	 SIGNATURE OF DRILLER / PRINT SIGNED NAME	05/11/2020 DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. RA-12721	POD NO. 5	TRN NO. 670406
LOCATION		PAGE 2 OF 2

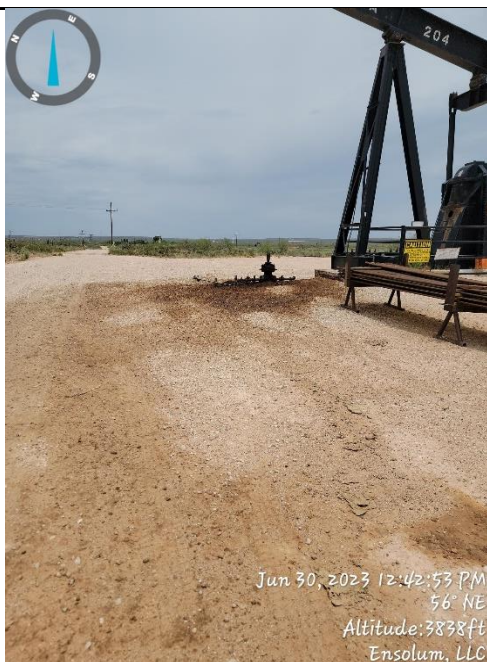


APPENDIX B

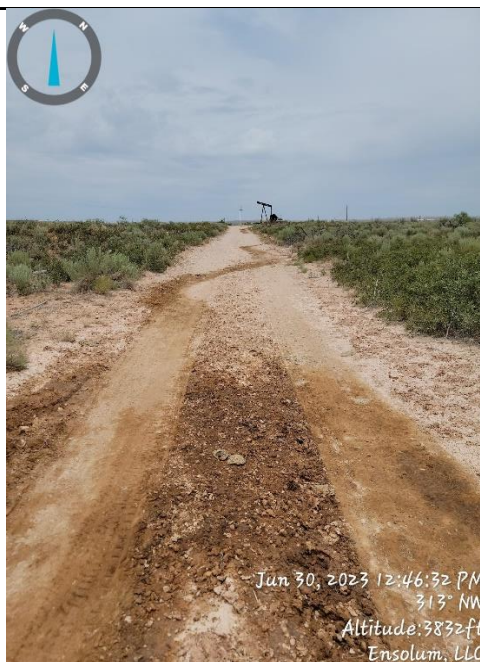
Photographic Log



Photographic Log
Maverick Permian, LLC
MCA 204
NAPP2311751602



Photograph 1 Date: 6/30/2023
Description: Impacted soil from release
View: Northwest



Photograph 2 Date: 6/30/2023
Description: Impacted soil from release
View: Northwest



Photograph 3 Date: 7/10/2023
Description: Excavation activities
View: Southeast



Photograph 4 Date: 7/14/2023
Description: Excavation Activities
View: South



Photographic Log
Maverick Permian, LLC
MCA 204
NAPP2311751602

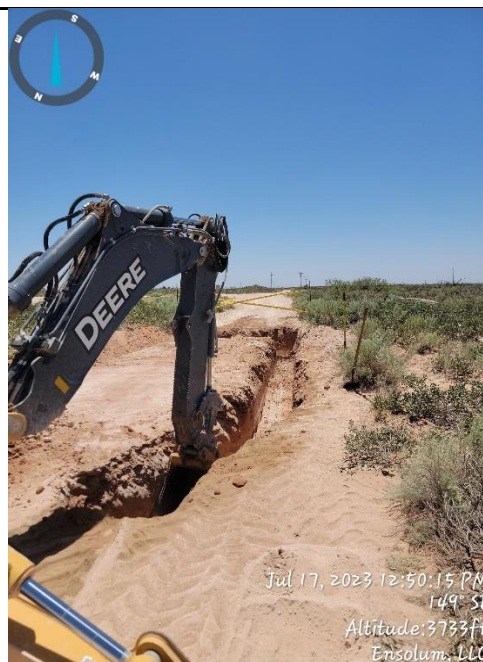


Photograph 1

Date: 7/17/2023

Description: Excavation Activities

View: Northwest



Photograph 2

Date: 7/17/2023

Description: Excavation Activities

View: Southeast



Photograph 3

Date: 7/18/2023

Description: Completed excavation

View: South



Photograph 4

Date: 7/18/2023

Description: Completed excavation

View: South



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: MCA 204

Work Order: E304214

Job Number: 21064-0001

Received: 4/28/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/4/23

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/4/23

Tom Bynum
PO Box 247
Plains, TX 79355-0247



Project Name: MCA 204
Workorder: E304214
Date Received: 4/28/2023 8:45:00AM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/28/2023 8:45:00AM, under the Project Name: MCA 204.

The analytical test results summarized in this report with the Project Name: MCA 204 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
S1 - 1'	6
S1 - 3'	7
S1 - 4'	8
S2 - 1'	9
S2 - 3'	10
S2 - 4'	11
S3 - 1'	12
S3 - 3'	13
S3 - 4'	14
S4 - 1'	15
S4 - 3'	16
S4 - 4'	17
SW1	18
SW2	19
SW3	20
SW4	21
SW5	22
SW6	23
S1 - 5'	24
S2 - 5'	25

Table of Contents (continued)

S3 - 5'	26
S4 - 5'	27
QC Summary Data	28
QC - Volatile Organic Compounds by EPA 8260B	28
QC - Nonhalogenated Organics by EPA 8015D - GRO	30
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	32
QC - Anions by EPA 300.0/9056A	34
Definitions and Notes	36
Chain of Custody etc.	37

Sample Summary

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported: 05/04/23 16:23
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S1 - 1'	E304214-01A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S1 - 3'	E304214-02A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S1 - 4'	E304214-03A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S2 - 1'	E304214-04A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S2 - 3'	E304214-05A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S2 - 4'	E304214-06A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S3 - 1'	E304214-07A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S3 - 3'	E304214-08A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S3 - 4'	E304214-09A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S4 - 1'	E304214-10A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S4 - 3'	E304214-11A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S4 - 4'	E304214-12A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW1	E304214-13A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW2	E304214-14A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW3	E304214-15A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW4	E304214-16A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW5	E304214-17A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
SW6	E304214-18A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S1 - 5'	E304214-19A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S2 - 5'	E304214-20A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S3 - 5'	E304214-21A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.
S4 - 5'	E304214-22A	Soil	04/26/23	04/28/23	Glass Jar, 2 oz.



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S1 - 1'

E304214-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	0.164	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	0.155	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	0.258	0.0500	1	05/01/23	05/03/23	
Total Xylenes	0.413	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene	108 %	70-130		05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		05/01/23	05/03/23	
Surrogate: Toluene-d8	98.7 %	70-130		05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene	108 %	70-130		05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		05/01/23	05/03/23	
Surrogate: Toluene-d8	98.7 %	70-130		05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	698	50.0	2	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	293	100	2	05/01/23	05/02/23	
Surrogate: n-Nonane	83.7 %	50-200		05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	495	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S1 - 3'

E304214-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.4 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/02/23	
Surrogate: n-Nonane		80.6 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	272	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S1 - 4'

E304214-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/02/23	
Surrogate: n-Nonane		78.4 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	86.0	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S2 - 1'

E304214-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	0.388	0.0250	1	05/01/23	05/03/23	
Toluene	0.0635	0.0250	1	05/01/23	05/03/23	
o-Xylene	0.329	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	0.522	0.0500	1	05/01/23	05/03/23	
Total Xylenes	0.851	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		111 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		101 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	36.9	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		111 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		101 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	950	50.0	2	05/01/23	05/04/23	
Oil Range Organics (C28-C36)	370	100	2	05/01/23	05/04/23	
Surrogate: n-Nonane		86.0 %	50-200	05/01/23	05/04/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S2 - 3'

E304214-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		112 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		101 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		112 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		101 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/02/23	
Surrogate: n-Nonane		79.0 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S2 - 4'

E304214-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	110	25.0	1	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	51.4	50.0	1	05/01/23	05/02/23	
Surrogate: n-Nonane		83.6 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	24.8	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S3 - 1'

E304214-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	0.316	0.0250	1	05/01/23	05/03/23	
Toluene	0.0300	0.0250	1	05/01/23	05/03/23	
o-Xylene	0.253	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	0.456	0.0500	1	05/01/23	05/03/23	
Total Xylenes	0.708	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		115 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		102 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	21.5	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		115 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		102 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	1280	250	10	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	559	500	10	05/01/23	05/02/23	
Surrogate: n-Nonane		84.2 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S3 - 3'

E304214-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	0.116	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	0.161	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	0.221	0.0500	1	05/01/23	05/03/23	
Total Xylenes	0.382	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.9 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	1220	250	10	05/01/23	05/02/23	
Oil Range Organics (C28-C36)	ND	500	10	05/01/23	05/02/23	
Surrogate: n-Nonane		78.9 %	50-200	05/01/23	05/02/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	175	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S3 - 4'

E304214-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		97.9 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		86.0 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	73.7	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S4 - 1'

E304214-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	0.0300	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	0.0300	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		108 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	53.7	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	98.9	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		83.3 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S4 - 3 '

E304214-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		97.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		97.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		86.4 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/03/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S4 - 4'

E304214-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	111	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	51.5	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		86.8 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW1

E304214-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.8 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.8 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		85.9 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW2

E304214-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		85.6 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW3

E304214-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.3 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		82.6 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW4

E304214-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		106 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		112 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		90.0 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW5

E304214-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.6 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		98.6 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		85.7 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

SW6

E304214-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.8 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		105 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.8 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		87.5 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S1 - 5'

E304214-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		107 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.5 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		87.4 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S2 - 5'

E304214-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Benzene	ND	0.0250	1	05/01/23	05/03/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/03/23	
Toluene	ND	0.0250	1	05/01/23	05/03/23	
o-Xylene	ND	0.0250	1	05/01/23	05/03/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/03/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318027
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/03/23	
Surrogate: Bromofluorobenzene		104 %	70-130	05/01/23	05/03/23	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	05/01/23	05/03/23	
Surrogate: Toluene-d8		99.0 %	70-130	05/01/23	05/03/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2318001
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane		88.2 %	50-200	05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2318020
Chloride	ND	20.0	1	05/01/23	05/04/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S3 - 5'

E304214-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318007
Benzene	ND	0.0250	1	05/01/23	05/01/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/01/23	
Toluene	ND	0.0250	1	05/01/23	05/01/23	
o-Xylene	ND	0.0250	1	05/01/23	05/01/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/01/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/01/23	
Surrogate: Bromofluorobenzene	96.1 %	70-130		05/01/23	05/01/23	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		05/01/23	05/01/23	
Surrogate: Toluene-d8	99.1 %	70-130		05/01/23	05/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318007
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/01/23	
Surrogate: Bromofluorobenzene	96.1 %	70-130		05/01/23	05/01/23	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		05/01/23	05/01/23	
Surrogate: Toluene-d8	99.1 %	70-130		05/01/23	05/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2318006
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane	92.0 %	50-200		05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2318010
Chloride	ND	20.0	1	05/01/23	05/02/23	



Sample Data

Pima Environmental Services-Carlsbad
PO Box 247
Plains TX, 79355-0247

Project Name: MCA 204
Project Number: 21064-0001
Project Manager: Tom Bynum

Reported:
5/4/2023 4:23:19PM

S4 - 5'

E304214-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318007
Benzene	ND	0.0250	1	05/01/23	05/01/23	
Ethylbenzene	ND	0.0250	1	05/01/23	05/01/23	
Toluene	ND	0.0250	1	05/01/23	05/01/23	
o-Xylene	ND	0.0250	1	05/01/23	05/01/23	
p,m-Xylene	ND	0.0500	1	05/01/23	05/01/23	
Total Xylenes	ND	0.0250	1	05/01/23	05/01/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		05/01/23	05/01/23	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		05/01/23	05/01/23	
Surrogate: Toluene-d8	101 %	70-130		05/01/23	05/01/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2318007
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/01/23	05/01/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		05/01/23	05/01/23	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		05/01/23	05/01/23	
Surrogate: Toluene-d8	101 %	70-130		05/01/23	05/01/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2318006
Diesel Range Organics (C10-C28)	ND	25.0	1	05/01/23	05/03/23	
Oil Range Organics (C28-C36)	ND	50.0	1	05/01/23	05/03/23	
Surrogate: n-Nonane	92.6 %	50-200		05/01/23	05/03/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2318010
Chloride	ND	20.0	1	05/01/23	05/02/23	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported:
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/4/2023 4:23:19PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2318007-BLK1)

Prepared: 05/01/23 Analyzed: 05/01/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

LCS (2318007-BS1)

Prepared: 05/01/23 Analyzed: 05/01/23

Benzene	2.41	0.0250	2.50		96.5	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.9	70-130			
Toluene	2.35	0.0250	2.50		93.8	70-130			
o-Xylene	2.40	0.0250	2.50		96.1	70-130			
p,m-Xylene	4.72	0.0500	5.00		94.4	70-130			
Total Xylenes	7.12	0.0250	7.50		95.0	70-130			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			

Matrix Spike (2318007-MS1)

Source: E304208-02

Prepared: 05/01/23 Analyzed: 05/01/23

Benzene	2.32	0.0250	2.50	ND	92.7	48-131			
Ethylbenzene	2.26	0.0250	2.50	ND	90.3	45-135			
Toluene	2.24	0.0250	2.50	ND	89.6	48-130			
o-Xylene	2.29	0.0250	2.50	ND	91.7	43-135			
p,m-Xylene	4.49	0.0500	5.00	ND	89.8	43-135			
Total Xylenes	6.78	0.0250	7.50	ND	90.4	43-135			
Surrogate: Bromofluorobenzene	0.494		0.500		98.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

Matrix Spike Dup (2318007-MSD1)

Source: E304208-02

Prepared: 05/01/23 Analyzed: 05/01/23

Benzene	2.31	0.0250	2.50	ND	92.6	48-131	0.108	23	
Ethylbenzene	2.30	0.0250	2.50	ND	92.1	45-135	1.97	27	
Toluene	2.30	0.0250	2.50	ND	92.0	48-130	2.64	24	
o-Xylene	2.40	0.0250	2.50	ND	96.0	43-135	4.58	27	
p,m-Xylene	4.72	0.0500	5.00	ND	94.4	43-135	5.04	27	
Total Xylenes	7.12	0.0250	7.50	ND	95.0	43-135	4.88	27	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.1	70-130			
Surrogate: Toluene-d8	0.506		0.500		101	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported:
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/4/2023 4:23:19PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2318027-BLK1)

Prepared: 05/01/23 Analyzed: 05/02/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.550		0.500		110	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

LCS (2318027-BS1)

Prepared: 05/01/23 Analyzed: 05/02/23

Benzene	2.51	0.0250	2.50		100	70-130			
Ethylbenzene	2.46	0.0250	2.50		98.5	70-130			
Toluene	2.50	0.0250	2.50		100	70-130			
o-Xylene	2.43	0.0250	2.50		97.2	70-130			
p,m-Xylene	4.83	0.0500	5.00		96.5	70-130			
Total Xylenes	7.26	0.0250	7.50		96.7	70-130			
Surrogate: Bromofluorobenzene	0.549		0.500		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.578		0.500		116	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

Matrix Spike (2318027-MS1)

Source: E304214-02

Prepared: 05/01/23 Analyzed: 05/03/23

Benzene	2.45	0.0250	2.50	ND	98.2	48-131			
Ethylbenzene	2.36	0.0250	2.50	ND	94.6	45-135			
Toluene	2.37	0.0250	2.50	ND	95.0	48-130			
o-Xylene	2.35	0.0250	2.50	ND	93.9	43-135			
p,m-Xylene	4.63	0.0500	5.00	ND	92.6	43-135			
Total Xylenes	6.98	0.0250	7.50	ND	93.1	43-135			
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.538		0.500		108	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.8	70-130			

Matrix Spike Dup (2318027-MSD1)

Source: E304214-02

Prepared: 05/01/23 Analyzed: 05/03/23

Benzene	2.54	0.0250	2.50	ND	101	48-131	3.25	23	
Ethylbenzene	2.47	0.0250	2.50	ND	98.7	45-135	4.24	27	
Toluene	2.49	0.0250	2.50	ND	99.4	48-130	4.61	24	
o-Xylene	2.44	0.0250	2.50	ND	97.4	43-135	3.62	27	
p,m-Xylene	4.82	0.0500	5.00	ND	96.3	43-135	3.89	27	
Total Xylenes	7.25	0.0250	7.50	ND	96.7	43-135	3.79	27	
Surrogate: Bromofluorobenzene	0.543		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.539		0.500		108	70-130			
Surrogate: Toluene-d8	0.495		0.500		99.0	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported: 5/4/2023 4:23:19PM
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2318007-BLK1)					Prepared: 05/01/23 Analyzed: 05/01/23				
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

LCS (2318007-BS2)					Prepared: 05/01/23 Analyzed: 05/01/23				
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0		90.1	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.1	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

Matrix Spike (2318007-MS2)					Source: E304208-02		Prepared: 05/01/23 Analyzed: 05/01/23		
Gasoline Range Organics (C6-C10)	43.5	20.0	50.0	ND	87.1	70-130			
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.518		0.500		104	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

Matrix Spike Dup (2318007-MSD2)					Source: E304208-02		Prepared: 05/01/23 Analyzed: 05/01/23		
Gasoline Range Organics (C6-C10)	42.2	20.0	50.0	ND	84.3	70-130	3.23	20	
Surrogate: Bromofluorobenzene	0.487		0.500		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.510		0.500		102	70-130			
Surrogate: Toluene-d8	0.506		0.500		101	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported:
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/4/2023 4:23:19PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2318027-BLK1)

Prepared: 05/01/23 Analyzed: 05/02/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.550		0.500		110	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

LCS (2318027-BS2)

Prepared: 05/01/23 Analyzed: 05/02/23

Gasoline Range Organics (C6-C10)	44.3	20.0	50.0		88.5	70-130			
Surrogate: Bromofluorobenzene	0.544		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.558		0.500		112	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

Matrix Spike (2318027-MS2)

Source: E304214-02

Prepared: 05/01/23 Analyzed: 05/03/23

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0	ND	95.7	70-130			
Surrogate: Bromofluorobenzene	0.539		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.525		0.500		105	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

Matrix Spike Dup (2318027-MSD2)

Source: E304214-02

Prepared: 05/01/23 Analyzed: 05/03/23

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0	ND	95.8	70-130	0.122	20	
Surrogate: Bromofluorobenzene	0.542		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.537		0.500		107	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported: 5/4/2023 4:23:19PM
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2318001-BLK1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	41.8		50.0		83.5	50-200			

LCS (2318001-BS1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Diesel Range Organics (C10-C28)	264	25.0	250		105	38-132			
Surrogate: n-Nonane	44.5		50.0		89.1	50-200			

Matrix Spike (2318001-MS1)					Source: E304214-04		Prepared: 05/01/23 Analyzed: 05/04/23		
Diesel Range Organics (C10-C28)	1210	50.0	250	950	104	38-132			
Surrogate: n-Nonane	43.7		50.0		87.4	50-200			

Matrix Spike Dup (2318001-MSD1)					Source: E304214-04		Prepared: 05/01/23 Analyzed: 05/04/23		
Diesel Range Organics (C10-C28)	1330	50.0	250	950	153	38-132	9.60	20	M2
Surrogate: n-Nonane	41.8		50.0		83.6	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported: 5/4/2023 4:23:19PM
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2318006-BLK1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.0		50.0		99.9	50-200			

LCS (2318006-BS1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Diesel Range Organics (C10-C28)	264	25.0	250		106	38-132			
Surrogate: n-Nonane	45.5		50.0		91.0	50-200			

Matrix Spike (2318006-MS1)					Source: E304208-10		Prepared: 05/01/23 Analyzed: 05/02/23		
Diesel Range Organics (C10-C28)	259	25.0	250	ND	103	38-132			
Surrogate: n-Nonane	43.5		50.0		87.0	50-200			

Matrix Spike Dup (2318006-MSD1)					Source: E304208-10		Prepared: 05/01/23 Analyzed: 05/02/23		
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	3.24	20	
Surrogate: n-Nonane	45.6		50.0		91.1	50-200			



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported: 5/4/2023 4:23:19PM
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2318010-BLK1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Chloride	ND	20.0							
LCS (2318010-BS1)					Prepared: 05/01/23 Analyzed: 05/02/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2318010-MS1)					Source: E304193-21		Prepared: 05/01/23 Analyzed: 05/02/23		
Chloride	251	20.0	250	ND	100	80-120			
Matrix Spike Dup (2318010-MSD1)					Source: E304193-21		Prepared: 05/01/23 Analyzed: 05/02/23		
Chloride	251	20.0	250	ND	100	80-120	0.0112	20	



QC Summary Data

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	Reported:
PO Box 247	Project Number:	21064-0001	
Plains TX, 79355-0247	Project Manager:	Tom Bynum	5/4/2023 4:23:19PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2318020-BLK1)					Prepared: 05/01/23 Analyzed: 05/03/23				
Chloride	ND	20.0							
LCS (2318020-BS1)					Prepared: 05/01/23 Analyzed: 05/03/23				
Chloride	247	20.0	250		98.7	90-110			
Matrix Spike (2318020-MS1)					Source: E304214-01		Prepared: 05/01/23 Analyzed: 05/03/23		
Chloride	776	20.0	250	495	112	80-120			
Matrix Spike Dup (2318020-MSD1)					Source: E304214-01		Prepared: 05/01/23 Analyzed: 05/03/23		
Chloride	776	20.0	250	495	112	80-120	0.0318	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Pima Environmental Services-Carlsbad	Project Name:	MCA 204	
PO Box 247	Project Number:	21064-0001	Reported:
Plains TX, 79355-0247	Project Manager:	Tom Bynum	05/04/23 16:23

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Page 1 of 3

Client: Pima Environmental Services				Bill To				Lab Use Only				TAT				EPA Program			
Project: MCA 204				Attention: Pima				Lab WO# E304214				Job Number 21064-0001				1D 2D 3D Standard			
Project Manager: Tom Bynum				Address:												CWA SDWA			
Address: 5614 N. Lovington Hwy.				City, State, Zip												RCRA			
City, State, Zip Hobbs, NM, 88240				Phone:												State			
Phone: 580-748-1613				Email:												NM CO UT AZ TX			
Email: tom@pimaoil.com				Pima Project # 24-17															
Report due by:																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks					
	4/26/23	Soil	1	S1-1'	1							X							
				S1-3'	2														
				S1-4'	3														
				S2-1'	4														
				S2-3'	5														
				S2-4'	6														
				S3-1'	7														
				S3-3'	8														
				S3-4'	9														
				S4-1'	10														
Additional Instructions:																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.							
Relinquished by: (Signature) <i>Andrew Miso</i>												Lab Use Only							
Date 4-27-23 Time 200												Received on ice: <i>Q</i> / N							
Relinquished by: (Signature) <i>Andrew Miso</i>												T1 T2 T3							
Date 4-27-23 Time 1745												AVG Temp °C 4							
Relinquished by: (Signature) <i>Andrew Miso</i>												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA							
Date 4-27-23 Time 2330												Received by: (Signature) <i>Andrew Miso</i>							
Date 4-28-23 Time 845												Received by: (Signature) <i>Andrew Miso</i>							
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																			
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Project Information

Chain of Custody

Page 7 of 3

Client: Pima Environmental Services				Bill To				Lab Use Only				TAT				EPA Program	
Project: <u>MCA 204</u>				Attention: <u>Pima</u>				Lab WO# <u>E 304214</u>		Job Number <u>21064-0001</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Tom Bynum				Address:				Analysis and Method								RCRA	
Address: 5614 N. Lovington Hwy.				City, State, Zip												State	
City, State, Zip <u>Hobbs, NM, 88240</u>				Phone:				NM		CO		UT		AZ		TX	
Phone: 580-748-1613				Email:				BGDOC NM		BGDOC TX							
Email: tom@pimaoil.com				Pima Project # <u>24-7</u>				DRO/ORO by 8015		GRO/DRO by 8015		BTEX by 8021		VOC by 8260		Metals 6010	
Report due by:								Chloride 300.0									
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Remarks											
	4/26/23	Soil	1	S4-3'	11	X											
				S4-4'	12												
				SW1	13												
				SW2	14												
				SW3	15												
				SW4	16												
				SW5	17												
				SW6	18												
				S1-5'	19												
				S2-5'	20												

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>Andrew Messo</u>	4-27-23	2:00	<u>Andrew Messo</u>	4-27-23	1400
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>Andrew Messo</u>	4-27-23	1745	<u>Andrew Messo</u>	4-27-23	1800
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>Andrew Messo</u>	4-27-23	2330	<u>Andrew Messo</u>	4/28/23	8:45

Lab Use Only		
Received on ice: <u>Y</u> / N		
T1	T2	T3
AVG Temp °C <u>4</u>		

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.


envirotech

Project Information

Chain of Custody

Page 3 of 3

Client: Pima Environmental Services				Bill To		Lab Use Only		TAT				EPA Program			
Project: <u>MCA 204</u>				Attention: <u>Pima</u>		Lab WO# <u>E 304214</u>		Job Number <u>21064-0001</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Tom Bynum				Address:		Analysis and Method							X		
Address: 5614 N. Lovington Hwy.				City, State, Zip											RCRA
City, State, Zip <u>Hobbs, NM, 88240</u>				Phone:											
Phone: 580-748-1613				Email:											
Email: tom@pimaoil.com				Pima Project # <u>24-7</u>											
Report due by:															
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks	
	4/26/23	S _o	11	53-5'	21							X			
	1	1	1	54-5'	22							X			

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<u>Andrew Moss</u>	4-27-23	2100	<u>Andrew Moss</u>	4-27-23	1400	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<u>Andrew Moss</u>	4-27-23	1745	<u>Andrew Moss</u>	4-27-23	1800	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<u>Andrew Moss</u>	4-27-23	2330	<u>Castle Chute</u>	4/28/23	8:45	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.


envirotech

Envirotech Analytical Laboratory

Printed: 4/28/2023 2:54:20PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Pima Environmental Services-Carlsbad	Date Received:	04/28/23 08:45	Work Order ID:	E304214
Phone:	(575) 631-6977	Date Logged In:	04/27/23 17:01	Logged In By:	Caitlin Christian
Email:	tom@pimaoil.com	Due Date:	05/04/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution**

Time sampled not provided on the COC by client

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



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

July 11, 2023

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/10/23 15:46.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/10/2023
Reported: 07/11/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.79857,-103.752337

Sampling Date: 07/10/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 01 @ 4' (H233489-01)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2023	ND	2.24	112	2.00	3.65		
Toluene*	<0.050	0.050	07/10/2023	ND	2.21	110	2.00	1.30		
Ethylbenzene*	<0.050	0.050	07/10/2023	ND	2.11	105	2.00	3.43		
Total Xylenes*	<0.150	0.150	07/10/2023	ND	6.52	109	6.00	3.02		
Total BTEx	<0.300	0.300	07/10/2023	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	256	16.0	07/11/2023	ND	416	104	400	3.92		

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	07/11/2023	ND	175	87.5	200	0.0926	
DRO >C10-C28*	62.1	10.0	07/11/2023	ND	173	86.4	200	4.34	
EXT DRO >C28-C36	62.4	10.0	07/11/2023	ND					

Surrogate: 1-Chlorooctane 133 % 48.2-134

Surrogate: 1-Chlorooctadecane 149 % 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
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/10/2023
Reported: 07/11/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.79857,-103.752337

Sampling Date: 07/10/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 02 @ 3' (H233489-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2023	ND	2.24	112	2.00	3.65	
Toluene*	<0.050	0.050	07/10/2023	ND	2.21	110	2.00	1.30	
Ethylbenzene*	<0.050	0.050	07/10/2023	ND	2.11	105	2.00	3.43	
Total Xylenes*	<0.150	0.150	07/10/2023	ND	6.52	109	6.00	3.02	
Total BTEx	<0.300	0.300	07/10/2023	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	208	16.0	07/11/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2023	ND	175	87.5	200	0.0926	
DRO >C10-C28*	61.4	10.0	07/11/2023	ND	173	86.4	200	4.34	
EXT DRO >C28-C36	94.3	10.0	07/11/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/10/2023
Reported: 07/11/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.79857,-103.752337

Sampling Date: 07/10/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 03 @ 1.5' (H233489-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2023	ND	2.24	112	2.00	3.65		
Toluene*	<0.050	0.050	07/10/2023	ND	2.21	110	2.00	1.30		
Ethylbenzene*	<0.050	0.050	07/10/2023	ND	2.11	105	2.00	3.43		
Total Xylenes*	<0.150	0.150	07/10/2023	ND	6.52	109	6.00	3.02		
Total BTEx	<0.300	0.300	07/10/2023	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	304	16.0	07/11/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2023	ND	175	87.5	200	0.0926	
DRO >C10-C28*	177	10.0	07/11/2023	ND	173	86.4	200	4.34	
EXT DRO >C28-C36	147	10.0	07/11/2023	ND					

Surrogate: 1-Chlorooctane 105 % 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
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/10/2023
Reported: 07/11/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.79857,-103.752337

Sampling Date: 07/10/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW 01 @ 0-4' (H233489-04)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2023	ND	2.24	112	2.00	3.65		
Toluene*	<0.050	0.050	07/10/2023	ND	2.21	110	2.00	1.30		
Ethylbenzene*	<0.050	0.050	07/10/2023	ND	2.11	105	2.00	3.43		
Total Xylenes*	<0.150	0.150	07/10/2023	ND	6.52	109	6.00	3.02		
Total BTX	<0.300	0.300	07/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	07/11/2023	ND	432	108	400	7.69		

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	07/11/2023	ND	175	87.5	200	0.0926	
DRO >C10-C28*	177	10.0	07/11/2023	ND	173	86.4	200	4.34	
EXT DRO >C28-C36	216	10.0	07/11/2023	ND					

Surrogate: 1-Chlorooctane 141 % 48.2-134

Surrogate: 1-Chlorooctadecane 172 % 49.1-148

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Qnsolum LLC							BILL TO		ANALYSIS REQUEST														
Project Manager: Javier Serrano							P.O. #:																
Address: 8122 Nat'l Parks Hwy							Company: A.A.																
City: Dayton, OH							Attn:																
Phone #: 937-688-2508							Address:																
Project #: 0802051068							City:																
Project Name: MCA 204							State:																
Project Location: 32, 19857, -108, 752351							Zip:																
Sample Name: Sullivan, Falcónmata							Phone #:																
FOR LAB USE ONLY							Fax #:																
Lab I.D.		Sample I.D.		FOR LAB USE ONLY		PRESERV		SAMPLING															
H233489		FSDT 004'		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :		DATE		TIME									
1 FSDT 004'		1								7/10/23		1340											
2 FSDT 003'		1								7/10/23		1345											
3 FSDT 001.5'		1								7/10/23		1350											
4 FSDT 000-4'		1								7/10/23		1355											
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Relinquished By: [Signature]							Received By: [Signature]							Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:									
Date: 7-10-23							Time: 15:46							All Results are emailed. Please provide Email address:									
Relinquished By: [Signature]							Received By: [Signature]							REMARKS: [Handwritten Notes]									
Delivered By: (Circle One)							Observed Temp. °C							Turnaround Time:									
Sampler - UPS - Bus - Other:							Corrected Temp. °C							Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>									
							Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>							Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>									
							CHECKED BY: (Initials)							Thermometer ID #413 140°C									
							Correction Factor 0.5°C							Corrected Temp. °C									



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July 12, 2023

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/11/23 15:39.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 05 @ 3' (H233531-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06	
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395	
Total BTEX	<0.300	0.300	07/12/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/11/2023
Reported: 07/12/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/11/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 06 @ 3' (H233531-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTX	<0.300	0.300	07/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 07 @ 3' (H233531-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTX	<0.300	0.300	07/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	240	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	16.6	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 08 @ 3' (H233531-04)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTX	<0.300	0.300	07/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	13.6	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/11/2023
Reported: 07/12/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/11/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 09 @ 3' (H233531-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06	
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395	
Total BTX	<0.300	0.300	07/12/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	75.9	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	29.3	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 10 @ 3' (H233531-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTEx	<0.300	0.300	07/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 11 @ 2' (H233531-07)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTX	<0.300	0.300	07/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	190	95.2	200	7.73	
DRO >C10-C28*	20.6	10.0	07/12/2023	ND	204	102	200	15.8	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/11/2023
Reported: 07/12/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/11/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 12 @ 2' (H233531-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTEx	<0.300	0.300	07/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	15.4	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 136 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 13 @ 2' (H233531-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06		
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771		
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496		
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395		
Total BTEx	<0.300	0.300	07/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	22.7	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 14 @ 2' (H233531-10)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	1.86	93.0	2.00	1.06	
Toluene*	<0.050	0.050	07/12/2023	ND	1.84	91.9	2.00	0.771	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	1.83	91.5	2.00	0.496	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	5.61	93.5	6.00	0.395	
Total BTX	<0.300	0.300	07/12/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	86.4	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	25.6	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 15 @ 2' (H233531-11)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	2.10	105	2.00	11.8	
Toluene*	<0.050	0.050	07/12/2023	ND	2.09	104	2.00	12.1	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	2.01	100	2.00	13.1	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	6.21	104	6.00	12.3	
Total BTEx	<0.300	0.300	07/12/2023	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	32.0	16.0	07/12/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: SW 02 @ 0-3' (H233531-12)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	2.10	105	2.00	11.8	
Toluene*	<0.050	0.050	07/12/2023	ND	2.09	104	2.00	12.1	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	2.01	100	2.00	13.1	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	6.21	104	6.00	12.3	
Total BTEx	<0.300	0.300	07/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 49.1-148

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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: SW 03 @ 0-3' (H233531-13)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	2.10	105	2.00	11.8	
Toluene*	<0.050	0.050	07/12/2023	ND	2.09	104	2.00	12.1	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	2.01	100	2.00	13.1	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	6.21	104	6.00	12.3	
Total BTEx	<0.300	0.300	07/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 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
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: SW 04 @ 0-3' (H233531-14)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	2.10	105	2.00	11.8	
Toluene*	<0.050	0.050	07/12/2023	ND	2.09	104	2.00	12.1	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	2.01	100	2.00	13.1	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	6.21	104	6.00	12.3	
Total BTEx	<0.300	0.300	07/12/2023	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	48.0	16.0	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 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
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/11/2023	Sampling Date:	07/11/2023
Reported:	07/12/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: SW 05 @ 0-3' (H233531-15)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/12/2023	ND	2.10	105	2.00	11.8	
Toluene*	<0.050	0.050	07/12/2023	ND	2.09	104	2.00	12.1	
Ethylbenzene*	<0.050	0.050	07/12/2023	ND	2.01	100	2.00	13.1	
Total Xylenes*	<0.150	0.150	07/12/2023	ND	6.21	104	6.00	12.3	
Total BTEx	<0.300	0.300	07/12/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/12/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/12/2023	ND	200	100	200	7.77	
DRO >C10-C28*	<10.0	10.0	07/12/2023	ND	200	100	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	07/12/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolium LLC Project Manager: Haley Jennings Address: 8172 North Parkside Way City: Fort Meade State: MD Zip: 20720 Phone #: 811-688-2503 Fax #: Project #: B02051084 Project Owner: Mawerick Project Name: MCA 904 Project Location: (32.798451 - 103.752337) Sample Name: WILMUNA FALLS AREA #40 FOR LAB USE ONLY						BILL TO						ANALYSIS REQUEST					
						P.O. #:											
						Company: LPA											
						Attn:											
						Address:											
						City:											
						State:						Zip:					
						Phone #:											
						Fax #:											

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	DATE	TIME	TESTS				Bacteria (only)	Sample Condition
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :				ACID/BASE:	ICE / COOL	OTHER :	BTX		
H233531	FS05 @ 3'	(C)	1	X						X	7/11/73	1405	X	X	X			
	FS06 @ 3'											1410						
	FS07 @ 3'											1415						
	FS08 @ 3'											1420						
	FS09 @ 3'											1425						
	FS10 @ 3'											1430						
	FS11 @ 2'											1435						
	FS12 @ 2'											1440						
	FS13 @ 2'											1445						
	FS14 @ 2'																	

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Relinquished By: [Signature]		Date: 7-11-23		Received By: [Signature]		Date: 7-11-23	
Relinquished By: [Signature]		Date: 7-13-99		Received By: [Signature]		Date: 7-13-99	

Delivered By: (Circle One) **Observed Temp. °C** 4.3 **Corrected Temp. °C**

Sampler - UPS - Bus - Other:

Sample Condition
Cool ☒ Intact ☒
Yes ☒ No ☐

CHECKED BY: (Initials) **Turnaround Time:** Standard ☐ Rush ☒

Thermometer ID #413 **Correction Factor** -0.50

Remarks: Viewings @ ensolum.com falconette@ensolum.com

All Results are emailed. Please provide Email address:

Central Result: ☐ Yes ☒ No **Add'l Phone #:**

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cardinal Labs		P.O. #:		BILL TO		ANALYSIS REQUEST					
Project Manager: Hobbs, NM		Company: AA									
Address: 5122 Nat'l Guards Hwy		Attn:									
City: Carlsbad		State: NM									
Phone #: 575-483-2503		Fax #: -									
Project #: 652057088		Project Owner: Maverick									
Project Name: MCA 204		City:									
Project Location: (52.798457 -108.752337)		State:									
Sampler Name: Juanita Palomata		Phone #:									
FOR LAB USE ONLY		Fax #:									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.		MATRIX		PRESERV.		SAMPLING			
		# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :
AB33331	ESR 22'	1	X	1	1	1	1	1	1	1	
11	5007-00-3	1	1	1	1	1	1	1	1	1	
12	5008-00-3	1	1	1	1	1	1	1	1	1	
13	5009-00-3	1	1	1	1	1	1	1	1	1	
14	5004-00-3	1	1	1	1	1	1	1	1	1	
15	5005-00-3	1	1	1	1	1	1	1	1	1	
<p>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 hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</p>											
Relinquished By: [Signature]		Date: 7-11-23		Received By: [Signature]		Date: 7-11-23		Time: 15:39		Time: 15:39	
Relinquished By: [Signature]		Date: 7-11-23		Received By: [Signature]		Date: 7-11-23		Time: 15:39		Time: 15:39	
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard	
Sampler - UPS - Bus - Other:		43		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
Corrected Temp. °C		43		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
FORM 006 R-33 07/19/22				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
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				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
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				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
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				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Sample Condition	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO		44hr		<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	
				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		YO					



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

July 13, 2023

KALEI JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/12/23 15:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 04 1.5' (H233573-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTX	<0.300	0.300	07/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 09 3.25' (H233573-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTEx	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 93.6 % 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, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 14 3.25' (H233573-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTEx	<0.300	0.300	07/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 16 2.5' (H233573-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTX	<0.300	0.300	07/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 101 % 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, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 17 2.5' (H233573-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTX	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: FS 18 2.5' (H233573-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTX	<0.300	0.300	07/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 07/12/2023
Reported: 07/13/2023
Project Name: MCA 204
Project Number: NONE GIVEN
Project Location: 32.8001,-103.7521

Sampling Date: 07/12/2023
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Shalyn Rodriguez

Sample ID: SW 06 0-2.5' (H233573-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.04	102	2.00	1.94	
Toluene*	<0.050	0.050	07/13/2023	ND	2.01	101	2.00	1.22	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.806	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	6.07	101	6.00	0.114	
Total BTEx	<0.300	0.300	07/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/13/2023	ND	448	112	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	07/13/2023	ND	201	101	200	9.76	
DRO >C10-C28*	<10.0	10.0	07/13/2023	ND	214	107	200	9.63	
EXT DRO >C28-C36	<10.0	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Engslun, LLC Project Manager: Kalei Jennings Address: 601 N. Marietta St, #400 City: Midland State: TX Zip: 79701 Phone #: 817-683-2503 Fax #: Project #: Project Name: MCA 204 Project Location: 32, 8001, -103, 7521 Sample Name: Peter Van Ratten				P.O. #: Company: Engslun, LLC Attn: Kalei Jennings Address: 601 N. Marietta St, #400 City: Midland State: TX Zip: 79701 Phone #: 817-683-2503 Fax #:				BILL TO ANALYSIS REQUEST															
FOR LAB USE ONLY				LAB I.D.				SAMPLE I.D.															
1 2 3 4 5 6 7				FS04 FS09 FS14 FS16 FS17 FS18 S006				1.5' 3.25' 3.25' 2.5' 2.5' 2.5' 0-25'				(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :				DATE TIME				TPH BTEx Chlorides			
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				CHECKED BY:				Turnaround Time:							
7-12-23 1345				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440				7-12-23 1400 1405 1410 1420 1425 1430 1440							
Relinquished By:				Received By:				Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <															



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

July 18, 2023

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/14/23 13:15.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/14/2023
Reported: 07/18/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/14/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shari Cisneros

Sample ID: FS 19 @ 3' (H233657-01)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2023	ND	2.08	104	2.00	2.83		
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837		
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12		
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626		
Total BTX	<0.300	0.300	07/15/2023	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	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/14/2023
Reported: 07/18/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/14/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shari Cisneros

Sample ID: FS 20 @ 3' (H233657-02)

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	07/15/2023	ND	2.08	104	2.00	2.83		
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837		
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12		
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626		
Total BTEx	<0.300	0.300	07/15/2023	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	32.0	16.0	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/14/2023
Reported: 07/18/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/14/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shari Cisneros

Sample ID: FS 21 @ 3' (H233657-03)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2023	ND	2.08	104	2.00	2.83		
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837		
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12		
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626		
Total BTX	<0.300	0.300	07/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 146 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/14/2023
Reported: 07/18/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/14/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shari Cisneros

Sample ID: FS 22 @ 3' (H233657-04)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2023	ND	2.08	104	2.00	2.83	
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837	
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12	
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626	
Total BTX	<0.300	0.300	07/15/2023	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	<16.0	16.0	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/14/2023
Reported: 07/18/2023
Project Name: MCA 204
Project Number: 03D2057088
Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/14/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shari Cisneros

Sample ID: SW 07 @ 0-3' (H233657-05)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2023	ND	2.08	104	2.00	2.83		
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837		
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12		
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626		
Total BTX	<0.300	0.300	07/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	07/14/2023	Sampling Date:	07/14/2023
Reported:	07/18/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Shari Cisneros
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: SW 08 @ 0-3' (H233657-06)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2023	ND	2.08	104	2.00	2.83		
Toluene*	<0.050	0.050	07/15/2023	ND	2.05	103	2.00	0.837		
Ethylbenzene*	<0.050	0.050	07/15/2023	ND	2.13	107	2.00	1.12		
Total Xylenes*	<0.150	0.150	07/15/2023	ND	6.44	107	6.00	0.626		
Total BTX	<0.300	0.300	07/15/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/17/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2023	ND	207	103	200	2.63	
DRO >C10-C28*	<10.0	10.0	07/16/2023	ND	199	99.4	200	4.11	
EXT DRO >C28-C36	<10.0	10.0	07/16/2023	ND					

Surrogate: 1-Chlorooctane 114 % 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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Notes and Definitions

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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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

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

[illegible]



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

July 18, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/17/23 14:52.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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:	07/17/2023	Sampling Date:	07/17/2023
Reported:	07/18/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.798457,-103.752337		

Sample ID: FS 23 @ 3' (H233685-01)

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	07/17/2023	ND	2.10	105	2.00	0.540	
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760	
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265	
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346	
Total BTEx	<0.300	0.300	07/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	07/18/2023	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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 80.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 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: 07/17/2023
 Reported: 07/18/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/17/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 24 @ 3' (H233685-02)

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	07/17/2023	ND	2.10	105	2.00	0.540		
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760		
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265		
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346		
Total BTEx	<0.300	0.300	07/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	160	16.0	07/18/2023	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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 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: 07/17/2023
 Reported: 07/18/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/17/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 25 @ 4' (H233685-03)

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	07/17/2023	ND	2.10	105	2.00	0.540	
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760	
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265	
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346	
Total BTEx	<0.300	0.300	07/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	07/18/2023	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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 74.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.1 % 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: 07/17/2023
 Reported: 07/18/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/17/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW 09 @ 0-3' (H233685-04)

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	07/17/2023	ND	2.10	105	2.00	0.540		
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760		
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265		
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346		
Total BTEx	<0.300	0.300	07/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	160	16.0	07/18/2023	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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.5 % 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: 07/17/2023
 Reported: 07/18/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/17/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW 10 @ 0-3' (H233685-05)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/17/2023	ND	2.10	105	2.00	0.540		
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760		
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265		
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346		
Total BTX	<0.300	0.300	07/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	144	16.0	07/18/2023	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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 81.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 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: 07/17/2023
 Reported: 07/18/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/17/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW 11 @ 0-3' (H233685-06)

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	07/17/2023	ND	2.10	105	2.00	0.540		
Toluene*	<0.050	0.050	07/17/2023	ND	2.07	103	2.00	0.0760		
Ethylbenzene*	<0.050	0.050	07/17/2023	ND	2.17	108	2.00	0.265		
Total Xylenes*	<0.150	0.150	07/17/2023	ND	6.50	108	6.00	0.346		
Total BTEx	<0.300	0.300	07/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/18/2023	ND	352	88.0	400	16.7		

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	07/18/2023	ND	170	85.1	200	0.445	
DRO >C10-C28*	<10.0	10.0	07/18/2023	ND	167	83.6	200	3.05	
EXT DRO >C28-C36	<10.0	10.0	07/18/2023	ND					

Surrogate: 1-Chlorooctane 73.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.0 % 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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Perisolum LLC</u> Project Manager: <u>NO Himele</u> Address: <u>6122 Nat'l Parks Hwy</u> City: <u>Carlsbad</u> State: <u>NM</u> zip: <u>88220</u> Phone #: <u>720-584-1365</u> Fax #: _____ Project #: <u>DD2057088</u> Project Owner: <u>Maurick</u> Project Name: <u>NEA 204</u> Project Location: <u>82.794457 -103.752337</u> Sampler Name: <u>Ylanna Federsma</u>		BILL TO P.O. #: _____ Company: <u>A.A</u> Attn: _____ Address: _____ City: _____ State: _____ zip: _____ Phone #: _____ Fax #: _____	
FOR LAB USE ONLY		ANALYSIS REQUEST	
Lab I.D. <u>H233665</u>	Sample I.D. <u>1</u> <u>F523</u> <u>Q3</u> <u>2</u> <u>F524</u> <u>Q3</u> <u>3</u> <u>F525</u> <u>Q4</u> <u>4</u> <u>S1009</u> <u>Q0-3</u> <u>5</u> <u>S1010</u> <u>Q0-3</u> <u>6</u> <u>S1011</u> <u>Q0-3</u>	(G)RAB OR (C)OMP. <u>Q</u> <u>1</u> # CONTAINERS GROUNDWATER WASTEWATER SOIL <input checked="" type="checkbox"/> OIL SLUDGE OTHER : ACID/BASE: ICE / COOL <input checked="" type="checkbox"/> OTHER :	MATRIX PRESERV SAMPLING DATE <u>7/17/18</u> TIME <u>1200</u> <u>1205</u> <u>1210</u> <u>1235</u> <u>1240</u> <u>1245</u>
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 service. 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.		BTEx TPH Chlorides	
Relinquished By: <u>[Signature]</u> Relinquished By: <u>[Signature]</u> Date: <u>7-17-23</u> Time: <u>1452</u> Received By: <u>[Signature]</u> Date: _____ Time: _____	Observed Temp. °C <u>41.82</u> Corrected Temp. °C _____ Sample Condition <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: _____ Thermometer ID #113 <u>24W</u> Correction Factor -0.6°C Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No Sample Condition Observed Temp. °C Corrected Temp. °C	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: <u>0006@perisolum.com, ylenings@perisolum, falcama@perisolum</u> REMARKS:

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



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

July 19, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/18/23 14:02.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 26 @ 3' (H233723-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2023	ND	2.02	101	2.00	1.43	
Toluene*	<0.050	0.050	07/19/2023	ND	1.95	97.7	2.00	2.24	
Ethylbenzene*	<0.050	0.050	07/19/2023	ND	1.94	97.0	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/19/2023	ND	6.31	105	6.00	1.95	
Total BTX	<0.300	0.300	07/19/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	173	86.6	200	2.72	
DRO >C10-C28*	102	10.0	07/19/2023	ND	168	83.9	200	0.669	
EXT DRO >C28-C36	49.3	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 48.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 58.8 % 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: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 27 @ 3' (H233723-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/19/2023	ND	2.02	101	2.00	1.43		
Toluene*	<0.050	0.050	07/19/2023	ND	1.95	97.7	2.00	2.24		
Ethylbenzene*	<0.050	0.050	07/19/2023	ND	1.94	97.0	2.00	1.49		
Total Xylenes*	<0.150	0.150	07/19/2023	ND	6.31	105	6.00	1.95		
Total BTX	<0.300	0.300	07/19/2023	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	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	173	86.6	200	2.72	
DRO >C10-C28*	89.7	10.0	07/19/2023	ND	168	83.9	200	0.669	
EXT DRO >C28-C36	65.7	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 51.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.3 % 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: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 28 @ 3' (H233723-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/19/2023	ND	2.02	101	2.00	1.43		
Toluene*	<0.050	0.050	07/19/2023	ND	1.95	97.7	2.00	2.24		
Ethylbenzene*	<0.050	0.050	07/19/2023	ND	1.94	97.0	2.00	1.49		
Total Xylenes*	<0.150	0.150	07/19/2023	ND	6.31	105	6.00	1.95		
Total BTX	<0.300	0.300	07/19/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	173	86.6	200	2.72	
DRO >C10-C28*	<10.0	10.0	07/19/2023	ND	168	83.9	200	0.669	
EXT DRO >C28-C36	<10.0	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 51.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.4 % 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: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 29 @ 3' (H233723-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/19/2023	ND	2.02	101	2.00	1.43		
Toluene*	<0.050	0.050	07/19/2023	ND	1.95	97.7	2.00	2.24		
Ethylbenzene*	<0.050	0.050	07/19/2023	ND	1.94	97.0	2.00	1.49		
Total Xylenes*	<0.150	0.150	07/19/2023	ND	6.31	105	6.00	1.95		
Total BTEx	<0.300	0.300	07/19/2023	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	16.0	16.0	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	173	86.6	200	2.72	
DRO >C10-C28*	136	10.0	07/19/2023	ND	168	83.9	200	0.669	
EXT DRO >C28-C36	77.1	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 53.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 65.7 % 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: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 12 @ 0-3' (H233723-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2023	ND	2.01	101	2.00	2.04	
Toluene*	<0.050	0.050	07/18/2023	ND	1.99	99.6	2.00	1.65	
Ethylbenzene*	<0.050	0.050	07/18/2023	ND	1.96	98.2	2.00	2.22	
Total Xylenes*	<0.150	0.150	07/18/2023	ND	5.84	97.3	6.00	2.61	
Total BTX	<0.300	0.300	07/18/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	206	103	200	7.39	
DRO >C10-C28*	78.6	10.0	07/19/2023	ND	205	103	200	7.17	
EXT DRO >C28-C36	67.7	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.2 % 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: 07/18/2023
 Reported: 07/19/2023
 Project Name: MCA 204
 Project Number: 03D2057088
 Project Location: MAVERICK 32.798457,-103.752337

Sampling Date: 07/18/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 13 @ 0-3' (H233723-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/18/2023	ND	2.01	101	2.00	2.04	
Toluene*	<0.050	0.050	07/18/2023	ND	1.99	99.6	2.00	1.65	
Ethylbenzene*	<0.050	0.050	07/18/2023	ND	1.96	98.2	2.00	2.22	
Total Xylenes*	<0.150	0.150	07/18/2023	ND	5.84	97.3	6.00	2.61	
Total BTEx	<0.300	0.300	07/18/2023	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	07/19/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2023	ND	206	103	200	7.39	
DRO >C10-C28*	<10.0	10.0	07/19/2023	ND	205	103	200	7.17	
EXT DRO >C28-C36	<10.0	10.0	07/19/2023	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 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.
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

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

Celey D. Keene, Lab Director/Quality Manager



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

July 21, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/19/23 15:16.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	07/19/2023	Sampling Date:	07/19/2023
Reported:	07/21/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Jodi Henson
Project Location:	MAVERICK (32.798457,-103.752337)		

Sample ID: FS 26A @ 4' (H233759-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2023	ND	2.09	104	2.00	2.61	
Toluene*	<0.050	0.050	07/20/2023	ND	2.05	102	2.00	2.17	
Ethylbenzene*	<0.050	0.050	07/20/2023	ND	1.98	98.8	2.00	2.39	
Total Xylenes*	<0.150	0.150	07/20/2023	ND	5.92	98.7	6.00	3.15	
Total BTEX	<0.300	0.300	07/20/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/20/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2023	ND	162	80.8	200	2.89	
DRO >C10-C28*	<10.0	10.0	07/20/2023	ND	173	86.7	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	07/20/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 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:	07/19/2023	Sampling Date:	07/19/2023
Reported:	07/21/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Jodi Henson
Project Location:	MAVERICK (32.798457,-103.752337)		

Sample ID: FS 27A @ 4' (H233759-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/20/2023	ND	2.09	104	2.00	2.61		
Toluene*	<0.050	0.050	07/20/2023	ND	2.05	102	2.00	2.17		
Ethylbenzene*	<0.050	0.050	07/20/2023	ND	1.98	98.8	2.00	2.39		
Total Xylenes*	<0.150	0.150	07/20/2023	ND	5.92	98.7	6.00	3.15		
Total BTX	<0.300	0.300	07/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/20/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2023	ND	162	80.8	200	2.89	
DRO >C10-C28*	<10.0	10.0	07/20/2023	ND	173	86.7	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	07/20/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 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:	07/19/2023	Sampling Date:	07/19/2023
Reported:	07/21/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Jodi Henson
Project Location:	MAVERICK (32.798457,-103.752337)		

Sample ID: FS 29A @ 4' (H233759-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2023	ND	2.09	104	2.00	2.61	
Toluene*	<0.050	0.050	07/20/2023	ND	2.05	102	2.00	2.17	
Ethylbenzene*	<0.050	0.050	07/20/2023	ND	1.98	98.8	2.00	2.39	
Total Xylenes*	<0.150	0.150	07/20/2023	ND	5.92	98.7	6.00	3.15	
Total BTEx	<0.300	0.300	07/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/20/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2023	ND	162	80.8	200	2.89	
DRO >C10-C28*	<10.0	10.0	07/20/2023	ND	173	86.7	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	07/20/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 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:	07/19/2023	Sampling Date:	07/19/2023
Reported:	07/21/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Jodi Henson
Project Location:	MAVERICK (32.798457,-103.752337)		

Sample ID: SW 12A @ 0-4' (H233759-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/20/2023	ND	2.09	104	2.00	2.61		
Toluene*	<0.050	0.050	07/20/2023	ND	2.05	102	2.00	2.17		
Ethylbenzene*	<0.050	0.050	07/20/2023	ND	1.98	98.8	2.00	2.39		
Total Xylenes*	<0.150	0.150	07/20/2023	ND	5.92	98.7	6.00	3.15		
Total BTEx	<0.300	0.300	07/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	07/20/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/20/2023	ND	162	80.8	200	2.89	
DRO >C10-C28*	<10.0	10.0	07/20/2023	ND	173	86.7	200	3.84	
EXT DRO >C28-C36	<10.0	10.0	07/20/2023	ND					

Surrogate: 1-Chlorooctane 102 % 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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476 Company Name: Arsolum LLC Project Manager: Time Dole Address: 3122 Nat'l Parks Hwy City: Durham State: NM Zip: 88220 Phone #: 720-584-1365 Fax #: _____ Project #: BSD2057088 Project Owner: Maverick Project Name: MOA 904 Project Location: 32.798457 - 103.182337 Sampler Name: Juanita Falcone FOR LAB USE ONLY							P.O. #: Company: A.A. Attn: Address: City: State: Zip: Phone #: Fax #:		BILL TO		ANALYSIS REQUEST	
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV. SAMPLING								
H233754 1 FS26AO 4' 2 FS27HAO 4' 3 FS29HAO 4' 4 SW12A @ 0-4'		C T X X X X X X X X		DATE TIME 7/19/83 1400 1405 1410 1415		BTEX TPH Chlorides						
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Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____ REMARKS: Note @ Arsolum.com faecal coliforms												

FORM-0008-R-3-3-07/10/22



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

July 24, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MCA 204

Enclosed are the results of analyses for samples received by the laboratory on 07/21/23 10:10.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	07/21/2023	Sampling Date:	07/21/2023
Reported:	07/24/2023	Sampling Type:	Soil
Project Name:	MCA 204	Sampling Condition:	Cool & Intact
Project Number:	03D2057088	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK (32.798457,-103.752337)		

Sample ID: SW 01 A @ 0-4' (H233810-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/21/2023	ND	2.13	106	2.00	1.75	
Toluene*	<0.050	0.050	07/21/2023	ND	2.09	104	2.00	0.752	
Ethylbenzene*	<0.050	0.050	07/21/2023	ND	2.04	102	2.00	1.22	
Total Xylenes*	<0.150	0.150	07/21/2023	ND	6.14	102	6.00	1.08	
Total BTEX	<0.300	0.300	07/21/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	07/21/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2023	ND	199	99.3	200	18.6	
DRO >C10-C28*	<10.0	10.0	07/21/2023	ND	225	113	200	5.66	
EXT DRO >C28-C36	<10.0	10.0	07/21/2023	ND					

Surrogate: 1-Chlorooctane 93.8 % 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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Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Aimee Cole

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 7/20/2023 12:59:31 PM

JOB DESCRIPTION

MCA 204

SDG NUMBER 03D2057088

JOB NUMBER

880-30744-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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7/20/2023 12:59:31 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: MCA 204

Laboratory Job ID: 880-30744-1
SDG: 03D2057088

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Job ID: 880-30744-1**Laboratory: Eurofins Midland****Narrative****Job Narrative
880-30744-1****Receipt**

The samples were received on 7/14/2023 10:54 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01A (880-30744-1), FS02A (880-30744-2) and FS03A (880-30744-3).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-57697 and analytical batch 880-57653 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS02A (880-30744-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-57697/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-57730 and analytical batch 880-57996 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4939-A-1-F). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Client Sample ID: FS01A

Lab Sample ID: 880-30744-1

Date Collected: 07/14/23 09:15

Matrix: Solid

Date Received: 07/14/23 10:54

Sample Depth: 4.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/14/23 13:11	07/15/23 09:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/14/23 13:11	07/15/23 09:52	1
Ethylbenzene	<0.00198	U **	0.00198	mg/Kg		07/14/23 13:11	07/15/23 09:52	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396	mg/Kg		07/14/23 13:11	07/15/23 09:52	1
o-Xylene	<0.00198	U **	0.00198	mg/Kg		07/14/23 13:11	07/15/23 09:52	1
Xylenes, Total	<0.00396	U **	0.00396	mg/Kg		07/14/23 13:11	07/15/23 09:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	07/14/23 13:11	07/15/23 09:52	1
1,4-Difluorobenzene (Surr)	74		70 - 130	07/14/23 13:11	07/15/23 09:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/17/23 14:24	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/20/23 13:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/14/23 17:17	07/19/23 15:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/14/23 17:17	07/19/23 15:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/14/23 17:17	07/19/23 15:13	1
Total TPH	<49.9	U	49.9	mg/Kg		07/14/23 17:17	07/19/23 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	07/14/23 17:17	07/19/23 15:13	1
o-Terphenyl	129		70 - 130	07/14/23 17:17	07/19/23 15:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.3		4.99	mg/Kg			07/15/23 01:06	1

Client Sample ID: FS02A

Lab Sample ID: 880-30744-2

Date Collected: 07/14/23 09:17

Matrix: Solid

Date Received: 07/14/23 10:54

Sample Depth: 3.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/14/23 13:11	07/15/23 10:13	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/14/23 13:11	07/15/23 10:13	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		07/14/23 13:11	07/15/23 10:13	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402	mg/Kg		07/14/23 13:11	07/15/23 10:13	1
o-Xylene	<0.00201	U **	0.00201	mg/Kg		07/14/23 13:11	07/15/23 10:13	1
Xylenes, Total	<0.00402	U **	0.00402	mg/Kg		07/14/23 13:11	07/15/23 10:13	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Client Sample ID: FS02A

Lab Sample ID: 880-30744-2

Date Collected: 07/14/23 09:17

Matrix: Solid

Date Received: 07/14/23 10:54

Sample Depth: 3.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	07/14/23 13:11	07/15/23 10:13	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130	07/14/23 13:11	07/15/23 10:13	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/17/23 14:24	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/20/23 13:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 15:35	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	07/14/23 17:17	07/19/23 15:35	1
o-Terphenyl	121		70 - 130	07/14/23 17:17	07/19/23 15:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.1		4.96	mg/Kg			07/15/23 01:22	1

Client Sample ID: FS03A

Lab Sample ID: 880-30744-3

Date Collected: 07/14/23 09:20

Matrix: Solid

Date Received: 07/14/23 10:54

Sample Depth: 2'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 10:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 10:33	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		07/14/23 13:11	07/15/23 10:33	1
m-Xylene & p-Xylene	<0.00401	U **	0.00401	mg/Kg		07/14/23 13:11	07/15/23 10:33	1
o-Xylene	<0.00200	U **	0.00200	mg/Kg		07/14/23 13:11	07/15/23 10:33	1
Xylenes, Total	<0.00401	U **	0.00401	mg/Kg		07/14/23 13:11	07/15/23 10:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	07/14/23 13:11	07/15/23 10:33	1
1,4-Difluorobenzene (Surr)	73		70 - 130	07/14/23 13:11	07/15/23 10:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/17/23 14:24	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Client Sample ID: FS03A

Lab Sample ID: 880-30744-3

Date Collected: 07/14/23 09:20

Matrix: Solid

Date Received: 07/14/23 10:54

Sample Depth: 2'

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/20/23 13:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		07/14/23 17:17	07/19/23 15:58	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		07/14/23 17:17	07/19/23 15:58	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/14/23 17:17	07/19/23 15:58	1
Total TPH	<50.2	U	50.2	mg/Kg		07/14/23 17:17	07/19/23 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	07/14/23 17:17	07/19/23 15:58	1
o-Terphenyl	122		70 - 130	07/14/23 17:17	07/19/23 15:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.6		5.02	mg/Kg			07/15/23 01:27	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-30744-1	FS01A	84	74
880-30744-1 MS	FS01A	120	83
880-30744-1 MSD	FS01A	121	96
880-30744-2	FS02A	80	69 S1-
880-30744-3	FS03A	92	73
LCS 880-57697/1-A	Lab Control Sample	132 S1+	92
LCSD 880-57697/2-A	Lab Control Sample Dup	126	98
MB 880-57697/5-A	Method Blank	75	83
MB 880-57700/5-A	Method Blank	77	87
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-30744-1	FS01A	125	129
880-30744-2	FS02A	118	121
880-30744-3	FS03A	120	122
LCS 880-57730/2-A	Lab Control Sample	85	90
LCSD 880-57730/3-A	Lab Control Sample Dup	84	90
MB 880-57730/1-A	Method Blank	161 S1+	169 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57697/5-A

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57697

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 09:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 09:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 09:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 13:11	07/15/23 09:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:11	07/15/23 09:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 13:11	07/15/23 09:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	07/14/23 13:11	07/15/23 09:31	1
1,4-Difluorobenzene (Surr)	83		70 - 130	07/14/23 13:11	07/15/23 09:31	1

Lab Sample ID: LCS 880-57697/1-A

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1049		mg/Kg		105	70 - 130
Toluene	0.100	0.09855		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1115		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2249		mg/Kg		112	70 - 130
o-Xylene	0.100	0.1159		mg/Kg		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-57697/2-A

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1214		mg/Kg		121	70 - 130	15	35
Toluene	0.100	0.1106		mg/Kg		111	70 - 130	11	35
Ethylbenzene	0.100	0.1337	*+	mg/Kg		134	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.2772	*+	mg/Kg		139	70 - 130	21	35
o-Xylene	0.100	0.1423	*+	mg/Kg		142	70 - 130	20	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-30744-1 MS

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: FS01A

Prep Type: Total/NA

Prep Batch: 57697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0994	0.1097		mg/Kg		110	70 - 130
Toluene	<0.00198	U	0.0994	0.1021		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-30744-1 MS

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: FS01A

Prep Type: Total/NA

Prep Batch: 57697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U *	0.0994	0.1217		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	<0.00396	U *	0.199	0.2458		mg/Kg		124	70 - 130
o-Xylene	<0.00198	U *	0.0994	0.1237		mg/Kg		124	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: 880-30744-1 MSD

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: FS01A

Prep Type: Total/NA

Prep Batch: 57697

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0998	0.09983		mg/Kg		100	70 - 130	9	35
Toluene	<0.00198	U	0.0998	0.09448		mg/Kg		95	70 - 130	8	35
Ethylbenzene	<0.00198	U *	0.0998	0.1145		mg/Kg		115	70 - 130	6	35
m-Xylene & p-Xylene	<0.00396	U *	0.200	0.2286		mg/Kg		115	70 - 130	7	35
o-Xylene	<0.00198	U *	0.0998	0.1143		mg/Kg		115	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: MB 880-57700/5-A

Matrix: Solid

Analysis Batch: 57653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57700

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:20	07/14/23 22:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:20	07/14/23 22:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:20	07/14/23 22:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 13:20	07/14/23 22:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 13:20	07/14/23 22:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 13:20	07/14/23 22:57	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130	07/14/23 13:20	07/14/23 22:57	1
1,4-Difluorobenzene (Surr)	87		70 - 130	07/14/23 13:20	07/14/23 22:57	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-57730/1-A

Matrix: Solid

Analysis Batch: 57996

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57730

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1

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QC Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-57730/1-A

Matrix: Solid

Analysis Batch: 57996

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57730

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
Total TPH	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	161	S1+	70 - 130	07/14/23 17:17	07/19/23 10:55	1
o-Terphenyl	169	S1+	70 - 130	07/14/23 17:17	07/19/23 10:55	1

Lab Sample ID: LCS 880-57730/2-A

Matrix: Solid

Analysis Batch: 57996

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57730

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	853.8		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	812.0		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-57730/3-A

Matrix: Solid

Analysis Batch: 57996

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57730

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	826.1		mg/Kg		83	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	809.3		mg/Kg		81	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	90		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57699/1-A

Matrix: Solid

Analysis Batch: 57705

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/15/23 00:20	1

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QC Sample Results

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-57699/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 57705									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	252.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-57699/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 57705									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.4		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

GC VOA

Analysis Batch: 57653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	8021B	57697
880-30744-2	FS02A	Total/NA	Solid	8021B	57697
880-30744-3	FS03A	Total/NA	Solid	8021B	57697
MB 880-57697/5-A	Method Blank	Total/NA	Solid	8021B	57697
MB 880-57700/5-A	Method Blank	Total/NA	Solid	8021B	57700
LCS 880-57697/1-A	Lab Control Sample	Total/NA	Solid	8021B	57697
LCSD 880-57697/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57697
880-30744-1 MS	FS01A	Total/NA	Solid	8021B	57697
880-30744-1 MSD	FS01A	Total/NA	Solid	8021B	57697

Prep Batch: 57697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	5035	
880-30744-2	FS02A	Total/NA	Solid	5035	
880-30744-3	FS03A	Total/NA	Solid	5035	
MB 880-57697/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57697/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57697/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30744-1 MS	FS01A	Total/NA	Solid	5035	
880-30744-1 MSD	FS01A	Total/NA	Solid	5035	

Prep Batch: 57700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57700/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 57862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	Total BTEX	
880-30744-2	FS02A	Total/NA	Solid	Total BTEX	
880-30744-3	FS03A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 57730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	8015NM Prep	
880-30744-2	FS02A	Total/NA	Solid	8015NM Prep	
880-30744-3	FS03A	Total/NA	Solid	8015NM Prep	
MB 880-57730/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57730/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	8015B NM	57730
880-30744-2	FS02A	Total/NA	Solid	8015B NM	57730
880-30744-3	FS03A	Total/NA	Solid	8015B NM	57730
MB 880-57730/1-A	Method Blank	Total/NA	Solid	8015B NM	57730
LCS 880-57730/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57730
LCSD 880-57730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57730

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

GC Semi VOA

Analysis Batch: 58145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Total/NA	Solid	8015 NM	
880-30744-2	FS02A	Total/NA	Solid	8015 NM	
880-30744-3	FS03A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Soluble	Solid	DI Leach	
880-30744-2	FS02A	Soluble	Solid	DI Leach	
880-30744-3	FS03A	Soluble	Solid	DI Leach	
MB 880-57699/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57699/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57699/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 57705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-30744-1	FS01A	Soluble	Solid	300.0	57699
880-30744-2	FS02A	Soluble	Solid	300.0	57699
880-30744-3	FS03A	Soluble	Solid	300.0	57699
MB 880-57699/1-A	Method Blank	Soluble	Solid	300.0	57699
LCS 880-57699/2-A	Lab Control Sample	Soluble	Solid	300.0	57699
LCSD 880-57699/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57699

Lab Chronicle

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Client Sample ID: FS01A

Lab Sample ID: 880-30744-1

Date Collected: 07/14/23 09:15

Matrix: Solid

Date Received: 07/14/23 10:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			57697	EL	EET MID	07/14/23 13:11
Total/NA	Analysis	8021B		1	57653	AJ	EET MID	07/15/23 09:52
Total/NA	Analysis	Total BTEX		1	57862	AJ	EET MID	07/17/23 14:24
Total/NA	Analysis	8015 NM		1	58145	SM	EET MID	07/20/23 13:08
Total/NA	Prep	8015NM Prep			57730	TKC	EET MID	07/14/23 17:17
Total/NA	Analysis	8015B NM		1	57996	SM	EET MID	07/19/23 15:13
Soluble	Leach	DI Leach			57699	KS	EET MID	07/14/23 13:15
Soluble	Analysis	300.0		1	57705	CH	EET MID	07/15/23 01:06

Client Sample ID: FS02A

Lab Sample ID: 880-30744-2

Date Collected: 07/14/23 09:17

Matrix: Solid

Date Received: 07/14/23 10:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			57697	EL	EET MID	07/14/23 13:11
Total/NA	Analysis	8021B		1	57653	AJ	EET MID	07/15/23 10:13
Total/NA	Analysis	Total BTEX		1	57862	AJ	EET MID	07/17/23 14:24
Total/NA	Analysis	8015 NM		1	58145	SM	EET MID	07/20/23 13:08
Total/NA	Prep	8015NM Prep			57730	TKC	EET MID	07/14/23 17:17
Total/NA	Analysis	8015B NM		1	57996	SM	EET MID	07/19/23 15:35
Soluble	Leach	DI Leach			57699	KS	EET MID	07/14/23 13:15
Soluble	Analysis	300.0		1	57705	CH	EET MID	07/15/23 01:22

Client Sample ID: FS03A

Lab Sample ID: 880-30744-3

Date Collected: 07/14/23 09:20

Matrix: Solid

Date Received: 07/14/23 10:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			57697	EL	EET MID	07/14/23 13:11
Total/NA	Analysis	8021B		1	57653	AJ	EET MID	07/15/23 10:33
Total/NA	Analysis	Total BTEX		1	57862	AJ	EET MID	07/17/23 14:24
Total/NA	Analysis	8015 NM		1	58145	SM	EET MID	07/20/23 13:08
Total/NA	Prep	8015NM Prep			57730	TKC	EET MID	07/14/23 17:17
Total/NA	Analysis	8015B NM		1	57996	SM	EET MID	07/19/23 15:58
Soluble	Leach	DI Leach			57699	KS	EET MID	07/14/23 13:15
Soluble	Analysis	300.0		1	57705	CH	EET MID	07/15/23 01:27

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Midland

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: MCA 204

Job ID: 880-30744-1
SDG: 03D2057088

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-30744-1	FS01A	Solid	07/14/23 09:15	07/14/23 10:54	4.5'
880-30744-2	FS02A	Solid	07/14/23 09:17	07/14/23 10:54	3.5'
880-30744-3	FS03A	Solid	07/14/23 09:20	07/14/23 10:54	2'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



LEWIS & CLARK
XERO

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 382-7550 Carlsbad NM (575) 988-3199

Chain of Custody

Work Order No:

5074

www.xenco.com Page 1 of 1

Project Manager	Kate Jennings	Bill to: (if different)	Kate Jennings
Company Name	Ensolum, LLC	Company Name	Ensolum, LLC
Address	601 N Marentfield St Suite 400	Address	601 N Marentfield St Suite 400
City, State ZIP	Midland, TX 79701	City, State ZIP	Midland, TX 79701
Phone	817-683-2503	Email	kjennings@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input checked="" type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables EDD <input checked="" type="checkbox"/> ADAPT <input type="checkbox"/> Other	

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-30744-1

SDG Number: 03D2057088

Login Number: 30744

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



APPENDIX D

NMOCD Notifications

From: [Velez, Nelson, EMNRD](#)
To: [Aimee Cole](#)
Cc: Bryce.Wagoner@mavresources.com; [Kalei Jennings](#); [Bratcher, Michael, EMNRD](#)
Subject: Maverick Permian- Extension Request - MCA 204 (Incident Number NAPP2311751602)
Date: Tuesday, July 18, 2023 12:24:09 PM
Attachments: [Outlook-2lvh3xsx.png](#)

[**EXTERNAL EMAIL**]

Aimee,

Your 45-day time extension request is approved. The Remediation Due date has been updated to 09/05/2023.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>



From: [Buchanan, Michael, EMNRD](#)
To: [Kalei Jennings; Enviro, OCD, EMNRD; Velez, Nelson, EMNRD](#)
Cc: [Aimee Cole](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 7/3/2023)
Date: Monday, July 3, 2023 1:01:25 PM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

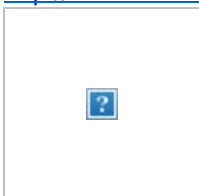
[**EXTERNAL EMAIL**]

Good afternoon,

Thank you for the notification. Please include a copy of this and all notifications in the C-141, remedial and/or closure reports to ensure the notifications are documented in the project file.

Regards,

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



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Monday, July 3, 2023 1:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Aimee Cole <acole@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 7/3/2023)

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

All,

Maverick Permian, LLC plans to complete sampling activities at the following site the week of July 3, 2023.

- MCA 204 / NAPP2311751602
 - Sampling Date: 7/6/2023 & 7/7/2023

MCA #1 South Transfer Line / NAPP2314650185

- Sampling Date: 7/6/2023
- EVGSAU 2437-001 / NAPP2303273838
 - Sampling Date: 7/6/2023

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 7/10/2023)
Date: Monday, July 10, 2023 8:31:06 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

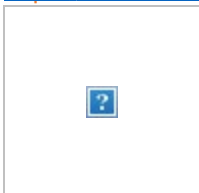
[**EXTERNAL EMAIL**]

Kalei,

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

JH

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



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Friday, July 7, 2023 4:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Aimee Cole <acole@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 7/10/2023)

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

All,

Maverick Permian, LLC plans to complete sampling activities at the following site the week of July 10, 2023.

- MCA 204 / NAPP2311751602
 - Sampling Date: 7/10/2023 through 07/13/2023

- State F TG #001 / NAPP2233947938
 - Sampling Date: 7/12/2023 & 7/13/2023
- MCA 409 Flowline / NAPP2318846991
 - Sampling Date: 7/13/2023
- Encore M State #8 / NAPP2316640406
 - Sampling Date: 7/14/2023
- SEMU 37 / NAPP2316638385
 - Sampling Date: 7/14/2023

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 7/17/2023)
Date: Friday, July 14, 2023 7:42:46 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

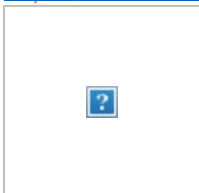
[**EXTERNAL EMAIL**]

Kalei,

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

JH

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



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, July 13, 2023 2:05 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Aimee Cole <acole@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 7/17/2023)

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

All,

Maverick Permian, LLC plans to complete sampling activities at the following site the week of July 17, 2023.

- MCA 204 / NAPP2311751602
 - Sampling Date: 7/17/2023 through 07/19/2023

- State F TG #001 / NAPP2233947938
 - Sampling Date: 7/17/2023 & 7/18/2023
- MCA 409 Flowline / NAPP2318846991
 - Sampling Date: 7/17/2023
- SEMU 34 / NAPP2314257831
 - Sampling Date: 7/19/2023 & 7/20/2023

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC





APPENDIX E

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2311751602
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # (assigned by OCD)
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.8001257 _____ Longitude -103.7520913 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: MCA 204	Site Type:
Date Release Discovered: April 20 th , 2023	API# (if applicable): 30-025-00723

Unit Letter	Section	Township	Range	County
O	27	17S	32E	Lea

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 5 bbls	Volume Recovered (bbls) 0 bbls
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

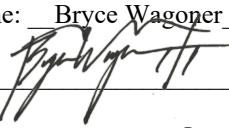
A leak developed in the stuffing box resulting in the release of roughly 10 barrels of produced water and 5 barrels of crude oil. An area roughly 552 feet by 25 feet by 3 inches was impacted. A vacuum truck was immediately called and recovered all standing fluid.

Incident ID	NAPP2311751602
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Bryce Wagoner	Title: Permian HSE Specialist II
Signature: 	Date: 5/1/2023
email: Bryce.Wagoner@mavresources.com	Telephone: 928-241-1862
<u>OCD Only</u>	
Received by: Jocelyn Harimon	Date: 05/01/2023

Spill Volume(Bbls) Calculator*Inputs in blue , Outputs in red***Contaminated Soil measurement**

Length(Ft)	Width(Ft)	Depth(Ft)
<u>552</u>	<u>25.000</u>	<u>0.125</u>
Cubic Feet of Soil Impacted		<u>1725.000</u>
Barrels of Soil Impacted		<u>307.49</u>
Soil Type		Clay
Barrels of Oil Assuming 100% Saturation		<u>30.75</u>
Saturation	Fluid present when squeezed	
Estimated Barrels of Oil Released		15.37
Free Standing Fluid Only		

Incident ID	NAPP2311751602
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

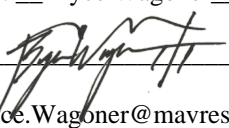
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2311751602
District RP	
Facility ID	
Application ID	

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

Printed Name: Bryce Wagoner Title: Permian HSE Specialist IISignature:  Date: 08/10/2023email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862**OCD Only**Received by: Shelly Wells Date: 8/10/2023

Incident ID	NAPP2311751602
District RP	
Facility ID	
Application ID	

Closure

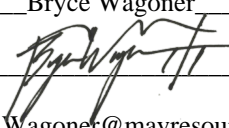
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature:  Date: 08/10/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Shelly Wells Date: 8/10/2023

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

Closure Approved by: Scott Rodgers Date: 11/15/2023

Printed Name: Scott Rodgers Title: Environmental Specialist/ Adv

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

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

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

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

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

CONDITIONS

Action 250680

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 250680
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	11/15/2023