



**WEST MOUNT SPILL B
CLOSURE REQUEST**

**API NO. 30-005-64381
Unit Letter M, Section 27, Township 15S, Range 28E
CHAVES COUNTY, NEW MEXICO**

**DATE OF RELEASE: 09/20/2023
INCIDENT NO. NAPP2327759229**

**02/06/2025
Prepared by:**



**2724 NW COUNTY ROAD
HOBBS, NM 88240**

February 06, 2025

New Mexico Energy, Mineral & Natural Resources
NMOCD District I
C/O Mike Bratcher and Robert Hamlet
811 S. First Street
Artesia, NM 88210

Mack Energy Corporation
11344 Lovington Hwy
Artesia, NM 88210

Subject: Closure Report for Mack Energy Corporation – West Mount Spill B

API No. 30-005-64381
Incident No. NAPP2327759229
Unit letter M, Section 27, Township 15S, Range 28E
Chaves County, New Mexico

To Whom it May Concern:

Mack Energy retained Energy Staffing Services, LLC (ESS) to conduct a spill assessment for the West Mount Spill B (hereafter referred to as "Spill B") for the produced water release that occurred on September 20th, 2023. On September 22nd, 2023, at 4:12 p.m., ESS provided the immediate notification of the release to the *New Mexico Oil Conservation Division (NMOCD), District I Office* via email. (Notification Attached). On behalf of Mack Energy, ESS also submitted the initial C141 Release Notification, along with the spill calculator used to determine the volume of the release (attached) on October 4th, 2023. The NMOCD accepted the C141 as record on October 5th, 2023, at 4:35 p.m. The incident number assigned to the release is NAPP2327759229. (Notification of correspondence is attached).

This report provides a detailed description of the spill assessment, delineation, and remedial activities, which demonstrate that the closure criteria has been established in the 19.15.29.12 *New Mexico Administrative Code (NMAC: New Mexico Oil Conservation Division, 2018)* have been met and all applicable regulations have been followed. This document is intended to serve as the final report to obtain approval from the NMOCD for the closure of the above-mentioned release.

Incident Description

On September 20th, 2023, the water transfer company Well Spring found a failure on their lay flat line, which had released produced water into the pasture area of Spill B.

Upon discovery of the release, ESS was notified and dispatched to the location to conduct a full environmental site assessment of the release. It was determined, after measuring of the impact area, that approximately 16.35 barrels of produced water, with no fluid able to be recovered, had been released into the pasture area of the Spill B release. Initial site photos and measuring of the impact area were conducted. Please see the initial site photos attached.

Site Characterization

The release at Spill B occurred on State Land and is located at 32.999326 latitude and -104.07112 longitude, 19.7 miles southeast of Hagerman, New Mexico. The legal description of the site is Unit Letter M, Section 27, Township 15S, and Range 28E. The site is located in Chaves County, New Mexico. Please see the site schematic attached.

The Spill B release consists of production lines and is near production facilities and well pads. The area of the release occurred in the pasture area of Spill B. The elevation is 3,741 feet. The area is historically or has been primarily dominated by Alkali Sacaton, Adonis Blazingstar, black grama, coldenia, blue grama, and other perennial grasses and forbs. Please find the attached Rangeland and Vegetation Classification information.

The *United States Department of Agriculture Natural Resources Conservation Services* indicates that the soil type in the area of Spill B release consists of 100% Tencee-Sotim association. (Soil Map Attached). In the area of Spill B, the *FEMA National Flood Hazard Layer* indicates that there is 0.2% chance of a flood hazard with a 1% chance of flood with an average depth of one foot or with drainage areas of less than one square mile. (See Map Attached).

There is "low potential" for Karst Geology to be present near the Spill B release site, according to the *United States Department of the Interior, Bureau of Land Management*. Please find the Karst Map attached herein.

There is no surface water located near or around Spill B release. The site is not near a continuously flowing watercourse and or lakebed within a ½ mile from the release. No other critical or community features were found at Spill B release. (Please see the attached Watercourse Map).

The nearest and most recent water well to site according to the *New Mexico Office of the State Engineer* is RA12428, drilled in 2016 with a well depth of 170 feet and a groundwater depth of 125 feet. This well is located 6,237 yards from the site. The second well is RA09248, drilled in 1996 with a well depth of 150 feet and a groundwater depth of 45 feet, 8,173 yards from the site. The third well is RA12429 POD1, drilled in 2016 with a well depth of 62 feet and a

groundwater depth of 27 feet. This well is located 8,319 yards from the site. The fourth well is RA10280, drilled in 2002 with a well depth of 70 feet and a groundwater depth of 40 feet, 8,344 yards from the site. The fifth well is RA09059, drilled in 1996 with a well depth of 110 feet and a groundwater depth of 35 feet. The well is located 8,769 yards from the site. An extended groundwater search was conducted using the *OSE POD Location Mapping System* and it has been determined that no other wells were found within a ½ mile radius of the Spill B release. Please find the NMOSE, OSE POD, and the groundwater map attached to this report.

Closure Criteria Determination

The Closure Criteria for Soils impacted by a Release is shown in the chart below. With no groundwater data available within a ½ mile radius from the release point, being on State Land and with having “low karst potential”, the site fell under <50’ to groundwater. This is only due to not having any recent or available water depths.

DGW	Constituent	Method	Limit
≤ 50'	Chloride	EPA 300.0 OR SM4500 CLB	600 mg/kg
	TPH (GRO + DRO+ MRO)	EPA SW-846 METHOD 8015M	100 mg/kg
	GRO + DRO	EPA SW-846 METHOD 8015M	50 mg/kg
	BTEX	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg
	Benzene	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg

Soil Remediation Action Levels

ESS has provided sufficient data that this release has impacted the soil on the Spill B release site and that the protocol is consistent with the remediation/abatement goals and objectives set forth in the *NMOCD Closure Criteria for Soils Impacted by a Release, dated August 14, 2018*. This document provides direction for Mack Energy’s initial response actions, site assessment and sample procedures conducted by ESS Staff. We would like to present to you the following information concerning the delineation process for the release detailed herein.

Soil Sampling Procedures

Soil sampling for laboratory analysis was conducted according to the NMOCD – approved industry standards. Accepted NMOCD soil sampling procedures and laboratory analytical methods are as follows:

- Collect clean samples in airtight glass jars supplied by the laboratory to conduct the analysis.
- Each sample jar was labelled with site and sample information.
- Samples were kept in and stored in a cool place and packed on ice.
- Promptly ship samples to the lab for analysis following the chain of custody procedures.

The following lab analysis method was used for each bottom hole (vertical) and sidewall sample (horizontal) was submitted to Envirotech Analytical Laboratory:

Volatile Organics by EPA 8021B

- Benzene, Toluene, Ethylbenzene, p.m. Xylene, o-Xylene and Total Xylenes

Nonhalogenated Organics by EPA 8015D – GRO

- Gasoline Range Organics (C6-C10)

Nonhalogenated Organics by EPA 8015D – DRO/ORO

- Diesel Range Organics (C10-C28)
- Oil Range Organics (C28-C40)

Anions by EPA 300.0/9056A

- Chloride

Release Investigation Data

On November 14th, 2023, ESS arrived on site of the Spill B release, set delineation sample points, GPS'd each sample point and began to obtain surface samples. Each surface sample was field tested, logged, and submitted to Envirotech Laboratory for confirmation. A total of 7 vertical sample points were placed along with 8 horizontal sample points. Each sample point was then sampled by use of backhoe in 1' and 2' intervals. Bottom hole samples were then submitted to lab for confirmation. Please see the delineation sample data below, with the lab indicated in yellow. Attached to this report you will find the sample data, delineation sample map, and the lab analysis.

SP ID	Depth	Titr	PID	L- BTEX	L- GRO	L- DRO	L- ORO	L- TPH	L- CHL	Dates
SP1	SURF	>4000	L	ND	ND	ND	ND	ND	4380	11/14/2023
	2	320								
	4	640								
	6	640								
	8	1200								
	10	400								
	12	240	L	ND	ND	ND	ND	ND	189	2/15/2024
SP2	SURF	1600	L	ND	ND	ND	ND	ND	2020	11/14/2023
	2	640								
	4	560								
	6	160								
	8	160	L	ND	ND	ND	ND	ND	46.7	2/15/2024
SP3	SURF	>4000	L	ND	ND	ND	ND	ND	5590	11/14/2023
	2	800								
	4	640								

	6	160								
	8	160								
	10	240								
	12	160								
	14	160	L	ND	ND	ND	ND	ND	29.6	2/15/2024
SP4	SURF	1680	L	ND	ND	ND	ND	ND	2060	11/14/2023
	2	480								
	4	320								
	6	400								
	8	320	L	ND	ND	ND	ND	ND	300	2/15/2024
SP5	SURF	320	L	ND	ND	ND	ND	ND	387	11/14/2023
	2	400								
	4	320								
	6	320								
	8	240								
	10	480								
	12	400								
	14	400								
	16	400								
	18	320	L	ND	ND	ND	ND	ND	253	2/15/2024
SP6	SURF	240	L	ND	ND	ND	ND	ND	281	11/14/2023
	2	1040								
	4	800								
	6	320								
	8	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SP7	SURF	160	L	ND	ND	ND	ND	ND	166	11/14/2023
	2	720								
	4	960								
	6	480								
	8	560								
	10	400								
	12	240								
	14	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW1	SURF	160	L	ND	ND	ND	ND	ND	20.4	11/14/2023
	1	640								
	2	320								

	3	240	L	ND	ND	ND	ND	ND	128	2/16/2024
SW2	SURF	400	L	ND	ND	ND	ND	ND	1630	11/14/2023
	1	720								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW3	SURF	1360	L	ND	ND	ND	ND	ND	453	11/14/2023
	1	640								
	2	400								
	3	1200								
	4	160								
	5	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW4	SURF	480	L	ND	ND	ND	ND	ND	1310	11/14/2023
	1	720								
	2	720								
	3	560								
	4	320								
	5	880								
	6	400								
	7	320	L	ND	ND	ND	ND	ND	206	2/16/2024
SW5	SURF	1600	L	ND	ND	ND	ND	ND	775	11/14/2023
	1	960								
	2	640								
	3	640								
	4	560								
	5	400								
	6	320	L	ND	ND	ND	ND	ND	217	2/16/2024
SW6	SURF	240	L	ND	ND	ND	ND	ND	87.7	11/14/2023
	1	640								
	2	720								
	3	960								
	4	480								
	5	320								
	6	240	L	ND	ND	ND	ND	ND	121	2/16/2024
SW7	SURF	160	L	ND	ND	ND	ND	ND	ND	11/14/2023
	1	800								

	2	640								
	3	640								
	4	160								
	5	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW8	SURF	400	L	ND	ND	ND	ND	ND	314	11/14/2023
	1	720								
	2	560								
	3	320								
	4	160	L	ND	ND	ND	ND	ND	ND	2/16/2024

Please see the delineation photos attached to this report.

On October 2nd, 2024, ESS sent the official notification to the NMOCD for the composite phase of the release on Spill B. On the same said date, the NMOCD received and accepted the notification for the composite phase of the release. (Please see email correspondence attached).

On October 14th, 2024, crews began obtaining 200 square foot composites from the excavation area of Spill B release. A total of 32 bottom hole composites were obtained, field tested, and submitted to Envirotech Laboratory for confirmation. One composite was returned with elevated chlorides. This area was then further excavated and retested. As you can see on the below composite sample data sheet, with the elevated composite in red then followed by the deeper composite that was obtained, passed the concentration levels for this site. Please find the composite sample data below, as well as attached to this report followed by the composite sample map and lab analysis.

Please find the remediation photos attached herein.

The impacted area of the Spill B release measured 2,494 square feet. During the remediation phase, a total of 1,940 cubic yards of contaminated soil was excavated and hauled to Gandy's Disposal. A total of 1,200 cubic yards of caliche was pushed up and hauled from Gandy's Disposal to location for backfill along with 120 cubic yards of topsoil that was pushed up and hauled from the landowners pit. The site was contoured and sloped back to its natural grade and seeded. Backfilling and seeding of the site was completed on January 13th, 2025. Please find the final photos attached to this report.

Closure Request

On behalf of Mack Energy, Energy Staffing Services, LLC requests that the incident (NAPP2327759229) be closed for the produced water release that occurred in the pasture area of the West Mount Spill B. Mack Energy and ESS certify that all information provided and that is detailed in this report to be true and correct. Both Mack Energy and ESS have complied with all applicable closure requirements for the release that occurred on the West Mount Spill B.

After reviewing this report, if you have any questions or concerns regarding this closure request, please do not hesitate to contact the undersigned at (575)390-6397 or (575)393-9048. You may also email any issues to natalie@energystaffingllc.com.

Sincerely,



Natalie Gladden

Director of Environmental and Regulatory Services

Energy Staffing Services, LLC.

2724 NW County Road

Hobbs, NM 88240

Cell: 575-390-6397

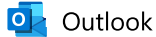
Office: 575-393-9048

Email: natalie@energystaffingllc.com



Attachments

Spill Notification
Initial C141 and Spill Calculator Form
Impact Map
Initial Site Photos
Site Map
Rangeland and Vegetation Classification
Soil Map
FEMA National Flood Hazard Layer Map
Karst Geology Map
Watercourse Water Map
Groundwater Information
Groundwater Map
OSE POD Map
Delineation Sample Data
Delineation Sample Map and GPS Log
Lab Analysis for Delineation
Delineation Site Photos
Composite Notification
Composite Sample Data
Composite Sample Map and GPS Log
Lab analysis for Remediation
Remediation and Final Photos
Final C141



Outlook

FW: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S

From Natalie Gladden <natalie@energystaffingllc.com>

Date Thu 1/30/2025 11:28 AM

To Brittney Corral <brittney@energystaffingllc.com>

Natalie Gladden**Director of Environmental and Regulatory Services****Energy Staffing Services, LLC.****2724 NW County Road****Hobbs, NM 88240****Cell: 575-390-6397****Office: 575-393-9048****Email: natalie@energystaffingllc.com****From:** Natalie Gladden**Sent:** Tuesday, September 26, 2023 2:39 PM

To: ocdonline, emnrd, EMNRD <EMNRD.OCDOnline@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; Amos, James A <JAMOS@BLM.GOV>; staylor@blm.gov

Cc: mattbuckles@mec.com**Subject:** RE: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S

Here is the last of them. C141's will be finalized and uploaded shortly. I will send an update with Incident numbers when they are completed.

LOCATION	BBLS RELEASED	BBLS RECOVERED	LAT	LONG	INCIDENT NO.
WEST MOUNT #1 RELEASE	96.64	0	32.978491	-104.094969	NAPP2325464608
WEST MOUNT 9.14.23 RELEASE	206.76	0	32.98084	-104.12499	NAPP2326353635
WEST MOUNT 1A	156.17	0	32.97852	-104.09253	
WEST MOUNT 1B	341.08	0	32.97878	-104.090782	
WEST MOUNT SPILL A	84.53	0	33.000002	-104.070796	
WEST MOUNT SPILL B	16.35	0	32.999326	-104.071112	
WEST MOUNT SPILL C	30.56	0	32.988705	-104.072056	
WEST MOUNT SPILL D	23.97	0	32.997553	-104.070702	
WEST MOUNT SPILL E	6.21	0	32.995899	-104.070484	
WEST MOUNT SPILL F	52.01	0	32.993548	-104.06973	
WEST MOUNT SPILL G	39.14	0	32.99116	-104.069688	
WEST MOUNT SPILL H	32.78	0	32.98947	-104.069673	
WEST MOUNT SPILL I	5.55	0	32.977062	-104.07104	
WEST MOUNT SPILL J	9.57	0	32.987071	-104.07267	
WEST MOUNT SPILL K	137.04	0	32.986297	-104.073293	
WEST MOUNT SPILL L	5.63	0	32.980975	-104.076513	
WEST MOUNT SPILL M	4.33	0	32.980377	-104.077642	
WEST MOUNT SPILL N	27.95	0	32.980198	-104.07756	
WEST MOUNT SPILL O	37.6	0	32.97911	-104.07904	
WEST MOUNT SPILL P	11.47	0	32.978302	-104.086227	
WEST MOUNT SPILL Q	28.39	0	32.9785	-104.088419	
WEST MOUNT SPILL R	57.7	0	32.978615	-104.098708	
WEST MOUNT SPILL S	37.79	0	32.980236	-104.100214	
WEST MOUNT SPILL T	1.96	0	32.981999	-104.100329	

WEST MOUNT SPILL U	72.38	0	32.983718	-104.099543	
WEST MOUNT SPILL V	29.73	0	32.983887	-104.099136	
WEST MOUNT SPILL W	158.62	0	32.984507	-104.09919	
WEST MOUNT SPILL X	20.11	0	32.986417	-104.101312	
WEST MOUNT SPILL Y	18.18	0	32.987519	-104.102957	
WEST MOUNT SPILL Z	459.2	0	32.989524	-104.110031	
WEST MOUNT SPILL AA	14.97	0	32.988148	-104.11355	
WEST MOUNT SPILL BB	14.58	0	32.987211	-104.115205	
WEST MOUNT SPILL CC	25.44	0	32.983495	-104.119472	
WEST MOUNT SPILL DD	13.66	0	32.981861	-104.120784	

Natalie Gladden

Director of Environmental and Regulatory Services

Energy Staffing Services, LLC.

2724 NW County Road

Hobbs, NM 88240

Cell: 575-390-6397

Office: 575-393-9048

Email: natalie@energystaffingllc.com



From: Natalie Gladden

Sent: Friday, September 22, 2023 4:12 PM

To: ocdonline, emnrd, EMNRD <EMNRD.OCDOnline@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; Amos, James A <JAMOS@BLM.GOV>; staylor@blm.gov

Cc: mattbuckles@mec.com

Subject: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S

Importance: High

All,

On September 9th, Matt Buckles with Mack Energy reported a release at the Westmount #1 at 12:31pm by email. This incident report is NAPP2325464608. On September 14th, another report of a release was sent out also on the same line but in a different area, this incident report is NAPP2326353635. The frac line company known as Well Spring Automation, LLC is responsible for laying, maintaining, and removing said frac line and is contracted by Mack Energy to do so. After further investigation due to the sizes of two spills mentioned above, the following releases have been located, photo'd, and mapped. This is a large list of releases. We were not sure how to handle this as we are still finding the releases currently. As of right now we know of 23 releases that have occurred over the last two days. Crews are on site and documenting each release. As we are aware each release will have its own C141 and incident number. We will send out additional notifications as they become available, spills are located and documented. Each release will be handled individually moving forward. Below is the first set of releases that will be added to the Westmount Federal Com #1 list:

LOCATION	BBLS RELEASED	BBLS RECOVERED	LAT	LONG	INCIDENT NO.
WEST MOUNT #1 RELEASE	96.64	0	32.978491	-104.094969	NAPP2325464608
WEST MOUNT 9.14.23 RELEASE	206.76	0	32.98084	-104.12499	NAPP2326353635
WEST MOUNT 1A	156.17	0	32.97852	-104.09253	
WEST MOUNT 1B	341.08	0	32.97878	-104.090782	
WEST MOUNT SPILL A	84.53	0	33.000002	-104.070796	
WEST MOUNT SPILL B	16.35	0	32.999326	-104.071112	
WEST MOUNT SPILL C	30.56	0	32.988705	-104.072056	
WEST MOUNT SPILL D	23.97	0	32.997553	-104.070702	
WEST MOUNT SPILL E	6.21	0	32.995899	-104.070484	
WEST MOUNT SPILL F	52.01	0	32.993548	-104.06973	
WEST MOUNT SPILL G	39.14	0	32.99116	-104.069688	
WEST MOUNT SPILL H	32.78	0	32.98947	-104.069673	
WEST MOUNT SPILL I	5.55	0	32.977062	-104.07104	
WEST MOUNT SPILL J	9.57	0	32.987071	-104.07267	

WEST MOUNT SPILL K	137.04	0	32.986297	-104.073293	
WEST MOUNT SPILL L	5.63	0	32.980975	-104.076513	
WEST MOUNT SPILL M	4.33	0	32.980377	-104.077642	
WEST MOUNT SPILL N	27.95	0	32.980198	-104.07756	
WEST MOUNT SPILL O	37.6	0	32.97911	-104.07904	
WEST MOUNT SPILL P	11.47	0	32.978302	-104.086227	
WEST MOUNT SPILL Q	28.39	0	32.9785	-104.088419	
WEST MOUNT SPILL R	57.7	0	32.978615	-104.098708	
WEST MOUNT SPILL S	37.79	0	32.980236	-104.100214	

We will be making more updates as releases are found. C141's will be sent out to the BLM and uploaded to the NMOCD as soon as possible.

If you have any questions, please let me know.

Natalie Gladden

Director of Environmental and Regulatory Services

Energy Staffing Services, LLC.

2724 NW County Road

Hobbs, NM 88240

Cell: 575-390-6397

Office: 575-393-9048

Email: natalie@energystaffingllc.com



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 MACK ENERGY CORPORATION	OGRID 013837
Contact Name MATT BUCKLES	Contact Telephone 575-703-1958
Contact email mattbuckles@mec.com	Incident # <i>(assigned by OCD)</i>
Contact mailing address 11344 Lovington Highway, Artesia NM 88210	

Location of Release Source

Latitude 32.999326 Longitude -104.071112
(NAD 83 in decimal degrees to 5 decimal places)

Site Name WEST MOUNT SPILL B	Site Type PRODUCTION AREA
Date Release Discovered 9/20/2023	API# <i>(if applicable)</i> 30-005-64381

Unit Letter	Section	Township	Range	County
M	27	15S	28E	CHAVES

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 16.35	Volume Recovered (bbls) 0BBLS
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The water transfer company Well Spring found a failure on their lay flat line, releasing the fluid to the pasture area.

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?
DUE TO VOLUME OF RELEASE

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Email was sent to the OCD, Bratcher, Hamlet, Venegas, on 9/22 at 4:12pm

Initial Response

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

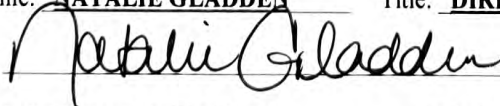
- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have 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: NATALIE GLADDEN Title: DIRECTOR OF ENVIRONMENTAL AND REGULATORY

Signature: 

Date: 10/4/23

email: natalie@energystaffingll.com

Telephone: 575-390-6397

OCD Only

Received by: _____ Date: _____

MACK ENERGY - WEST MOUNT SPILL B

Soil Type	Porosity	Length	Width	Depth (.083 per inch)	Cubic Feet	Estimated Barrels	Soil Type
Clay	0.15	10	10	0.083	8.3	0.22	Clay
Peat	0.40	10	10	0.083	8.3	0.59	Peat
Glacial Sediments	0.13	10	10	0.083	8.3	0.19	Glacial Sediments
Sandy Clay	0.12	10	10	0.083	8.3	0.18	Sandy Clay
Silt	0.16	10	10	0.083	8.3	0.24	Silt
Loess	0.25	10	10	0.083	8.3	0.37	Loess
Fine Sand	0.16	10	10	0.083	8.3	0.24	Fine Sand
Medium Sand	0.25	95.43	46.32	0.083	366.88636	16.35	Medium Sand
Coarse Sand	0.26	10	10	0.083	8.3	0.38	Coarse Sand
Gravelly Sand	0.26	10	10	0.083	8.3	0.38	Gravelly Sand
Fine Gravel	0.26	10	10	0.083	8.3	0.38	Fine Gravel
Medium Gravel	0.20	10	10	0.083	8.3	0.30	Medium Gravel
Coarse Gravel	0.18	10	10	0.083	8.3	0.27	Coarse Gravel
Sandstone	0.25	10	10	0.083	8.3	0.37	Sandstone
Siltstone	0.18	10	10	0.083	8.3	0.27	Siltstone
Shale	0.05	10	10	0.083	8.3	0.07	Shale
Limestone	0.13	10	10	0.083	8.3	0.19	Limestone
Basalt	0.19	10	10	0.083	8.3	0.28	Basalt
Volcanic Tuff	0.20	10	10	0.083	8.3	0.30	Volcanic Tuff
Standing Liquids	X	10	10	0.083	8.3	1.48	Standing Liquids

1	2	3	4	5	6
0.083	0.166	0.250	0.332	0.415	0.500
7	8	9	10	11	12
0.581	0.664	0.750	0.830	0.913	1.000

NOTE: This is an **estimate** tool designed for quick field estimates of whether a C-141 should be required (i.e. a release is estimated to be greater than or less than 5 barrel volumes)

Choose the one prevailing ground type for estimating spill volumes at a single location.

Note that the depth should be measured in feet and tenths of feet (1 inch = .083)

Cubic Feet = L x W x D

Estimated Barrels = ((Cubic Feet x Porosity) / 5.61)

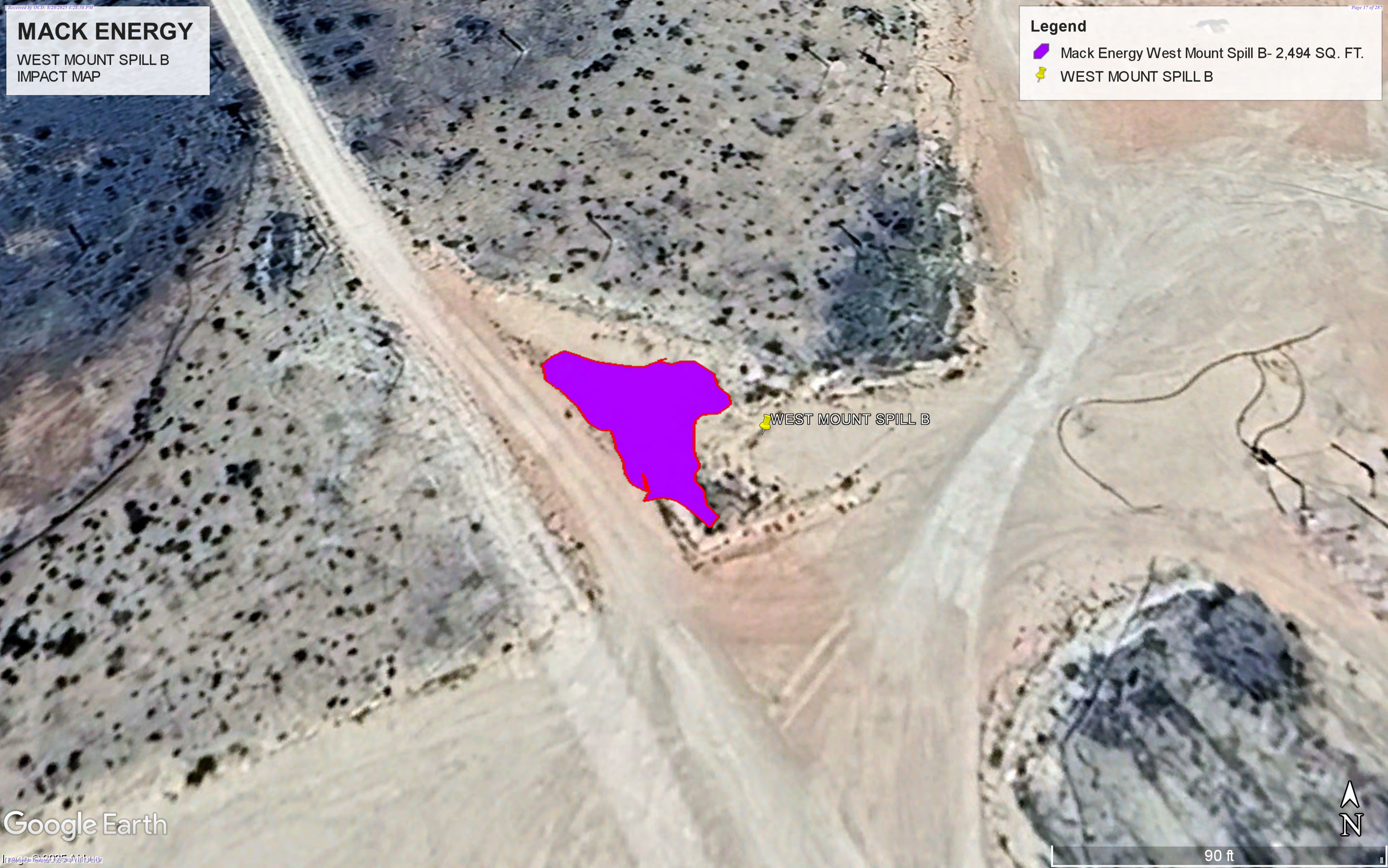
MACK ENERGY

WEST MOUNT SPILL B
IMPACT MAP

Legend

Mack Energy West Mount Spill B- 2,494 SQ. FT.

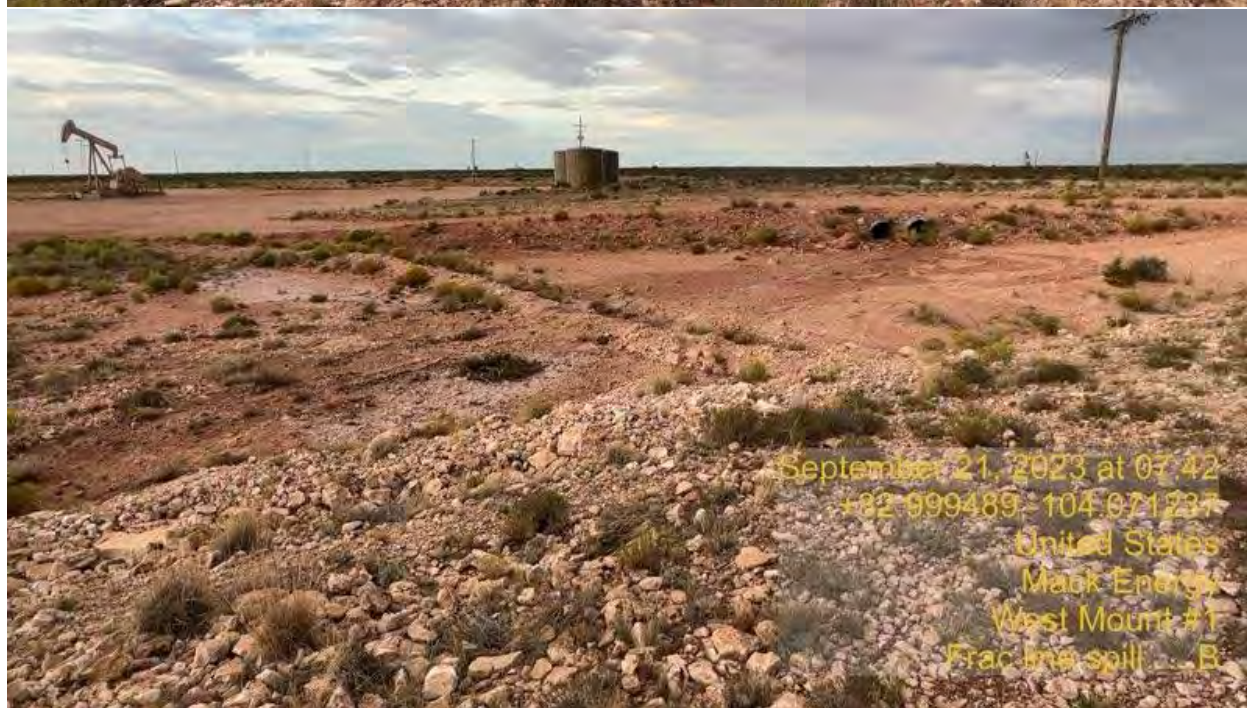
WEST MOUNT SPILL B



**MACK ENERGY: WEST MOUNT SPILL B
INITIAL SITE PHOTOS**











WEST MOUNT SPILL B

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition

In areas that have similar climate and topography, differences in the kind and amount of rangeland or forest understory vegetation are closely related to the kind of soil. Effective management is based on the relationship between the soils and vegetation and water.

This table shows, for each soil that supports vegetation, the ecological site, plant association, or habitat type; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. An explanation of the column headings in the table follows.

An *ecological site*, *plant association*, or *habitat type* is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of the site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site, plant association, or habitat type is typified by an association of species that differs from that of other ecological sites, plant associations, or habitat types in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service (NRCS). Descriptions of plant associations or habitat types are available from local U.S. Forest Service offices.

Total dry-weight production is the amount of vegetation that can be expected to grow annually in a well managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, normal, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Characteristic vegetation (the grasses, forbs, shrubs, and understory trees that make up most of the potential natural plant community on each soil) is listed by common name. Under *rangeland composition and forest understory*, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The percentages are by dry weight for rangeland. Percentages for forest understory are by either dry weight or canopy cover. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

Range management requires knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the potential natural plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the potential natural plant community. Further information about the range similarity index and rangeland trend is available in the "National Range and Pasture Handbook," which is available in local offices of NRCS or on the Internet.

The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service, [National range and pasture handbook](#).

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico,
Southern Part

WEST MOUNT SPILL B

Report—Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition—Chaves County, New Mexico, Southern Part								
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland or forest understory vegetation	Composition		
		Favorable year	Normal year	Unfavorable year			Rangeland	Forest understory
		<i>Lb/ac</i>	<i>Lb/ac</i>	<i>Lb/ac</i>		<i>Pct dry wt</i>	<i>Pct dry wt</i>	
Aa—Alama loam								
Alama	Loamy (R070BC007NM)	1,200	—	650	Adonis blazingstar	30		
					black grama	15		
					other perennial grasses	15		
					blue grama	10		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial forbs	5		
					rabo de ardilla	5		
					threeawn	5		
					yucca	5		



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/4/2024
Page 3 of 4

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico, Southern Part

WEST MOUNT SPILL B

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition--Chaves County, New Mexico, Southern Part								
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland or forest understory vegetation	Composition		
		Favorable year	Normal year	Unfavorable year			Rangeland	Forest understory
		<i>Lb/ac</i>	<i>Lb/ac</i>	<i>Lb/ac</i>		<i>Pct dry wt</i>	<i>Pct dry wt</i>	
HrC--Holloman-Gypsum land complex, 3 to 5 percent slopes								
Holloman	Gyp Upland (R070BB006NM)	800	600	375	alkali sacaton	45		
					black grama	10		
					coldenia	10		
					blue grama	5		
					fourwing saltbush	5		
					gyp dropseed	5		
					gypsum grama	5		
					other shrubs	5		
					other perennial forbs	5		
					other perennial grasses	5		
Gypsum land	—	—	—	—	—			

Data Source Information

Soil Survey Area: Chaves County, New Mexico, Southern Part

Survey Area Data: Version 18, Sep 7, 2023



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/4/2024
Page 4 of 4

Soil Map—Chaves County, New Mexico, Southern Part
(WEST MOUNT SPILL B)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/4/2024
Page 1 of 3

Soil Map—Chaves County, New Mexico, Southern Part
(WEST MOUNT SPILL B)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chaves County, New Mexico, Southern Part

Survey Area Data: Version 18, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TS	Tencee-Sotim association	13.9	100.0%
Totals for Area of Interest		13.9	100.0%

National Flood Hazard Layer FIRMette



104°4'35"W 33°0'13"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°3'57"W 32°59'42"N

Released to Imaging: 9/24/2025 11:00 AM

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/4/2024 at 2:45 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Legend

- High
- Low
- Medium
- WEST MOUNT SPILL B







New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586775

Northing (Y): 3651595.34

Radius: 1000

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:48 PM

Page 1 of 1

WELLS WITH WELL LOG INFORMATION



New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586775

Northing (Y): 3651595.34

Radius: 5000

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Wells with Well Log Information

(A CLW##### in the
POD suffix indicates
the POD has been
replaced & no longer
serves a water right
file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD			Source	q q q				X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number		
	Sub-Code	basin	County		6416	4	Sec	Tws											Rng	
RA 12428	RA	CH	Shallow	4	2	1	21	15S	28E	580579	3652317		6237	07/28/2016	08/04/2016	08/08/2016	170	125	DONALD KUEHN III	1058
RA 09248	RA	CH	Shallow	1	4	3	17	15S	28E	578704	3652884*		8173	07/10/1996	07/13/1996	07/25/1996	150	45	RAYMOND ANDERSON	1344
RA 12429 POD1	RA	CH	Shallow	1	1	4	32	15S	28E	579093	3648401		8319	11/17/2016	11/17/2016	11/28/2016	62	27	EADES, ALAN	1044
RA 10280	RA	CH	Shallow	4	3	3	17	15S	28E	578501	3652680*		8344	06/20/2002	07/15/2002	04/23/2003	70	40	CARREON, FERNANDO	1490
RA 09059	RA	CH	Shallow	2	4	4	18	15S	28E	578099	3652875*		8769	11/13/1995	01/15/1996	02/08/1997	110	35	RAYMOND ANDERSON	1344
L 14514 POD1	L	LE	Shallow	2	2	1	32	15S	36E	595494	3649622		8939	08/09/2018	08/10/2018	08/17/2018	208	77	JOHN GOERTZEN	1611

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 586775

Northing (Y): 3651595.34

Radius: 10000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.




New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4 Sec Tws Rng	X	Y
RA 12428		4 2 1 21 15S 28E	580579	3652317 

Driller License: 1058 **Driller Company:** KEY'S DRILLING & PUMP SERVICE

Driller Name: DONALD KUEHN III

Drill Start Date: 07/28/2016

Drill Finish Date: 08/04/2016

Plug Date:

Log File Date: 08/08/2016

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 15 GPM

Casing Size: 4.50

Depth Well: 170 feet

Depth Water: 125 feet

Water Bearing Stratifications:

Top Bottom Description

125	140	Sandstone/Gravel/Conglomerate
140	160	Sandstone/Gravel/Conglomerate
160	170	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

125	170
-----	-----

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:50 PM

Page 1 of 1

POD SUMMARY - RA 12428



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 09248		1	4	3	17	15S	28E	578704	3652884*

Driller License: 1344 **Driller Company:** ANDERSON, RAYMOND

Driller Name: RAYMOND ANDERSON

Drill Start Date: 07/10/1996

Drill Finish Date: 07/13/1996

Plug Date:

Log File Date: 07/25/1996

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 2 GPM

Casing Size: 4.50

Depth Well: 150 feet

Depth Water: 45 feet

Water Bearing Stratifications:

Top Bottom Description

50	60	Sandstone/Gravel/Conglomerate
----	----	-------------------------------

Casing Perforations:

Top Bottom

45	100
----	-----

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:50 PM

Page 1 of 1

POD SUMMARY - RA 09248



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 12429	POD1	1	1	4	32	15S	28E	579093	3648401

Driller License: 1044	Driller Company: EADES WELL DRILLING & PUMP SERVICE
Driller Name: EADES, ALAN	
Drill Start Date: 11/17/2016	Drill Finish Date: 11/17/2016
Log File Date: 11/28/2016	PCW Rcv Date:
Pump Type:	Pipe Discharge Size:
Casing Size: 5.13	Depth Well: 62 feet
	Depth Water: 27 feet

Water Bearing Stratifications:	Top	Bottom	Description
	27	33	Sandstone/Gravel/Conglomerate
	33	62	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	22	62

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:51 PM

Page 1 of 1

POD SUMMARY - RA 12429 POD1



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 10280		4	3	3	17	15S	28E	578501	3652680*

Driller License: 1490	Driller Company: FERNANDO'S WATER WELL
Driller Name: CARREON, FERNANDO	
Drill Start Date: 06/20/2002	Drill Finish Date: 07/15/2002
Log File Date: 04/23/2003	PCW Rcv Date:
Pump Type: SUBMER	Pipe Discharge Size: 1.25
Casing Size: 5.00	Depth Well: 70 feet
	Plug Date:
	Source: Shallow
	Estimated Yield: 10 GPM
	Depth Water: 40 feet

Water Bearing Stratifications:	Top	Bottom	Description
	1	70	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	40	70

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:51 PM

Page 1 of 1

POD SUMMARY - RA 10280



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 09059		2	4	4	18	15S	28E	578099	3652875*

Driller License: 1344 **Driller Company:** ANDERSON, RAYMOND

Driller Name: RAYMOND ANDERSON

Drill Start Date: 11/13/1995

Drill Finish Date: 01/15/1996

Plug Date:

Log File Date: 02/08/1997

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size: 4.50

Depth Well: 110 feet

Depth Water: 35 feet

Water Bearing Stratifications:

Top Bottom Description

60	65	Sandstone/Gravel/Conglomerate
----	----	-------------------------------

Casing Perforations:

Top Bottom

30	90
----	----

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/4/24 12:51 PM

Page 1 of 1

POD SUMMARY - RA 09059



Received by OCD: 8/20/2025 4:28:36 PM
MACK
WEST MOUNT SPILL B
GROUNDWATER MAP

RA09059-8,769-35 FT
RA09248-8,173-45 FT
RA10280-8,344-40 FT

RA12428-6,237-125 FT

RA12429 POD1-8,319-27 FT

WEST MOUNT SPILL B

Legend

RA09059-8,769-35 FT

RA09248-8,173-45 FT

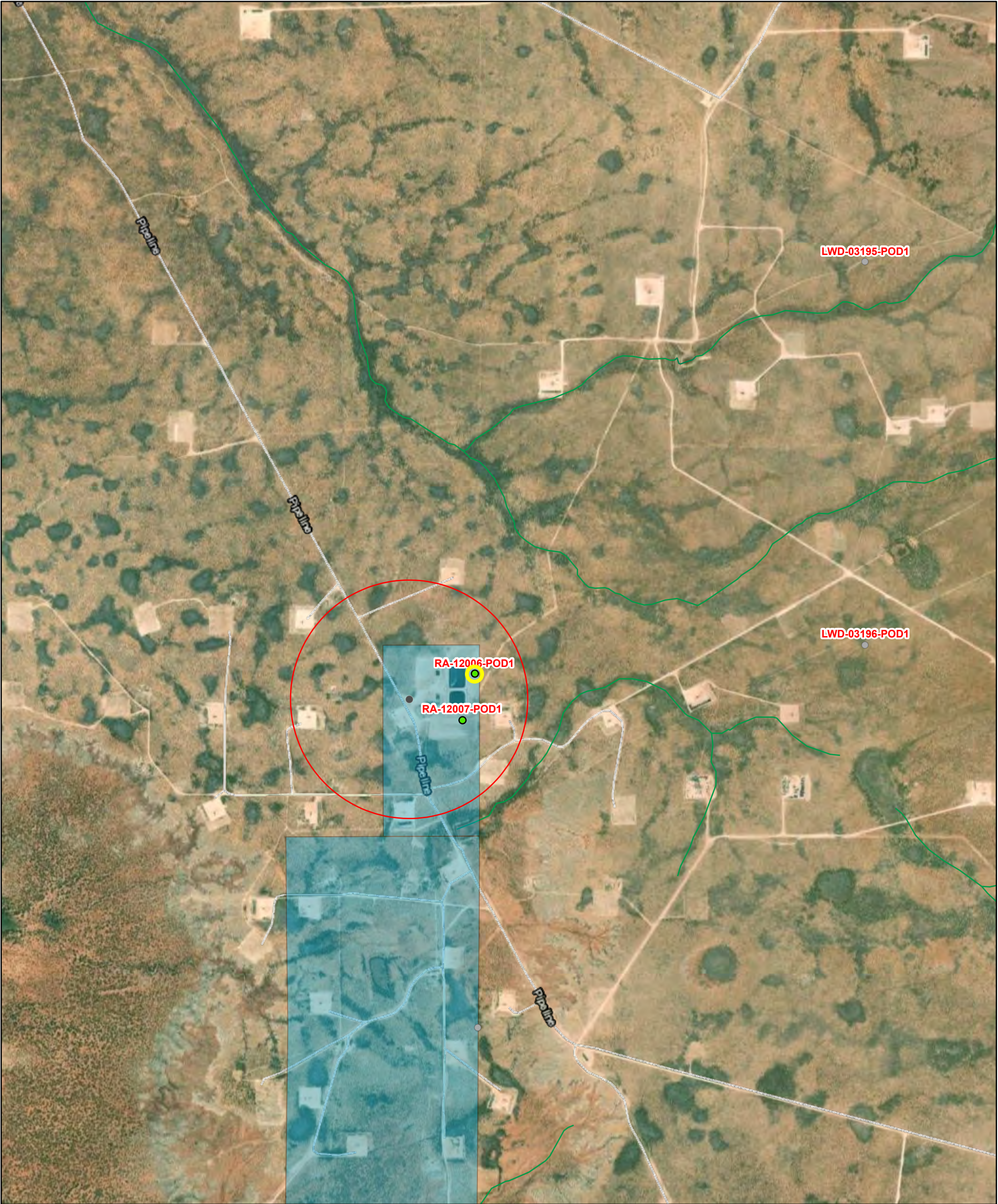
RA10280-8,344-40 FT

RA12428-6,237-125 FT

RA12429 POD1-8,319-27 FT

WEST MOUNT SPILL B

OSE POD Location Map



6/21/2024, 11:45:16 AM

GIS WATERS PODs

- Pending
-

OSE District Boundary

New Mexico State Trust Lands

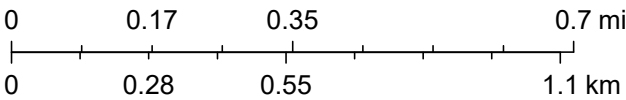
Both Estates

NHD Flowlines

— Artificial Path

— Stream River

1:18,056



Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Company: MACK ENERGY

Location Name: WEST MOUNT SPILL B

SP ID	Depth	Titre	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Dates
SP1	SURF	>4000	L	ND	ND	ND	ND	ND	4380	11/14/2023
	2	320								
	4	640								
	6	640								
	8	1200								
	10	400								
	12	240	L	ND	ND	ND	ND	ND	189	2/15/2024
SP2	SURF	1600	L	ND	ND	ND	ND	ND	2020	11/14/2023
	2	640								
	4	560								
	6	160								
	8	160	L	ND	ND	ND	ND	ND	46.7	2/15/2024
SP3	SURF	>4000	L	ND	ND	ND	ND	ND	5590	11/14/2023
	2	800								
	4	640								
	6	160								
	8	160								
	10	240								
	12	160								
	14	160	L	ND	ND	ND	ND	ND	29.6	2/15/2024
SP4	SURF	1680	L	ND	ND	ND	ND	ND	2060	11/14/2023
	2	480								
	4	320								
	6	400								
	8	320	L	ND	ND	ND	ND	ND	300	2/15/2024
SP5	SURF	320	L	ND	ND	ND	ND	ND	387	11/14/2023
	2	400								

	4	320								
	6	320								
	8	240								
	10	480								
	12	400								
	14	400								
	16	400								
	18	320	L	ND	ND	ND	ND	ND	253	2/15/2024
SP6	SURF	240	L	ND	ND	ND	ND	ND	281	11/14/2023
	2	1040								
	4	800								
	6	320								
	8	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SP7	SURF	160	L	ND	ND	ND	ND	ND	166	11/14/2023
	2	720								
	4	960								
	6	480								
	8	560								
	10	400								
	12	240								
	14	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW1	SURF	160	L	ND	ND	ND	ND	ND	20.4	11/14/2023
	1	640								
	2	320								
	3	240	L	ND	ND	ND	ND	ND	128	2/16/2024
SW2	SURF	400	L	ND	ND	ND	ND	ND	1630	11/14/2023
	1	720								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	2/16/2024

SW3	SURF	1360	L	ND	ND	ND	ND	ND	453	11/14/2023
	1	640								
	2	400								
	3	1200								
	4	160								
	5	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW4	SURF	480	L	ND	ND	ND	ND	ND	1310	11/14/2023
	1	720								
	2	720								
	3	560								
	4	320								
	5	880								
	6	400								
	7	320	L	ND	ND	ND	ND	ND	206	2/16/2024
SW5	SURF	1600	L	ND	ND	ND	ND	ND	775	11/14/2023
	1	960								
	2	640								
	3	640								
	4	560								
	5	400								
	6	320	L	ND	ND	ND	ND	ND	217	2/16/2024
SW6	SURF	240	L	ND	ND	ND	ND	ND	87.7	11/14/2023
	1	640								
	2	720								
	3	960								
	4	480								
	5	320								
	6	240	L	ND	ND	ND	ND	ND	121	2/16/2024
SW7	SURF	160	L	ND	ND	ND	ND	ND	ND	11/14/2023
	1	800								

	2	640								
	3	640								
	4	160								
	5	160	L	ND	ND	ND	ND	ND	ND	2/16/2024
SW8	SURF	400	L	ND	ND	ND	ND	ND	314	11/14/2023
	1	720								
	2	560								
	3	320								
	4	160	L	ND	ND	ND	ND	ND	ND	2/16/2024

MACK ENERGY

WEST MOUNT SPILL B
DELINEATION MAP

Legend

HORIZONTAL SAMPLE POINTS

VERTICAL SAMPLE POINTS

WEST MOUNT SPILL B



COMPANY: MACK ENERGY**LOCATION: WEST MOUNT SPILL B**

POINT	LATITUDE	LONGITUDE
SP1	32.999397°	-104.071337°
SP2	32.999374°	-104.071258°
SP3	32.999396°	-104.071189°
SP4	32.999361°	-104.071167°
SP5	32.999334°	-104.071214°
SP6	32.999279°	-104.071224°
SP7	32.999242°	-104.071186°
SP8	32.999337°	-104.071267°
SW1	32.999420°	-104.071362°
SW2	32.999406°	-104.071254°
SW3	32.999411°	-104.071185°
SW4	32.999366°	-104.071148°
SW5	32.999286°	-104.071183°
SW6	32.999215°	-104.071172°
SW7	32.999245°	-104.071245°
SW8	32.999326°	-104.071286°

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: Frac Line Spill B

Work Order: E311129

Job Number: 20046-0001

Received: 11/16/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/17/23

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 11/17/23

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: Frac Line Spill B
Workorder: E311129
Date Received: 11/16/2023 9:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/16/2023 9:00:00AM, under the Project Name: Frac Line Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW1 SURFACE	5
SW2 SURFACE	6
SW3 SURFACE	7
SW4 SURFACE	8
SW5 SURFACE	9
SW6 SURFACE	10
SW7 SURFACE	11
SW8 SURFACE	12
QC Summary Data	13
QC - Volatile Organic Compounds by EPA 8260B	13
QC - Nonhalogenated Organics by EPA 8015D - GRO	14
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	15
QC - Anions by EPA 300.0/9056A	16
Definitions and Notes	17
Chain of Custody etc.	18

Sample Summary

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/23 14:59

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW1 SURFACE	E311129-01A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW2 SURFACE	E311129-02A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW3 SURFACE	E311129-03A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW4 SURFACE	E311129-04A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW5 SURFACE	E311129-05A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW6 SURFACE	E311129-06A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW7 SURFACE	E311129-07A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SW8 SURFACE	E311129-08A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.

Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: Frac Line Spill B Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 11/17/2023 2:59:27PM
--	---	--

SW1 SURFACE

E311129-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/16/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/16/23	
Toluene	ND	0.0250	1	11/16/23	11/16/23	
o-Xylene	ND	0.0250	1	11/16/23	11/16/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/16/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/16/23	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	11/16/23	11/16/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.6 %	70-130	11/16/23	11/16/23	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/16/23	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	11/16/23	11/16/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.6 %	70-130	11/16/23	11/16/23	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
<i>Surrogate: n-Nonane</i>		91.1 %	50-200	11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	20.4	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 2:59:27PM

SW2 SURFACE

E311129-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/16/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/16/23	
Toluene	ND	0.0250	1	11/16/23	11/16/23	
o-Xylene	ND	0.0250	1	11/16/23	11/16/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/16/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/16/23	
Surrogate: Bromofluorobenzene	97.8 %	70-130		11/16/23	11/16/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		11/16/23	11/16/23	
Surrogate: Toluene-d8	108 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/16/23	
Surrogate: Bromofluorobenzene	97.8 %	70-130		11/16/23	11/16/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		11/16/23	11/16/23	
Surrogate: Toluene-d8	108 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	92.5 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	1630	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy	Project Name:	Frac Line Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

SW3 SURFACE

E311129-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Benzene	ND	0.0250	1	11/16/23	11/16/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/16/23	
Toluene	ND	0.0250	1	11/16/23	11/16/23	
o-Xylene	ND	0.0250	1	11/16/23	11/16/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/16/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/16/23	
<i>Surrogate: Bromofluorobenzene</i>	95.1 %	70-130		11/16/23	11/16/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	70-130		11/16/23	11/16/23	
<i>Surrogate: Toluene-d8</i>	109 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/16/23	
<i>Surrogate: Bromofluorobenzene</i>	95.1 %	70-130		11/16/23	11/16/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	70-130		11/16/23	11/16/23	
<i>Surrogate: Toluene-d8</i>	109 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2346080	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
<i>Surrogate: n-Nonane</i>	86.8 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2346090	
Chloride	453	200	10	11/16/23	11/17/23	



Sample Data

Mack Energy	Project Name:	Frac Line Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

SW4 SURFACE

E311129-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Benzene	ND	0.0250	1	11/16/23	11/16/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/16/23	
Toluene	ND	0.0250	1	11/16/23	11/16/23	
o-Xylene	ND	0.0250	1	11/16/23	11/16/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/16/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/16/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/16/23	11/16/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/16/23	
Surrogate: Toluene-d8	108 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/16/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/16/23	11/16/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/16/23	
Surrogate: Toluene-d8	108 %	70-130		11/16/23	11/16/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2346080	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	87.9 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2346090	
Chloride	1310	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 2:59:27PM

SW5 SURFACE

E311129-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	89.6 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	775	20.0	1	11/16/23	11/16/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 2:59:27PM

SW6 SURFACE

E311129-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	95.5 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	95.5 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	90.8 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	87.7	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 2:59:27PM

SW7 SURFACE

E311129-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	107 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	107 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	94.9 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	ND	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 2:59:27PM

SW8 SURFACE

E311129-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/16/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/16/23	
Surrogate: n-Nonane	90.2 %	50-200		11/16/23	11/16/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346090
Chloride	314	20.0	1	11/16/23	11/17/23	



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

Volatile Organic Compounds by EPA 8260B

Analyst: RAS

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

Blank (2346085-BLK1)

Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

LCS (2346085-BS1)

Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.62	0.0250	2.50		105	70-130			
Ethylbenzene	2.68	0.0250	2.50		107	70-130			
Toluene	2.72	0.0250	2.50		109	70-130			
o-Xylene	2.52	0.0250	2.50		101	70-130			
p,m-Xylene	5.05	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.474		0.500		94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.1	70-130			
Surrogate: Toluene-d8	0.530		0.500		106	70-130			

Matrix Spike (2346085-MS1)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.61	0.0250	2.50	ND	104	48-131			
Ethylbenzene	2.66	0.0250	2.50	ND	106	45-135			
Toluene	2.71	0.0250	2.50	ND	109	48-130			
o-Xylene	2.52	0.0250	2.50	ND	101	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.61	0.0250	7.50	ND	101	43-135			
Surrogate: Bromofluorobenzene	0.482		0.500		96.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

Matrix Spike Dup (2346085-MSD1)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.54	0.0250	2.50	ND	102	48-131	2.70	23	
Ethylbenzene	2.59	0.0250	2.50	ND	104	45-135	2.44	27	
Toluene	2.62	0.0250	2.50	ND	105	48-130	3.52	24	
o-Xylene	2.51	0.0250	2.50	ND	101	43-135	0.397	27	
p,m-Xylene	5.06	0.0500	5.00	ND	101	43-135	0.513	27	
Total Xylenes	7.57	0.0250	7.50	ND	101	43-135	0.474	27	
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.538		0.500		108	70-130			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RAS

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

Blank (2346085-BLK1)

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

LCS (2346085-BS2)

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	49.6	20.0	50.0		99.2	70-130			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.501		0.500		100	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			

Matrix Spike (2346085-MS2)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.6	70-130			
Surrogate: Bromofluorobenzene	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		96.9	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

Matrix Spike Dup (2346085-MSD2)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	47.0	20.0	50.0	ND	94.1	70-130	3.73	20	
Surrogate: Bromofluorobenzene	0.500		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.549		0.500		110	70-130			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

Blank (2346080-BLK1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.7		50.0		95.5	50-200			

LCS (2346080-BS1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Diesel Range Organics (C10-C28)	235	25.0	250		94.0	38-132			
Surrogate: n-Nonane	46.3		50.0		92.6	50-200			

Matrix Spike (2346080-MS1)					Source: E311108-03		Prepared: 11/16/23 Analyzed: 11/16/23		
Diesel Range Organics (C10-C28)	253	25.0	250	ND	101	38-132			
Surrogate: n-Nonane	45.7		50.0		91.5	50-200			

Matrix Spike Dup (2346080-MSD1)					Source: E311108-03		Prepared: 11/16/23 Analyzed: 11/16/23		
Diesel Range Organics (C10-C28)	244	25.0	250	ND	97.6	38-132	3.56	20	
Surrogate: n-Nonane	46.4		50.0		92.7	50-200			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 2:59:27PM

Anions by EPA 300.0/9056A

Analyst: BA

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

Blank (2346090-BLK1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Chloride	ND	20.0							
LCS (2346090-BS1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2346090-MS1)					Source: E311129-05		Prepared: 11/16/23 Analyzed: 11/16/23		
Chloride	1050	20.0	250	775	110	80-120			
Matrix Spike Dup (2346090-MSD1)					Source: E311129-05		Prepared: 11/16/23 Analyzed: 11/16/23		
Chloride	1030	20.0	250	775	100	80-120	2.23	20	

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



Definitions and Notes

Mack Energy	Project Name:	Frac Line Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/23 14:59

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

Page 6 of 6

Client: <u>Mark Energy</u>		Bill To		Lab Use Only		TAT		EPA Program	
Project: <u>Frac Line Spill</u>		Attention: <u>ENERGY STAFFING SERVICES</u>		Lab WO# <u>E311128</u>		1D 2D 3D		CWA SDWA	
Project Manager: <u>Natalie Gladden</u>		Address: <u>2724 NW COUNTY RD</u>		Job Number <u>2004100001</u>		<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Address:		City, State, Zip <u>HOBBS, NM 88240</u>		Analysis and Method				RCRA	
City, State, Zip		Phone: <u>575-393-9048</u>							
Phone:		Email: <u>NATALIE@ENERGYSTAFFINGLLC.COM</u>						State	
Email:		BRITTNEY@ENERGYSTAFFINGLLC.COM						NM CO UT AZ TX	
Report due by:								<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
	11/4/23	S	1	SW1 - surface	1							<input checked="" type="checkbox"/>		
				SW2 surface	2									
				SW3 surface	3									
				SW4 surface	4									
				SW5 surface	5									
				SW6 surface	6									
				SW7 surface	7									
	11/4/23	S	1	SW8 surface	8							<input checked="" type="checkbox"/>		

Additional Instructions:

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

Sampled by: Andy Torva

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<u>Andy Torva</u>	11/14/23		<u>Michelle Gay</u>	11-15-23	1430	
<u>Michelle Gay</u>	11-15-23	1730	<u>Andy Torva</u>	11-16-23	9:00	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

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

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

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

Envirotech Analytical Laboratory

Printed: 11/16/2023 10:48:53AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	11/16/23 09:00	Work Order ID:	E311129
Phone:	(575) 390-6397	Date Logged In:	11/15/23 15:40	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	11/17/23 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Time sampled not provided on COC by client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: Frac Line Spill B

Work Order: E311131

Job Number: 20046-0001

Received: 11/16/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/17/23

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 11/17/23

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: Frac Line Spill B
Workorder: E311131
Date Received: 11/16/2023 9:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/16/2023 9:00:00AM, under the Project Name: Frac Line Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP1-SURF	5
SP2-SURF	6
SP3-SURF	7
SP4-SURF	8
SP5-SURF	9
SP6-SURF	10
SP7-SURF	11
QC Summary Data	12
QC - Volatile Organic Compounds by EPA 8260B	12
QC - Nonhalogenated Organics by EPA 8015D - GRO	13
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	14
QC - Anions by EPA 300.0/9056A	15
Definitions and Notes	16
Chain of Custody etc.	17

Sample Summary

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/23 15:15

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP1-SURF	E311131-01A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP2-SURF	E311131-02A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP3-SURF	E311131-03A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP4-SURF	E311131-04A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP5-SURF	E311131-05A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP6-SURF	E311131-06A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.
SP7-SURF	E311131-07A	Soil	11/14/23	11/16/23	Glass Jar, 2 oz.

Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: Frac Line Spill B Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 11/17/2023 3:15:19PM
--	---	--

SP1-SURF

E311131-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
---------	--------	-----------------	----------	----------	----------	-------

Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130		11/16/23	11/17/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	103 %	70-130		11/16/23	11/17/23	
<i>Surrogate: Toluene-d8</i>	109 %	70-130		11/16/23	11/17/23	

Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS		Batch: 2346085	
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130		11/16/23	11/17/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	103 %	70-130		11/16/23	11/17/23	
<i>Surrogate: Toluene-d8</i>	109 %	70-130		11/16/23	11/17/23	

Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2346080	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
<i>Surrogate: n-Nonane</i>	80.9 %	50-200		11/16/23	11/17/23	

Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA		Batch: 2346100	
Chloride	4380	100	5	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 3:15:19PM

SP2-SURF

E311131-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.3 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	99.8 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.3 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	99.8 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	88.5 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	2020	200	10	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 3:15:19PM

SP3-SURF

E311131-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	99.0 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	98.6 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	99.0 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	98.6 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	86.9 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	5590	200	10	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 3:15:19PM

SP4-SURF

E311131-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	96.8 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	95.3 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	96.8 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	95.3 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	89.4 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	2060	40.0	2	11/16/23	11/17/23	



Sample Data

Mack Energy	Project Name:	Frac Line Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 3:15:19PM

SP5-SURF

E311131-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.9 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	107 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	97.9 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	107 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	101 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	387	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 3:15:19PM

SP6-SURF

E311131-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.0 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	96.8 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.0 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	96.8 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	94.7 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	281	20.0	1	11/16/23	11/17/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: Frac Line Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
11/17/2023 3:15:19PM

SP7-SURF

E311131-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Benzene	ND	0.0250	1	11/16/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/16/23	11/17/23	
Toluene	ND	0.0250	1	11/16/23	11/17/23	
o-Xylene	ND	0.0250	1	11/16/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/16/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.3 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2346085
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/16/23	11/17/23	
Surrogate: Bromofluorobenzene	98.3 %	70-130		11/16/23	11/17/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		11/16/23	11/17/23	
Surrogate: Toluene-d8	109 %	70-130		11/16/23	11/17/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2346080
Diesel Range Organics (C10-C28)	ND	25.0	1	11/16/23	11/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/16/23	11/17/23	
Surrogate: n-Nonane	95.5 %	50-200		11/16/23	11/17/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: BA		Batch: 2346100
Chloride	166	20.0	1	11/16/23	11/17/23	



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 3:15:19PM

Volatile Organic Compounds by EPA 8260B

Analyst: RAS

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

Blank (2346085-BLK1) Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

LCS (2346085-BS1) Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.62	0.0250	2.50		105	70-130			
Ethylbenzene	2.68	0.0250	2.50		107	70-130			
Toluene	2.72	0.0250	2.50		109	70-130			
o-Xylene	2.52	0.0250	2.50		101	70-130			
p,m-Xylene	5.05	0.0500	5.00		101	70-130			
Total Xylenes	7.57	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.474		0.500		94.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.1	70-130			
Surrogate: Toluene-d8	0.530		0.500		106	70-130			

Matrix Spike (2346085-MS1) Source: E311129-03 Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.61	0.0250	2.50	ND	104	48-131			
Ethylbenzene	2.66	0.0250	2.50	ND	106	45-135			
Toluene	2.71	0.0250	2.50	ND	109	48-130			
o-Xylene	2.52	0.0250	2.50	ND	101	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.61	0.0250	7.50	ND	101	43-135			
Surrogate: Bromofluorobenzene	0.482		0.500		96.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

Matrix Spike Dup (2346085-MSD1) Source: E311129-03 Prepared: 11/16/23 Analyzed: 11/16/23

Benzene	2.54	0.0250	2.50	ND	102	48-131	2.70	23	
Ethylbenzene	2.59	0.0250	2.50	ND	104	45-135	2.44	27	
Toluene	2.62	0.0250	2.50	ND	105	48-130	3.52	24	
o-Xylene	2.51	0.0250	2.50	ND	101	43-135	0.397	27	
p,m-Xylene	5.06	0.0500	5.00	ND	101	43-135	0.513	27	
Total Xylenes	7.57	0.0250	7.50	ND	101	43-135	0.474	27	
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.538		0.500		108	70-130			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 3:15:19PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RAS

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

Blank (2346085-BLK1)

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			

LCS (2346085-BS2)

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	49.6	20.0	50.0		99.2	70-130			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.501		0.500		100	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			

Matrix Spike (2346085-MS2)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	48.8	20.0	50.0	ND	97.6	70-130			
Surrogate: Bromofluorobenzene	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		96.9	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			

Matrix Spike Dup (2346085-MSD2)

Source: E311129-03

Prepared: 11/16/23 Analyzed: 11/16/23

Gasoline Range Organics (C6-C10)	47.0	20.0	50.0	ND	94.1	70-130	3.73	20	
Surrogate: Bromofluorobenzene	0.500		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.549		0.500		110	70-130			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 3:15:19PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

Blank (2346080-BLK1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.7		50.0		95.5	50-200			

LCS (2346080-BS1)					Prepared: 11/16/23 Analyzed: 11/16/23				
Diesel Range Organics (C10-C28)	235	25.0	250		94.0	38-132			
Surrogate: n-Nonane	46.3		50.0		92.6	50-200			

Matrix Spike (2346080-MS1)					Source: E311108-03		Prepared: 11/16/23 Analyzed: 11/16/23		
Diesel Range Organics (C10-C28)	253	25.0	250	ND	101	38-132			
Surrogate: n-Nonane	45.7		50.0		91.5	50-200			

Matrix Spike Dup (2346080-MSD1)					Source: E311108-03		Prepared: 11/16/23 Analyzed: 11/16/23		
Diesel Range Organics (C10-C28)	244	25.0	250	ND	97.6	38-132	3.56	20	
Surrogate: n-Nonane	46.4		50.0		92.7	50-200			



QC Summary Data

Mack Energy	Project Name:	Frac Line Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/2023 3:15:19PM

Anions by EPA 300.0/9056A

Analyst: BA

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

Blank (2346100-BLK1)					Prepared: 11/16/23 Analyzed: 11/17/23				
Chloride	ND	20.0							
LCS (2346100-BS1)					Prepared: 11/16/23 Analyzed: 11/17/23				
Chloride	244	20.0	250		97.6	90-110			
Matrix Spike (2346100-MS1)					Source: E311131-03		Prepared: 11/16/23 Analyzed: 11/17/23		
Chloride	5630	200	250	5590	16.6	80-120			M4
Matrix Spike Dup (2346100-MSD1)					Source: E311131-03		Prepared: 11/16/23 Analyzed: 11/17/23		
Chloride	5850	200	250	5590	103	80-120	3.76	20	

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



Definitions and Notes

Mack Energy	Project Name:	Frac Line Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/17/23 15:15

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



Client: <u>Mack Energy</u> Project: <u>Hack Link Spill</u> Project Manager: <u>Natalie Gboden</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ Report due by: _____				Bill To Attention: ENERGY STAFFING SERVICES Address: 2724 NW COUNTY RD City, State, Zip: HOBBS, NM 88240 Phone: 575-393-9048 Email: NATALIE@ENERGYSTAFFINGLLC.COM BRITTNEY@ENERGYSTAFFINGLLC.COM				Lab Use Only		TAT			EPA Program			
								Lab WO#	Job Number	1D	2D	3D	Standard	CWA	SDWA	
								<u>E311131</u>	<u>200410-0001</u>		<u>X</u>					
								Analysis and Method								
								DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			
														BGDOC NM	BGDOC TX	
								State								
								NM	CO	UT	AZ	TX				
								Remarks								

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM	BGDOC TX				
	<u>11/14/23</u>	<u>S</u>	<u>1</u>	<u>SP 1 - Surf</u>	<u>1</u>									<u>0</u>					
				<u>SP 2 - Surf</u>	<u>2</u>														
				<u>SP 3 - Surf</u>	<u>3</u>														
				<u>SP 4 - Surf</u>	<u>4</u>														
				<u>SP 5 - Surf</u>	<u>5</u>														
				<u>SP 6 - Surf</u>	<u>6</u>														
	<u>11/14/23</u>	<u>S</u>	<u>1</u>	<u>SP 7 - Surf</u>	<u>7</u>									<u>0</u>					

Additional Instructions:

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

Relinquished by: (Signature) [Signature] Date 11/14/23 Time Received by: (Signature) [Signature] Date 11-15-23 Time 1430

Relinquished by: (Signature) [Signature] Date 11-15-23 Time 1700 Received by: (Signature) [Signature] Date 11-16-23 Time 9:00

Relinquished by: (Signature) Date Time Received by: (Signature) Date Time

Received on ice: (Y) N

T1 T2 T3

AVG Temp °C 4

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

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

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

Envirotech Analytical Laboratory

Printed: 11/16/2023 10:49:38AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	11/16/23 09:00	Work Order ID:	E311131
Phone:	(575) 390-6397	Date Logged In:	11/16/23 08:11	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	11/17/23 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: Courier**Comments/Resolution**

Time sampled is not provided on the COC by client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E402156

Job Number: 20046-0001

Received: 2/17/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
2/20/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 2/20/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E402156
Date Received: 2/17/2024 6:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 2/17/2024 6:30:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
SP 2 - 8'	6
SP 3 - 14'	7
SP 4 - 8'	8
SP 5 - 18'	9
QC Summary Data	10
QC - Volatile Organics by EPA 8021B	10
QC - Nonhalogenated Organics by EPA 8015D - GRO	11
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	12
QC - Anions by EPA 300.0/9056A	13
Definitions and Notes	14
Chain of Custody etc.	15

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/20/24 14:44

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP 1 - 12'	E402156-01A	Soil	02/15/24	02/17/24	Glass Jar, 2 oz.
SP 2 - 8'	E402156-02A	Soil	02/15/24	02/17/24	Glass Jar, 2 oz.
SP 3 - 14'	E402156-03A	Soil	02/15/24	02/17/24	Glass Jar, 2 oz.
SP 4 - 8'	E402156-04A	Soil	02/15/24	02/17/24	Glass Jar, 2 oz.
SP 5 - 18'	E402156-05A	Soil	02/15/24	02/17/24	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill B Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 2/20/2024 2:44:42PM
--	--	---

SP 1 - 12'

E402156-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2408006
Benzene	ND	0.0250	1	02/19/24	02/19/24	
Ethylbenzene	ND	0.0250	1	02/19/24	02/19/24	
Toluene	ND	0.0250	1	02/19/24	02/19/24	
o-Xylene	ND	0.0250	1	02/19/24	02/19/24	
p,m-Xylene	ND	0.0500	1	02/19/24	02/19/24	
Total Xylenes	ND	0.0250	1	02/19/24	02/19/24	
Surrogate: 4-Bromochlorobenzene-PID	92.9 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2408006
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/19/24	02/19/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.2 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2408009
Diesel Range Organics (C10-C28)	ND	25.0	1	02/19/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/19/24	02/20/24	
Surrogate: n-Nonane	95.4 %	50-200		02/19/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2408023
Chloride	189	20.0	1	02/19/24	02/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 2/20/2024 2:44:42PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 2 - 8'

E402156-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Benzene	ND	0.0250	1	02/19/24	02/19/24	
Ethylbenzene	ND	0.0250	1	02/19/24	02/19/24	
Toluene	ND	0.0250	1	02/19/24	02/19/24	
o-Xylene	ND	0.0250	1	02/19/24	02/19/24	
p,m-Xylene	ND	0.0500	1	02/19/24	02/19/24	
Total Xylenes	ND	0.0250	1	02/19/24	02/19/24	
Surrogate: 4-Bromochlorobenzene-PID	93.2 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/19/24	02/19/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.7 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2408009	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/19/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/19/24	02/20/24	
Surrogate: n-Nonane	98.4 %	50-200		02/19/24	02/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2408023	
Chloride	46.7	20.0	1	02/19/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 2/20/2024 2:44:42PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 3 - 14'

E402156-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Benzene	ND	0.0250	1	02/19/24	02/19/24	
Ethylbenzene	ND	0.0250	1	02/19/24	02/19/24	
Toluene	ND	0.0250	1	02/19/24	02/19/24	
o-Xylene	ND	0.0250	1	02/19/24	02/19/24	
p,m-Xylene	ND	0.0500	1	02/19/24	02/19/24	
Total Xylenes	ND	0.0250	1	02/19/24	02/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.4 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/19/24	02/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.2 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408009	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/19/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/19/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	95.0 %	50-200		02/19/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2408023	
Chloride	29.6	20.0	1	02/19/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/20/2024 2:44:42PM

SP 4 - 8'

E402156-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Benzene	ND	0.0250	1	02/19/24	02/19/24	
Ethylbenzene	ND	0.0250	1	02/19/24	02/19/24	
Toluene	ND	0.0250	1	02/19/24	02/19/24	
o-Xylene	ND	0.0250	1	02/19/24	02/19/24	
p,m-Xylene	ND	0.0500	1	02/19/24	02/19/24	
Total Xylenes	ND	0.0250	1	02/19/24	02/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	93.9 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS		Batch: 2408006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/19/24	02/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	95.9 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2408009	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/19/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/19/24	02/20/24	
<i>Surrogate: n-Nonane</i>	97.0 %	50-200		02/19/24	02/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2408023	
Chloride	300	20.0	1	02/19/24	02/20/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
2/20/2024 2:44:42PM

SP 5 - 18'

E402156-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2408006
Benzene	ND	0.0250	1	02/19/24	02/19/24	
Ethylbenzene	ND	0.0250	1	02/19/24	02/19/24	
Toluene	ND	0.0250	1	02/19/24	02/19/24	
o-Xylene	ND	0.0250	1	02/19/24	02/19/24	
p,m-Xylene	ND	0.0500	1	02/19/24	02/19/24	
Total Xylenes	ND	0.0250	1	02/19/24	02/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.1 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2408006
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/19/24	02/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.0 %	70-130		02/19/24	02/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2408009
Diesel Range Organics (C10-C28)	ND	25.0	1	02/19/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/19/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	97.4 %	50-200		02/19/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2408023
Chloride	253	20.0	1	02/19/24	02/20/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/20/2024 2:44:42PM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2408006-BLK1) Prepared: 02/19/24 Analyzed: 02/19/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.53		8.00		94.1	70-130			

LCS (2408006-BS1) Prepared: 02/19/24 Analyzed: 02/19/24

Benzene	5.13	0.0250	5.00		103	70-130			
Ethylbenzene	5.11	0.0250	5.00		102	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	5.07	0.0250	5.00		101	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.4	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.65		8.00		95.6	70-130			

Matrix Spike (2408006-MS1) Source: E402154-25 Prepared: 02/19/24 Analyzed: 02/19/24

Benzene	4.87	0.0250	5.00	ND	97.3	54-133			
Ethylbenzene	4.84	0.0250	5.00	ND	96.9	61-133			
Toluene	4.85	0.0250	5.00	ND	97.0	61-130			
o-Xylene	4.79	0.0250	5.00	ND	95.9	63-131			
p,m-Xylene	9.79	0.0500	10.0	ND	97.9	63-131			
Total Xylenes	14.6	0.0250	15.0	ND	97.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.68		8.00		96.0	70-130			

Matrix Spike Dup (2408006-MSD1) Source: E402154-25 Prepared: 02/19/24 Analyzed: 02/19/24

Benzene	4.77	0.0250	5.00	ND	95.4	54-133	1.94	20	
Ethylbenzene	4.80	0.0250	5.00	ND	96.0	61-133	0.909	20	
Toluene	4.78	0.0250	5.00	ND	95.7	61-130	1.41	20	
o-Xylene	4.75	0.0250	5.00	ND	94.9	63-131	0.981	20	
p,m-Xylene	9.69	0.0500	10.0	ND	96.9	63-131	0.993	20	
Total Xylenes	14.4	0.0250	15.0	ND	96.2	63-131	0.989	20	
Surrogate: 4-Bromochlorobenzene-PID	7.60		8.00		94.9	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/20/2024 2:44:42PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2408006-BLK1) Prepared: 02/19/24 Analyzed: 02/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.83		8.00		97.9	70-130			

LCS (2408006-BS2) Prepared: 02/19/24 Analyzed: 02/19/24

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0		89.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.60		8.00		95.0	70-130			

Matrix Spike (2408006-MS2) Source: E402154-25 Prepared: 02/19/24 Analyzed: 02/19/24

Gasoline Range Organics (C6-C10)	44.4	20.0	50.0	ND	88.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		8.00		97.5	70-130			

Matrix Spike Dup (2408006-MSD2) Source: E402154-25 Prepared: 02/19/24 Analyzed: 02/19/24

Gasoline Range Organics (C6-C10)	42.8	20.0	50.0	ND	85.6	70-130	3.71	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.81		8.00		97.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/20/2024 2:44:42PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2408009-BLK1)					Prepared: 02/19/24 Analyzed: 02/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.5		50.0		91.0	50-200			

LCS (2408009-BS1)					Prepared: 02/19/24 Analyzed: 02/19/24				
Diesel Range Organics (C10-C28)	258	25.0	250		103	38-132			
Surrogate: n-Nonane	44.9		50.0		89.7	50-200			

Matrix Spike (2408009-MS1)					Source: E402154-25		Prepared: 02/19/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	234	25.0	250	ND	93.7	38-132			
Surrogate: n-Nonane	44.5		50.0		89.0	50-200			

Matrix Spike Dup (2408009-MSD1)					Source: E402154-25		Prepared: 02/19/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	224	25.0	250	ND	89.8	38-132	4.25	20	
Surrogate: n-Nonane	42.8		50.0		85.7	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/20/2024 2:44:42PM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2408023-BLK1)					Prepared: 02/19/24 Analyzed: 02/19/24				
Chloride	ND	20.0							
LCS (2408023-BS1)					Prepared: 02/19/24 Analyzed: 02/19/24				
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2408023-MS1)					Source: E402141-03		Prepared: 02/19/24 Analyzed: 02/19/24		
Chloride	254	20.0	250	ND	102	80-120			
Matrix Spike Dup (2408023-MSD1)					Source: E402141-03		Prepared: 02/19/24 Analyzed: 02/19/24		
Chloride	253	20.0	250	ND	101	80-120	0.529	20	

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

Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/20/24 14:44

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 2/17/2024 8:23:03AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	02/17/24 06:30	Work Order ID:	E402156
Phone:	(575) 390-6397	Date Logged In:	02/16/24 16:19	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	02/20/24 17:00 (1 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

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

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client InstructionComments/Resolution

project manager and time sampled are not documented on COC by client.

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E402165

Job Number: 20046-0001

Received: 2/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
2/21/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 2/21/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E402165
Date Received: 2/20/2024 5:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 2/20/2024 5:30:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW 1 -3'	5
SW 2 -3'	6
SW 3 -5'	7
SW 4 -7'	8
SW 5 -6'	9
SW 6 -6'	10
SW 7 -5'	11
SW 8 -4'	12
QC Summary Data	13
QC - Volatile Organics by EPA 8021B	13
QC - Nonhalogenated Organics by EPA 8015D - GRO	14
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	15
QC - Anions by EPA 300.0/9056A	16
Definitions and Notes	17
Chain of Custody etc.	18

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/21/24 15:45

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW 1 -3'	E402165-01A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 2 -3'	E402165-02A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 3 -5'	E402165-03A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 4 -7'	E402165-04A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 5 -6'	E402165-05A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 6 -6'	E402165-06A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 7 -5'	E402165-07A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SW 8 -4'	E402165-08A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill B Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 2/21/2024 3:45:57PM
--	--	---

SW 1 -3'

E402165-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: EG		Batch: 2408030
Benzene	ND	0.0250	1	02/20/24	02/20/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/20/24	
Toluene	ND	0.0250	1	02/20/24	02/20/24	
o-Xylene	ND	0.0250	1	02/20/24	02/20/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/20/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/20/24	
Surrogate: 4-Bromochlorobenzene-PID	93.4 %	70-130		02/20/24	02/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: EG		Batch: 2408030
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.0 %	70-130		02/20/24	02/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2408033
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
Surrogate: n-Nonane	100 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2408034
Chloride	128	40.0	2	02/20/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 2/21/2024 3:45:57PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 2 -3'

E402165-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/20/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/20/24	
Toluene	ND	0.0250	1	02/20/24	02/20/24	
o-Xylene	ND	0.0250	1	02/20/24	02/20/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/20/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/20/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.8 %	70-130		02/20/24	02/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/20/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.1 %	70-130		02/20/24	02/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	102 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	ND	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 2/21/2024 3:45:57PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 3 -5'

E402165-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.1 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	104 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	ND	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
2/21/2024 3:45:57PM

SW 4 -7'

E402165-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: EG		Batch: 2408030
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.8 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: EG		Batch: 2408030
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.3 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2408033
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	111 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2408034
Chloride	206	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
2/21/2024 3:45:57PM

SW 5 -6'

E402165-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.7 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.5 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	107 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	217	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 2/21/2024 3:45:57PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 6 -6'

E402165-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.3 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.8 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	121	40.0	2	02/20/24	02/20/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
2/21/2024 3:45:57PM

SW 7 -5'

E402165-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B		mg/kg	mg/kg	Analyst: EG		Batch: 2408030
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.5 %	70-130	02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO		mg/kg	mg/kg	Analyst: EG		Batch: 2408030
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.5 %	70-130	02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO		mg/kg	mg/kg	Analyst: KM		Batch: 2408033
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>		106 %	50-200	02/20/24	02/20/24	
Anions by EPA 300.0/9056A		mg/kg	mg/kg	Analyst: DT		Batch: 2408034
Chloride	ND	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:45:57PM

SW 8 -4'

E402165-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	93.2 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	96.3 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/20/24	
<i>Surrogate: n-Nonane</i>	108 %	50-200		02/20/24	02/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	ND	20.0	1	02/20/24	02/20/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:45:57PM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2408030-BLK1) Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.51		8.00		93.8	70-130			

LCS (2408030-BS1) Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.31	0.0250	5.00		86.3	70-130			
Ethylbenzene	4.31	0.0250	5.00		86.2	70-130			
Toluene	4.30	0.0250	5.00		86.0	70-130			
o-Xylene	4.24	0.0250	5.00		84.9	70-130			
p,m-Xylene	8.70	0.0500	10.0		87.0	70-130			
Total Xylenes	12.9	0.0250	15.0		86.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.39		8.00		92.4	70-130			

Matrix Spike (2408030-MS1) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.49	0.0250	5.00	ND	89.9	54-133			
Ethylbenzene	4.50	0.0250	5.00	ND	89.9	61-133			
Toluene	4.48	0.0250	5.00	ND	89.7	61-130			
o-Xylene	4.44	0.0250	5.00	ND	88.9	63-131			
p,m-Xylene	9.08	0.0500	10.0	ND	90.8	63-131			
Total Xylenes	13.5	0.0250	15.0	ND	90.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.54		8.00		94.2	70-130			

Matrix Spike Dup (2408030-MSD1) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.78	0.0250	5.00	ND	95.6	54-133	6.14	20	
Ethylbenzene	4.79	0.0250	5.00	ND	95.8	61-133	6.32	20	
Toluene	4.77	0.0250	5.00	ND	95.4	61-130	6.21	20	
o-Xylene	4.72	0.0250	5.00	ND	94.4	63-131	6.09	20	
p,m-Xylene	9.66	0.0500	10.0	ND	96.6	63-131	6.18	20	
Total Xylenes	14.4	0.0250	15.0	ND	95.9	63-131	6.15	20	
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.7	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:45:57PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2408030-BLK1) Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			

LCS (2408030-BS2) Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	54.3	20.0	50.0		109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

Matrix Spike (2408030-MS2) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	51.8	20.0	50.0	ND	104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

Matrix Spike Dup (2408030-MSD2) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	50.6	20.0	50.0	ND	101	70-130	2.24	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:45:57PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2408033-BLK1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	56.0		50.0		112	50-200			

LCS (2408033-BS1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Diesel Range Organics (C10-C28)	282	25.0	250		113	38-132			
Surrogate: n-Nonane	60.4		50.0		121	50-200			

Matrix Spike (2408033-MS1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	303	25.0	250	ND	121	38-132			
Surrogate: n-Nonane	61.6		50.0		123	50-200			

Matrix Spike Dup (2408033-MSD1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	285	25.0	250	ND	114	38-132	6.21	20	
Surrogate: n-Nonane	57.8		50.0		116	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:45:57PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2408034-BLK1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Chloride	ND	20.0							
LCS (2408034-BS1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2408034-MS1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Chloride	255	20.0	250	ND	102	80-120			
Matrix Spike Dup (2408034-MSD1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Chloride	257	20.0	250	ND	103	80-120	0.739	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/21/24 15:45

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Page 1 of 1

Client: <u>Mock Energy</u> Project: <u>West Mount Spill B</u> Project Manager: Address: City, State, Zip: Phone: Email: Report due by:					Bill To Attention: <u>ENERGY STAFFING SERVICES</u> Address: <u>2724 NW COUNTY RD</u> City, State, Zip: <u>HOBBS, NM 88240</u> Phone: <u>575-393-9048</u> Email: <u>NATALIE@ENERGYSTAFFINGLLC.COM</u> <u>BRITTNEY@ENERGYSTAFFINGLLC.COM</u>					Lab Use Only Lab WO# <u>E 402165</u> Job Number <u>20046-0001</u> Analysis and Method DRO/DRO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 BGDOC NM BGDOC TX					TAT 1D 2D 3D Standard <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			EPA Program CWA SDWA RCRA State NM CO UT AZ TX <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks					
	02/16	S	1	SW 1 - 3'	1							X							
				SW 2 - 3'	2														
				SW 3 - 5'	3														
				SW 4 - 7'	4														
				SW 5 - 6'	5														
				SW 6 - 6'	6														
				SW 7 - 5'	7														
	02/16	S	1	SW 8 - 4'	8							X							
Additional Instructions:																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / N											
<u>Jan Solis</u> <u>Micelle Cough</u> <u>Andrew Musso</u>		<u>02/16/24</u> <u>2-19-24</u> <u>2-19-24</u>	 <u>1615</u> <u>2330</u>	<u>Micelle Cough</u> <u>Andrew Musso</u> <u>Highly D Hall</u>		<u>2-19-24</u> <u>2-19-24</u> <u>2-20-24</u>	<u>1306</u> <u>1730</u> <u>0530</u>	T1 T2 T3 AVG Temp °C <u>4</u>											
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA									
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 2/20/2024 2:08:16PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client: Mack Energy
 Phone: (575) 390-6397
 Email: Natalie@energystaffingllc.com

Date Received: 02/20/24 05:30
 Date Logged In: 02/19/24 17:05
 Due Date: 02/21/24 17:00 (1 day TAT)

Work Order ID: E402165
 Logged In By: Alexa Michaels

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
 2. Does the number of samples per sampling site location match the COC? Yes
 3. Were samples dropped off by client or carrier? Yes
 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
 5. Were all samples received within holding time? Yes
- Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierSample Turn Around Time (TAT)

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

Sample Cooler

7. Was a sample cooler received? Yes
 8. If yes, was cooler received in good condition? Yes
 9. Was the sample(s) received intact, i.e., not broken? Yes
 10. Were custody/security seals present? No
 11. If yes, were custody/security seals intact? NA
 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes
- Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling
13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client InstructionComments/Resolution

Project manager and time sampled not documented on COC.

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E402167

Job Number: 20046-0001

Received: 2/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
2/21/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 2/21/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E402167
Date Received: 2/20/2024 5:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 2/20/2024 5:30:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP 6 -8'	5
SP 7 -14'	6
QC Summary Data	7
QC - Volatile Organics by EPA 8021B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/21/24 15:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP 6 -8'	E402167-01A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.
SP 7 -14'	E402167-02A	Soil	02/16/24	02/20/24	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill B Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 2/21/2024 3:43:30PM
--	--	----------------------------------

SP 6 -8'
E402167-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
Surrogate: 4-Bromochlorobenzene-PID	92.9 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.4 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/21/24	
Surrogate: n-Nonane	113 %	50-200		02/20/24	02/21/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	ND	20.0	1	02/20/24	02/20/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
2/21/2024 3:43:30PM

SP 7 -14'

E402167-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Benzene	ND	0.0250	1	02/20/24	02/21/24	
Ethylbenzene	ND	0.0250	1	02/20/24	02/21/24	
Toluene	ND	0.0250	1	02/20/24	02/21/24	
o-Xylene	ND	0.0250	1	02/20/24	02/21/24	
p,m-Xylene	ND	0.0500	1	02/20/24	02/21/24	
Total Xylenes	ND	0.0250	1	02/20/24	02/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.0 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2408030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/20/24	02/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.9 %	70-130		02/20/24	02/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2408033	
Diesel Range Organics (C10-C28)	ND	25.0	1	02/20/24	02/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	02/20/24	02/21/24	
<i>Surrogate: n-Nonane</i>						
	112 %	50-200		02/20/24	02/21/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2408034	
Chloride	ND	20.0	1	02/20/24	02/20/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:43:30PM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2408030-BLK1) Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.51		8.00		93.8	70-130			

LCS (2408030-BS1) Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.31	0.0250	5.00		86.3	70-130			
Ethylbenzene	4.31	0.0250	5.00		86.2	70-130			
Toluene	4.30	0.0250	5.00		86.0	70-130			
o-Xylene	4.24	0.0250	5.00		84.9	70-130			
p,m-Xylene	8.70	0.0500	10.0		87.0	70-130			
Total Xylenes	12.9	0.0250	15.0		86.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.39		8.00		92.4	70-130			

Matrix Spike (2408030-MS1) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.49	0.0250	5.00	ND	89.9	54-133			
Ethylbenzene	4.50	0.0250	5.00	ND	89.9	61-133			
Toluene	4.48	0.0250	5.00	ND	89.7	61-130			
o-Xylene	4.44	0.0250	5.00	ND	88.9	63-131			
p,m-Xylene	9.08	0.0500	10.0	ND	90.8	63-131			
Total Xylenes	13.5	0.0250	15.0	ND	90.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.54		8.00		94.2	70-130			

Matrix Spike Dup (2408030-MSD1) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Benzene	4.78	0.0250	5.00	ND	95.6	54-133	6.14	20	
Ethylbenzene	4.79	0.0250	5.00	ND	95.8	61-133	6.32	20	
Toluene	4.77	0.0250	5.00	ND	95.4	61-130	6.21	20	
o-Xylene	4.72	0.0250	5.00	ND	94.4	63-131	6.09	20	
p,m-Xylene	9.66	0.0500	10.0	ND	96.6	63-131	6.18	20	
Total Xylenes	14.4	0.0250	15.0	ND	95.9	63-131	6.15	20	
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.7	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:43:30PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2408030-BLK1) Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		8.00		94.7	70-130			

LCS (2408030-BS2) Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	54.3	20.0	50.0		109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

Matrix Spike (2408030-MS2) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	51.8	20.0	50.0	ND	104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

Matrix Spike Dup (2408030-MSD2) Source: E402165-01 Prepared: 02/20/24 Analyzed: 02/20/24

Gasoline Range Organics (C6-C10)	50.6	20.0	50.0	ND	101	70-130	2.24	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:43:30PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2408033-BLK1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	56.0		50.0		112	50-200			

LCS (2408033-BS1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Diesel Range Organics (C10-C28)	282	25.0	250		113	38-132			
Surrogate: n-Nonane	60.4		50.0		121	50-200			

Matrix Spike (2408033-MS1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	303	25.0	250	ND	121	38-132			
Surrogate: n-Nonane	61.6		50.0		123	50-200			

Matrix Spike Dup (2408033-MSD1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Diesel Range Organics (C10-C28)	285	25.0	250	ND	114	38-132	6.21	20	
Surrogate: n-Nonane	57.8		50.0		116	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	2/21/2024 3:43:30PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2408034-BLK1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Chloride	ND	20.0							
LCS (2408034-BS1)					Prepared: 02/20/24 Analyzed: 02/20/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2408034-MS1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Chloride	255	20.0	250	ND	102	80-120			
Matrix Spike Dup (2408034-MSD1)					Source: E402165-02		Prepared: 02/20/24 Analyzed: 02/20/24		
Chloride	257	20.0	250	ND	103	80-120	0.739	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	02/21/24 15:43

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 2/20/2024 2:01:09PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	02/20/24 05:30	Work Order ID:	E402167
Phone:	(575) 390-6397	Date Logged In:	02/19/24 17:14	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	02/21/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

Carrier: Courier

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

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client InstructionComments/Resolution

Project Manager and time sampled not documented on COC.

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

Date



envirotech Inc.

**MACK ENERGY: WEST MOUNT SPILL B
DELINEATION SITE PHOTOS**









15 Feb 2024 10:41:41 AM

+32.999410,-104.071134

Chaves County

Mack Energy

West Mount spill B



Outlook

FW: The Oil Conservation Division (OCD) has accepted the application, Application ID: 389430

From Natalie Gladden <natalie@energystaffingllc.com>**Date** Wed 10/2/2024 3:56 PM**To** Brittney Corral <brittney@energystaffingllc.com>**Natalie Gladden****Director of Environmental and Regulatory Services****Energy Staffing Services, LLC.****2724 NW County Road****Hobbs, NM 88240****Cell: 575-390-6397****Office: 575-393-9048****Email: natalie@energystaffingllc.com**

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>**Sent:** Wednesday, October 2, 2024 3:53 PM**To:** Natalie Gladden <natalie@energystaffingllc.com>**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 389430

To whom it may concern (c/o Natalie Gladden for MACK ENERGY CORP),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2327759229.

The sampling event is expected to take place:

When: 10/04/2024 @ 07:00**Where:** K-19-15S-29E 0 FNL 0 FEL (32.999326,-104.071112)**Additional Information:** CONTACT NATALIE GLADDEN 5753906397**Additional Instructions:** 32.999326 -104.071112

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC.

Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

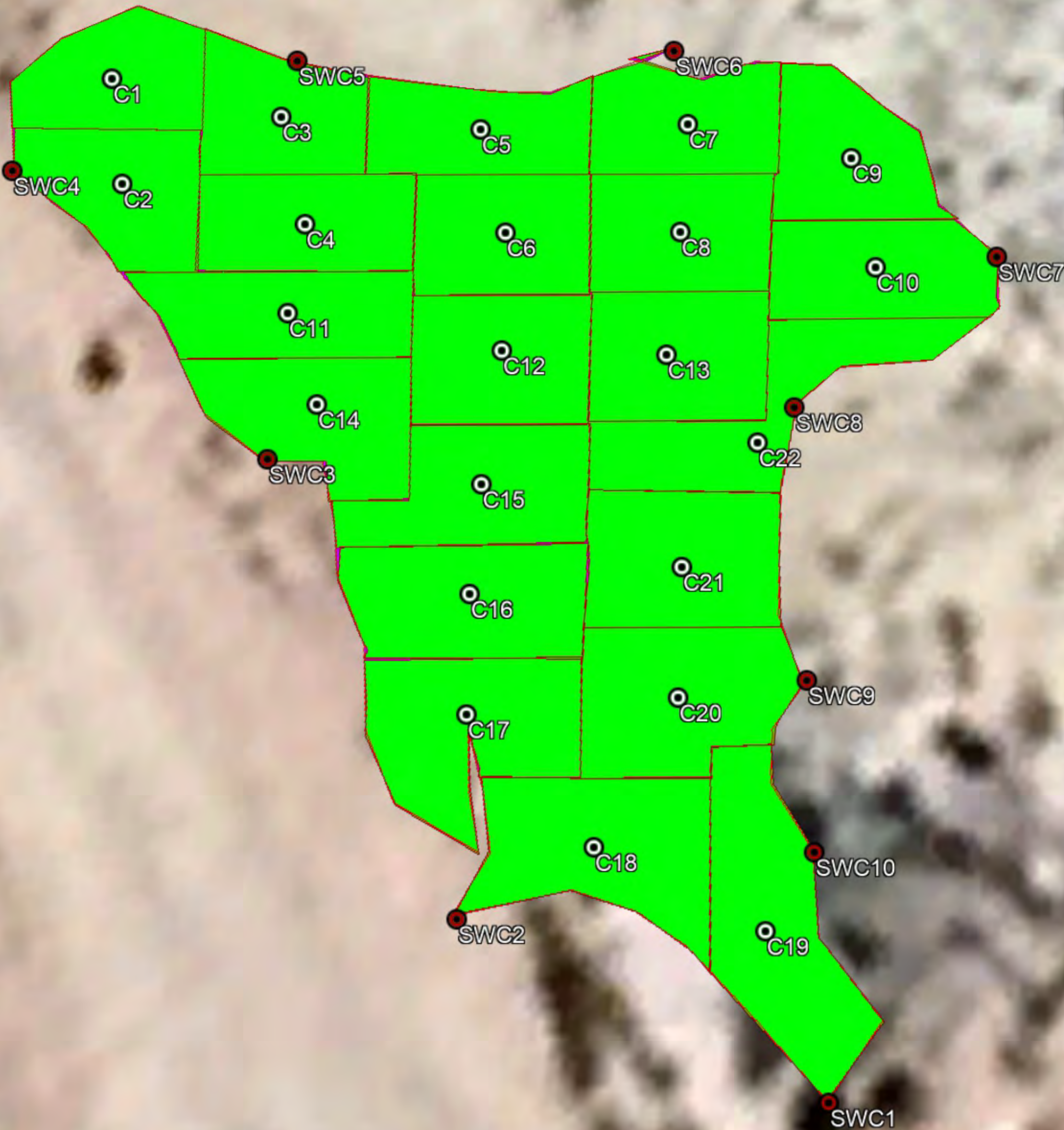
Company: MACK ENERGY**Location Name: WEST MOUNT SPILL B****Release Date:**

SP ID	Depth	Titre	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Soil	Notes
COMP1	4	320	L	ND	ND	ND	ND	ND	145		
COMP2	6	320	L	ND	ND	ND	ND	ND	183		
COMP3	10	240	L	ND	ND	ND	ND	ND	242		
COMP4	6	160	L	ND	ND	ND	ND	ND	28.3		
COMP5	6	320	L	ND	ND	ND	ND	ND	53.9		
COMP6	6	240	L	ND	ND	ND	ND	ND	236		
COMP7	6	400	L	ND	ND	ND	ND	ND	293		
COMP8	6	320	L	ND	ND	ND	ND	ND	869		
COMP8A	8	400	L	ND	ND	ND	ND	ND	346		
COMP9	6	240	L	ND	ND	ND	ND	ND	182		
COMP10	6	400	L	ND	ND	ND	ND	ND	271		
COMP11	12	480	L	ND	ND	ND	ND	ND	403		
COMP12	6	320	L	ND	ND	ND	ND	ND	461		
COMP13	6	480	L	ND	ND	ND	ND	ND	492		
COMP14	12	320	L	ND	ND	ND	ND	ND	171		
COMP15	12	160	L	ND	ND	ND	ND	ND	81.3		

COMP16	6	160	L	ND	ND	ND	ND	ND	48.1		
COMP17	4	320	L	ND	ND	ND	ND	ND	234		
COMP18	6	320	L	ND	ND	ND	ND	ND	346		
COMP19	6	240	L	ND	ND	ND	ND	ND	85.6		
COMP20	6	320	L	ND	ND	ND	ND	ND	151		
COMP21	4	320	L	ND	ND	ND	ND	ND	153		
COMP22	4	240	L	ND	ND	ND	ND	ND	85		
SWCOMP1	4	320	L	ND	ND	34.4	ND	34.4	137		
SWCOMP2	6	320	L	ND	ND	ND	ND	ND	210		
SWCOMP3	6	240	L	ND	ND	ND	ND	ND	ND		
SWCOMP4	12	320	L	ND	ND	ND	ND	ND	92.8		
SWCOMP5	4	240	L	ND	ND	ND	ND	ND	142		
SWCOMP6	6	240	L	ND	ND	ND	ND	ND	151		
SWCOMP7	4	400	L	ND	ND	ND	ND	ND	361		
SWCOMP8	6	240	L	ND	ND	ND	ND	ND	21.5		
SWCOMP9	12	240	L	ND	ND	ND	ND	ND	33.3		
SWCOMP10	6	240	L	ND	ND	ND	ND	ND	ND		

Legend

- Composites
- Side Wall Composites



CLIENTS: MACK ENERGY**LOCATION: WEST MOUNT SPILL B**

SAMPLE ID	LAT	LONG
C1	32.999413°	-104.071350°
C2	32.999389°	-104.071342°
C3	32.999404°	-104.071310°
C4	32.999380°	-104.071300°
C5	32.999401°	-104.071265°
C6	32.999378°	-104.071256°
C7	32.999402°	-104.071219°
C8	32.999378°	-104.071218°
C9	32.999394°	-104.071182°
C10	32.999370°	-104.071175°
C11	32.999361°	-104.071300°
C12	32.999353°	-104.071253°
C13	32.999352°	-104.071218°
C14	32.999342°	-104.071290°
C15	32.999326°	-104.071253°
C16	32.999305°	-104.071252°
C17	32.999283°	-104.071249°
C18	32.999260°	-104.071221°
C19	32.999246°	-104.071187°
C20	32.999286°	-104.071208°
C21	32.999310°	-104.071210°
C22	32.999334°	-104.071197°
SWC1	32.999219°	-104.071173°
SWC2	32.999248°	-104.071245°
SWC3	32.999331°	-104.071298°
SWC4	32.999392°	-104.071367°
SWC5	32.999417°	-104.071309°
SWC6	32.999419°	-104.071224°
SWC7	32.999372°	-104.071149°
SWC8	32.999341°	-104.071190°
SWC9	32.999289°	-104.071183°
SWC10	32.999259°	-104.071179°

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount B

Work Order: E410151

Job Number: 20046-0001

Received: 10/16/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/17/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/17/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount B
Workorder: E410151
Date Received: 10/16/2024 7:45:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/16/2024 7:45:00AM, under the Project Name: West Mount B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP Comp 1-4'	5
SP Comp 2-6'	6
SP Comp 3-10'	7
SP Comp 4-6'	8
SP Comp 5-6'	9
SP Comp 6-6'	10
SP Comp 7-6'	11
SP Comp 8-6'	12
QC Summary Data	13
QC - Volatile Organics by EPA 8021B	13
QC - Nonhalogenated Organics by EPA 8015D - GRO	14
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	15
QC - Anions by EPA 300.0/9056A	16
Definitions and Notes	17
Chain of Custody etc.	18

Sample Summary

Mack Energy	Project Name:	West Mount B	Reported: 10/17/24 12:20
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP Comp 1-4'	E410151-01A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 2-6'	E410151-02A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 3-10'	E410151-03A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 4-6'	E410151-04A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 5-6'	E410151-05A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 6-6'	E410151-06A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 7-6'	E410151-07A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.
SP Comp 8-6'	E410151-08A	Soil	10/14/24	10/16/24	Glass Jar, 2 oz.



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 1-4'

E410151-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: CG		Batch: 2442094
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: CG		Batch: 2442094
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		93.5 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: AF		Batch: 2442081
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		102 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2442092
Chloride	145	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 2-6'

E410151-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.2 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		105 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	183	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 3-10'

E410151-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.7 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		104 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	242	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 4-6'

E410151-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.1 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		102 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	28.3	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 5-6'

E410151-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.6 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		99.7 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	53.9	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy	Project Name:	West Mount B	Reported: 10/17/2024 12:20:09PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP Comp 6-6'
E410151-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.1 %	70-130		10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
Surrogate: n-Nonane	101 %	50-200		10/15/24	10/16/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	236	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 7-6'

E410151-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.4 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		104 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	293	20.0	1	10/16/24	10/16/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/17/2024 12:20:09PM

SP Comp 8-6'

E410151-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Benzene	ND	0.0500	2	10/16/24	10/16/24	
Ethylbenzene	ND	0.0500	2	10/16/24	10/16/24	
Toluene	ND	0.0500	2	10/16/24	10/16/24	
o-Xylene	ND	0.0500	2	10/16/24	10/16/24	
p,m-Xylene	ND	0.100	2	10/16/24	10/16/24	
Total Xylenes	ND	0.0500	2	10/16/24	10/16/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442094	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/16/24	10/16/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.4 %	70-130	10/16/24	10/16/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442081	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/15/24	10/16/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/15/24	10/16/24	
<i>Surrogate: n-Nonane</i>						
		103 %	50-200	10/15/24	10/16/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442092	
Chloride	869	20.0	1	10/16/24	10/16/24	



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/17/2024 12:20:09PM

Volatile Organics by EPA 8021B

Analyst: CG

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

Blank (2442094-BLK1) Prepared: 10/16/24 Analyzed: 10/16/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.12		8.00		102	70-130			

LCS (2442094-BS1) Prepared: 10/16/24 Analyzed: 10/16/24

Benzene	4.78	0.0250	5.00		95.6	70-130			
Ethylbenzene	4.67	0.0250	5.00		93.4	70-130			
Toluene	4.75	0.0250	5.00		95.0	70-130			
o-Xylene	4.66	0.0250	5.00		93.2	70-130			
p,m-Xylene	9.52	0.0500	10.0		95.2	70-130			
Total Xylenes	14.2	0.0250	15.0		94.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.10		8.00		101	70-130			

Matrix Spike (2442094-MS1) Source: E410150-06 Prepared: 10/16/24 Analyzed: 10/16/24

Benzene	6.07	0.0250	5.00	ND	121	54-133			
Ethylbenzene	5.93	0.0250	5.00	ND	119	61-133			
Toluene	6.02	0.0250	5.00	ND	120	61-130			
o-Xylene	5.96	0.0250	5.00	ND	119	63-131			
p,m-Xylene	12.1	0.0500	10.0	ND	121	63-131			
Total Xylenes	18.0	0.0250	15.0	ND	120	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.53		8.00		107	70-130			

Matrix Spike Dup (2442094-MSD1) Source: E410150-06 Prepared: 10/16/24 Analyzed: 10/16/24

Benzene	5.57	0.0250	5.00	ND	111	54-133	8.62	20	
Ethylbenzene	5.45	0.0250	5.00	ND	109	61-133	8.37	20	
Toluene	5.53	0.0250	5.00	ND	111	61-130	8.50	20	
o-Xylene	5.47	0.0250	5.00	ND	109	63-131	8.56	20	
p,m-Xylene	11.1	0.0500	10.0	ND	111	63-131	8.38	20	
Total Xylenes	16.6	0.0250	15.0	ND	111	63-131	8.44	20	
Surrogate: 4-Bromochlorobenzene-PID	8.40		8.00		105	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/17/2024 12:20:09PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

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

Blank (2442094-BLK1) Prepared: 10/16/24 Analyzed: 10/16/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

LCS (2442094-BS2) Prepared: 10/16/24 Analyzed: 10/16/24

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0		89.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.50		8.00		93.8	70-130			

Matrix Spike (2442094-MS2) Source: E410150-06 Prepared: 10/16/24 Analyzed: 10/16/24

Gasoline Range Organics (C6-C10)	50.9	20.0	50.0	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.69		8.00		96.1	70-130			

Matrix Spike Dup (2442094-MSD2) Source: E410150-06 Prepared: 10/16/24 Analyzed: 10/16/24

Gasoline Range Organics (C6-C10)	50.7	20.0	50.0	ND	101	70-130	0.479	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/17/2024 12:20:09PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

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

Blank (2442081-BLK1) Prepared: 10/15/24 Analyzed: 10/15/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	46.8		50.0		93.5	50-200			

LCS (2442081-BS1) Prepared: 10/15/24 Analyzed: 10/15/24

Diesel Range Organics (C10-C28)	261	25.0	250		105	38-132			
Surrogate: n-Nonane	51.0		50.0		102	50-200			

LCS Dup (2442081-BSD1) Prepared: 10/15/24 Analyzed: 10/15/24

Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132	0.433	20	
Surrogate: n-Nonane	50.6		50.0		101	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/17/2024 12:20:09PM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2442092-BLK1)					Prepared: 10/16/24 Analyzed: 10/16/24				
Chloride	ND	20.0							
LCS (2442092-BS1)					Prepared: 10/16/24 Analyzed: 10/16/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2442092-MS1)					Source: E410147-27		Prepared: 10/16/24 Analyzed: 10/16/24		
Chloride	2770	40.0	250	2450	126	80-120			M4
Matrix Spike Dup (2442092-MSD1)					Source: E410147-27		Prepared: 10/16/24 Analyzed: 10/16/24		
Chloride	2700	40.0	250	2450	99.7	80-120	2.41	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/17/24 12:20

- M4Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- NDAnalyte NOT DETECTED at or above the reporting limit
- NRNot Reported
- RPDRelative Percent Difference
- DNIDid Not Ignite
- DNRDid not react with the addition of acid or base.

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

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

Project Information

Chain of Custody

Page 1 of 2

Client: <u>Mack Energy</u>					Bill To					Lab Use Only					TAT				EPA Program					
Project: <u>West Mount B</u>					Attention: ENERGY STAFFING SERVICES					Lab WO# <u>E410151</u>					Job Number <u>20046-0001</u>				1D	2D	3D	Standard	CWA	SDWA
Project Manager:					Address: 2724 NW COUNTY RD					Analysis and Method									RCRA					
Address:					City, State, Zip <u>HOBBS, NM 88240</u>																			
City, State, Zip					Phone: 575-393-9048														State					
Phone:					Email: NATALIE@ENERGYSTAFFINGLLC.COM																			
Email:					BRITTNEY@ENERGYSTAFFINGLLC.COM														NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/>					
Report due by:																								
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks										
	10/14	S	1	SP. Comp. 1-4'	1							<input checked="" type="checkbox"/>												
				SP. Comp. 2-6'	2							<input checked="" type="checkbox"/>												
				SP. Comp. 3-10'	3							<input checked="" type="checkbox"/>												
				SP. Comp. 4-6'	4							<input checked="" type="checkbox"/>												
				SP. Comp. 5-6'	5							<input checked="" type="checkbox"/>												
				SP. Comp. 6-6'	6							<input checked="" type="checkbox"/>												
				SP. Comp. 7-6'	7							<input checked="" type="checkbox"/>												
	10/14	S	1	SP. Comp. 8-6'	8							<input checked="" type="checkbox"/>												
Additional Instructions:																								
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.												
Sampled by: <u>Sandra Perez</u>																								
Relinquished by: (Signature) <u>S. Perez</u>		Date <u>10/14/24</u>		Time		Received by: (Signature) <u>Michelle Gonzales</u>		Date <u>10-15-24</u>		Time <u>1345</u>		Lab Use Only Received on ice: <u>Y/N</u>												
Relinquished by: (Signature) <u>Michelle Gonzales</u>		Date <u>10-15-24</u>		Time <u>1615</u>		Received by: (Signature) <u>[Signature]</u>		Date <u>10-15-24</u>		Time <u>1615</u>		T1 _____ T2 _____ T3 _____												
Relinquished by: (Signature) <u>[Signature]</u>		Date <u>10-15-24</u>		Time <u>2230</u>		Received by: (Signature) <u>[Signature]</u>		Date <u>10-16-24</u>		Time <u>0745</u>		AVG Temp °C <u>4</u>												
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA												
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																								

Envirotech Analytical Laboratory

Printed: 10/16/2024 8:54:50AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/16/24 07:45	Work Order ID:	E410151
Phone:	(575) 390-6397	Date Logged In:	10/15/24 15:07	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/17/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project Manager and time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:

Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount B

Work Order: E410165

Job Number: 20046-0001

Received: 10/17/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/18/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/18/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount B
Workorder: E410165
Date Received: 10/17/2024 8:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/17/2024 8:00:00AM, under the Project Name: West Mount B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP. 9-6'	5
SP. 10-6'	6
SP. 11-12'	7
SP. 12-6'	8
SP. 13-6'	9
SP. 14-12'	10
SP. 15-12'	11
SP. 16-6'	12
QC Summary Data	13
QC - Volatile Organics by EPA 8021B	13
QC - Nonhalogenated Organics by EPA 8015D - GRO	14
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	15
QC - Anions by EPA 300.0/9056A	16
Definitions and Notes	17
Chain of Custody etc.	18

Sample Summary

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/24 14:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP. 9-6'	E410165-01A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 10-6'	E410165-02A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 11-12'	E410165-03A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 12-6'	E410165-04A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 13-6'	E410165-05A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 14-12'	E410165-06A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 15-12'	E410165-07A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.
SP. 16-6'	E410165-08A	Soil	10/15/24	10/17/24	Glass Jar, 2 oz.



Sample Data

Mack Energy	Project Name:	West Mount B	Reported: 10/18/2024 2:06:25PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP. 9-6'
E410165-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
Surrogate: 4-Bromochlorobenzene-PID	90.7 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	98.9 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
Surrogate: n-Nonane	98.4 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	182	20.0	1	10/17/24	10/17/24	

Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/18/2024 2:06:25PM

SP. 10-6'

E410165-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.2 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	98.5 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>						
	96.3 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	271	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy	Project Name:	West Mount B	Reported: 10/18/2024 2:06:25PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP. 11-12'

E410165-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.1 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	98.7 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>						
	96.1 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	403	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/18/2024 2:06:25PM

SP. 12-6'

E410165-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	90.3 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	99.1 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>	92.1 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	461	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/18/2024 2:06:25PM

SP. 13-6'

E410165-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.2 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	98.5 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>						
	95.1 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	492	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/18/2024 2:06:25PM

SP. 14-12'

E410165-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.1 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	98.6 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>						
	100 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	171	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy	Project Name:	West Mount B	Reported: 10/18/2024 2:06:25PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP. 15-12'

E410165-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.4 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	99.4 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/17/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/17/24	
<i>Surrogate: n-Nonane</i>						
	95.2 %	50-200		10/17/24	10/17/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	81.3	20.0	1	10/17/24	10/17/24	



Sample Data

Mack Energy	Project Name:	West Mount B	Reported: 10/18/2024 2:06:25PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP. 16-6'

E410165-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Benzene	ND	0.0250	1	10/17/24	10/17/24	
Ethylbenzene	ND	0.0250	1	10/17/24	10/17/24	
Toluene	ND	0.0250	1	10/17/24	10/17/24	
o-Xylene	ND	0.0250	1	10/17/24	10/17/24	
p,m-Xylene	ND	0.0500	1	10/17/24	10/17/24	
Total Xylenes	ND	0.0250	1	10/17/24	10/17/24	
Surrogate: 4-Bromochlorobenzene-PID	92.2 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2442121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/17/24	10/17/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	99.1 %	70-130		10/17/24	10/17/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442129	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/17/24	10/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/17/24	10/18/24	
Surrogate: n-Nonane	97.2 %	50-200		10/17/24	10/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2442124	
Chloride	48.1	20.0	1	10/17/24	10/17/24	



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2024 2:06:25PM

Volatile Organics by EPA 8021B

Analyst: CG

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

Blank (2442121-BLK1) Prepared: 10/17/24 Analyzed: 10/17/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.33		8.00		91.6	70-130			

LCS (2442121-BS1) Prepared: 10/17/24 Analyzed: 10/17/24

Benzene	4.95	0.0250	5.00		99.0	70-130			
Ethylbenzene	4.88	0.0250	5.00		97.7	70-130			
Toluene	4.95	0.0250	5.00		99.1	70-130			
o-Xylene	4.88	0.0250	5.00		97.6	70-130			
p,m-Xylene	9.89	0.0500	10.0		98.9	70-130			
Total Xylenes	14.8	0.0250	15.0		98.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.30		8.00		91.3	70-130			

Matrix Spike (2442121-MS1) Source: E410165-03 Prepared: 10/17/24 Analyzed: 10/17/24

Benzene	5.06	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.99	0.0250	5.00	ND	99.7	61-133			
Toluene	5.06	0.0250	5.00	ND	101	61-130			
o-Xylene	4.99	0.0250	5.00	ND	99.8	63-131			
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131			
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.16		8.00		89.5	70-130			

Matrix Spike Dup (2442121-MSD1) Source: E410165-03 Prepared: 10/17/24 Analyzed: 10/17/24

Benzene	4.94	0.0250	5.00	ND	98.9	54-133	2.41	20	
Ethylbenzene	4.88	0.0250	5.00	ND	97.5	61-133	2.20	20	
Toluene	4.95	0.0250	5.00	ND	99.1	61-130	2.19	20	
o-Xylene	4.87	0.0250	5.00	ND	97.5	63-131	2.38	20	
p,m-Xylene	9.89	0.0500	10.0	ND	98.9	63-131	2.05	20	
Total Xylenes	14.8	0.0250	15.0	ND	98.5	63-131	2.16	20	
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.4	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2024 2:06:25PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

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

Blank (2442121-BLK1) Prepared: 10/17/24 Analyzed: 10/17/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.03		8.00		100	70-130			

LCS (2442121-BS2) Prepared: 10/17/24 Analyzed: 10/17/24

Gasoline Range Organics (C6-C10)	42.5	20.0	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.05		8.00		101	70-130			

Matrix Spike (2442121-MS2) Source: E410165-03 Prepared: 10/17/24 Analyzed: 10/17/24

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0	ND	87.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.06		8.00		101	70-130			

Matrix Spike Dup (2442121-MSD2) Source: E410165-03 Prepared: 10/17/24 Analyzed: 10/17/24

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0	ND	89.9	70-130	2.96	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		8.00		100	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2024 2:06:25PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

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

Blank (2442129-BLK1) Prepared: 10/17/24 Analyzed: 10/17/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.7		50.0		91.5	50-200			

LCS (2442129-BS1) Prepared: 10/17/24 Analyzed: 10/17/24

Diesel Range Organics (C10-C28)	242	25.0	250		96.7	38-132			
Surrogate: n-Nonane	48.5		50.0		96.9	50-200			

Matrix Spike (2442129-MS1) Source: E410164-01 Prepared: 10/17/24 Analyzed: 10/17/24

Diesel Range Organics (C10-C28)	265	25.0	250	ND	106	38-132			
Surrogate: n-Nonane	49.5		50.0		99.0	50-200			

Matrix Spike Dup (2442129-MSD1) Source: E410164-01 Prepared: 10/17/24 Analyzed: 10/17/24

Diesel Range Organics (C10-C28)	261	25.0	250	ND	104	38-132	1.65	20	
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2024 2:06:25PM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2442124-BLK1)					Prepared: 10/17/24 Analyzed: 10/17/24				
Chloride	ND	20.0							
LCS (2442124-BS1)					Prepared: 10/17/24 Analyzed: 10/17/24				
Chloride	254	20.0	250		101	90-110			
Matrix Spike (2442124-MS1)					Source: E410165-05		Prepared: 10/17/24 Analyzed: 10/17/24		
Chloride	766	20.0	250	492	109	80-120			
Matrix Spike Dup (2442124-MSD1)					Source: E410165-05		Prepared: 10/17/24 Analyzed: 10/17/24		
Chloride	716	20.0	250	492	89.4	80-120	6.73	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/24 14:06

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Mack Energy Project: West Mount B Project Manager: Address: City, State, Zip Phone: Email: Report due by:				Bill To Attention: ENERGY STAFFING SERVICES Address: 2724 NW COUNTY RD City, State, Zip HOBBS, NM 88240 Phone: 575-393-9048 Email: NATALIE@ENERGYSTAFFINGLLC.COM BRITTNEY@ENERGYSTAFFINGLLC.COM				Lab Use Only				TAT				EPA Program	
								Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA
								E 410165		20046-0001				<input checked="" type="checkbox"/>			
								Analysis and Method									
				State													
				NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/>													
				Remarks													
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8020	Metals 6010	Chloride 30014	BGDOC NM	BGDOC TX				
	10/15	S	1	SP. 9-6'	1							<input checked="" type="checkbox"/>					
	↓	↓	↓	SP. 10-6'	2							<input checked="" type="checkbox"/>					
				SP. 11-12'	3							<input checked="" type="checkbox"/>					
				SP. 12-6'	4							<input checked="" type="checkbox"/>					
				SP. 13-6'	5							<input checked="" type="checkbox"/>					
				SP. 14-12'	6							<input checked="" type="checkbox"/>					
				SP. 15-12'	7							<input checked="" type="checkbox"/>					
	10/15	S	1	SP. 14-6'	8							<input checked="" type="checkbox"/>					
Additional Instructions:																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Relinquished by: (Signature) S.P. Perez Date 10/16/24 Time 1336																	
Relinquished by: (Signature) Michelle Gonzales Date 10/16/24 Time 1630																	
Relinquished by: (Signature) Carla Man Date 10/17/24 Time 8:00																	
Sample Matrix: S - Soil, Sl - Solid, Sp - Sludge, A - Aqueous, O - Other																	
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this CQC. The liability of the laboratory is limited to the amount paid for on the report.																	

Envirotech Analytical Laboratory

Printed: 10/17/2024 8:52:19AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/17/24 08:00	Work Order ID:	E410165
Phone:	(575) 390-6397	Date Logged In:	10/16/24 14:33	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/18/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project Manager and time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:

Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E410176

Job Number: 20046-0001

Received: 10/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/21/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/21/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E410176
Date Received: 10/18/2024 8:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/18/2024 8:00:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW Comp 1-4'	5
SW Comp 2-6'	6
QC Summary Data	7
QC - Volatile Organics by EPA 8021B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/24 16:39

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW Comp 1-4'	E410176-01A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SW Comp 2-6'	E410176-02A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/21/2024 4:39:55PM

SW Comp 1-4'

E410176-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442141	
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		104 %	70-130	10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442141	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.9 %	70-130	10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2442143	
Diesel Range Organics (C10-C28)	34.4	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
		104 %	50-200	10/18/24	10/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2442145	
Chloride	137	40.0	2	10/18/24	10/18/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/21/2024 4:39:55PM

SW Comp 2-6'

E410176-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: BA		Batch: 2442141
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		104 %	70-130	10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: BA		Batch: 2442141
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.2 %	70-130	10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2442143
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
		104 %	50-200	10/18/24	10/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2442145
Chloride	210	20.0	1	10/18/24	10/18/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 4:39:55PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2442141-BLK1) Prepared: 10/18/24 Analyzed: 10/19/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.15		8.00		102	70-130			

LCS (2442141-BS1) Prepared: 10/18/24 Analyzed: 10/19/24

Benzene	5.20	0.0250	5.00		104	70-130			
Ethylbenzene	5.28	0.0250	5.00		106	70-130			
Toluene	5.34	0.0250	5.00		107	70-130			
o-Xylene	5.36	0.0250	5.00		107	70-130			
p,m-Xylene	10.7	0.0500	10.0		107	70-130			
Total Xylenes	16.0	0.0250	15.0		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.19		8.00		102	70-130			

Matrix Spike (2442141-MS1) Source: E410178-03 Prepared: 10/18/24 Analyzed: 10/19/24

Benzene	5.15	0.0250	5.00	ND	103	54-133			
Ethylbenzene	5.27	0.0250	5.00	ND	105	61-133			
Toluene	5.31	0.0250	5.00	ND	106	61-130			
o-Xylene	5.34	0.0250	5.00	ND	107	63-131			
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131			
Total Xylenes	16.0	0.0250	15.0	ND	107	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.12		8.00		101	70-130			

Matrix Spike Dup (2442141-MSD1) Source: E410178-03 Prepared: 10/18/24 Analyzed: 10/19/24

Benzene	5.20	0.0250	5.00	ND	104	54-133	0.917	20	
Ethylbenzene	5.33	0.0250	5.00	ND	107	61-133	1.23	20	
Toluene	5.37	0.0250	5.00	ND	107	61-130	0.960	20	
o-Xylene	5.42	0.0250	5.00	ND	108	63-131	1.41	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	1.31	20	
Total Xylenes	16.2	0.0250	15.0	ND	108	63-131	1.34	20	
Surrogate: 4-Bromochlorobenzene-PID	8.09		8.00		101	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 4:39:55PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2442141-BLK1) Prepared: 10/18/24 Analyzed: 10/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.18		8.00		89.7	70-130			

LCS (2442141-BS2) Prepared: 10/18/24 Analyzed: 10/19/24

Gasoline Range Organics (C6-C10)	37.0	20.0	50.0		74.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.19		8.00		89.9	70-130			

Matrix Spike (2442141-MS2) Source: E410178-03 Prepared: 10/18/24 Analyzed: 10/19/24

Gasoline Range Organics (C6-C10)	42.2	20.0	50.0	ND	84.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.22		8.00		90.3	70-130			

Matrix Spike Dup (2442141-MSD2) Source: E410178-03 Prepared: 10/18/24 Analyzed: 10/19/24

Gasoline Range Organics (C6-C10)	42.0	20.0	50.0	ND	84.1	70-130	0.341	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		8.00		90.4	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 4:39:55PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2442143-BLK1)					Prepared: 10/18/24 Analyzed: 10/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.0		50.0		100	50-200			

LCS (2442143-BS1)					Prepared: 10/18/24 Analyzed: 10/19/24				
Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132			
Surrogate: n-Nonane	51.6		50.0		103	50-200			

Matrix Spike (2442143-MS1)					Source: E410176-01		Prepared: 10/18/24 Analyzed: 10/19/24		
Diesel Range Organics (C10-C28)	292	25.0	250	34.4	103	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

Matrix Spike Dup (2442143-MSD1)					Source: E410176-01		Prepared: 10/18/24 Analyzed: 10/19/24		
Diesel Range Organics (C10-C28)	291	25.0	250	34.4	102	38-132	0.605	20	
Surrogate: n-Nonane	51.6		50.0		103	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 4:39:55PM

Anions by EPA 300.0/9056A

Analyst: WF

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

Blank (2442145-BLK1)					Prepared: 10/18/24 Analyzed: 10/18/24				
Chloride	ND	20.0							
LCS (2442145-BS1)					Prepared: 10/18/24 Analyzed: 10/18/24				
Chloride	249	20.0	250		99.8	90-110			
Matrix Spike (2442145-MS1)					Source: E410177-02		Prepared: 10/18/24 Analyzed: 10/18/24		
Chloride	69900	2000	250	32200	NR	80-120			M4
Matrix Spike Dup (2442145-MSD1)					Source: E410177-02		Prepared: 10/18/24 Analyzed: 10/18/24		
Chloride	75600	2000	250	32200	NR	80-120	7.91	20	M4

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/24 16:39

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



Project Information

Name of Custody

Page 1 of 1

Client: Max Energy				Bill To			
Project: West Mount Spill B				Attention: ENERGY STATING SERVICES			
Project Manager:				Address: 2724 NW COUNTY RD			
Address:				City, State, Zip: HOBBS NM 88240			
City, State, Zip:				Phone: 505 395 9018			
Phone:				Email: NATALIE@ENERGYSTATING.COM			
Email:				BRI@ENERGYSTATING.COM			
Report due by:							

Time Sampled	Date	Matrix	Type of Container	Sample ID	Lab Number	Lab Use Only	Job Number	Analysis and Method	TAI	EPA Program	
						ID	7D	3D	Standard	CWA	SDWA
10/16	S	1	SW Cont 1-4'		1						
10/16	S	1	SW Cont 2-6'		2						

Signature by (Signature): Juan Sois		Date: 10/16/24	Time: 1600	Received by (Signature): Michelle Georgales	Date: 10-17-24	Time: 1300
Signature by (Signature): Michelle Georgales		Date: 10-17-24	Time: 1600	Received by (Signature): J.J.	Date: 10-17-24	Time: 1630
Signature by (Signature): J.J.		Date: 10-17-24	Time: 2315	Received by (Signature): Carla Mar	Date: 10-18-24	Time: 8:00

Sample Matrix: S		Field Sp. Sample: A		Aquatic: G		Other:	
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client's expense. The report for the analysis of the above samples is applicable only to these samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.							

Additional Instructions:	
1. (For Sample 1) attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample for action taken in time of collection is considered fraud and may be grounds for legal action.	
Sampled by: Juan Sois	
Received on site: Y N	
Lab Use Only	
Samples regarding the above preservation must be received on the day they are collected or received and stored at or above 10°C (above 50°F) less than 6°C (on subsequent days).	
AVG Temp °C: 4	
State: NM	
City: CO	
UT: TX	
AZ: TX	
Remarks:	

Envirotech Analytical Laboratory

Printed: 10/18/2024 8:51:47AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/18/24 08:00	Work Order ID:	E410176
Phone:	(575) 390-6397	Date Logged In:	10/17/24 14:26	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/21/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project manager and time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:

Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E410181

Job Number: 20046-0001

Received: 10/18/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/21/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/21/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E410181
Date Received: 10/18/2024 8:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/18/2024 8:00:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP Comp 17-4'	5
SP Comp 18-6'	6
SP Comp 19-6'	7
SP Comp 20-6'	8
SP Comp 21-4'	9
SP Comp 22-4'	10
QC Summary Data	11
QC - Volatile Organics by EPA 8021B	11
QC - Nonhalogenated Organics by EPA 8015D - GRO	12
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	13
QC - Anions by EPA 300.0/9056A	14
Definitions and Notes	15
Chain of Custody etc.	16

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/24 17:26

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP Comp 17-4'	E410181-01A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SP Comp 18-6'	E410181-02A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SP Comp 19-6'	E410181-03A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SP Comp 20-6'	E410181-04A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SP Comp 21-4'	E410181-05A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.
SP Comp 22-4'	E410181-06A	Soil	10/16/24	10/18/24	Glass Jar, 2 oz.



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/21/2024 5:26:14PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP Comp 17-4'

E410181-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/18/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/18/24	
Toluene	ND	0.0250	1	10/18/24	10/18/24	
o-Xylene	ND	0.0250	1	10/18/24	10/18/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/18/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		91.7 %	70-130	10/18/24	10/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.9 %	70-130	10/18/24	10/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>		101 %	50-200	10/18/24	10/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	234	20.0	1	10/18/24	10/18/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/21/2024 5:26:14PM

SP Comp 18-6'

E410181-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/18/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/18/24	
Toluene	ND	0.0250	1	10/18/24	10/18/24	
o-Xylene	ND	0.0250	1	10/18/24	10/18/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/18/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.5 %	70-130		10/18/24	10/18/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.4 %	70-130		10/18/24	10/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
	96.5 %	50-200		10/18/24	10/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	346	20.0	1	10/18/24	10/18/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/21/2024 5:26:14PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP Comp 19-6'
E410181-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
Surrogate: 4-Bromochlorobenzene-PID	91.5 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	93.5 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
Surrogate: n-Nonane	96.5 %	50-200		10/18/24	10/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	85.6	20.0	1	10/18/24	10/18/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/21/2024 5:26:14PM

SP Comp 20-6'

E410181-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.3 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.2 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
	99.2 %	50-200		10/18/24	10/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	151	20.0	1	10/18/24	10/18/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/21/2024 5:26:14PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP Comp 21-4'
E410181-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.3 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.8 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
	100 %	50-200		10/18/24	10/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	153	20.0	1	10/18/24	10/18/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/21/2024 5:26:14PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP Comp 22-4'
E410181-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Benzene	ND	0.0250	1	10/18/24	10/19/24	
Ethylbenzene	ND	0.0250	1	10/18/24	10/19/24	
Toluene	ND	0.0250	1	10/18/24	10/19/24	
o-Xylene	ND	0.0250	1	10/18/24	10/19/24	
p,m-Xylene	ND	0.0500	1	10/18/24	10/19/24	
Total Xylenes	ND	0.0250	1	10/18/24	10/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.4 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2442142	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/18/24	10/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.1 %	70-130		10/18/24	10/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: AF		Batch: 2442144	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/18/24	10/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/18/24	10/19/24	
<i>Surrogate: n-Nonane</i>						
	98.3 %	50-200		10/18/24	10/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2442151	
Chloride	85.0	20.0	1	10/18/24	10/18/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 5:26:14PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2442142-BLK1) Prepared: 10/18/24 Analyzed: 10/18/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.20		8.00		90.1	70-130			

LCS (2442142-BS1) Prepared: 10/18/24 Analyzed: 10/18/24

Benzene	4.35	0.0250	5.00		87.0	70-130			
Ethylbenzene	4.51	0.0250	5.00		90.1	70-130			
Toluene	4.50	0.0250	5.00		90.0	70-130			
o-Xylene	4.52	0.0250	5.00		90.4	70-130			
p,m-Xylene	9.18	0.0500	10.0		91.8	70-130			
Total Xylenes	13.7	0.0250	15.0		91.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.21		8.00		90.1	70-130			

Matrix Spike (2442142-MS1) Source: E410179-08 Prepared: 10/18/24 Analyzed: 10/18/24

Benzene	8.82	0.0500	10.0	ND	88.3	54-133			
Ethylbenzene	9.19	0.0500	10.0	ND	91.9	61-133			
Toluene	9.17	0.0500	10.0	ND	91.8	61-130			
o-Xylene	9.20	0.0500	10.0	ND	92.0	63-131			
p,m-Xylene	18.7	0.100	20.0	ND	93.5	63-131			
Total Xylenes	27.9	0.0500	30.0	ND	93.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	14.6		16.0		91.0	70-130			

Matrix Spike Dup (2442142-MSD1) Source: E410179-08 Prepared: 10/18/24 Analyzed: 10/18/24

Benzene	9.01	0.0500	10.0	ND	90.1	54-133	2.09	20	
Ethylbenzene	9.37	0.0500	10.0	ND	93.7	61-133	1.96	20	
Toluene	9.35	0.0500	10.0	ND	93.6	61-130	1.94	20	
o-Xylene	9.41	0.0500	10.0	ND	94.1	63-131	2.27	20	
p,m-Xylene	19.0	0.100	20.0	ND	95.3	63-131	1.87	20	
Total Xylenes	28.5	0.0500	30.0	ND	94.9	63-131	2.00	20	
Surrogate: 4-Bromochlorobenzene-PID	14.5		16.0		90.9	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 5:26:14PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2442142-BLK1) Prepared: 10/18/24 Analyzed: 10/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.97		8.00		99.6	70-130			

LCS (2442142-BS2) Prepared: 10/18/24 Analyzed: 10/18/24

Gasoline Range Organics (C6-C10)	43.9	20.0	50.0		87.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.11		8.00		101	70-130			

Matrix Spike (2442142-MS2) Source: E410179-08 Prepared: 10/18/24 Analyzed: 10/18/24

Gasoline Range Organics (C6-C10)	86.9	40.0	100	ND	86.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	15.3		16.0		95.9	70-130			

Matrix Spike Dup (2442142-MSD2) Source: E410179-08 Prepared: 10/18/24 Analyzed: 10/18/24

Gasoline Range Organics (C6-C10)	85.6	40.0	100	ND	85.6	70-130	1.53	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	15.6		16.0		97.5	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 5:26:14PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

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

Blank (2442144-BLK1)					Prepared: 10/18/24 Analyzed: 10/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.5		50.0		103	50-200			

LCS (2442144-BS1)					Prepared: 10/18/24 Analyzed: 10/19/24				
Diesel Range Organics (C10-C28)	273	25.0	250		109	38-132			
Surrogate: n-Nonane	55.5		50.0		111	50-200			

Matrix Spike (2442144-MS1)					Source: E410179-09		Prepared: 10/18/24 Analyzed: 10/19/24		
Diesel Range Organics (C10-C28)	282	25.0	250	ND	113	38-132			
Surrogate: n-Nonane	54.1		50.0		108	50-200			

Matrix Spike Dup (2442144-MSD1)					Source: E410179-09		Prepared: 10/18/24 Analyzed: 10/19/24		
Diesel Range Organics (C10-C28)	259	25.0	250	ND	104	38-132	8.66	20	
Surrogate: n-Nonane	52.3		50.0		105	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/2024 5:26:14PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2442151-BLK1)					Prepared: 10/18/24 Analyzed: 10/18/24				
Chloride	ND	20.0							
LCS (2442151-BS1)					Prepared: 10/18/24 Analyzed: 10/18/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2442151-MS1)					Source: E410179-03		Prepared: 10/18/24 Analyzed: 10/18/24		
Chloride	576	20.0	250	327	99.5	80-120			
Matrix Spike Dup (2442151-MSD1)					Source: E410179-03		Prepared: 10/18/24 Analyzed: 10/18/24		
Chloride	593	20.0	250	327	106	80-120	2.94	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/21/24 17:26

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

E410181 CA 10-18-24

Page 1 of 1

Client: **Mack Energy**
 Project: **West Mount Spill B**
 Project Manager: _____
 Address: _____
 City, State, Zip: _____
 Phone: _____
 Email: _____

Attention: **ENERGY STAFFING SERVICES**
 Address: **2724 NW COUNTY RD**
 City, State, Zip: **110815 NM 88240**
 Phone: **505 393 9048**
 Email: **NATALLIE@ENERGYSTAFFING.COM**
WILLIE@ENERGYSTAFFING.COM

Lab Use Only

Lab WO# **446177** Job Number **20410-0001**

Analysis and Method

ID	2D	3D	Standard	EPA Program
	<input checked="" type="checkbox"/>			CWA
				SDWA
				RCRA

State: **NM** CO **UT** AZ **TX**

Remarks

Time Sampled	Date	Matrix	SP #	Sample ID	Lab Number
	10/16	S	1	SP Cont 17 - 4'	1
				SP Cont 18 - 6'	2
				SP Cont 19 - 6'	3
				SP Cont 20 - 6'	4
				SP Cont 21 - 4'	5
	10/16	S	1	SP Cont 22 - 4'	6

Additional Instructions:

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

Sampled by: **Juan Solis**

Relinquished by (Signature):

Date: **10/16/24**

Received by (Signature):

Date: **10-17-24**

Time: **1300**

Received on ice: ☒ N

Lab Use Only

Relinquished by (Signature):

Date: **10-17-24**

Received by (Signature):

Date: **10-17-24**

Time: **1630**

Received on ice: ☒ N

Lab Use Only

Relinquished by (Signature):

Date: **10-17-24**

Received by (Signature):

Date: **10-18-24**

Time: **8:00**

Received on ice: ☒ N

Lab Use Only

Sample Matrix: S, Soil, SP, Solid SP, Sludge, A, Aqueous, G, Other

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

enviroTECT

Envirotech Analytical Laboratory

Printed: 10/18/2024 9:19:46AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/18/24 08:00	Work Order ID:	E410181
Phone:	(575) 390-6397	Date Logged In:	10/17/24 14:47	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/21/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project manager and time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E410224

Job Number: 20046-0001

Received: 10/21/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/22/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/22/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E410224
Date Received: 10/21/2024 7:15:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/21/2024 7:15:00AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW Comp 3 - 6'	5
SW Comp 4 - 12'	6
SW Comp 5 - 4'	7
SW Comp 6 - 6'	8
SW Comp 7 - 4'	9
SW Comp 8 - 6'	10
SW Comp 9 - 12'	11
SW Comp 10 - 6'	12
QC Summary Data	13
QC - Volatile Organics by EPA 8021B	13
QC - Nonhalogenated Organics by EPA 8015D - GRO	14
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	15
QC - Anions by EPA 300.0/9056A	16
Definitions and Notes	17
Chain of Custody etc.	18

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/24 14:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW Comp 3 - 6'	E410224-01A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 4 - 12'	E410224-02A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 5 - 4'	E410224-03A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 6 - 6'	E410224-04A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 7 - 4'	E410224-05A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 8 - 6'	E410224-06A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 9 - 12'	E410224-07A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.
SW Comp 10 - 6'	E410224-08A	Soil	10/17/24	10/21/24	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/22/2024 2:43:06PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW Comp 3 - 6'

E410224-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.5 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		114 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	ND	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/22/2024 2:43:06PM

SW Comp 4 - 12'

E410224-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.5 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		117 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	92.8	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/22/2024 2:43:06PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW Comp 5 - 4'

E410224-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.4 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>		111 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	142	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/22/2024 2:43:06PM

SW Comp 6 - 6'

E410224-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.3 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		110 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	151	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/22/2024 2:43:06PM

SW Comp 7 - 4'

E410224-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.7 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		110 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	361	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/22/2024 2:43:06PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW Comp 8 - 6'
E410224-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.3 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		123 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	21.5	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/22/2024 2:43:06PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW Comp 9 - 12'
E410224-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
Surrogate: 4-Bromochlorobenzene-PID	101 %	70-130		10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.5 %	70-130		10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
Surrogate: n-Nonane	113 %	50-200		10/21/24	10/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	33.3	20.0	1	10/21/24	10/21/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill B	Reported: 10/22/2024 2:43:06PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW Comp 10 - 6'

E410224-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Benzene	ND	0.0250	1	10/21/24	10/21/24	
Ethylbenzene	ND	0.0250	1	10/21/24	10/21/24	
Toluene	ND	0.0250	1	10/21/24	10/21/24	
o-Xylene	ND	0.0250	1	10/21/24	10/21/24	
p,m-Xylene	ND	0.0500	1	10/21/24	10/21/24	
Total Xylenes	ND	0.0250	1	10/21/24	10/21/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: CG		Batch: 2443002	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/21/24	10/21/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.1 %	70-130	10/21/24	10/21/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443009	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/21/24	10/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/21/24	10/22/24	
<i>Surrogate: n-Nonane</i>						
		110 %	50-200	10/21/24	10/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443005	
Chloride	ND	20.0	1	10/21/24	10/21/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/2024 2:43:06PM

Volatile Organics by EPA 8021B

Analyst: CG

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

Blank (2443002-BLK1) Prepared: 10/21/24 Analyzed: 10/21/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.03		8.00		100	70-130			

LCS (2443002-BS1) Prepared: 10/21/24 Analyzed: 10/21/24

Benzene	4.99	0.0250	5.00		99.9	70-130			
Ethylbenzene	4.88	0.0250	5.00		97.5	70-130			
Toluene	4.95	0.0250	5.00		99.0	70-130			
o-Xylene	4.88	0.0250	5.00		97.6	70-130			
p,m-Xylene	9.95	0.0500	10.0		99.5	70-130			
Total Xylenes	14.8	0.0250	15.0		98.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.07		8.00		101	70-130			

Matrix Spike (2443002-MS1) Source: E410226-07 Prepared: 10/21/24 Analyzed: 10/21/24

Benzene	5.83	0.0250	5.00	ND	117	54-133			
Ethylbenzene	5.67	0.0250	5.00	ND	113	61-133			
Toluene	5.78	0.0250	5.00	ND	116	61-130			
o-Xylene	5.68	0.0250	5.00	ND	114	63-131			
p,m-Xylene	11.5	0.0500	10.0	ND	115	63-131			
Total Xylenes	17.2	0.0250	15.0	ND	115	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.94		8.00		99.3	70-130			

Matrix Spike Dup (2443002-MSD1) Source: E410226-07 Prepared: 10/21/24 Analyzed: 10/21/24

Benzene	4.89	0.0250	5.00	ND	97.9	54-133	17.5	20	
Ethylbenzene	4.78	0.0250	5.00	ND	95.5	61-133	17.2	20	
Toluene	4.86	0.0250	5.00	ND	97.1	61-130	17.3	20	
o-Xylene	4.78	0.0250	5.00	ND	95.6	63-131	17.2	20	
p,m-Xylene	9.74	0.0500	10.0	ND	97.4	63-131	17.0	20	
Total Xylenes	14.5	0.0250	15.0	ND	96.8	63-131	17.0	20	
Surrogate: 4-Bromochlorobenzene-PID	8.04		8.00		100	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/2024 2:43:06PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

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

Blank (2443002-BLK1) Prepared: 10/21/24 Analyzed: 10/21/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.11		8.00		88.9	70-130			

LCS (2443002-BS2) Prepared: 10/21/24 Analyzed: 10/21/24

Gasoline Range Organics (C6-C10)	42.8	20.0	50.0		85.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.2	70-130			

Matrix Spike (2443002-MS2) Source: E410226-07 Prepared: 10/21/24 Analyzed: 10/21/24

Gasoline Range Organics (C6-C10)	43.2	20.0	50.0	ND	86.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.1	70-130			

Matrix Spike Dup (2443002-MSD2) Source: E410226-07 Prepared: 10/21/24 Analyzed: 10/21/24

Gasoline Range Organics (C6-C10)	38.8	20.0	50.0	ND	77.5	70-130	10.9	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.17		8.00		89.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/2024 2:43:06PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2443009-BLK1) Prepared: 10/21/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.6		50.0		111	50-200			

LCS (2443009-BS1) Prepared: 10/21/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	274	25.0	250		109	38-132			
Surrogate: n-Nonane	54.9		50.0		110	50-200			

Matrix Spike (2443009-MS1) Source: E410224-07 Prepared: 10/21/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	289	25.0	250	ND	116	38-132			
Surrogate: n-Nonane	56.1		50.0		112	50-200			

Matrix Spike Dup (2443009-MSD1) Source: E410224-07 Prepared: 10/21/24 Analyzed: 10/22/24

Diesel Range Organics (C10-C28)	295	25.0	250	ND	118	38-132	2.06	20	
Surrogate: n-Nonane	57.8		50.0		116	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/2024 2:43:06PM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2443005-BLK1)					Prepared: 10/21/24 Analyzed: 10/21/24				
Chloride	ND	20.0							
LCS (2443005-BS1)					Prepared: 10/21/24 Analyzed: 10/21/24				
Chloride	259	20.0	250		104	90-110			
Matrix Spike (2443005-MS1)					Source: E410224-04		Prepared: 10/21/24 Analyzed: 10/21/24		
Chloride	422	20.0	250	151	108	80-120			
Matrix Spike Dup (2443005-MSD1)					Source: E410224-04		Prepared: 10/21/24 Analyzed: 10/21/24		
Chloride	411	20.0	250	151	104	80-120	2.59	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/22/24 14:43

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

Client: Mack Energy Project: West Mount Spill B Project Manager: Address: City, State, Zip: Phone: Email:				Bill To: Attention: ENERGY STAFFING SERVICES Address: 2724 NW COUNTY RD City, State, Zip: HOBBBS NM 88240 Phone: 575 393 9048 Email: NATALIE@ENERGYSTAFFINGLLC.COM BRETT@ENERGYSTAFFINGLLC.COM				Lab Use Only Lab WO# 410224 Job Number 20046-0001 Analysis and Method				TAT 1D 2D 3D Standard X				EPA Program CWA SDWA RCRA State: NM CO UT AZ TX X							
Report due by												Remarks											
Time Sampled	Date Sampled	Matrix	Size of Container	Sample ID	Lab Number	DRUGS / PCO / DRO	STOS / DC / DRO / DWS	STEX / DC / SO2	VOC by GC/MS	Metals by ICP	Other by GC/MS	AM AGCUC	AM SOCUC										
	10/17	S	1	SW Comp 3 - 6'	1							X											
	}	}	}	SW Comp 4 - 12'	2							}											
SW Comp 5 - 4'				3																			
SW Comp 6 - 6'				4																			
SW Comp 7 - 4'				5																			
SW Comp 8 - 6'				6																			
				SW Comp 9 - 12'	7							X											
	10/17	S	1	SW Comp 10 - 6'	8																		
Additional Instructions: I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Relinquished by (Signature): <u>Juan Solis</u> Date: <u>10/17/24</u> Time: <u>1320</u> Relinquished by (Signature): <u>Michelle Gonzales</u> Date: <u>10-18-24</u> Time: <u>2115</u> Relinquished by (Signature): <u>J.H.</u> Date: <u>10-18-24</u> Time: <u>2400</u> Received by (Signature): <u>Michelle Gonzales</u> Date: <u>10-18-24</u> Time: <u>1320</u> Received by (Signature): <u>J.H.</u> Date: <u>10-18-24</u> Time: <u>2115</u> Received by (Signature): <u>J.H.</u> Date: <u>10-21-24</u> Time: <u>0715</u>																Lab Use Only Received on ice: <u>Y</u> N T1 T2 T3 AVG Temp °C <u>4</u> Container Type: g glass, p poly/plastic, ag amber glass, v VOA							
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																							

Envirotech Analytical Laboratory

Printed: 10/21/2024 7:52:51AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/21/24 07:15	Work Order ID:	E410224
Phone:	(575) 390-6397	Date Logged In:	10/18/24 15:38	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/22/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project manager and time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:

Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount B

Work Order: E410331

Job Number: 20046-0001

Received: 10/28/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/29/24

5796 U.S. Hwy 64
Farmington, NM 87401

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



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

Date Reported: 10/29/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount B
Workorder: E410331
Date Received: 10/28/2024 7:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/28/2024 7:30:00AM, under the Project Name: West Mount B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP Comp 8-8'	5
QC Summary Data	6
QC - Volatile Organic Compounds by EPA8260B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/24 16:51

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP Comp 8-8'	E410331-01A	Soil	10/24/24	10/28/24	Glass Jar, 2 oz.



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
10/29/2024 4:51:07PM

SP Comp 8-8'

E410331-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443219	
Benzene	ND	0.0250	1	10/26/24	10/29/24	
Ethylbenzene	ND	0.0250	1	10/26/24	10/29/24	
Toluene	ND	0.0250	1	10/26/24	10/29/24	
o-Xylene	ND	0.0250	1	10/26/24	10/29/24	
p,m-Xylene	ND	0.0500	1	10/26/24	10/29/24	
Total Xylenes	ND	0.0250	1	10/26/24	10/29/24	
<i>Surrogate: Bromofluorobenzene</i>		116 %	70-130	10/26/24	10/29/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.0 %	70-130	10/26/24	10/29/24	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	10/26/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2443219	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/26/24	10/29/24	
<i>Surrogate: Bromofluorobenzene</i>		116 %	70-130	10/26/24	10/29/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.0 %	70-130	10/26/24	10/29/24	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	10/26/24	10/29/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2443224	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/26/24	10/27/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/26/24	10/27/24	
<i>Surrogate: n-Nonane</i>		114 %	50-200	10/26/24	10/27/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2444006	
Chloride	346	20.0	1	10/27/24	10/28/24	



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/2024 4:51:07PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

Blank (2443219-BLK1)

Prepared: 10/26/24 Analyzed: 10/29/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.578		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.465		0.500		93.0	70-130			
Surrogate: Toluene-d8	0.553		0.500		111	70-130			

LCS (2443219-BS1)

Prepared: 10/26/24 Analyzed: 10/29/24

Benzene	2.53	0.0250	2.50		101	70-130			
Ethylbenzene	2.53	0.0250	2.50		101	70-130			
Toluene	2.55	0.0250	2.50		102	70-130			
o-Xylene	2.66	0.0250	2.50		106	70-130			
p,m-Xylene	5.34	0.0500	5.00		107	70-130			
Total Xylenes	7.99	0.0250	7.50		107	70-130			
Surrogate: Bromofluorobenzene	0.593		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.555		0.500		111	70-130			

LCS Dup (2443219-BSD1)

Prepared: 10/26/24 Analyzed: 10/29/24

Benzene	2.54	0.0250	2.50		102	70-130	0.691	23	
Ethylbenzene	2.56	0.0250	2.50		103	70-130	1.45	27	
Toluene	2.59	0.0250	2.50		104	70-130	1.79	24	
o-Xylene	2.69	0.0250	2.50		108	70-130	1.46	27	
p,m-Xylene	5.37	0.0500	5.00		107	70-130	0.617	27	
Total Xylenes	8.06	0.0250	7.50		108	70-130	0.897	27	
Surrogate: Bromofluorobenzene	0.596		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.555		0.500		111	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/2024 4:51:07PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

Blank (2443219-BLK1) Prepared: 10/26/24 Analyzed: 10/29/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.578		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.465		0.500		93.0	70-130			
Surrogate: Toluene-d8	0.553		0.500		111	70-130			

LCS (2443219-BS2) Prepared: 10/26/24 Analyzed: 10/29/24

Gasoline Range Organics (C6-C10)	43.9	20.0	50.0		87.9	70-130			
Surrogate: Bromofluorobenzene	0.588		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.4	70-130			
Surrogate: Toluene-d8	0.567		0.500		113	70-130			

LCS Dup (2443219-BSD2) Prepared: 10/26/24 Analyzed: 10/29/24

Gasoline Range Organics (C6-C10)	42.5	20.0	50.0		85.1	70-130	3.25	20	
Surrogate: Bromofluorobenzene	0.599		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		95.9	70-130			
Surrogate: Toluene-d8	0.573		0.500		115	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/2024 4:51:07PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2443224-BLK1)					Prepared: 10/26/24 Analyzed: 10/27/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.8		50.0		112	50-200			

LCS (2443224-BS1)					Prepared: 10/26/24 Analyzed: 10/27/24				
Diesel Range Organics (C10-C28)	298	25.0	250		119	38-132			
Surrogate: n-Nonane	58.0		50.0		116	50-200			

LCS Dup (2443224-BSD1)					Prepared: 10/26/24 Analyzed: 10/27/24				
Diesel Range Organics (C10-C28)	289	25.0	250		116	38-132	3.00	20	
Surrogate: n-Nonane	58.3		50.0		117	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/2024 4:51:07PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2444006-BLK1)					Prepared: 10/27/24 Analyzed: 10/27/24				
Chloride	ND	20.0							
LCS (2444006-BS1)					Prepared: 10/27/24 Analyzed: 10/27/24				
Chloride	252	20.0	250		101	90-110			
LCS Dup (2444006-BSD1)					Prepared: 10/27/24 Analyzed: 10/27/24				
Chloride	251	20.0	250		101	90-110	0.0449	20	

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

Definitions and Notes

Mack Energy	Project Name:	West Mount B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/29/24 16:51

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 10/28/2024 12:12:18PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	10/28/24 07:30	Work Order ID:	E410331
Phone:	(575) 390-6397	Date Logged In:	10/25/24 15:21	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	10/29/24 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project manager and time sampled not provided on COC.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

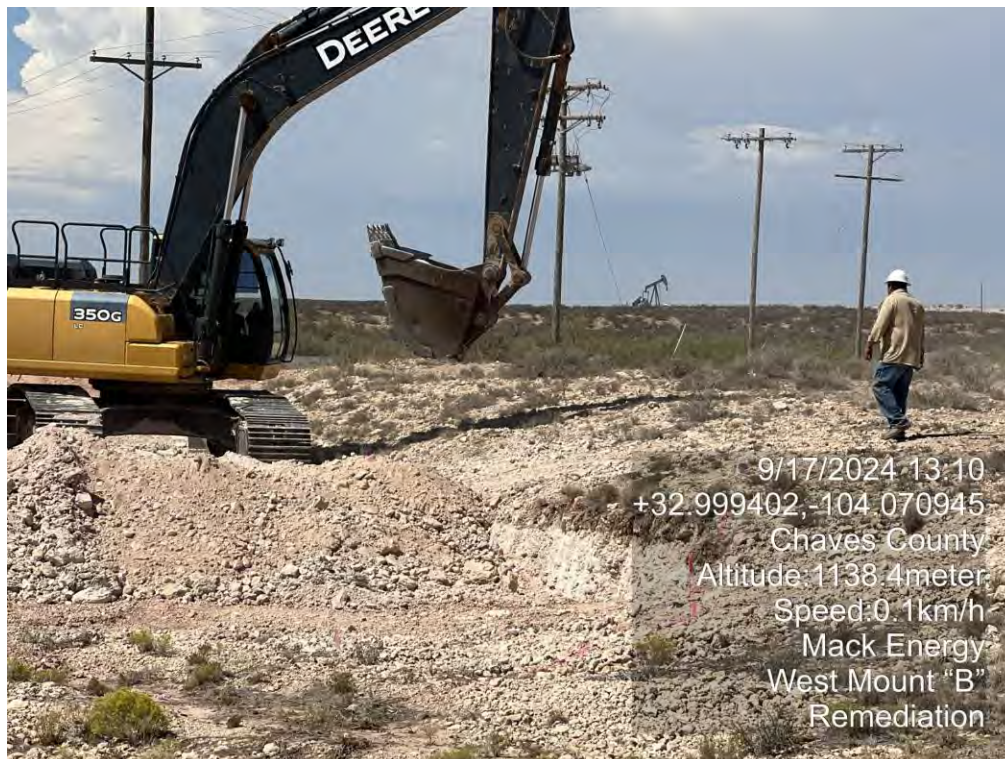
Signature of client authorizing changes to the COC or sample disposition.

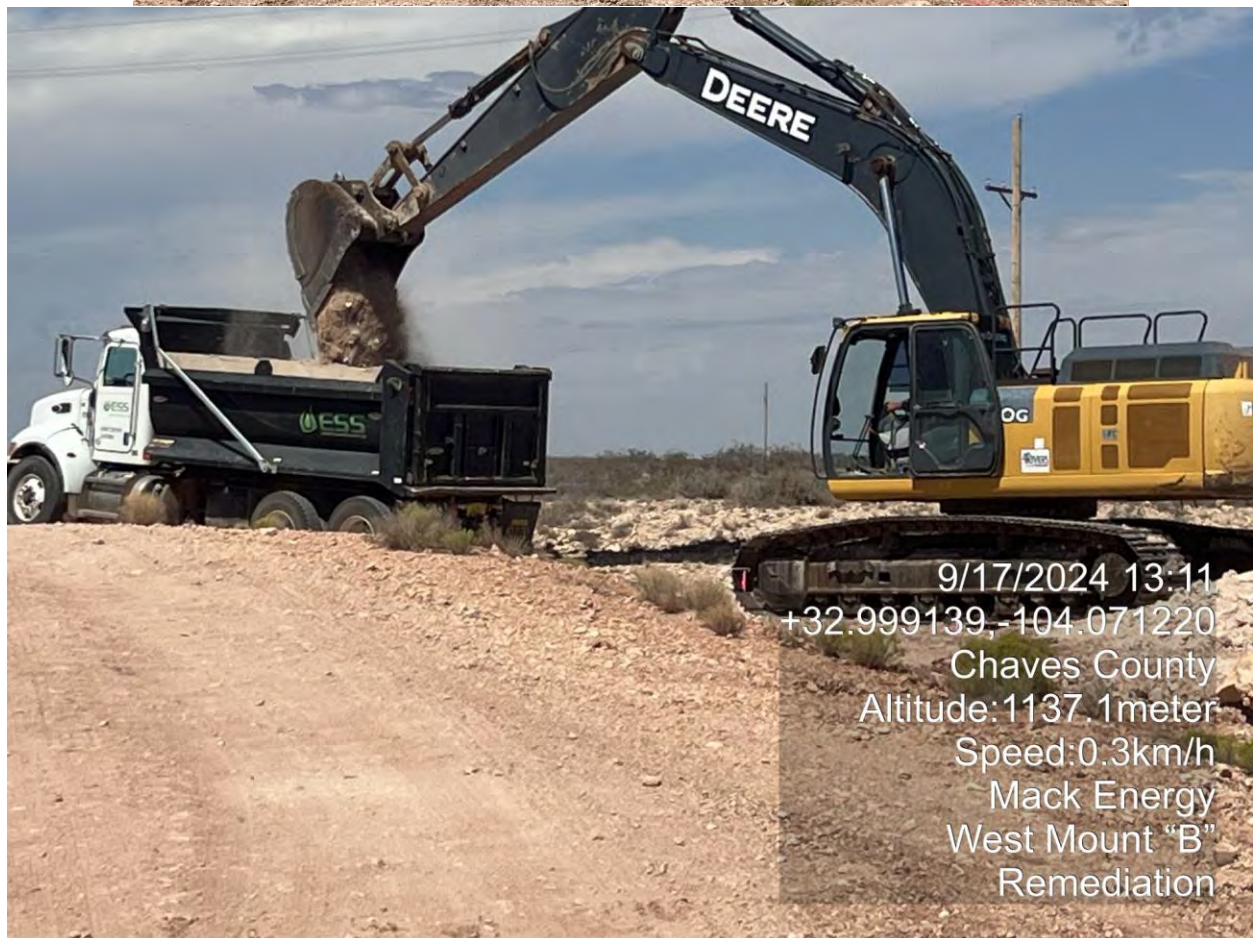
Date

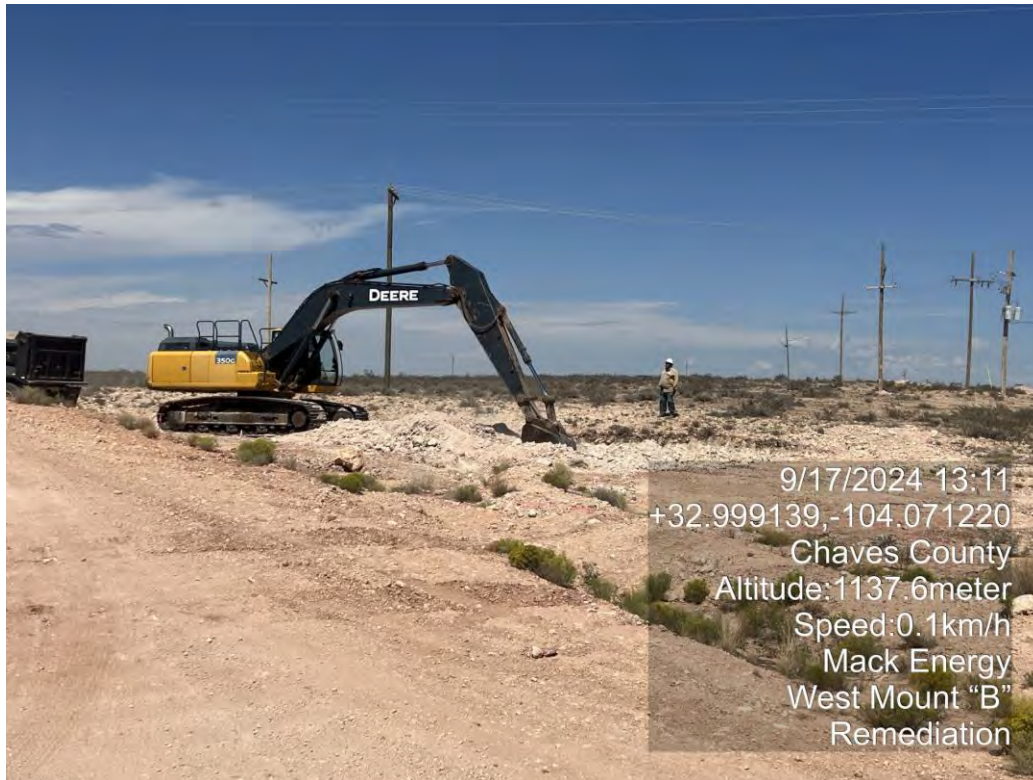


envirotech Inc.

MACK ENERGY: WEST MOUNT SPILL B REMEDIATION AND FINAL PHOTOS





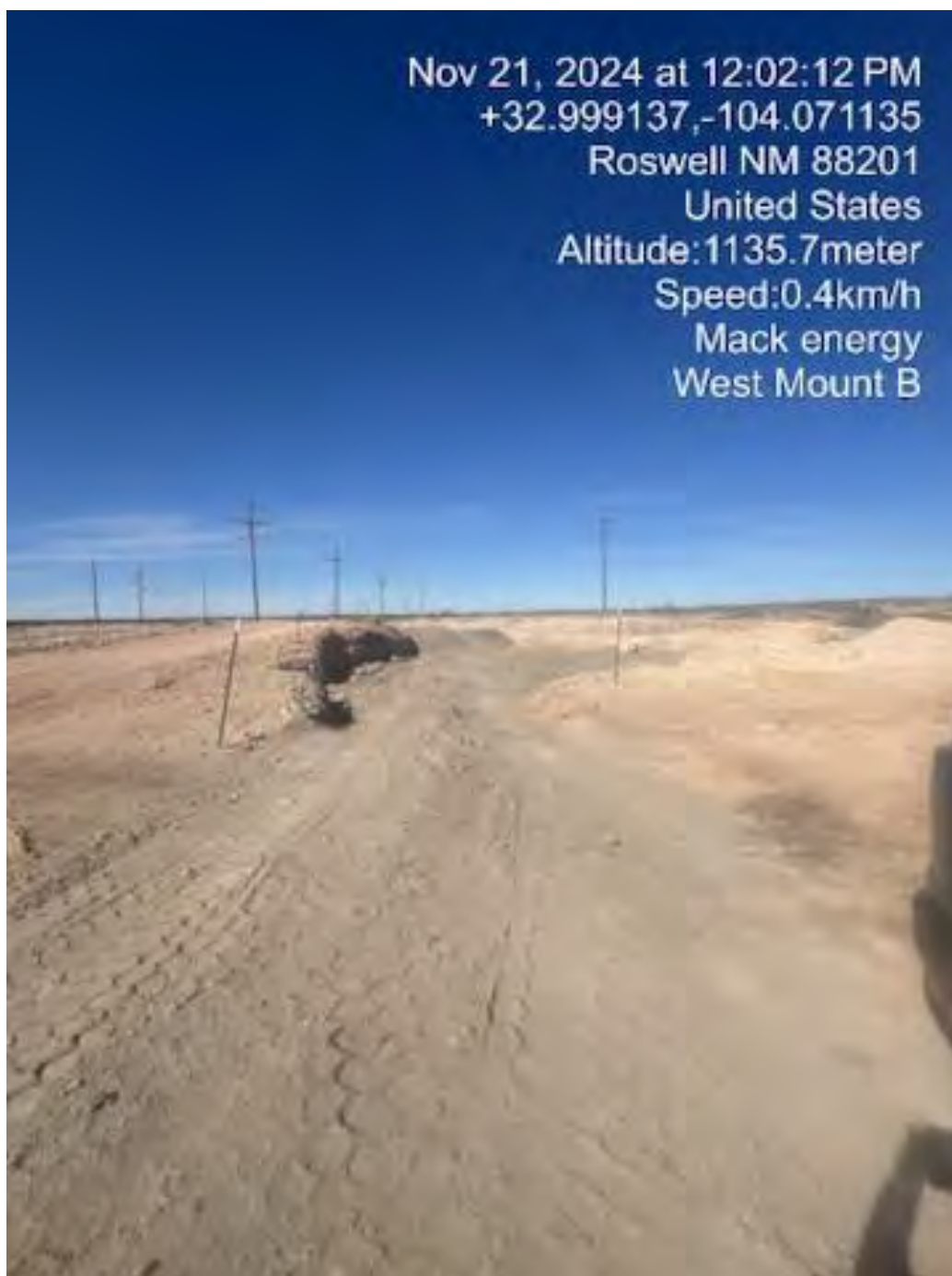


















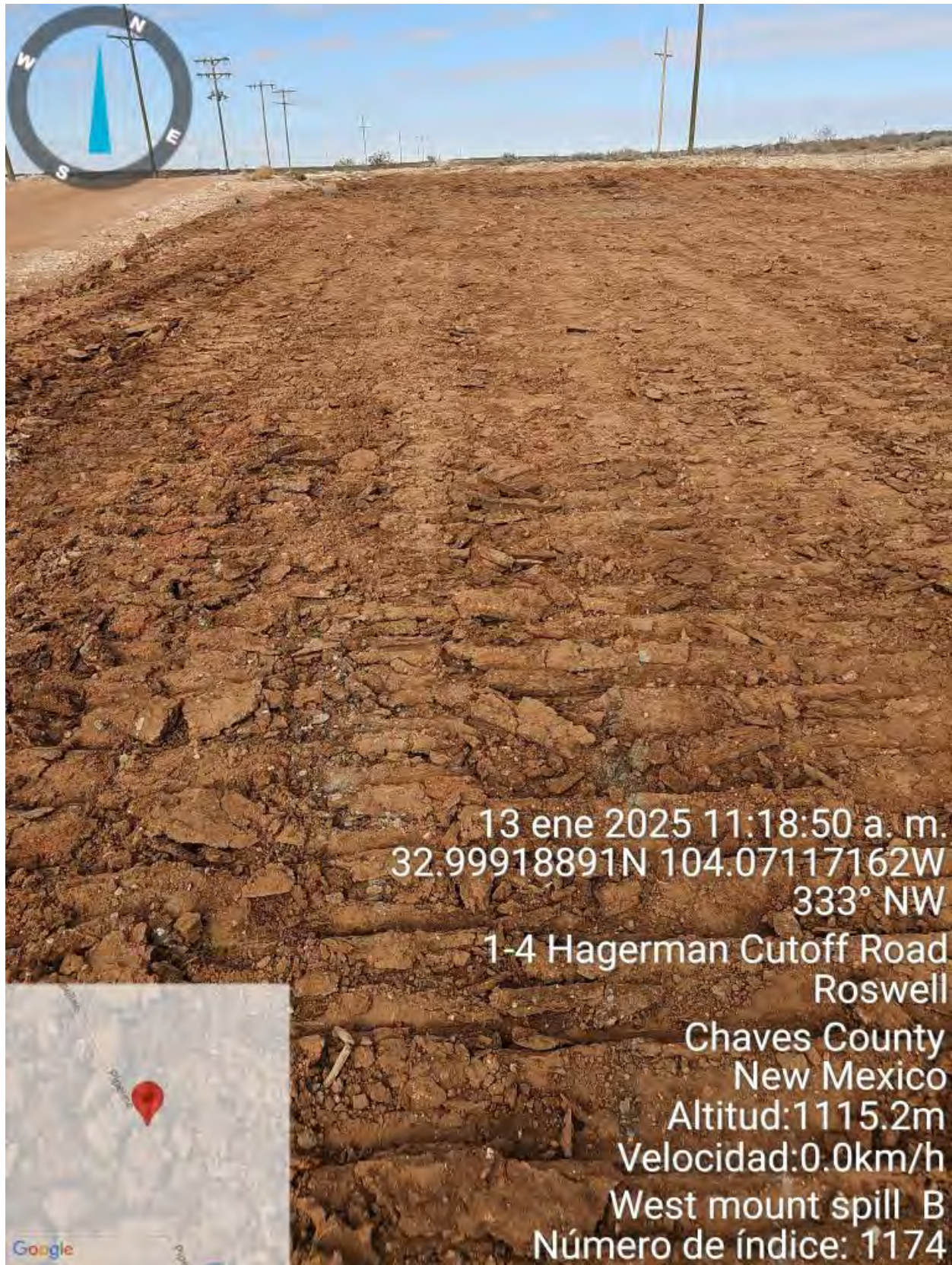


















**MACK ENERGY CORPORATION
WEST MOUNT SPILL B
RECLAMATION EXECUTIVE SUMMARY**

**API NO. 30-005-64381
UNIT LETTER M, SECTION 27, TOWNSHIP 15S, RANGE 28E
CHAVES COUNTY, NEW MEXICO**

Reclamation Executive Summary

Subject: Final Reclamation Summary – West Mount Spill B (Incident No. NAPP2327759229)

On January 7, 2025, ESS initiated and completed reclamation activities at the West Mount Spill B site following the finalization of remediation efforts for the release that occurred on September 23, 2023 (Incident Number: NAPP2327759229).

A total of 120 cubic yards of topsoil was loaded and hauled from Mack's Bogel's Pit. The topsoil was evenly spread across the entire 2,494 square-foot impacted area. The site was then ripped, contoured, and sloped to match the natural grade. Reseeding was conducted using the Sandy Loam Seed Mixture in accordance with State Land Office (SLO) Rules and Regulations.

A five-point composite was taken from the center of the excavation/backfill area located at 32.999350, -104.071244. Please find the reclamation composite map and confirmed lab analysis attached herein.

Final reclamation photos have been included with the Closure Report, which has been uploaded and submitted through the NMOCD Portal. The seed tag associated with the seeding event is also attached for your records.

Should you have any questions or require additional information regarding the completed reclamation activities at the West Mount Spill B site for Mack Energy, please feel free to contact me at (575) 390-6397 or (575) 393-9048, or via email at natalie@energystaffingllc.com.

Sincerely,



Natalie Gladden

COO and Director of Environmental and Regulatory Services

Energy Staffing Services, LLC.

2724 NW County Road

Hobbs, NM 88240

Cell: 575-390-6397

Office: 575-393-9048

Email: natalie@energystaffingllc.com





Curtis Seed
SOW GENEROUSLY

Mack Energy
NMSLO Sandy Loam- 1.8 Ac Broadcasted
Lot #: 68135
28.29

Item	% Pure Mix	Origin	Purity	Germ	Dormant	Total Germ:	Test Date
Little Bluestem, Aldous	9.72%	Kansas	61.69%	59.00%	31.00%	90.00%	11/2024
Galleta, Viva	9.30%	Texas	86.14%	21.00%	73.00%	94.00%	9/2024
Blue Grama, Alma	7.36%	Texas	31.75%	94.00%	1.00%	95.00%	10/2024
Sidecoats Grama, Niner	7.21%	Texas	71.10%	16.00%	81.00%	97.00%	12/2024
Four-wing Saltbush, Variety Not Stated	7.07%	New Mexico	81.52%	0.00%	0.00%	99.00%	11/2024
Winter Fat, Variety Not Stated	6.66%	New Mexico	88.97%	90.00%	2.00%	92.00%	8/2024
Palmer Penstemon, Variety Not Stated	3.72%	Utah	98.89%	15.00%	79.00%	94.00%	7/2024
Sand Dropseed, Variety Not Stated	3.61%	Oklahoma	95.21%	92.00%	5.00%	97.00%	10/2024
Gallardia Aristata, Variety Not Stated	3.61%	Oregon	89.09%	97.00%	0.00%	97.00%	6/2024
Blue Flax, Appar	3.60%	Washington	88.42%	97.00%	0.00%	97.00%	6/2024
Blackeyed Susan, Variety Not Stated	3.53%	Iowa	99.38%	99.00%	0.00%	99.00%	6/2024
Seed Total	65.39%						
Inert Matter:	34.54%						
Other Crop:	0.06%						
Weed Seed:	0.01%						



NMSLO Sandy Loam-1.8 AC Broadcasted.
Bag into 0.5 acre Bag into 3) 0.5 ac

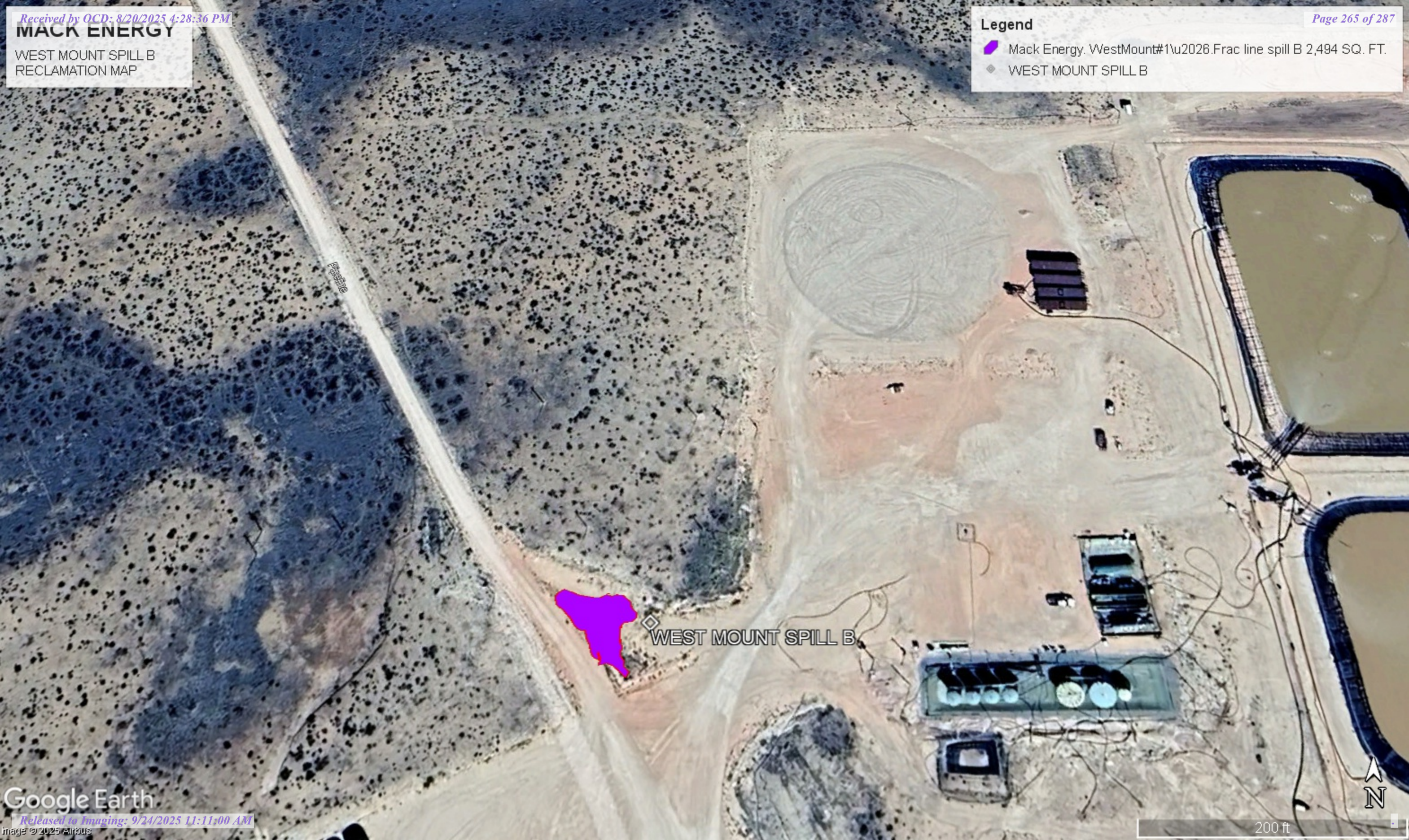
curtisseed.com 4500 N Bump Run, Clovis, NM 88101 (505) 762-4759

MACK ENERGY

WEST MOUNT SPILL B
RECLAMATION MAP

Legend

-  Mack Energy. WestMount#1\2026.Frac line spill B 2,494 SQ. FT.
-  WEST MOUNT SPILL B

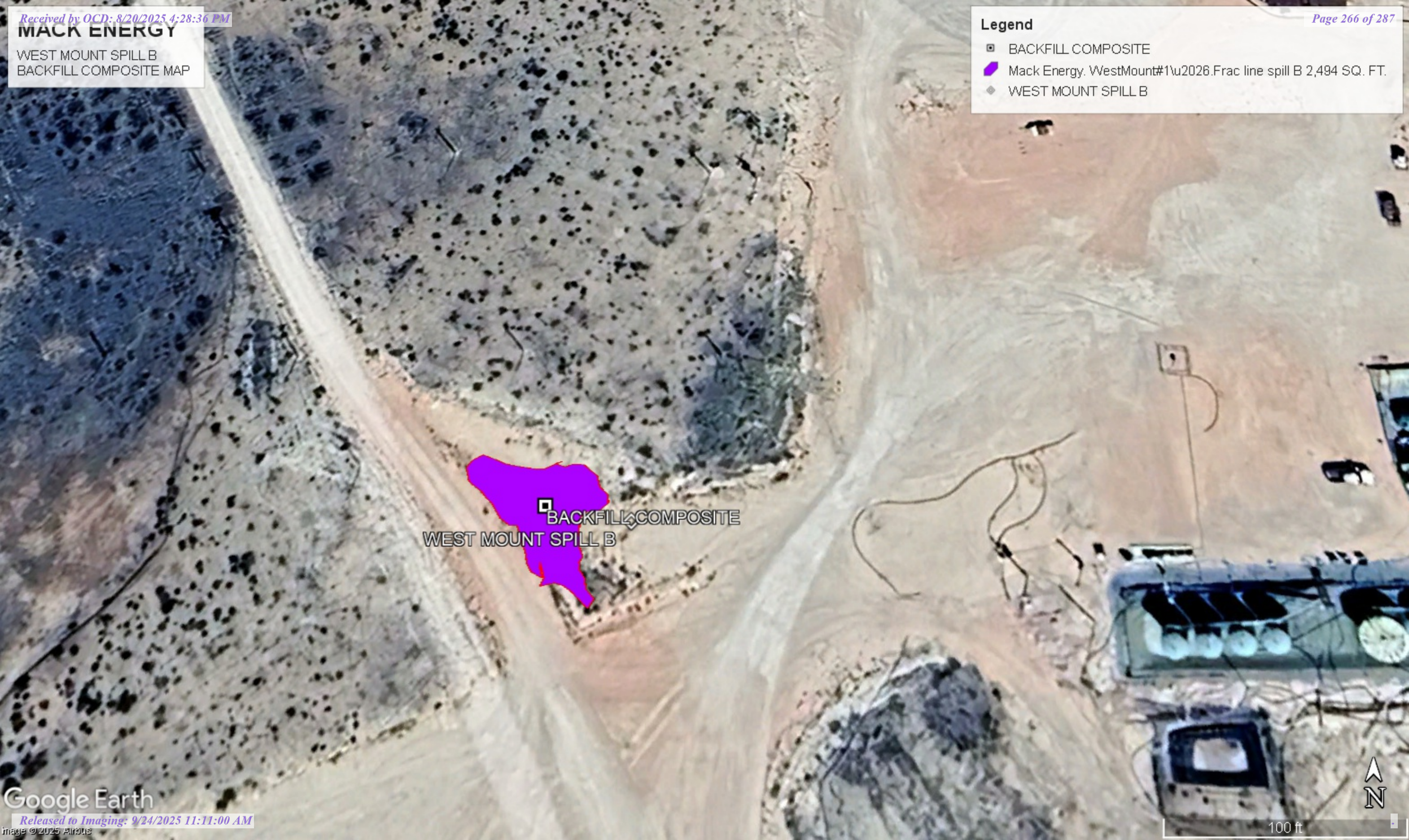


MACK ENERGY

WEST MOUNT SPILL B
BACKFILL COMPOSITE MAP

Legend

- BACKFILL COMPOSITE
- Mack Energy. WestMount#1\2026.Frac line spill B 2,494 SQ. FT.
- WEST MOUNT SPILL B



Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill B

Work Order: E507174

Job Number: 20046-0001

Received: 7/17/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/18/25

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

Date Reported: 7/18/25

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill B
Workorder: E507174
Date Received: 7/17/2025 7:00:34AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/17/2025 7:00:34AM, under the Project Name: West Mount Spill B.

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

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

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

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

Respectfully,

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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
BACKFILL COMP 1 - SURF	5
QC Summary Data	6
QC - Volatile Organics by EPA 8021B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/18/25 14:05

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BACKFILL COMP 1 - SURF	E507174-01A	Soil	07/15/25	07/17/25	Glass Jar, 2 oz.



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill B
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/18/2025 2:05:52PM

BACKFILL COMP 1 - SURF

E507174-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2529119	
Benzene	ND	0.0250	1	07/17/25	07/17/25	
Ethylbenzene	ND	0.0250	1	07/17/25	07/17/25	
Toluene	ND	0.0250	1	07/17/25	07/17/25	
o-Xylene	ND	0.0250	1	07/17/25	07/17/25	
p,m-Xylene	ND	0.0500	1	07/17/25	07/17/25	
Total Xylenes	ND	0.0250	1	07/17/25	07/17/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	07/17/25	07/17/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2529119	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/17/25	07/17/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %	70-130	07/17/25	07/17/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2529134	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/17/25	07/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	07/17/25	07/17/25	
<i>Surrogate: n-Nonane</i>		94.1 %	61-141	07/17/25	07/17/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2529117	
Chloride	62.8	20.0	1	07/17/25	07/17/25	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/18/2025 2:05:52PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2529119-BLK1) Prepared: 07/17/25 Analyzed: 07/17/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.00		8.00		100	70-130			

LCS (2529119-BS1) Prepared: 07/17/25 Analyzed: 07/17/25

Benzene	5.17	0.0250	5.00		103	70-130			
Ethylbenzene	5.14	0.0250	5.00		103	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.04	0.0250	5.00		101	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.4	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.02		8.00		100	70-130			

Matrix Spike (2529119-MS1) Source: E507176-01 Prepared: 07/17/25 Analyzed: 07/17/25

Benzene	5.04	0.0250	5.00	ND	101	70-130			
Ethylbenzene	5.10	0.0250	5.00	ND	102	70-130			
Toluene	5.12	0.0250	5.00	ND	102	70-130			
o-Xylene	5.03	0.0250	5.00	ND	101	70-130			
p,m-Xylene	10.3	0.0500	10.0	ND	103	70-130			
Total Xylenes	15.3	0.0250	15.0	ND	102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.27		8.00		103	70-130			

Matrix Spike Dup (2529119-MSD1) Source: E507176-01 Prepared: 07/17/25 Analyzed: 07/17/25

Benzene	4.92	0.0250	5.00	ND	98.4	70-130	2.42	27	
Ethylbenzene	4.99	0.0250	5.00	ND	99.8	70-130	2.12	26	
Toluene	5.00	0.0250	5.00	ND	100	70-130	2.31	20	
o-Xylene	4.93	0.0250	5.00	ND	98.7	70-130	1.95	25	
p,m-Xylene	10.1	0.0500	10.0	ND	101	70-130	2.00	23	
Total Xylenes	15.0	0.0250	15.0	ND	100	70-130	1.98	26	
Surrogate: 4-Bromochlorobenzene-PID	8.36		8.00		104	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/18/2025 2:05:52PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2529119-BLK1) Prepared: 07/17/25 Analyzed: 07/17/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.8	70-130			

LCS (2529119-BS2) Prepared: 07/17/25 Analyzed: 07/17/25

Gasoline Range Organics (C6-C10)	45.6	20.0	50.0		91.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		8.00		94.4	70-130			

Matrix Spike (2529119-MS2) Source: E507176-01 Prepared: 07/17/25 Analyzed: 07/17/25

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0	ND	84.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		8.00		94.0	70-130			

Matrix Spike Dup (2529119-MSD2) Source: E507176-01 Prepared: 07/17/25 Analyzed: 07/17/25

Gasoline Range Organics (C6-C10)	42.7	20.0	50.0	ND	85.3	70-130	1.40	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.44		8.00		93.0	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/18/2025 2:05:52PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

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

Blank (2529134-BLK1)					Prepared: 07/17/25 Analyzed: 07/17/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.8		50.0		95.7	61-141			

LCS (2529134-BS1)					Prepared: 07/17/25 Analyzed: 07/17/25				
Diesel Range Organics (C10-C28)	240	25.0	250		95.9	66-144			
Surrogate: n-Nonane	47.9		50.0		95.7	61-141			

Matrix Spike (2529134-MS1)					Source: E507178-07		Prepared: 07/17/25 Analyzed: 07/17/25		
Diesel Range Organics (C10-C28)	240	25.0	250	ND	96.1	56-156			
Surrogate: n-Nonane	47.9		50.0		95.8	61-141			

Matrix Spike Dup (2529134-MSD1)					Source: E507178-07		Prepared: 07/17/25 Analyzed: 07/17/25		
Diesel Range Organics (C10-C28)	238	25.0	250	ND	95.1	56-156	1.08	20	
Surrogate: n-Nonane	47.7		50.0		95.5	61-141			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill B	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/18/2025 2:05:52PM

Anions by EPA 300.0/9056A

Analyst: IY

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

Blank (2529117-BLK1)					Prepared: 07/17/25 Analyzed: 07/17/25				
Chloride	ND	20.0							
LCS (2529117-BS1)					Prepared: 07/17/25 Analyzed: 07/17/25				
Chloride	248	20.0	250		99.3	90-110			
Matrix Spike (2529117-MS1)					Source: E507178-02		Prepared: 07/17/25 Analyzed: 07/17/25		
Chloride	786	20.0	250	555	92.6	80-120			
Matrix Spike Dup (2529117-MSD1)					Source: E507178-02		Prepared: 07/17/25 Analyzed: 07/17/25		
Chloride	795	20.0	250	555	96.2	80-120	1.12	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill B	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/18/25 14:05

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



[illegible]

7.17.25 CM



enviro⁺ech

Envirotech Analytical Laboratory

Printed: 7/17/2025 2:02:57PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	07/17/25 07:00	Work Order ID:	E507174
Phone:	(575) 390-6397	Date Logged In:	07/16/25 16:03	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	07/18/25 17:00 (1 day TAT)		

Chain of Custody (COC)

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

Carrier: Courier

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

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client InstructionComments/Resolution

Project manager not provided on COC.

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

Date



envirotech Inc.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 497889

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2327759229
Incident Name	NAPP2327759229 WEST MOUNT SPILL B @ 30-005-64381
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Well	[30-005-64381] WESTMOUNT FEDERAL COM #001H

Location of Release Source

Please answer all the questions in this group.

Site Name	WEST MOUNT SPILL B
Date Release Discovered	09/20/2023
Surface Owner	State

Incident Details

Please answer all the questions in this group.

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Flow Line - Production Produced Water Released: 16 BBL Recovered: 0 BBL Lost: 16 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 2

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

Initial Response

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

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

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

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

I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 08/20/2025
--	--

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 3

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	5590
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	09/17/2024
On what date will (or did) the final sampling or liner inspection occur	10/14/2024
On what date will (or was) the remediation complete(d)	01/13/2025
What is the estimated surface area (in square feet) that will be reclaimed	2494
What is the estimated volume (in cubic yards) that will be reclaimed	2320
What is the estimated surface area (in square feet) that will be remediated	2494
What is the estimated volume (in cubic yards) that will be remediated	1940
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112338393 GANDY MARLEY LANDFARM/LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 08/20/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 5

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 6

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	389430
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/04/2024
What was the (estimated) number of samples that were to be gathered	33
What was the sampling surface area in square feet	2494

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2494
What was the total volume (cubic yards) remediated	1940
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	2494
What was the total volume (in cubic yards) reclaimed	369
Summarize any additional remediation activities not included by answers (above)	ALL RECLAMATION ACTIVITIES HAVE BEEN COMPLETED. MOST OF THE RELEASE WAS ON THE ROAD ENTRANCE.
<i>The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 08/20/2025

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 7

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	2494
What was the total volume of replacement material (in cubic yards) for this site	120
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	01/13/2025
Summarize any additional reclamation activities not included by answers (above)	ALL RECLAMATION ACTIVITIES HAVE BEEN CONDUCTED.
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 08/20/2025

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 8

Action 497889

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 497889

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 497889
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your reclamation report for Incident #NAPP2327759229 WEST MOUNT SPILL B, thank you. The reclamation report is approved.	9/24/2025