ENSOLUM

July 17, 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
Jalmat Field Yates Sand Unit #203 Flowline
Incident Number NAPP2311056555
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Jalmat Field Yates Sand Unit #203 Flowline (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacted soil resulting from a release of crude oil 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 NAPP2311056555.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 14, Township 22 South, Range 35 East, in Lea County, New Mexico (32.391558°, -103.3357524°) and is associated with oil and gas exploration and production operations on private land.

On April 9, 2023, a pin hole developed in a flowline and resulted in the release of approximately 8 barrels (bbls) of crude oil into the surrounding pasture. No released fluids were recovered; however, a backhoe was immediately dispatched to the Site to remove saturated soil. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on April 18, 2023. The release was assigned Incident Number NAPP2311056555.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization 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 State Engineer (NMOSE) well CP-00753, located approximately 2,370 feet northeast of the Site. The groundwater well has a reported depth to

groundwater of 185 feet bgs and a total depth of 215 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 to the Site is a freshwater emergent wetland, located approximately 400 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is 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 pasture areas that were impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet or areas that will be reclaimed following remediation.

SITE ASSESSMENT AND EXCAVATION ACTIVITIES

Between June 27, 2023 and June 30, 2023, Ensolum personnel were at the Site to oversee excavation activities based information provided on the Form C-141 and visual observations. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Excavation activities were performed via backhoe, track hoe, and transport vehicles. The excavation was completed to depths ranging from 6 feet to 7 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

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 FS10 were collected from the floor of the excavation at depths ranging from 6 feet to 7 feet bgs. Composite soil samples SW01 through SW06 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 7 feet bgs. Additionally, assessment soil samples SS01 through SS04 were collected from a depth of 0.5 feet bgs outside the excavation extent to confirm the lateral extent of the release.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2.

Laboratory analytical results for assessment samples SS01 through SS04 indicated 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 excavation samples FS01 through FS05, FS07 through FS09, and SW01 through SW06 indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements. Laboratory analytical results for excavation floor samples FS06 and FS10 indicated chloride concentrations exceeded the reclamation requirement. Additional soil was removed in the vicinity of floor samples FS06 and FS10 and subsequent floor samples FS06A and FS10A were compliant with the reclamation requirements. The excavation extent and excavation soil sample locations are depicted on Figure 2. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 2,000 square feet in areal extent. A total of approximately 600 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 in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

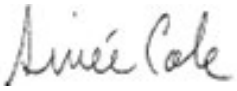
Site assessment and excavation activities were conducted at the Site to address the April 9, 2023, release of crude oil. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements. Based on the soil sample analytical results, no further remediation was required. Maverick backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

Initial response efforts and excavation of impacted soil have 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 believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2311056555. NMOCD notifications are included in Appendix D and the Final C-141 is included in Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

Julianna Falcomata
Staff Geologist



Aimee Cole
Senior Managing Scientist

cc: Bryce Wagoner, Maverick Permian, LLC

Appendices:

Figure 1	Site Receptor Map
Figure 2	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

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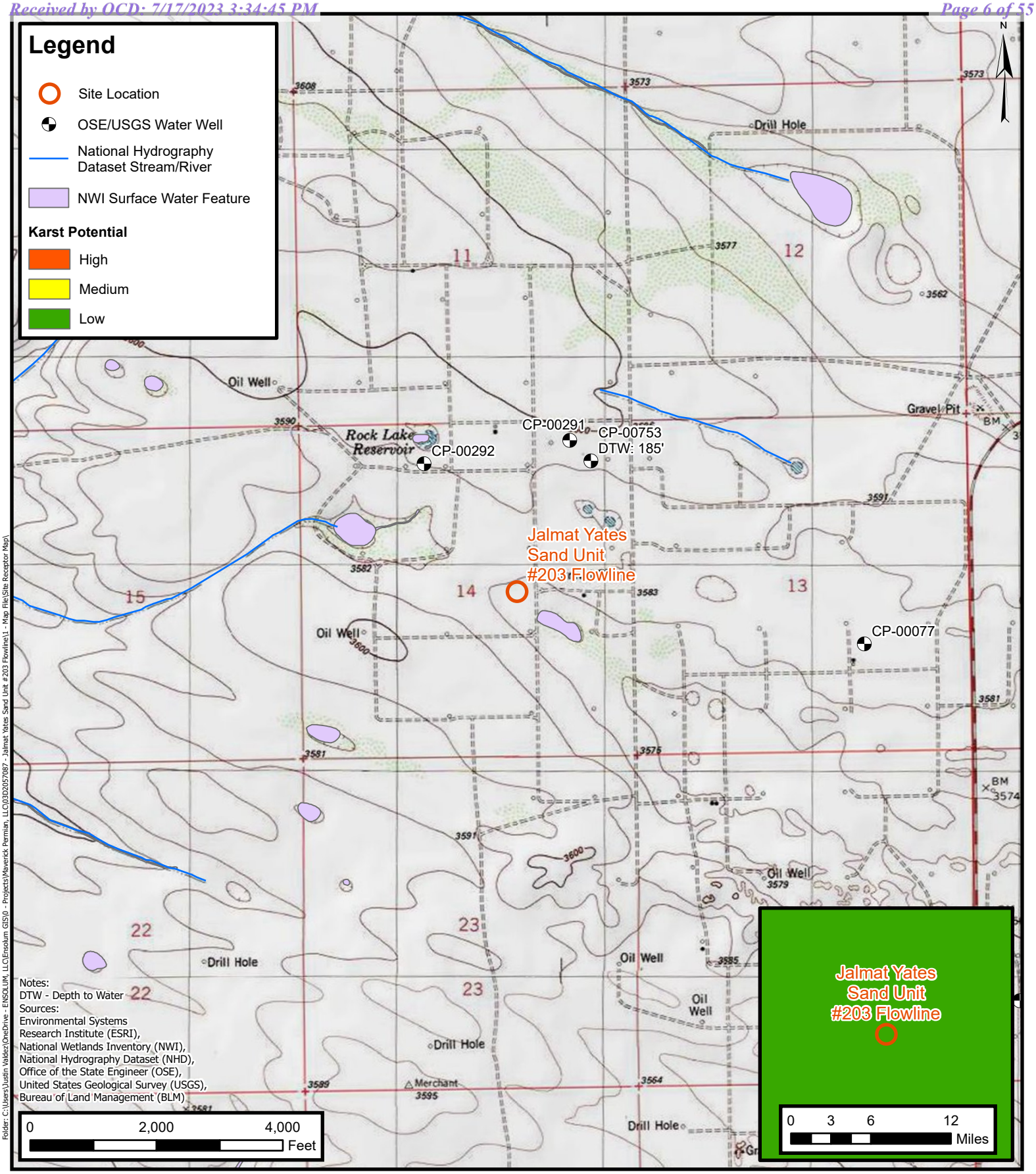
FIGURES



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\Maverick Permian, LLC\03202057087 - Jalmat Yates Sand Unit #203 Flowline\1 - Map File\Site Receptor Map\

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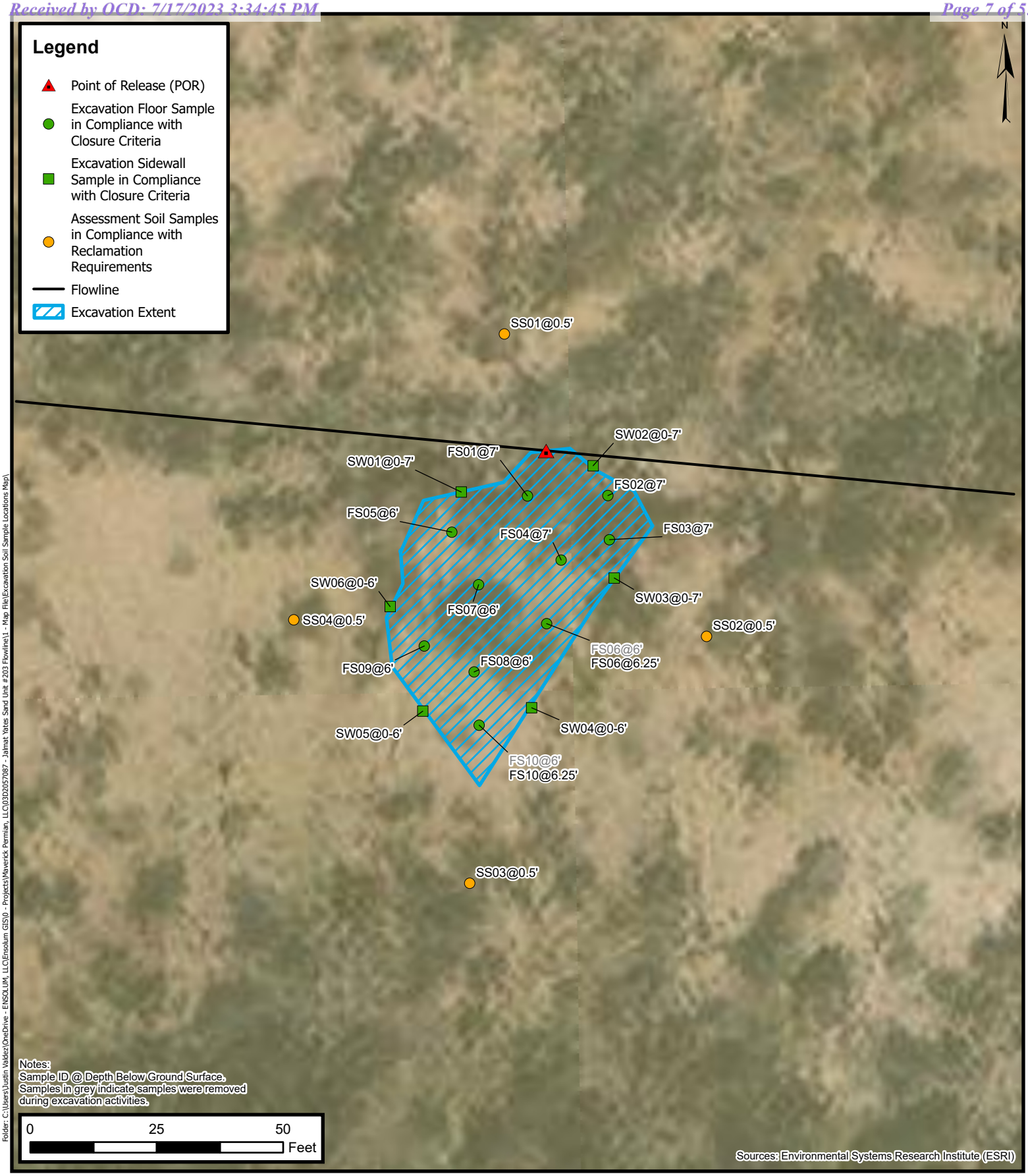
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Maverick Permian, LLC
Jalmat Field Yates Sand Unit #203 Flowline
Incident Number: NAPP2311056555
Unit J, Sec 14, T22S, R35E
Lea County, New Mexico

FIGURE 1



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\Maverick Permian, LLC\03D2057087 - Jalmat Yates Sand Unit #203 Flowline\1 - Map File\Excavation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

Maverick Permian, LLC
Jalmat Field Yates Sand Unit #203 Flowline
Incident Number: NAPP2311056555
Unit J, Sec 14, T22S, R35E, Lea County, New Mexico

FIGURE 2

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TABLES

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TABLE I
SOIL SAMPLE ANALYTICAL RESULTS
Jalmat Field Yates Sand Unit #203 Flowline
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 I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Assessment Soil Samples										
SS01	6/27/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS02	6/27/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS03	6/27/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS04	6/27/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
Excavation Sidewall Soil Samples										
SW01	6/27/2023	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW02	6/27/2023	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SW03	6/27/2023	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW04	6/27/2023	0-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW05	6/27/2023	0-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW06	6/27/2023	0-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
Excavation Floor Soil Samples										
FS01	6/28/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS02	6/28/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
FS03	6/28/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS04	6/28/2023	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS05	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS06	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	**736**
FS06A	6/30/2023	6.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS07	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS08	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	576
FS09	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS10	6/28/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	**640**
FS10A	6/30/2023	6.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
*Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.*
Grey text represents samples that have been excavated

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APPENDIX A

Referenced Well Records

Received by OCD: 7/17/2023 3:34:45 PM

Revised June 1972

475984

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Merchant Livestock Company Owner's Well No. _____
Street or Post Office Address Box 1115
City and State Eunice, NM 88231

Well was drilled under Permit No. CP-753 and is located in the:

a. _____ ¼ _____ ¼ NE ¼ NE ¼ of Section 14 Township 22S Range 35 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor W. L. VanNoy License No. WD_208

Address P.O. Box 7 , Oil Center, NM 88266

Drilling Began 7-11-90 Completed 7-18-90 Type tools Cable Size of hole 10 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 215 ft.

Completed well is XXXX shallow ☐ artesian. Depth to water upon completion of well 185 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
195	210	15	water bearing sand	23

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5"	PVC		0	215			201	211

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

'90 SEP 7 AM 10 02
STATE ENGINEER OFFICE
SANTA FE, NEW MEXICO

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 23, 1990

Quad _____ FWL _____ FSL _____

File No. CP-753 Use STOCK Location No. 22.35.14.22131

Released to Imaging: 10/6/2023 11:03:22 AM

Received by OCD: 7/17/2023 3:34:45 PM

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	10	10	Top Soil
10	100	90	Caliche
100	195	95	Sandy caliche
195	210	15	Water bearing sand
210	215	5	Red Bed

'90 JUL 10 AM 7 132
OFFICE OF THE STATE ENGINEER
ROSWELL, NEW MEXICO

Section 7. REMARKS AND ADDITIONAL INFORMATION

'90 JUL 23 AM 8 31
STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

W L Van Ivey
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled. If this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Released to Imaging: 10/6/2023 11:03:22 AM

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APPENDIX B

Photographic Log

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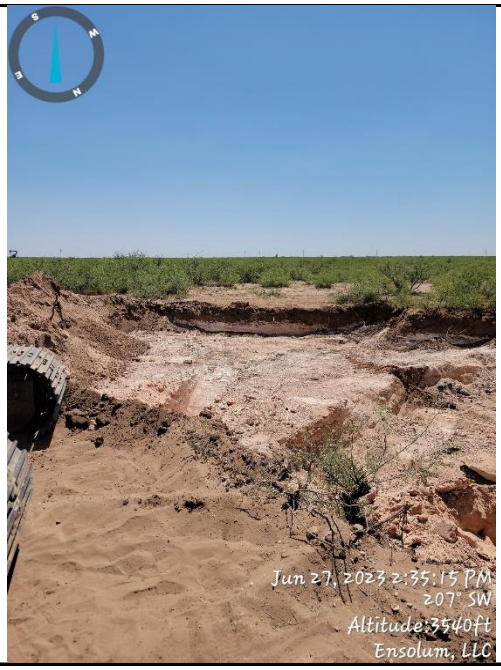
Photographic Log
Maverick Permian, LLC
Jalmat Field Yates Sand Unit #203 Flowline
nAPP2311056555



Photograph 1 Date: 6/27/2023
Description: Excavation activities
View: Southwest

Photograph 2 Date: 6/28/2023
Description: Completed Excavation
View: Northeast

Photograph 3 Date: 6/28/2023
Description: Completed Excavation
View: Southwest

Photograph 4 Date: 7/3/2023
Description: View of Site with completed backfill.
View: North

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

June 29, 2023

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: JALMAT FIELD YATES SAND UNIT # 203 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 06/28/23 16:10.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SS 01 @ .5' (H233352-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *88.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SS 02 @ .5' (H233352-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *92.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SS 03 @ .5' (H233352-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *86.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.1 %* *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:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SS 04 @ .5' (H233352-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *91.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.3 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 01 @ 0-7' (H233352-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *85.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.6 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 02 @ 0-7' (H233352-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *86.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.1 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 03 @ 0-7' (H233352-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *83.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.2 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 04 @ 0-6' (H233352-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *97.2 %* *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
KALEI JENNINGS
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 05 @ 0-6' (H233352-09)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *97.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *106 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/27/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: SW 06 @ 0-6' (H233352-10)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	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	**112**	16.0	06/29/2023	ND	384	96.0	400	8.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *104 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *113 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 01 @ 7' (H233352-11)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/29/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *75.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *83.3 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 02 @ 7' (H233352-12)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.04	102	2.00	2.08	
Toluene*	<0.050	0.050	06/29/2023	ND	1.97	98.5	2.00	0.273	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.14	107	2.00	0.338	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.47	108	6.00	0.957	
Total BTEX	<0.300	0.300	06/29/2023	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	**336**	16.0	06/29/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *76.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *83.9 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 03 @ 7' (H233352-13)

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	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	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	**128**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

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

Surrogate: 1-Chlorooctadecane *110 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 04 @ 7' (H233352-14)

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	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	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	**48.0**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *92.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 05 @ 6' (H233352-15)

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	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *95.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 06 @ 6' (H233352-16)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**736**	16.0	06/29/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *84.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.5 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 07 @ 6' (H233352-17)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/29/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *95.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 08 @ 6' (H233352-18)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	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	**576**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *88.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.1 %* *49.1-148*

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Analytical Results For:

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

Received:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 09 @ 6' (H233352-19)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *88.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.5 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/28/2023	Sampling Date:	06/28/2023
Reported:	06/29/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.391558,-103.3357524		

Sample ID: FS 10 @ 6' (H233352-20)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2023	ND	2.25	112	2.00	3.93	
Toluene*	<0.050	0.050	06/29/2023	ND	2.26	113	2.00	4.52	
Ethylbenzene*	<0.050	0.050	06/29/2023	ND	2.12	106	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/29/2023	ND	6.55	109	6.00	1.06	
Total BTEX	<0.300	0.300	06/29/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	06/29/2023	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/29/2023	ND	197	98.3	200	3.36	
DRO >C10-C28*	<10.0	10.0	06/29/2023	ND	181	90.5	200	1.69	
EXT DRO >C28-C36	<10.0	10.0	06/29/2023	ND					

Surrogate: 1-Chlorooctane *89.7 %* *48.2-134*

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

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC
Project Manager: Kalei Jennings
Address: 8122 Natl Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 817-683-2503 Fax #:
Project #: 03D2057067 Project Owner: Maverick
Project Name: Jalmat Field YATES SAND UNIT #203 FLOWLINE
Project Location: (32.391558, -103.3357524)
Sampler Name: Julianna Faleomata

BILL TO
P.O. #:
Company: A.A.
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH	Chlorides
H233352																	
1	SS01 @ .5'	C	1			X					X		6/27/23	1040	X	X	X
2	SS02 @ .5'													1045			
3	SS03 @ .5'													1050			
4	SS04 @ .5'													1055			
5	SW01 @ 0-7'													1100			
6	SW02 @ 0-7'													1105			
7	SW03 @ 0-7'													1110			
8	SW04 @ 0-6'													1115			
9	SW05 @ 0-6'													1120			
10	SW06 @ 0-6'													1125			

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Relinquished By: Faleomata Date: 6-28-23 Time: 1610 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☒ No Add'l Phone #:
All Results are emailed. Please provide Email address:
jhennings@ensolum.com jfaleomata@ensolum.com
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.8 Corrected Temp. °C 3.2
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) KO

Turnaround Time: Standard ☐ Rush ☒ 24 hr
Thermometer ID #113 Correction Factor -0.6°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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

Received by OCD: 7/17/2023 3:34:45 PM

Released to Imaging: 10/6/2023 11:03:22 AM

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Kate Jennings
Address:	3122 Nat'l Parks Hwy
City:	Carlsbad State: NM Zip: 88220
Phone #:	817-683-2503 Fax #:
Project #:	03D2057087 Project Owner: Maverick
Project Name:	Jalmat Field YATES SAND UNIT #203 Flowline
Project Location:	(32.391558, -103.335824)
Sampler Name:	Juliana Falcomata

BILL TO

P.O. #:	A.A.
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	Chlorides
H233352																	
11	FS01 @ 7'	G	1			X					X		6/28/23	1340	X	X	X
12	FS02 @ 7'													1345			
13	FS03 @ 7'													1350			
14	FS04 @ 7'													1355			
15	FS05 @ 6'													1400			
16	FS06 @ 6'													1405			
17	FS07 @ 6'													1410			
18	FS08 @ 6'													1415			
19	FS09 @ 6'													1420			
20	FS10 @ 6'													1425			

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Relinquished By:	Date: 6-28-23	Received By:	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
	Time: 1610		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

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

Observed Temp. °C 3.8 Corrected Temp. °C 3.2

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

CHECKED BY: (Initials) TO.

Turnaround Time: Standard ☐ Rush ☒ 24 hr.

Thermometer ID #113 Correction Factor -0.6°C

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

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

FORM-006 R 3.3 07/18/22

Received by OCD: 7/17/2023 3:34:45 PM

Released to Imaging: 10/6/2023 11:03:22 AM

CARDINAL Laboratories

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

July 03, 2023

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: JALMAT FIELD YATES SAND UNIT # 203 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 06/30/23 11:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/30/2023	Sampling Date:	06/30/2023
Reported:	07/03/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK (32.391558,-103.3357524)		

Sample ID: FS 06 @ 6.25' (H233389-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/30/2023	ND	2.09	104	2.00	3.08	
Toluene*	<0.050	0.050	06/30/2023	ND	2.04	102	2.00	3.21	
Ethylbenzene*	<0.050	0.050	06/30/2023	ND	1.97	98.4	2.00	3.88	
Total Xylenes*	<0.150	0.150	06/30/2023	ND	5.92	98.6	6.00	4.92	
Total BTEX	<0.300	0.300	06/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	06/30/2023	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	06/30/2023	ND	186	92.9	200	1.10	
DRO >C10-C28*	<10.0	10.0	06/30/2023	ND	186	92.9	200	0.777	
EXT DRO >C28-C36	<10.0	10.0	06/30/2023	ND					

Surrogate: 1-Chlorooctane *87.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.8 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	06/30/2023	Sampling Date:	06/30/2023
Reported:	07/03/2023	Sampling Type:	Soil
Project Name:	JALMAT FIELD YATES SAND UNIT # 203	Sampling Condition:	Cool & Intact
Project Number:	03D2057087	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK (32.391558,-103.3357524)		

Sample ID: FS 10 @ 6.25' (H233389-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/30/2023	ND	2.09	104	2.00	3.08	
Toluene*	<0.050	0.050	06/30/2023	ND	2.04	102	2.00	3.21	
Ethylbenzene*	<0.050	0.050	06/30/2023	ND	1.97	98.4	2.00	3.88	
Total Xylenes*	<0.150	0.150	06/30/2023	ND	5.92	98.6	6.00	4.92	
Total BTEX	<0.300	0.300	06/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	06/30/2023	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	06/30/2023	ND	186	92.9	200	1.10	
DRO >C10-C28*	<10.0	10.0	06/30/2023	ND	186	92.9	200	0.777	
EXT DRO >C28-C36	<10.0	10.0	06/30/2023	ND					

Surrogate: 1-Chlorooctane *74.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.9 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC.
Project Manager: Hale: Jennings
Address: 8122 Natl Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 817-688-2503 Fax #:
Project #: 03D2057087 Project Owner: Maverick
Project Name: Jalmat Field Yates SAND UNIT #208 Flow Line
Project Location: 32.391558, -103.355524)
Sampler Name: Julianna Falcomata

BILL TO

P.O. #:
Company: A.A.
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	Chlorides
H233389																	
1	FS06 @ 6.25'	G	1			X					X		6/30/23	0940	X	X	X
2	FS10 @ 6.25	C	1			X					X		6/30/23	0950	X	X	X

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 consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Falcomata Date: 6-30-23 Time: 1100 Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 5.2 Corrected Temp. °C 4.6
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) JF

Verbal Result: ☐ Yes ☒ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:
hjennings@ensolum.com falcomata@ensolum.com
Turnaround Time: Standard ☐ Rush ☑ 24hr
Thermometer ID #113 Correction Factor -0.6°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.3 07/18/22

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

Received by OCD: 7/17/2023 3:34:45 PM

Released to Imaging: 10/6/2023 11:03:22 AM

ENSOLUM

APPENDIX D

NMOCD Notificaitons

From: Velez, Nelson, EMNRD
To: Kalei Jennings
Cc: Aimee Cole
Subject: Re: [EXTERNAL] Maverick Permian- Extension Request- Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555)
Date: Thursday, July 6, 2023 2:12:33 PM
Attachments: image001.png
image002.png
image003.png
image004.png
Outlook-n0uopiz0.png

[**EXTERNAL EMAIL**]
Good afternoon Kalei,

Your 30-day time extension request is approved. Remediation Due date has been updated to August 7, 2023 on the incident page.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

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 <Michael.Buchanan@emnrd.nm.gov>
Sent: Wednesday, July 5, 2023 2:34 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Maverick Permian- Extension Request- Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555)

Good afternoon, Nelson

Please see request below.

Mike

From: Buchanan, Michael, EMNRD
Sent: Wednesday, July 5, 2023 2:34 PM
To: Kalei Jennings <kjennings@ensolum.com>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Aimee Cole <acole@ensolum.com>
Subject: RE: [EXTERNAL] Maverick Permian- Extension Request- Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555)

Good afternoon, Kalei

This request will be forwarded to the appropriate personnel for determination.

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/ocd

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, July 5, 2023 10:31 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Aimee Cole <acole@ensolum.com>
Subject: [EXTERNAL] Maverick Permian- Extension Request- Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555)

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

To Whom It May Concern,

Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555)

Maverick Permian, LLC (Maverick) is requesting an extension for the current deadline of July 8, 2023,

for submitting a report required in 19.15.29.12.B.(1) NMAC detailing remedial actions at the Jalmat Yates Sand Unit #203 Flowline (Incident Number NAPP2311056555). On April 9, 2023, a flowline developed a hole due to corrosion which caused a crude oil release onto the pasture at the Site. To date, approximately 600 cubic yards of impacted soil has been excavated, hauled, and disposed of at an approved disposal facility. Excavation of impacted soil has been completed. Based on the most recent field screening results collected Monday this week, Maverick believes all impacted soil has been removed; however, we are waiting for laboratory analytical results to confirm. In order to review laboratory analytical results and submit a closure report, Maverick requests a 30-day extension of this deadline until August 7, 2023.

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

ENSOLUM

APPENDIX E

Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	nAPP2311056555
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # nAPP2311056555
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.391558 Longitude -103.3357524
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Jalmat Field Yates Sand Unit #203 Flowline	Site Type: Flowline Leak
Date Release Discovered: April 9th, 2023	API# *(if applicable): 30-025-36576*

Unit Letter	Section	Township	Range	County
J	14	22S	35E	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)

☒ Crude Oil	Volume Released (bbls) 8 bbls	Volume Recovered (bbls) 0 bbls
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

A pin hole developed on a flowline, releasing approximately 8 barrels of crude oil. An area measuring approximately 50 feet by 50 feet was affected. A backhoe was deployed and scrapped up the standing fluid.

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State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
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

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

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

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

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

Printed Name: __Bryce Wagoner_____ Title: _____Permian HSE Specialist II_____

Signature: _____ Date: 4/18/2023

email: _____Bryce.Wagoner@mavresources.com____ Telephone: ____928-241-1862_____

OCD Only

Received by: Jocelyn Harimon Date: 04/21/2023

State of New Mexico
Oil Conservation Division

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

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

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

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

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

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Oil Conservation Division

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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: __07/18/2023_____

email: __Bryce.Wagoner@mavresources.com_____ Telephone: _928-241-1862_____

OCD Only

Received by: __Shelly Wells_____ Date: 7/17/2023_____

State of New Mexico
Oil Conservation Division

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Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: ___Bryce Wagoner_____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: 07/18/2023

email: __Bryce.Wagoner@mavresources.com_____ Telephone: ___928-241-1862_____

OCD Only

Received by: _Shelly Wells_____ Date: _7/17/2023_____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Operator did not meet 19.15.29.12D (1a) NMAC. Forbearance previously given to 3rd party on 09/27/2023 (App ID 236326). Release resolved.

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 241100

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 241100
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Operator did not meet 19.15.29.12D (1a) NMAC. Forbearance previously given to 3rd party on 09/27/2023 (App ID 236326). Release resolved.	10/6/2023