ENSOLUM

July 22, 2022

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Request
MCA 251
Incident Number NAPP2210953241
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 site assessment, excavation, and soil sampling activities performed at the MCA 251 flow line release (Site). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil and produced water within the pasture area 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 NAPP2210953241.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 21, Township 17 South, Range 32 East, in Lea County, New Mexico (32.816111° N, 103.770277° W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On April 6, 2022, a flow line leak resulted in the release of approximately 0.95 barrels (bbls) of produced water and 0.05 bbls of crude oil onto the surrounding pasture. Released fluids were not recovered. The previous operator (ConocoPhillips Company) reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on April 19, 2022. The release was assigned Incident Number NAPP2210953241.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be between 50 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well RA-12521, located approximately 1,013 feet south of the Site. The groundwater well has a reported depth to groundwater

of 92 feet bgs and a total depth of 105 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 pond, located approximately 2,329 feet southwest 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 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

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

SITE ASSESSMENT AND EXCAVATION ACTIVITIES

On June 28, 2022, Ensolum personnel were at the Site to oversee site assessment and excavation activities based on information provided on the Form C-141 and visible surface staining observed in the pasture release area. Four lateral delineation soil samples (SS01 through SS04) were collected around the visible release extent at a depth of 0.5 feet bgs to confirm the lateral extent of the release.

Stained soil was excavated from the release area as indicated by visible staining and field screening activities. Excavation activities were performed via hand shoveling. To direct excavation activities, soil was field screened for volatile aromatic hydrocarbons utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The excavation was completed to a depth of 1-foot bgs. Photographic documentation is included in Appendix B.

Following removal of stained soil, one (1) 5-point composite soil sample was collected from the floor of the excavation. The 5-point composite sample was collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample FS01 was collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow 1-foot depth of the excavation, soil from the sidewalls was incorporated into the floor sample. The release extent, delineation soil sample locations, and excavation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The delineation and excavation 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 (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of 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 measured approximately 25 square feet in areal extent. A total of approximately 1 cubic yard 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.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the excavation floor sample FS01, collected from the final excavation extent and lateral delineation soil samples SS01 through SS04 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirements. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 6, 2022, release of produced water and crude oil. Laboratory analytical results for the excavation soil sample indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirements. Additionally, the release was laterally delineated to the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be between 51 feet and 100 feet bgs and no sensitive receptors were identified near the release extent. Maverick believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2210953241. The Final C-141 is included in Appendix D.

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

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Daniel, R. Moir, P.G.
Senior Managing Geologist

cc: Thomas Haigood, Maverick Natural Resources
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	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	Final C-141
Appendix E	NMOCD Notifications

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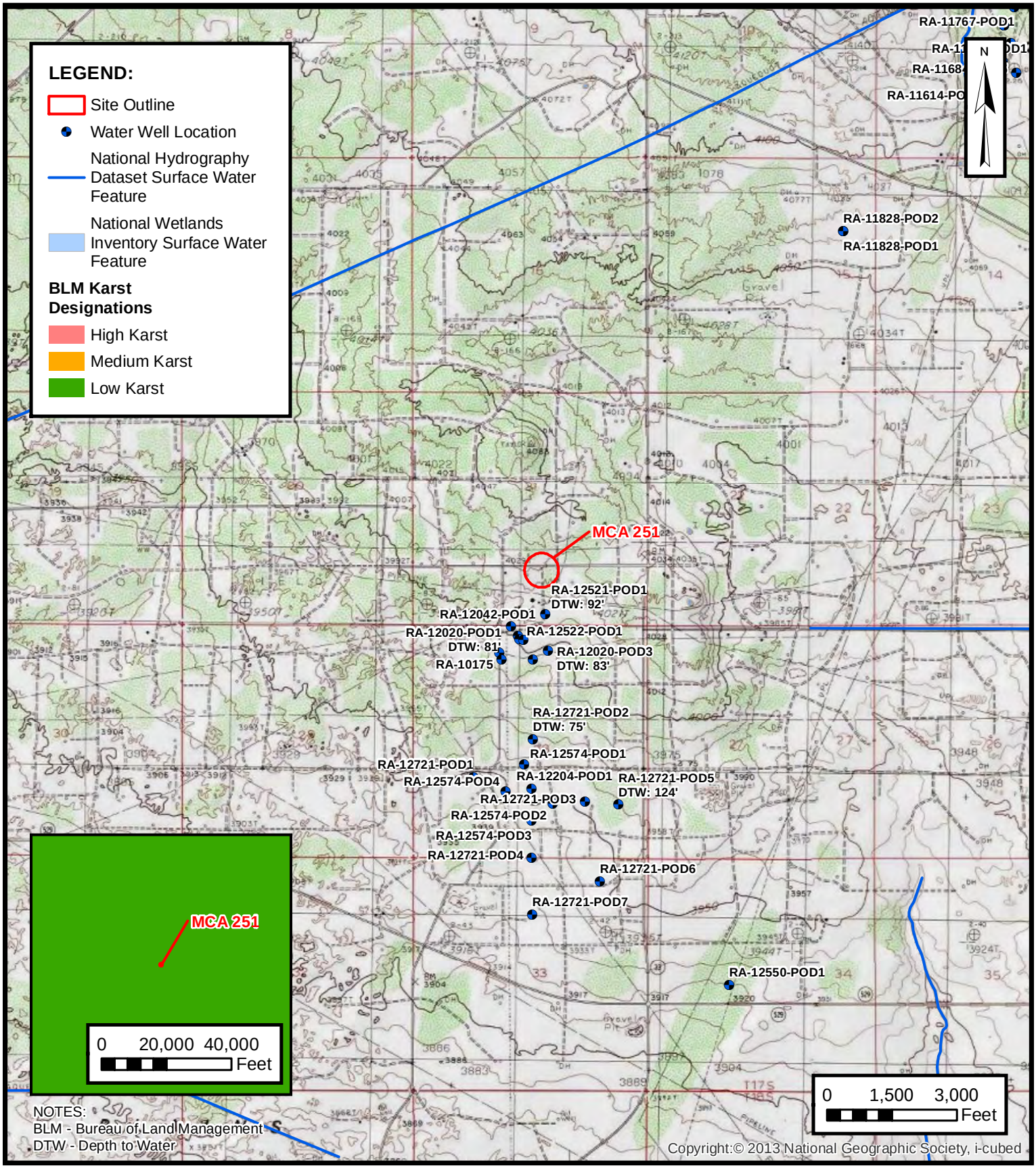
FIGURES



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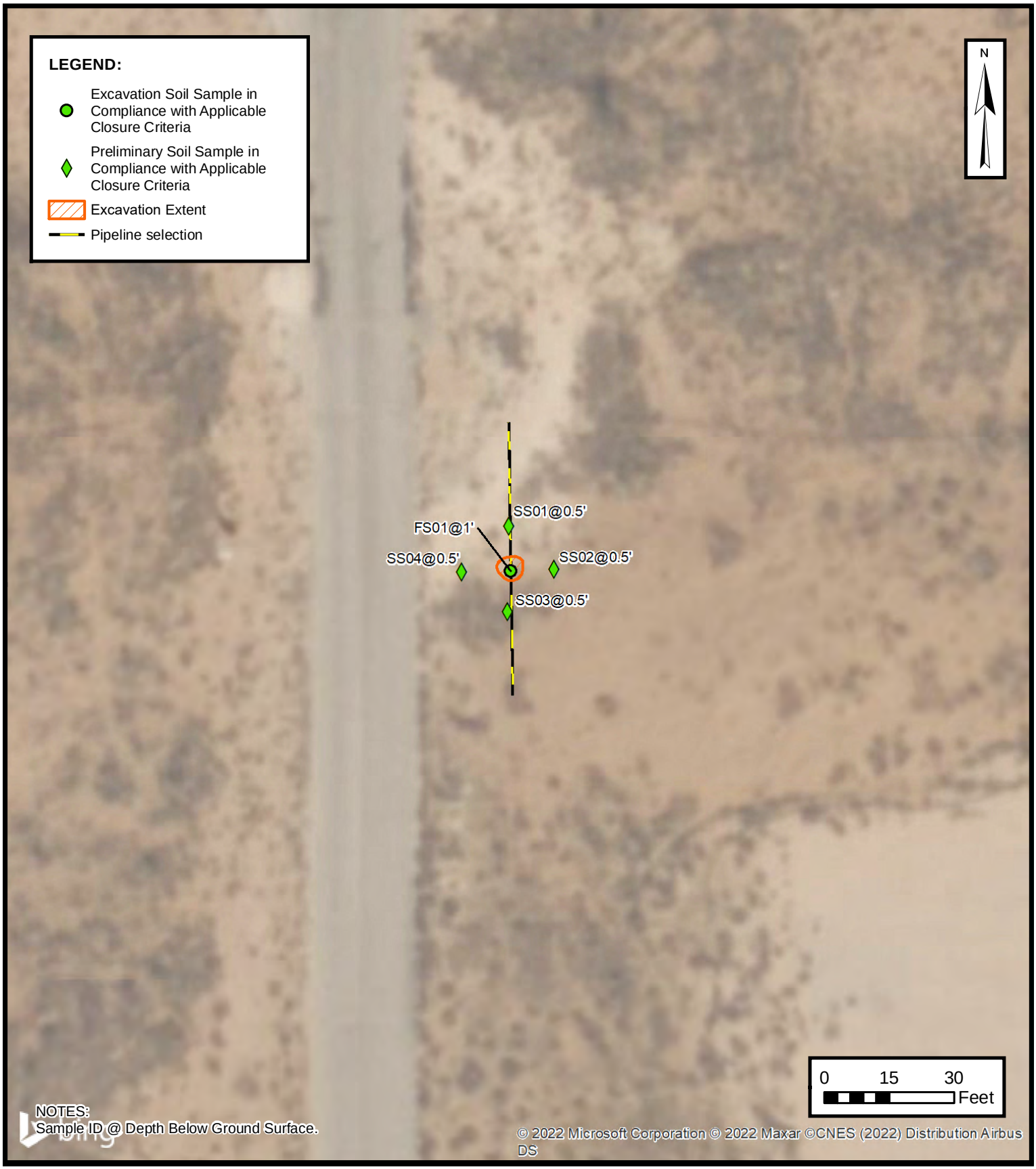
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC
MCA 251
NAPP2210953241
Unit O, Sec 21, T17S, R32E
Lea County, New Mexico

FIGURE
1



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SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC
MCA 251
NAPP2210953241
Unit O, Sec 21, T17S, R32E
Lea County, New Mexico

FIGURE
2

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA 251
Maverick Natural Resources, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Preliminary Assessment Soil Samples										
SS01	6/28/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	19.9*
SS02	6/28/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	16.2*
SS03	6/28/2022	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	6.40*
SS04	6/28/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	39.3*
Excavation Floor Soil Samples										
FS01	6/28/2022	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	10.7*

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

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: RA 12521 **Subbasin:** RA **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: PHILLIPS 66

Contact: BECKY HESSLEN

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	609310	EXPL	2017-06-30	PMT	LOG	RA 12521 POD1	T	0	0	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
RA 12521 POD1		Shallow	3	3	4	21	17S	32E	615127	3631271	MW-24

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	RA 12521 POD1	3	3	4	21	17S	32E	615127	3631271

Driller License:	1456	**Driller Company:**	WHITE DRILLING COMPANY		
Driller Name:	WHITE, JOHN W				
Drill Start Date:	07/21/2017	**Drill Finish Date:**	07/26/2017	**Plug Date:**	
Log File Date:	08/22/2017	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	2.00	**Depth Well:**	105 feet	**Depth Water:**	92 feet

Water Bearing Stratifications:	Top	Bottom	Description
	85	101	Sandstone/Gravel/Conglomerate
	101	105	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	75	105

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APPENDIX B

Photographic Log

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Photographic Log
Maverick Natural Resources, LLC
MCA 251
Incident Number: NAPP2210953241

Photograph 1
Date: June 21, 2022
Description: View of remediation excavation

Photograph 2
Date: July 21, 2022
Description: View of the remediation excavation.

Photograph 3
Date: June 21, 2022
Description: View of remediation excavation

Photograph 4
Date: June 21, 2022
Description: View of remediation excavation

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APPENDIX C

Laboratory Analytical Report

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2486-1
Laboratory Sample Delivery Group: 03D2057007
Client Project/Site: MCA 251

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/11/2022 2:22:47 PM

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

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: MCA 251

Laboratory Job ID: 890-2486-1
SDG: 03D2057007

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
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 251

Job ID: 890-2486-1
SDG: 03D2057007

Job ID: 890-2486-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2486-1

Receipt
The samples were received on 6/30/2022 12:58 PM. 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 3.0°C

GC VOA
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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-28892 and analytical batch 880-28975 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS02 (890-2486-3), SS04 (890-2486-5), (MB 880-28892/1-A) and (890-2484-A-1-D). 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.

HPLC/IC
Method 300_ORGFM_28D: The laboratory control sample (LCS) associated with preparation batch 880-28851 and 880-28851 and analytical batch 880-29230 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.

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 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: FS01

Lab Sample ID: 890-2486-1
Matrix: Solid
Date Collected: 06/28/22 13:45
Date Received: 06/30/22 12:58
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/07/22 15:00	07/11/22 12:42	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/07/22 15:00	07/11/22 12:42	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/07/22 15:00	07/11/22 12:42	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/07/22 15:00	07/11/22 12:42	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/07/22 15:00	07/11/22 12:42	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/07/22 15:00	07/11/22 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*07/07/22 15:00*	*07/11/22 12:42*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*07/07/22 15:00*	*07/11/22 12:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/11/22 14:44	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 12:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 12:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*07/01/22 15:11*	*07/04/22 12:18*	*1*
o-Terphenyl	*129*		*70 - 130*	*07/01/22 15:11*	*07/04/22 12:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.7**	*-	5.00		mg/Kg			07/10/22 07:18	1

Client Sample ID: SS01

Lab Sample ID: 890-2486-2
Matrix: Solid
Date Collected: 06/28/22 13:50
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/07/22 15:00	07/11/22 13:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/07/22 15:00	07/11/22 13:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/07/22 15:00	07/11/22 13:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/07/22 15:00	07/11/22 13:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/07/22 15:00	07/11/22 13:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/07/22 15:00	07/11/22 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:03*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: SS01

Lab Sample ID: 890-2486-2
Matrix: Solid
Date Collected: 06/28/22 13:50
Date Received: 06/30/22 12:58
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/11/22 14:44	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 13:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 13:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*07/01/22 15:11*	*07/04/22 13:25*	*1*
o-Terphenyl	*126*		*70 - 130*	*07/01/22 15:11*	*07/04/22 13:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.9**	*-	4.98	mg/Kg			07/10/22 07:26	1

Client Sample ID: SS02

Lab Sample ID: 890-2486-3
Matrix: Solid
Date Collected: 06/28/22 13:55
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:00	07/11/22 13:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:00	07/11/22 13:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:00	07/11/22 13:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/07/22 15:00	07/11/22 13:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:00	07/11/22 13:23	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/07/22 15:00	07/11/22 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:23*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/11/22 14:44	1

Method: 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			07/05/22 13:34	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: SS02

Date Collected: 06/28/22 13:55
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Lab Sample ID: 890-2486-3
Matrix: Solid

Method: 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		07/01/22 15:11	07/04/22 13:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 13:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*07/01/22 15:11*	*07/04/22 13:47*	*1*
1-Chlorooctane	*110*		*70 - 130*	*07/01/22 15:11*	*07/04/22 15:56*	*1*
o-Terphenyl	*147*	*S1+*	*70 - 130*	*07/01/22 15:11*	*07/04/22 13:47*	*1*
o-Terphenyl	*123*		*70 - 130*	*07/01/22 15:11*	*07/04/22 15:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.2**	***-**	5.00		mg/Kg			07/10/22 07:33	1

Client Sample ID: SS03

Date Collected: 06/28/22 14:00
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Lab Sample ID: 890-2486-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 13:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 13:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 13:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/07/22 15:00	07/11/22 13:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 13:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/07/22 15:00	07/11/22 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:44*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*07/07/22 15:00*	*07/11/22 13:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/11/22 14:44	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 14:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 14:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/01/22 15:11	07/04/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*07/01/22 15:11*	*07/04/22 14:08*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: SS03

Lab Sample ID: 890-2486-4
Matrix: Solid
Date Collected: 06/28/22 14:00
Date Received: 06/30/22 12:58
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*129*		*70 - 130*	*07/01/22 15:11*	*07/04/22 14:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.40**	*-	4.96	mg/Kg			07/10/22 07:41	1

Client Sample ID: SS04

Lab Sample ID: 890-2486-5
Matrix: Solid
Date Collected: 06/28/22 14:05
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/07/22 15:00	07/11/22 14:04	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/07/22 15:00	07/11/22 14:04	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/07/22 15:00	07/11/22 14:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/07/22 15:00	07/11/22 14:04	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/07/22 15:00	07/11/22 14:04	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/07/22 15:00	07/11/22 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/07/22 15:00*	*07/11/22 14:04*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*07/07/22 15:00*	*07/11/22 14:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			07/11/22 14:44	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 14:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/01/22 15:11	07/04/22 14:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/01/22 15:11	07/04/22 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*07/01/22 15:11*	*07/04/22 14:29*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*07/01/22 15:11*	*07/04/22 14:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**39.3**	*-	4.99	mg/Kg			07/10/22 07:49	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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)
880-16508-A-26-C MS	Matrix Spike	110	93
880-16508-A-26-D MSD	Matrix Spike Duplicate	109	95
890-2486-1	FS01	110	101
890-2486-2	SS01	105	100
890-2486-3	SS02	110	102
890-2486-4	SS03	107	101
890-2486-5	SS04	107	102
LCS 880-29219/1-A	Lab Control Sample	109	94
LCSD 880-29219/2-A	Lab Control Sample Dup	108	92
MB 880-29212/5-A	Method Blank	104	99
MB 880-29219/5-A	Method Blank	105	94

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)
890-2484-A-1-E MS	Matrix Spike	157 S1+	159 S1+
890-2484-A-1-F MSD	Matrix Spike Duplicate	142 S1+	147 S1+
890-2486-1	FS01	117	129
890-2486-2	SS01	113	126
890-2486-3	SS02	132 S1+	147 S1+
890-2486-3	SS02	110	123
890-2486-4	SS03	121	129
890-2486-5	SS04	134 S1+	151 S1+
LCS 880-28892/2-A	Lab Control Sample	117	118
LCSD 880-28892/3-A	Lab Control Sample Dup	121	125
MB 880-28892/1-A	Method Blank	122	142 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29212/5-A
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29212

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/22 14:20	07/10/22 19:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/22 14:20	07/10/22 19:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/22 14:20	07/10/22 19:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/07/22 14:20	07/10/22 19:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/22 14:20	07/10/22 19:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/07/22 14:20	07/10/22 19:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*07/07/22 14:20*	*07/10/22 19:22*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*07/07/22 14:20*	*07/10/22 19:22*	*1*

Lab Sample ID: MB 880-29219/5-A
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29219

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 06:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 06:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 06:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/07/22 15:00	07/11/22 06:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/22 15:00	07/11/22 06:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/07/22 15:00	07/11/22 06:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*07/07/22 15:00*	*07/11/22 06:58*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*07/07/22 15:00*	*07/11/22 06:58*	*1*

Lab Sample ID: LCS 880-29219/1-A
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29219

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08825		mg/Kg		88	70 - 130		
Toluene			0.100	0.1052		mg/Kg		105	70 - 130		
Ethylbenzene			0.100	0.09230		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1890		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.1106		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-29219/2-A
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29219

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08703		mg/Kg		87	70 - 130	1	35

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QC Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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

Lab Sample ID: LCSD 880-29219/2-A
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29219

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1029		mg/Kg		103	70 - 130	2	35
Ethylbenzene			0.100	0.09136		mg/Kg		91	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1873		mg/Kg		94	70 - 130	1	35
o-Xylene			0.100	0.1085		mg/Kg		108	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-16508-A-26-C MS
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29219

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.101	0.09010		mg/Kg		89	70 - 130
Toluene	<0.00199	U	0.101	0.1049		mg/Kg		104	70 - 130
Ethylbenzene	<0.00199	U	0.101	0.09144		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1869		mg/Kg		93	70 - 130
o-Xylene	<0.00199	U	0.101	0.1081		mg/Kg		107	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-16508-A-26-D MSD
Matrix: Solid
Analysis Batch: 29365

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 29219

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09103		mg/Kg		91	70 - 130	1	35
Toluene	<0.00199	U	0.100	0.09952		mg/Kg		99	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.100	0.08638		mg/Kg		86	70 - 130	6	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1753		mg/Kg		87	70 - 130	6	35
o-Xylene	<0.00199	U	0.100	0.1019		mg/Kg		102	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-28892/1-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28892

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		07/01/22 15:11	07/04/22 11:12	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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

Lab Sample ID: MB 880-28892/1-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28892

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		07/01/22 15:11	07/04/22 11:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/01/22 15:11	07/04/22 11:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*07/01/22 15:11*	*07/04/22 11:12*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*07/01/22 15:11*	*07/04/22 11:12*	*1*

Lab Sample ID: LCS 880-28892/2-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28892

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1174		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1126		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: LCSD 880-28892/3-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28892

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1178		mg/Kg		118	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1168		mg/Kg		117	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Lab Sample ID: 890-2484-A-1-E MS
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28892

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	1563	F1	mg/Kg		154	70 - 130		
Diesel Range Organics (Over C10-C28)	3030	F1	996	1488	F1	mg/Kg		-155	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*157*	*S1+*	*70 - 130*
o-Terphenyl	*159*	*S1+*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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

Lab Sample ID: 890-2484-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28975 — **Prep Batch: 28892**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	1447	F1	mg/Kg		143	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	3030	F1	996	1351	F1	mg/Kg		-168	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*142*	*S1+*	*70 - 130*
o-Terphenyl	*147*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-28851/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29230

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/10/22 04:02	1

Lab Sample ID: LCS 880-28851/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29230

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	223.2	*-	mg/Kg		89	90 - 110		

Lab Sample ID: LCSD 880-28851/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29230

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.5		mg/Kg		95	90 - 110	6	20

Lab Sample ID: 880-16529-A-31-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29230

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1410	*-	1250	2659		mg/Kg		101	90 - 110		

Lab Sample ID: 880-16529-A-31-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 29230

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1410	*-	1250	2660		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

GC VOA

Prep Batch: 29212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29212/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 29219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	5035	
890-2486-2	SS01	Total/NA	Solid	5035	
890-2486-3	SS02	Total/NA	Solid	5035	
890-2486-4	SS03	Total/NA	Solid	5035	
890-2486-5	SS04	Total/NA	Solid	5035	
MB 880-29219/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29219/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29219/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16508-A-26-C MS	Matrix Spike	Total/NA	Solid	5035	
880-16508-A-26-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	8021B	29219
890-2486-2	SS01	Total/NA	Solid	8021B	29219
890-2486-3	SS02	Total/NA	Solid	8021B	29219
890-2486-4	SS03	Total/NA	Solid	8021B	29219
890-2486-5	SS04	Total/NA	Solid	8021B	29219
MB 880-29212/5-A	Method Blank	Total/NA	Solid	8021B	29212
MB 880-29219/5-A	Method Blank	Total/NA	Solid	8021B	29219
LCS 880-29219/1-A	Lab Control Sample	Total/NA	Solid	8021B	29219
LCSD 880-29219/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29219
880-16508-A-26-C MS	Matrix Spike	Total/NA	Solid	8021B	29219
880-16508-A-26-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29219

Analysis Batch: 29452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	Total BTEX	
890-2486-2	SS01	Total/NA	Solid	Total BTEX	
890-2486-3	SS02	Total/NA	Solid	Total BTEX	
890-2486-4	SS03	Total/NA	Solid	Total BTEX	
890-2486-5	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 28892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	8015NM Prep	
890-2486-2	SS01	Total/NA	Solid	8015NM Prep	
890-2486-3	SS02	Total/NA	Solid	8015NM Prep	
890-2486-3	SS02	Total/NA	Solid	8015NM Prep	
890-2486-4	SS03	Total/NA	Solid	8015NM Prep	
890-2486-5	SS04	Total/NA	Solid	8015NM Prep	
MB 880-28892/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28892/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2484-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

GC Semi VOA (Continued)

Prep Batch: 28892 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	8015B NM	28892
890-2486-2	SS01	Total/NA	Solid	8015B NM	28892
890-2486-3	SS02	Total/NA	Solid	8015B NM	28892
890-2486-3	SS02	Total/NA	Solid	8015B NM	28892
890-2486-4	SS03	Total/NA	Solid	8015B NM	28892
890-2486-5	SS04	Total/NA	Solid	8015B NM	28892
MB 880-28892/1-A	Method Blank	Total/NA	Solid	8015B NM	28892
LCS 880-28892/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28892
LCSD 880-28892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28892
890-2484-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	28892
890-2484-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28892

Analysis Batch: 29044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Total/NA	Solid	8015 NM	
890-2486-2	SS01	Total/NA	Solid	8015 NM	
890-2486-3	SS02	Total/NA	Solid	8015 NM	
890-2486-4	SS03	Total/NA	Solid	8015 NM	
890-2486-5	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 28851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Soluble	Solid	DI Leach	
890-2486-2	SS01	Soluble	Solid	DI Leach	
890-2486-3	SS02	Soluble	Solid	DI Leach	
890-2486-4	SS03	Soluble	Solid	DI Leach	
890-2486-5	SS04	Soluble	Solid	DI Leach	
MB 880-28851/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-28851/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-28851/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16529-A-31-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-16529-A-31-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 29230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2486-1	FS01	Soluble	Solid	300.0	28851
890-2486-2	SS01	Soluble	Solid	300.0	28851
890-2486-3	SS02	Soluble	Solid	300.0	28851
890-2486-4	SS03	Soluble	Solid	300.0	28851
890-2486-5	SS04	Soluble	Solid	300.0	28851
MB 880-28851/1-A	Method Blank	Soluble	Solid	300.0	28851
LCS 880-28851/2-A	Lab Control Sample	Soluble	Solid	300.0	28851
LCSD 880-28851/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	28851
880-16529-A-31-E MS	Matrix Spike	Soluble	Solid	300.0	28851
880-16529-A-31-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	28851

Lab Chronicle

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: FS01
Date Collected: 06/28/22 13:45
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2486-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	29219	07/07/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29365	07/11/22 12:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29452	07/11/22 14:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29044	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 12:18	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	28851	07/01/22 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			29230	07/10/22 07:18	CH	XEN MID

Client Sample ID: SS01
Date Collected: 06/28/22 13:50
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2486-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29219	07/07/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29365	07/11/22 13:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29452	07/11/22 14:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29044	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 13:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	28851	07/01/22 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			29230	07/10/22 07:26	CH	XEN MID

Client Sample ID: SS02
Date Collected: 06/28/22 13:55
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2486-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29219	07/07/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29365	07/11/22 13:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29452	07/11/22 14:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29044	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 13:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 15:56	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	28851	07/01/22 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			29230	07/10/22 07:33	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Client Sample ID: SS03

Date Collected: 06/28/22 14:00
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2486-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	29219	07/07/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29365	07/11/22 13:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29452	07/11/22 14:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29044	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	28851	07/01/22 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			29230	07/10/22 07:41	CH	XEN MID

Client Sample ID: SS04

Date Collected: 06/28/22 14:05
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2486-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	29219	07/07/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29365	07/11/22 14:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29452	07/11/22 14:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			29044	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 14:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	28851	07/01/22 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			29230	07/10/22 07:49	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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	T104704400-22-24	06-30-23

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 251

Job ID: 890-2486-1
SDG: 03D2057007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2486-1	FS01	Solid	06/28/22 13:45	06/30/22 12:58	1
890-2486-2	SS01	Solid	06/28/22 13:50	06/30/22 12:58	0.5
890-2486-3	SS02	Solid	06/28/22 13:55	06/30/22 12:58	0.5
890-2486-4	SS03	Solid	06/28/22 14:00	06/30/22 12:58	0.5
890-2486-5	SS04	Solid	06/28/22 14:05	06/30/22 12:58	0.5

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Chain of Custody

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) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	KALEI JENNINGS	Bill to: (if different)	
Company Name:	ENSOLUM LLC	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	817. 683.2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MCA 251	Turn Around	
Project Number:	03D205 7007	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM_007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.2
Total Containers:		Corrected Temperature:	3.0

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX	TPH	Chlorides	Sample Comments
FS01	S	06/28	1345	1'	C	1		X	X	X	~~NAPP2210750773~~
SS01	↓	06/28	1350	0.5'	G	1		↓	↓	↓	NAPP2210753241
SS02		06/28	1355	0.5'	G	1					
SS03		06/28	1400	0.5'	G	1					
SS04	↓	06/28	1405	0.5'	C	1		↓	↓	↓	

890-2486 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Clae Chap	6.30.221258	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-824 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2486-1
Address: 1211 W Florida Ave	Due Date Requested: 7/7/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: MCA 251	Project #: 89000094			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS01 (890-2486-1)	6/28/22	13 45 Mountain		Solid			X	X	X	X	X	1	
SS01 (890-2486-2)	6/28/22	13 50 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-2486-3)	6/28/22	13 55 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-2486-4)	6/28/22	14 00 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-2486-5)	6/28/22	14 05 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:			
Relinquished by: Amanda Stuf	Date/Time:	Company	Received by: Kramer	Date/Time: 7.1.22 1045	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks 2 6/2.4

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2486-1
SDG Number: 03D2057007

Login Number: 2486
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2486-1
SDG Number: 03D2057007

Login Number: 2486
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 07/01/22 11:58 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
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	

ENSOLUM

APPENDIX D

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	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		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 04/19/2022

L48 Spill Volume Estimate Form

e & Number:	MCA 251
Asset Area:	Maljamar
Release Discovery Date & Time:	04/06/2020 2:00pm
Release Type:	Oil Mixture
Provide any known details about the event:	leak is located in casing vent under roadway

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	3.0	3.0	24.00	15.32%	3.204	0.491	5.00%	0.025	0.466
Rectangle B	80.0	1.0	2.00	15.32%	2.373	0.364	5.00%	0.018	0.345
Rectangle C	8.0	4.0	2.00	15.32%	0.949	0.145	5.00%	0.007	0.138
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
					0.000	0.000		0.000	0.000
					Total Volume Release:	1.000		0.050	0.950

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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 99943
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	4/19/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2210953241
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?	50-100 ft bgs
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2210953241
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: Thomas Haigood Title: HSE Specialist_

Signature: [signature] Date: 07/26/2022

email: thomas.haigood@mavresources.com Telephone: 432-701-7802

OCD Only

Received by: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2210953241
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: Thomas Haigood Title: HSE Specialist

Signature: Date: 07/26/2022

email: thomas.haigood@mavresources.com Telephone: 432-701-7802

OCD Only

Received by: Date:

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: Jennifer Nobui Date: 07/26/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Hamlet, Robert, EMNRD
To: Kalei Jennings
Cc: Austin.Tramell@mavresources.com; Caleb Cooley; Thomas Haigood; Jason Thomas; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD
Subject: (Extension Approval) - Maverick - MCA 251 (Incident Number NAPP2210953241)
Date: Thursday, June 30, 2022 8:10:27 AM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

RE: Incident #**NAPP2210953241**

Kalei,

Your request for an extension to **October 3rd, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, June 29, 2022 9:42 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>
Cc: Austin.Tramell@mavresources.com; Caleb Cooley <Caleb.Cooley@mavresources.com>; Thomas Haigood <Thomas.Haigood@mavresources.com>; Jason Thomas <jason.thomas@mavresources.com>
Subject: [EXTERNAL] Maverick-Extension Request- MCA 251 (Incident Number NAPP2210953241)

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

To Whom It May Concern,

Maverick Natural Resources (Maverick) is requesting an extension for the current deadline of July 5, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the MCA 251 (Incident Number NAPP2210953241). The release was discovered on April 6, 2022 and additional site assessment and remediation activities are warranted. Maverick recently acquired the site from the previous operator and is requesting a 90-day extension to October 3, 2022, to allow time to transfer files, review site information, and prepare a remediation work plan or closure report.

Thank you,

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

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 128159

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 128159
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	7/26/2022