

Maralo Federal Com 1 (30-015-22958)  
Specific Justification for Volumes

The total volume released was incorrectly reported on the initial C-141as 95.7 bbls crude oil and 43 bbls produced water. The 210 bbl production tank contains both oil and water and the total volume released per the tank gauge was 95.7 bbls. The 43 bbls of water should have been subtracted from 95.7 bbls leaving 52.7 bbls of oil.

210 bbl tank (1.167 bbl/in)

Date	Gauge	Bbbls	Lost
1/4/2022	1' 0'	14	95.7
1/2/2022	7'10"	109.7	



## Remediation Summary and Deferral Request

**Murchison Oil & Gas, LLC  
Maralo Federal Com #1  
Eddy County, New Mexico  
Unit Letter "L", Section 22, Township 17 South, Range 27 East  
Latitude 32.817825 North, Longitude 104.272827 West  
NMOCD Incident # nAPP2202451213**

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Prepared For:

Murchison Oil & Gas  
5325 Sierra Vista  
Carlsbad, NM 88230

Prepared By:

Hungry Horse, LLC  
4024 Plains Hwy  
Lovington, NM 88260  
Office: (575) 393-3386

**September 2024**

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## HUNGRY HORSE, LLC

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The following *Remediation Summary and Deferral Request* serves as a condensed update on field activities undertaken at the afore referenced Site.

### Background:

The site is located in Unit Letter L (NW/SW), Section 22, Township 17 South, Range 27 East, approximately one mile Southeast of Riverside, in Eddy County, New Mexico. The property is located on Bureau of Land Management land. Topographic Map, OSE POD Locations Map, and USGS Well Locations Map are included as Figure 1, Figure 2, and Figure 3, respectively.

The release occurred on an active tank battery and well pad; Latitude 32.817825 North, Longitude 104.272827 West. The NMOCD Form C-141 indicated that on January 3, 2022 approximately 53 bbls of crude oil and 43 bbls of produced water were released due to a load line that froze and burst. A crew was dispatched to the release site and the line was repaired. No fluid was recovered. Previously submitted NMOCD Form C-141 are available on the NMOCD Permitting Portal.

### NMOCD Site Classification:

A search of the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) groundwater databases was completed in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Approximate depth to groundwater was determined using maintained and published water well data. Karst mapping indicates the site is located in a Gypsum Karst designated area. Depth to groundwater information is provided as Attachment III and the results are depicted on Figures 2 and 3.

No water wells were located within a half mile of the release area. In addition, as the site is located in a Gypsum Karst designated area, the site will be remediated according to the strictest NMOCD Closure Criteria. Utilizing this information, the NMOCD Closure Criteria for the Site were determined as follows:

Depth to Groundwater	Constituent	Method	Limit
<50'	Chloride	EPA 300.0 or SM4500 CLB	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	100 mg/kg
	BTEX	EPA SW-846 Methods 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Methods 8021B or 8260B	10 mg/kg

A United States Department of Agriculture (USDA) Web Soil Survey was completed to determine soil types in the area of remediation. Web Soil Survey indicates the area is located in the Reeves-Gypsum land complex comprised of loam and clay loam soils with 0 to 3 percent slopes. As the affected area is located on an active well pad and lease road, no re-seeding will be required. Karst, Wetland, and Soil Maps are provided as Attachment I.





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**Remediation Activities:**

On July 8, 2024, a Site Assessment and Remediation Work Plan was submitted to NMOCD for approval. On July 9, 2024, the Work Plan was approved. NMOCD Correspondence provided as Attachment II. Previously submitted pages of the approved Site Assessment and Remediation Work Plan are available on the NMOCD Permitting Portal.

From July 15 through 25, 2024, the release area was excavated per the NMOCD approved work plan. The areas characterized by sample locations SP1 and SP2 were excavated to an approximate depth of four feet bgs. The area characterized by sample location SP3 was excavated to an approximate depth of four and half feet bgs. The areas characterized by sample locations SP4 and SP8 were excavated to an approximate depth of two feet bgs. The areas characterized by sample locations SP5, SP6, and SP9 were excavated to an approximate depth of one-foot bgs. And the area characterized by sample location SP7 was excavated to an approximate depth of three feet bgs. Excavated contaminated soil was temporarily stockpiled onsite, within the excavated area, before transport to an NMOCD approved disposal facility.

The area characterized by sample locations SP1 and SP2 could not be fully excavated due the presence of process equipment and tanks. Fencing around the bermed containment was opened to allow access for contaminated soil to be hydro-excavated from the containment area until process equipment prevented further excavation. Hydro-excavated contaminated soil was transported to an NMOCD approved disposal facility.

The area characterized by sample location SP10 was not excavated as field data and laboratory analytical data indicate contaminate concentrations are below the NMOCD Closure Criteria.

On August 6, 2024, Hungry Horse, LLC notified NMOCD that closure samples would be collected on August 9, 2024. NMOCD Correspondence is provided as Attachment II.

On August 9, 2024, seventy-one composite confirmation soil samples were collected from the excavation floor and sidewalls, with each sample representing no more than 200 square feet. Soil samples FL1 through FL33 and SW1 through SW38, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples, with the exception of FL27 – FL33 and SW35 – SW37, which exhibited TPH concentrations in excess of NMOCD Closure Criteria.

On August 12, 2024, two composite confirmation soil samples were collected from the topsoil and caliche backfill pits. Soil samples Topsoil and Caliche, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples.

On August 20, 2024, the area within containment, characterized by sample locations FL27 – FL33, was hydro-excavated an additional one-foot bgs. Hydro-excavated contaminated soil was



transported to an NMOCD approved disposal facility. The area characterized by sample locations SW35 – SW37 was not excavated further as process equipment prevents further excavation.

On August 22, 2024, Hungry Horse, LLC notified NMOCD that additional closure samples would be collected on August 27, 2024. NMOCD Correspondence is provided as Attachment II.

On August 27, 2024, seven composite confirmation soil samples were collected from the excavation floor, with each sample representing no more than 200 square feet. Soil samples FL27b – FL33b, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples.

The final excavated areas measured approximately fifty-three hundred square feet and ranged in depth from one to five feet bgs. During remediation activities approximately 430 tons of impacted soil were excavated and hauled to an NMOCD approved disposal facility. Disposal waste manifests provided in Attachment VII.

January 19, 2022 Sample Map, Delineation Sample Map, Excavation Floor Sample Map, and Excavation Sidewall Sample Map, are provided as Figure 4, Figure 5, Figure 6, and Figure 7, respectively. A Summary of Soil Sample Laboratory Analytical Results is provided as Table 1 and Laboratory Analytical Reports are provided as Attachment VI.

### **Sampling Procedure and Identification:**

During confirmation sampling, five-point composite soil samples were collected from the floor of the excavation, each collected sample representing an area no greater than 200 square feet. These sample locations are identified by FL designation. Five-point composite soil samples were also collected from the sidewalls of the excavation, with each collected sample representing an area no greater than 200 square feet. These sample locations are identified by SW designation.

Excavation sidewall samples SW1 through SW38 were collected as five-point composite samples collected from the sidewalls of the excavation, from the excavation surface to the excavation floor. Sidewall samples SW11 – SW15 were collected from the interior sidewalls where the excavation depths changed. Excavation Sidewall Sample Map, provided as Figure 7, depicts sidewall sample boundaries.

### **Restoration, Reclamation, and Re-Vegetation:**

Based upon laboratory analytical results from confirmation soil samples, the excavation has been backfilled with locally sourced, clean, non-impacted material. The area was contoured to achieve erosion control and preserve surface water flow.

As the affected area is located on an active well pad and lease road, no re-seeding will be required.



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**Deferral Request:**

Remediation activities were conducted in accordance with applicable NMOCD Regulations. As much contaminated soil as practicable, affected above the NMOCD Closure Criteria, has been excavated and hauled to an NMOCD approved facility for disposal. Laboratory analytical results from composite confirmation samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria, with the exception of sidewall samples SW35, SW36, and SW37, which exhibited TPH concentrations in excess of NMOCD Closure Criteria.

Per paragraph (2) of subsection C of 19.15.29.12 NMAC, a portion of contamination remains immediately under production equipment where remediation would cause a major facility deconstruction. As the lateral and vertical extents of the release area will have been fully delineated, a deferral of the remaining contamination is requested until such time as the well or facility is plugged or abandoned. Contamination in-situ does not cause an imminent risk to human health, the environment, or groundwater. Approximately 500 square feet, or 100 cy, remain directly beneath production equipment and will be remediated upon facility closure.

Based on laboratory analytical results, Murchison Oil & Gas respectfully requests deferral of the Maralo Federal Com #1 location, nAPP2202451213.

**Limitations:**

Hungry Horse, LLC, has prepared this *Remediation Summary and Deferral Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Hungry Horse has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Hungry Horse has not conducted an independent examination of the facts contained in referenced materials and statements. Hungry Horse has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Hungry Horse notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.



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**Distribution:**

**Murchison Oil & Gas**

5325 Sierra Vista  
Carlsbad, NM 88230

**New Mexico Energy, Minerals and Natural Resources Department**

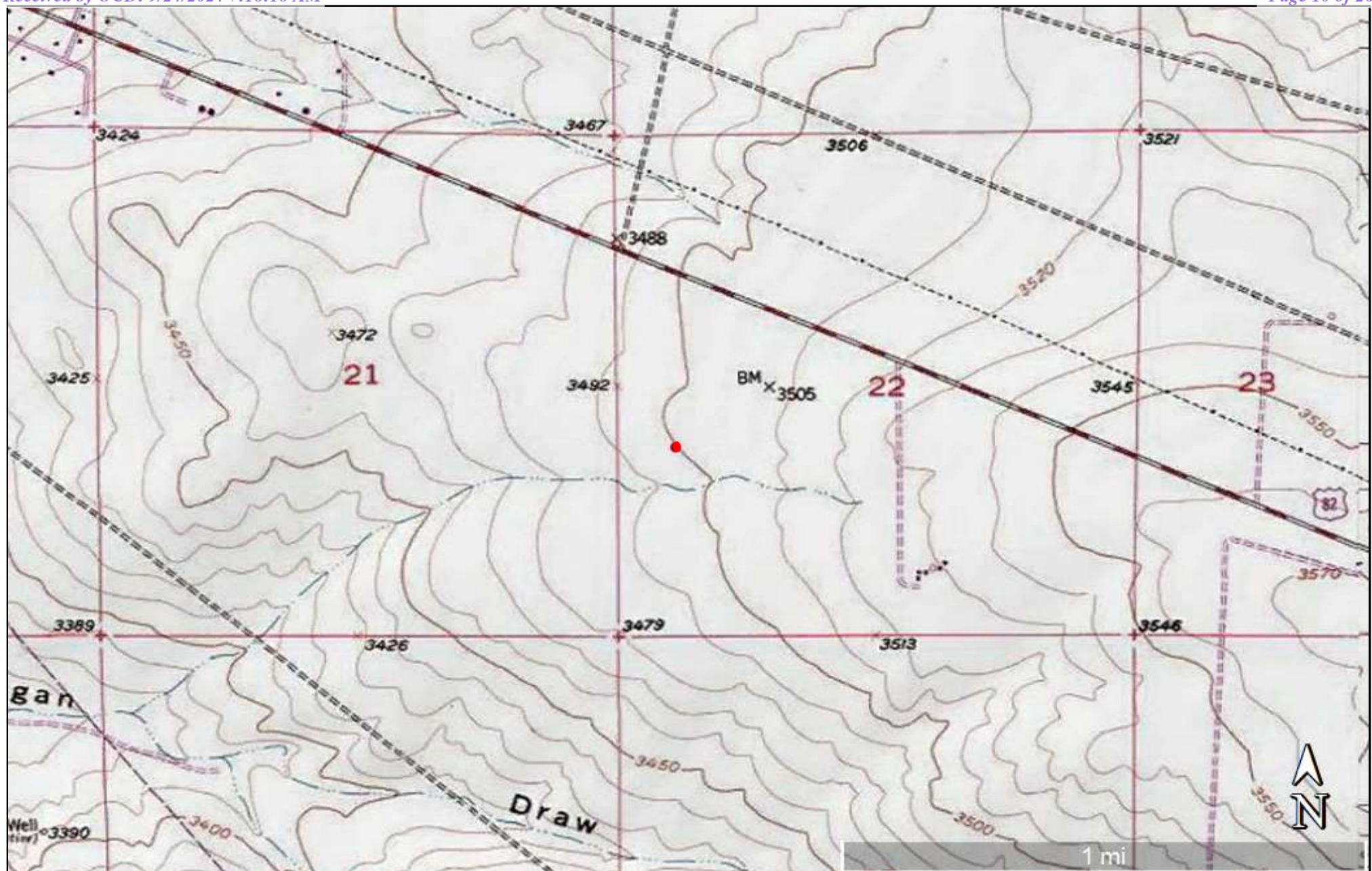
Oil Conservation Division, District 2  
811 S. First St.  
Artesia, NM 88210

**New Mexico Bureau of Land Management**

620 E. Greene St  
Carlsbad, NM 88220

## Figures



**Figure 1**

Topographic Map  
 Murchison Oil & Gas  
 Maralo Federal Com #1  
 GPS: 32.8178253, -104.2728271  
 Eddy County

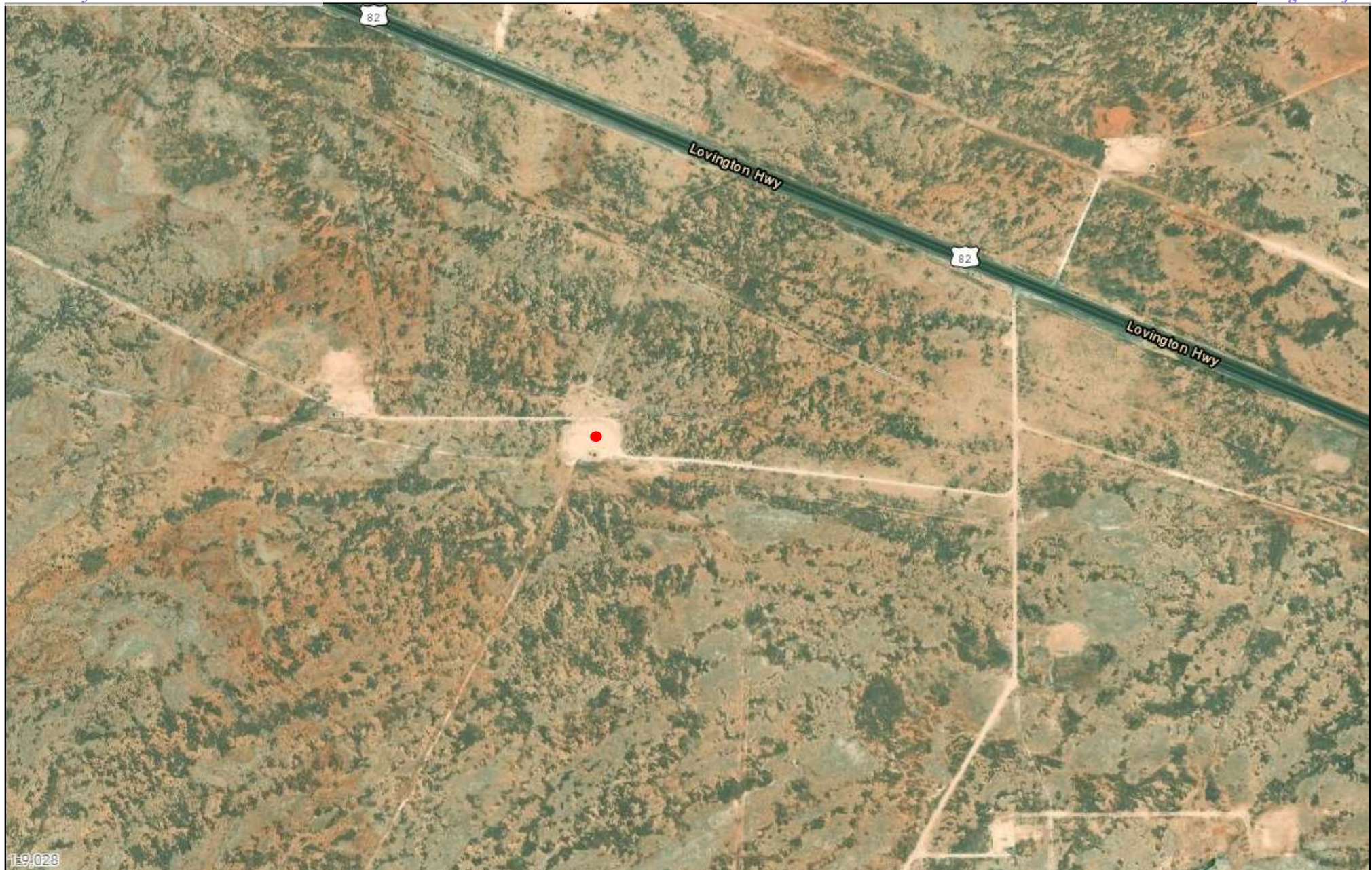
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- Maralo Federal Com #1 Location

Drafted: dd  
 Checked: bw  
 Date: 4/15/24





**Figure 2**

OSE POD Locations Map  
Murchison Oil & Gas  
Maralo Federal Com #1  
GPS: 32.8178253, -104.2728271  
Eddy County

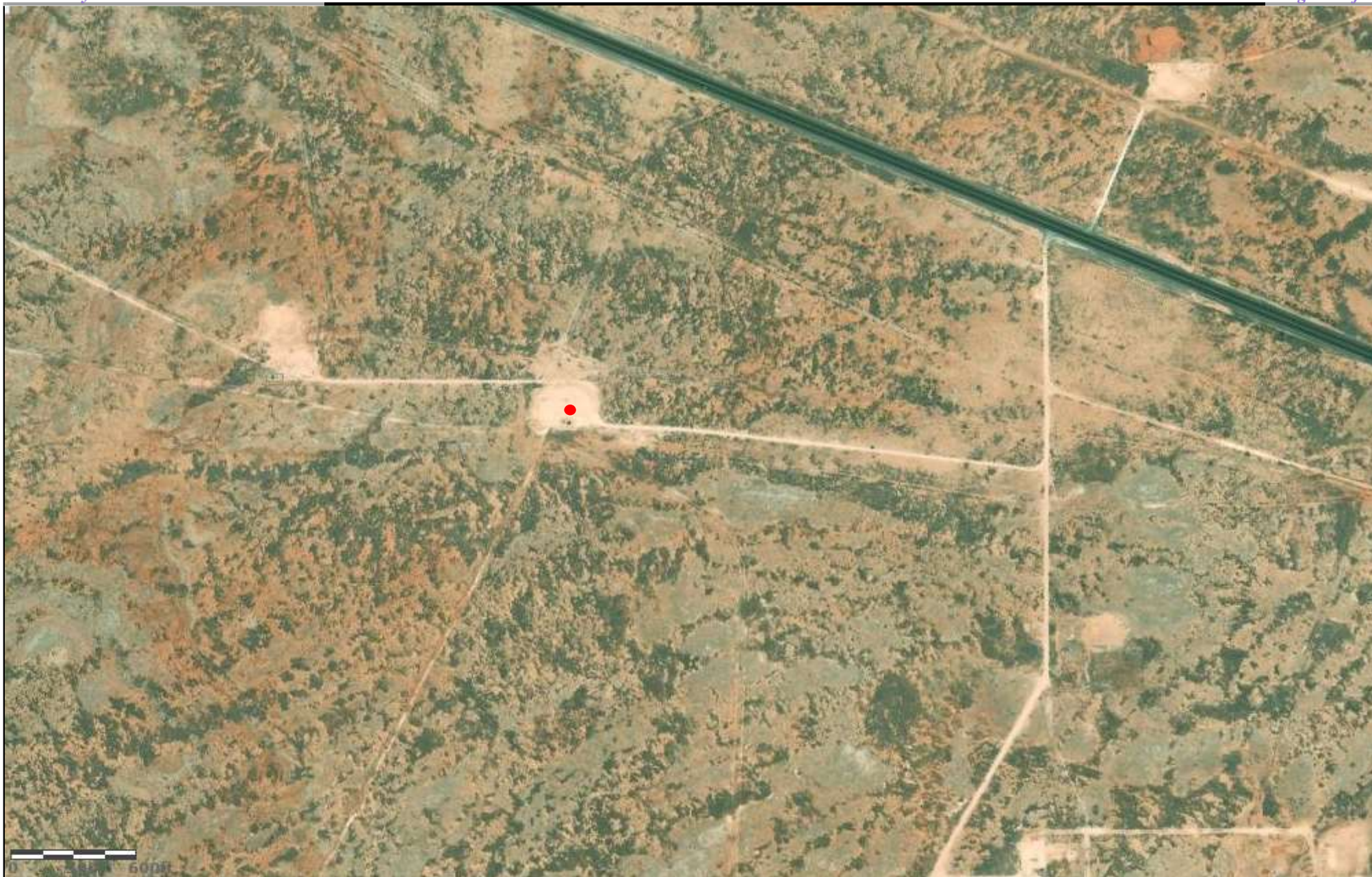
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● Maralo Federal Com #1 Location

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Checked: bw  
Date: 4/15/24





**Figure 3**

USGS Well Locations Map  
Murchison Oil & Gas  
Maralo Federal Com #1  
GPS: 32.8178253, -104.2728271  
Eddy County

**Legend:**

● Maralo Federal Com #1 Location

Drafted: dd  
Checked: bw  
Date: 4/15/24





**Figure 4**

January 19, 2022 Sample Map  
Murchison Oil & Gas  
Maralo Federal Com #1  
GPS: 32.8178253, -104.2728271  
Eddy County

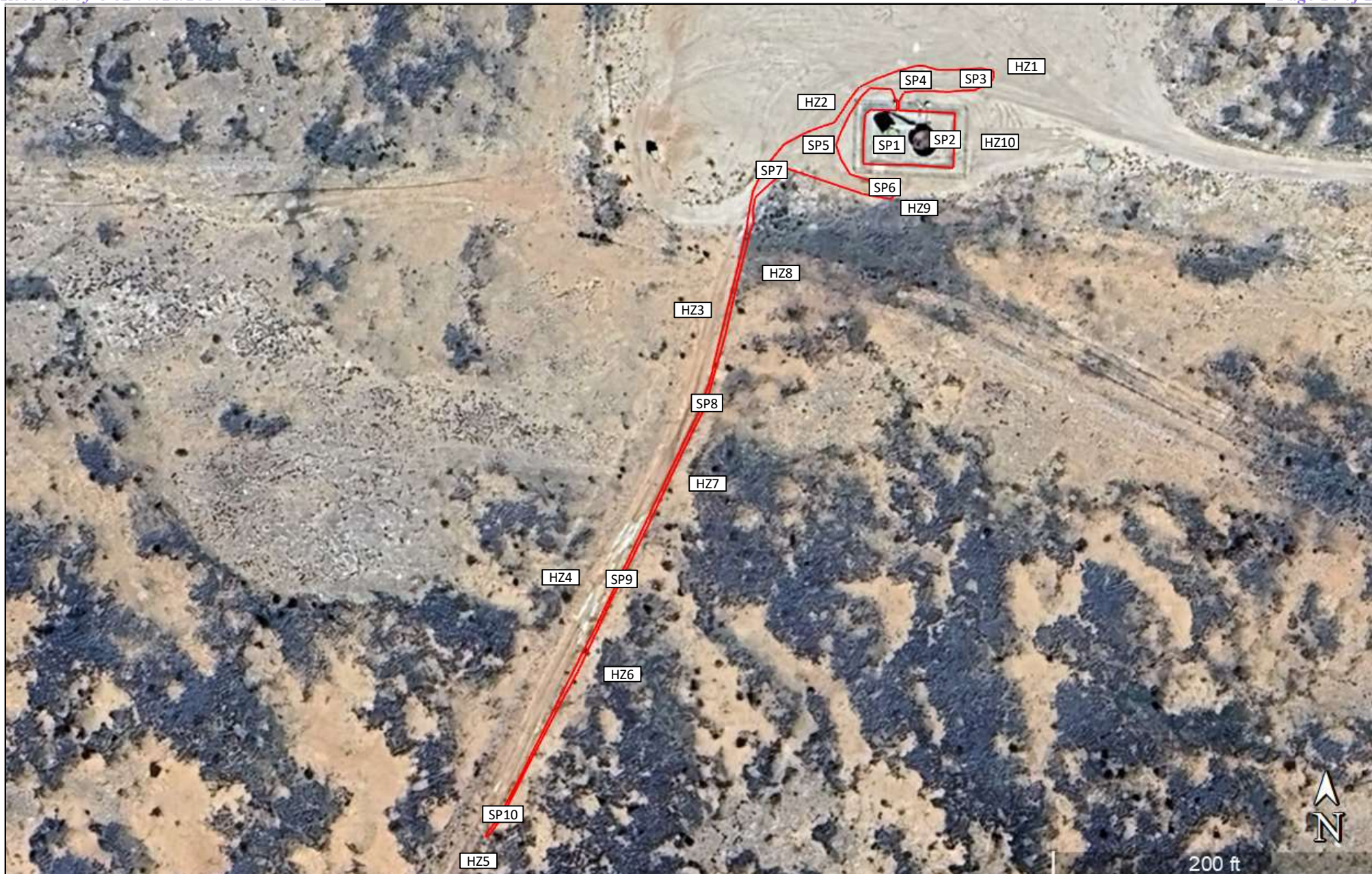
**Legend:**

- Release Area  
SSA-1 Sample Location



Drafted: dd  
Checked: bw  
Date: 4/15/24



**Figure 5**

Delineation Sample Map  
Murchison Oil & Gas  
Maralo Federal Com #1  
GPS: 32.8178253, -104.2728271  
Eddy County

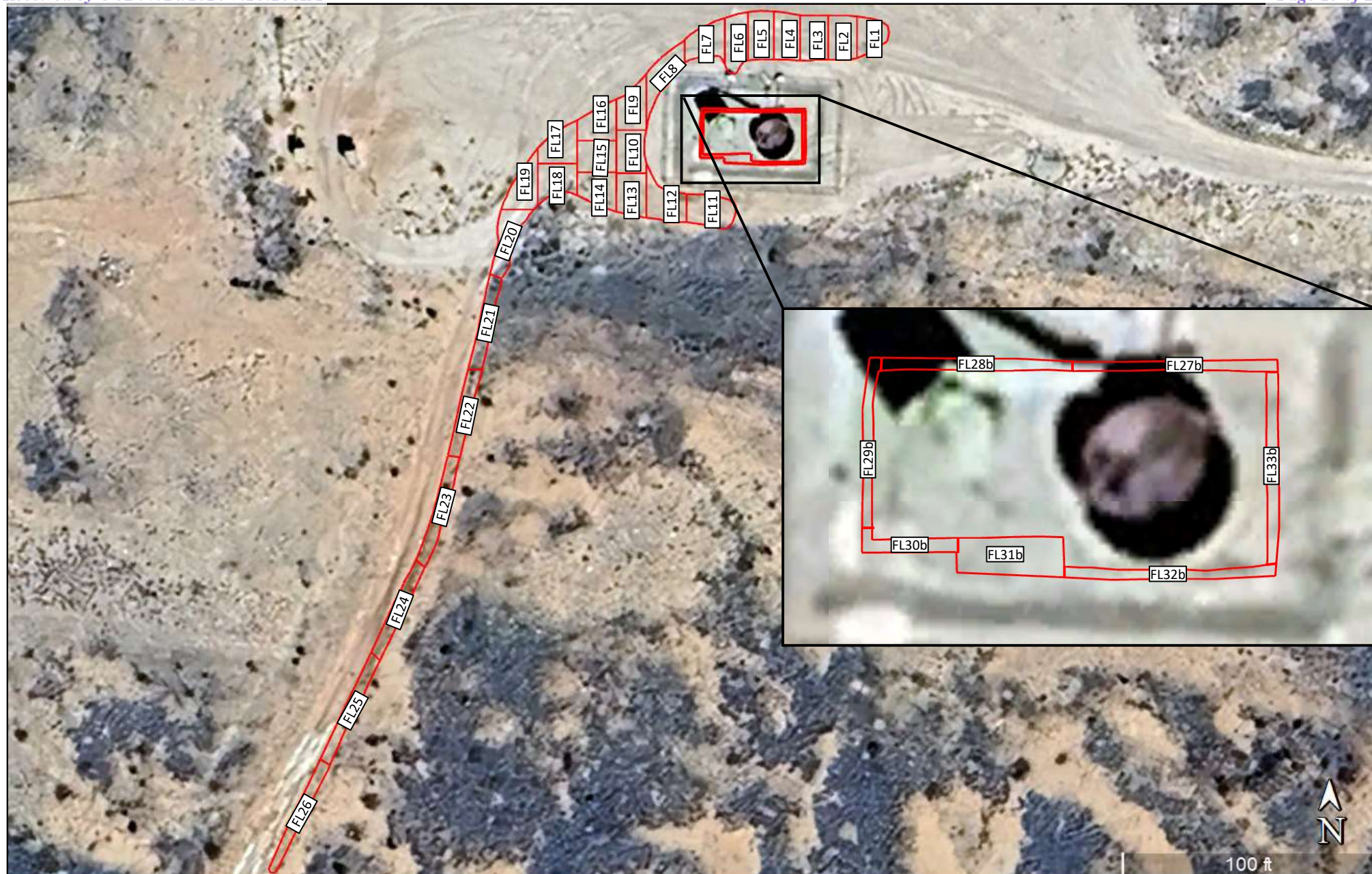
**Legend:**

- Release Area
- SP1 Delineation Sample Location
- HZ1 Horizontal Sample Location

Drafted: dd  
Checked: bw  
Date: 6/5/24





**Figure 6**

Excavation Floor Sample Map

Murchison Oil &amp; Gas

Maralo Federal Com #1

GPS: 32.8178253, -104.2728271

Eddy County

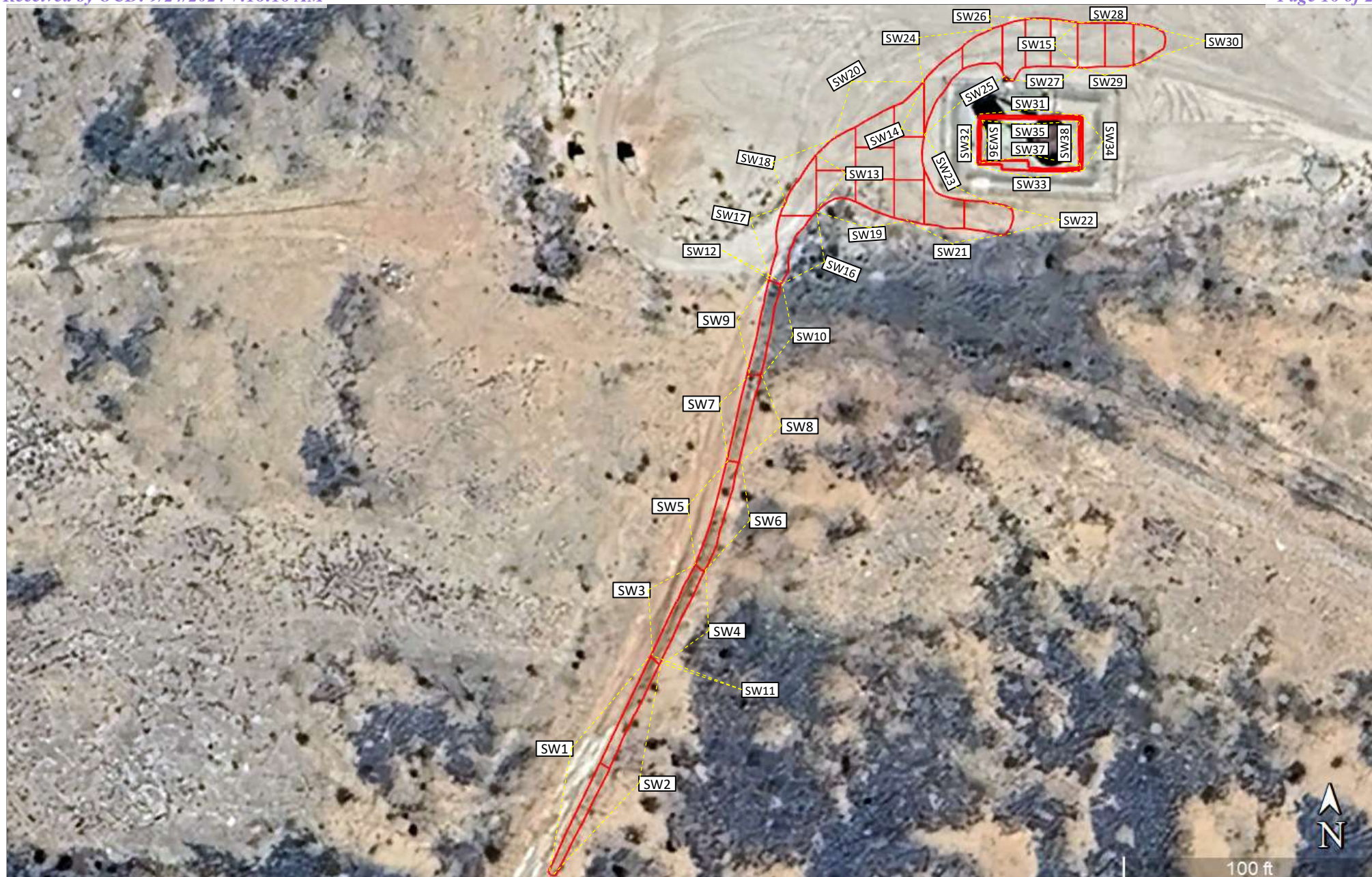
**Legend:**

- Excavation Area
- Composite Confirmation Sample 200 Square Foot Area
- FL1 Composite Confirmation Sample Location
- Insert Detail Depicting Closure Sample Locations

Drafted: dd  
 Checked: bw  
 Date: 8/8/24





**Figure 7**

Excavation Sidewall Sample Map  
 Murchison Oil & Gas  
 Maralo Federal Com #1  
 GPS: 32.8178253, -104.2728271  
 Eddy County

**Legend:**

- Excavation Area
- SW1 Composite Confirmation Sidewall Sample Location
- Sidewall Sample Boundary

Drafted: dd  
 Checked: bw  
 Date: 8/8/24



**Table**

**TABLE 1**  
**Summary of Soil Sample Laboratory Analytical Results**  
**Murchison Oil & Gas**  
**Maralo Federal Com #1**  
**NMOCD Ref. #: nAPP2202451213**

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
SSA-1	1/19/22	0-4	Excavated	<2.00	<b>310</b>	6,900	2,010	8,910	<10.0	<b>8,910</b>	48.0
	1/19/22	0-2	Excavated	0.124	<b>115</b>	3,220	1,010	4,230	<10.0	<b>4,230</b>	32.0
	1/19/22	2-4	Excavated	<0.050	16.0	217	317	534	<10.0	<b>534</b>	48.0
	1/19/22	4.2	Excavated	<1.00	<b>135</b>	2,230	776	3,006	<10.0	<b>3,006</b>	48.0
SSA-2	1/19/22	0-4	Excavated	<2.00	<b>70.6</b>	576	143	719	<10.0	<b>719</b>	224
	1/19/22	0-2	Excavated	2.17	<b>305</b>	2,640	271	2,911	<10.0	<b>2,911</b>	192
	1/19/22	2-4	Excavated	<0.050	3.32	14.1	16.8	30.9	<10.0	30.9	240
	1/19/22	4.2	Excavated	<0.050	17.0	133	125	258	<10.0	<b>258</b>	80.0
SSA-3	1/19/22	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
	1/19/22	4.2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
SSA-4	1/19/22	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	480
	1/19/22	4.2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	352
SSA-5	1/19/22	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>1,920</b>
	1/19/22	4.2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	448
SSA-6	1/19/22	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
	1/19/22	4.2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SSA-7	1/19/22	0-4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>608</b>
	1/19/22	4.2	Excavated	<0.050	0.996	<10.0	<10.0	<20.0	<10.0	<30.0	<b>848</b>
SSA-8	1/19/22	0-4	Excavated	<0.050	12.1	451	365	816	<10.0	<b>816</b>	32.0
	1/19/22	4.2	Excavated	<0.050	3.77	98.3	160	258.3	<10.0	<b>258.3</b>	64.0
SSA-9	1/19/22	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
	1/19/22	4.2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
SSA-10	1/19/22	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
	1/19/22	4.2	In-Situ	<0.050	<0.300	17.6	22.6	40.2	<10.0	40.2	256
Background	1/19/22	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
	1/19/22	4.2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>50</b>	-	-	<b>N/A</b>	-	<b>100</b>	<b>600</b>

**NOTES:**

- = Sample not analyzed for that constituent.

**Bold** text denotes a concentration that exceeds the NMOCD Closure Criteria



**TABLE 1**  
**Summary of Soil Sample Laboratory Analytical Results**  
**Murchison Oil & Gas**  
**Maralo Federal Com #1**  
**NMOCD Ref. #: nAPP2202451213**

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
SP1	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	90.2	90.2	<10.0	90.2	64.0
	6/6/24	4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SP2	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	13.1	<20.0	<10.0	<30.0	<b>1,880</b>
	6/6/24	4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SP3	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>4,160</b>
	6/6/24	4	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>656</b>
SP4	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>5,300</b>
	6/6/24	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416
SP5	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>1,540</b>
	6/6/24	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
SP6	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>2,080</b>
	6/6/24	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
SP7	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	2	Excavated	<0.050	<0.300	<10.0	119	119	<10.0	<b>119</b>	112
SP8	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	129	129	<10.0	<b>129</b>	112
	6/6/24	1	Excavated	<0.050	<0.300	<10.0	139	139	<10.0	<b>139</b>	48.0
SP9	6/6/24	Surf	Excavated	<0.050	<0.300	<10.0	124	124	<10.0	<b>124</b>	64.0
	6/6/24	1	Excavated	<0.050	<0.300	<10.0	20.5	20.5	<10.0	<30.0	208
SP10	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
HZ1	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ2	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ3	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
HZ4	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ5	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
HZ6	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
HZ7	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
HZ8	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
HZ9	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
HZ10	6/6/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	6/6/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>50</b>	-	-	<b>N/A</b>	-	<b>100</b>	<b>600</b>

**NOTES:**

- = Sample not analyzed for that constituent.

**Bold** text denotes a concentration that exceeds the NMOCD Closure Criteria

**TABLE 1**  
**Summary of Soil Sample Laboratory Analytical Results**  
**Murchison Oil & Gas**  
**Maralo Federal Com #1**  
**NMOCD Ref. #: nAPP2202451213**

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
FL1	8/9/24	4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL2	8/9/24	4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FL3	8/9/24	4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL4	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL5	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL6	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL7	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL8	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL9	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL10	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL11	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL12	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL13	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL14	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL15	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL16	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL17	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL18	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL19	8/9/24	3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL20	8/9/24	3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL21	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL22	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL23	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FL24	8/9/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL25	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL26	8/9/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FL27	8/9/24	4	Excavated	<0.050	24.5	603	375	978	<10.0	<b>978</b>	272
FL28	8/9/24	4	Excavated	<0.050	<0.300	32.8	191	223.8	<10.0	<b>223.8</b>	144
FL29	8/9/24	4	Excavated	<0.050	6.30	303	420	723	<10.0	<b>723</b>	336
FL30	8/9/24	4	Excavated	<0.050	<0.300	35.0	285	320	<10.0	<b>320</b>	288
FL31	8/9/24	4	Excavated	<0.050	2.17	96.5	128	224.5	<10.0	<b>224.5</b>	160
FL32	8/9/24	4	Excavated	<0.050	2.73	73.6	128	201.6	<10.0	<b>201.6</b>	208
FL33	8/9/24	4	Excavated	<0.050	1.94	195	515	710	<10.0	<b>710</b>	448
SW1	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW2	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW3	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW4	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW5	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW6	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW7	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>100</b>	<b>600</b>

**NOTES:**

- = Sample not analyzed for that constituent.

**Bold** text denotes a concentration that exceeds the NMOCD Closure Criteria



**TABLE 1**  
**Summary of Soil Sample Laboratory Analytical Results**  
**Murchison Oil & Gas**  
**Maralo Federal Com #1**  
**NMOCD Ref. #: nAPP2202451213**

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
SW8	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW9	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW10	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW11	8/9/24	1-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW12	8/9/24	2-3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW13	8/9/24	1-3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW14	8/9/24	1-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW15	8/9/24	2-4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW16	8/9/24	0-3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW17	8/9/24	0-3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW18	8/9/24	0-3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW19	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW20	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW21	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW22	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW23	8/9/24	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW24	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW25	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW26	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW27	8/9/24	0-2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
SW28	8/9/24	0-4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW29	8/9/24	0-4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW30	8/9/24	0-4.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW31	8/9/24	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SW32	8/9/24	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW33	8/9/24	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW34	8/9/24	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW35	8/9/24	0-4	In-Situ	<0.050	4.86	295	405	700	<10.0	<b>700</b>	96.0
SW36	8/9/24	0-4	In-Situ	<0.050	3.80	216	257	473	<10.0	<b>473</b>	144
SW37	8/9/24	0-4	In-Situ	<0.050	17.4	1,280	753	2,033	<10.0	<b>2,033</b>	112
SW38	8/9/24	0-4	In-Situ	<0.050	0.358	21.4	28.0	49.4	<10.0	49.4	256
Topsoil	8/12/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
Caliche	8/12/24	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
FL27b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL28b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
FL29b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL30b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL31b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL32b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL33b	8/27/24	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>100</b>	<b>600</b>

**NOTES:**

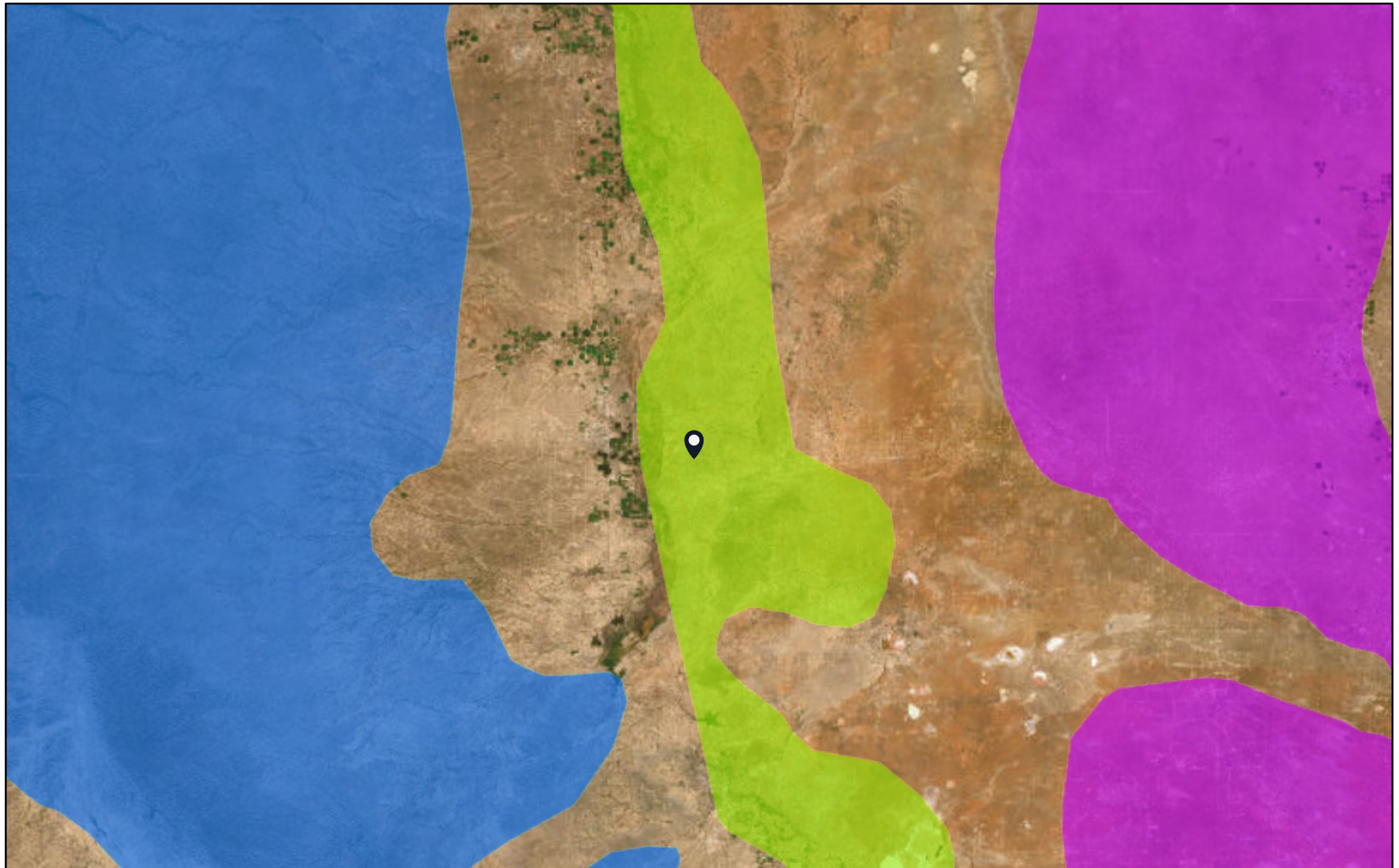
- = Sample not analyzed for that constituent.

**Bold** text denotes a concentration that exceeds the NMOCD Closure Criteria

## **Attachment I**

### **Karst, Wetland, and Soil Maps**

## Maralo Federal Com #1



4/16/2024

## Karst Type

- Carbonate
- Erosional
- Gypsum

■ Volcanic

World Imagery

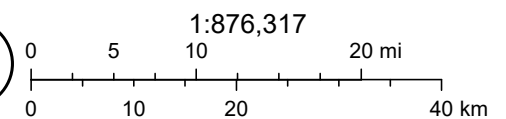
Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

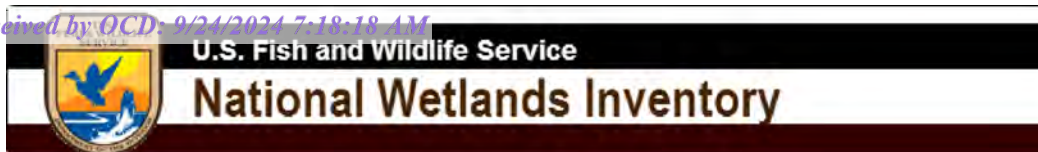
Citations

150m Resolution Metadata



U.S. Geological Survey Open-File Report 2004-1352, Caves and Karst in the  
U.S. National Park Service, AGI Karst Map of the US., Earthstar Geographics





## Maralo Federal Com #1



April 17, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Soil Map—Eddy Area, New Mexico  
(Maralo Federal Com #1)

32° 49' 38" N

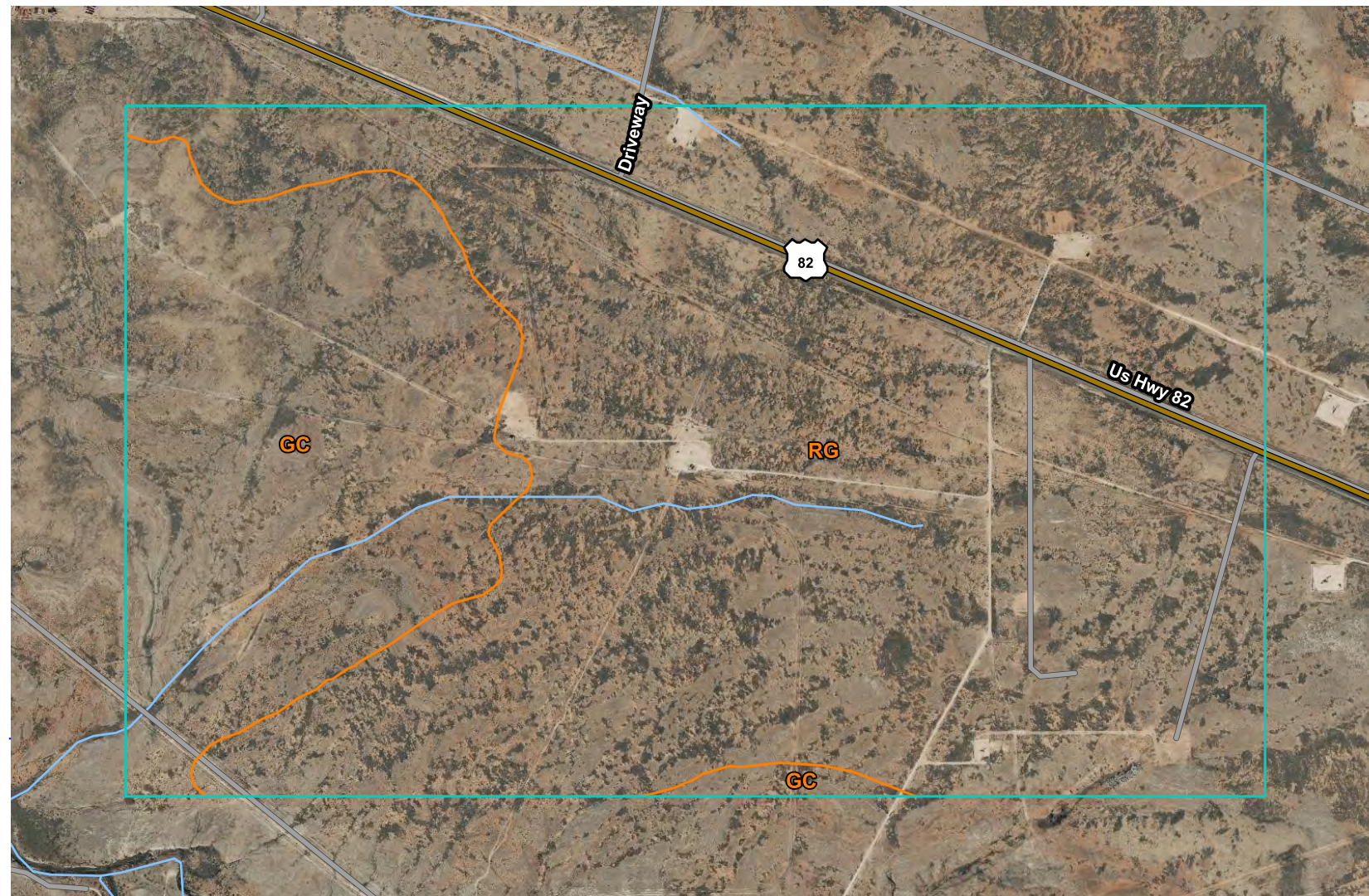
32° 49' 38" N

32° 48' 30" N

32° 48' 30" N

104° 17' 23" W

104° 15' 20" W

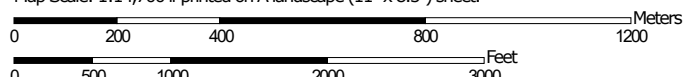


104° 17' 23" W

104° 15' 20" W



Map Scale: 1:14,700 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84

Natural Resources  
Conservation ServiceWeb Soil Survey  
National Cooperative Soil Survey4/17/2024  
Page 1 of 3

Soil Map—Eddy Area, New Mexico  
(Maralo Federal Com #1)

## 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 1:20,000.

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: Eddy Area, New Mexico

Survey Area Data: Version 19, 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
GC	Gypsum land-Cottonwood complex, 0 to 3 percent slopes	267.7	24.9%
RG	Reeves-Gypsum land complex, 0 to 3 percent slopes	806.1	75.1%
Totals for Area of Interest		1,073.9	100.0%



Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Maralo Federal Com #1

## Eddy Area, New Mexico

### RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 1w5f

*Elevation:* 1,250 to 5,000 feet

*Mean annual precipitation:* 10 to 25 inches

*Mean annual air temperature:* 57 to 70 degrees F

*Frost-free period:* 190 to 235 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Reeves and similar soils:* 55 percent

*Gypsum land:* 30 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Reeves

##### Setting

*Landform:* Ridges, plains, hills

*Landform position (two-dimensional):* Shoulder, backslope, footslope, toeslope

*Landform position (three-dimensional):* Side slope, head slope, nose slope, crest

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Residuum weathered from gypsum

##### Typical profile

*H1 - 0 to 8 inches:* loam

*H2 - 8 to 32 inches:* clay loam

*H3 - 32 to 60 inches:* gypsiferous material

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* High

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 25 percent

*Gypsum, maximum content:* 80 percent

*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 4.0

*Available water supply, 0 to 60 inches:* Low (about 4.3 inches)



Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Maralo Federal Com #1

### Interpretive groups

*Land capability classification (irrigated): 3s*

*Land capability classification (nonirrigated): 7s*

*Hydrologic Soil Group: B*

*Ecological site: R070BC007NM - Loamy*

*Hydric soil rating: No*

### Description of Gypsum Land

#### Setting

*Landform: Ridges, plains, hills*

*Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope*

*Landform position (three-dimensional): Side slope, head slope, nose slope, crest*

*Down-slope shape: Convex*

*Across-slope shape: Linear*

*Parent material: Residuum weathered from gypsum*

#### Interpretive groups

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 8s*

*Hydric soil rating: No*

### Minor Components

#### Reagan

*Percent of map unit: 5 percent*

*Ecological site: R070BC007NM - Loamy*

*Hydric soil rating: No*

#### Largo

*Percent of map unit: 5 percent*

*Ecological site: R070BC007NM - Loamy*

*Hydric soil rating: No*

#### Cottonwood

*Percent of map unit: 5 percent*

*Ecological site: R070BC033NM - Salty Bottomland*

*Hydric soil rating: No*

## Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 19, Sep 7, 2023

## **Attachment II**

### **NMOCD Correspondence**



**District I**

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

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

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

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

QUESTIONS

Action 370981

**QUESTIONS**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 370981
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2202451213
Incident Name	NAPP2202451213 MARALO FEDERAL COM #1 @ 30-015-22958
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-22958] MARALO FEDERAL COM #001

Location of Release Source	
Site Name	MARALO FEDERAL COM #1
Date Release Discovered	01/03/2022
Surface Owner	Federal

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,360
What is the estimated number of samples that will be gathered	71
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/09/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Hector Luna 720-586-1727
Please provide any information necessary for navigation to sampling site	32.817821, -104.272832

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 370981

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 370981
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
ccottrell	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.	8/6/2024

**District I**

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

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

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

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

QUESTIONS

Action 376597

**QUESTIONS**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 376597
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2202451213
Incident Name	NAPP2202451213 MARALO FEDERAL COM #1 @ 30-015-22958
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-22958] MARALO FEDERAL COM #001

Location of Release Source	
Site Name	MARALO FEDERAL COM #1
Date Release Discovered	01/03/2022
Surface Owner	Federal

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	160
What is the estimated number of samples that will be gathered	7
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/27/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Jerry Heidelberg 575-390-3639
Please provide any information necessary for navigation to sampling site	32.817821, -104.272832



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

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Action 376597

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 376597
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
ccottrell	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.	8/22/2024

**Daniel Dominguez**

---

**From:** Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>  
**Sent:** Wednesday, August 21, 2024 7:58 AM  
**To:** Cindy Cottrell  
**Cc:** Daniel Dominguez; Greg Boans; Rusty Cooper; Luke Pumphrey; Powell, Brandon, EMNRD; Moander, Chris, EMNRD; Romero, Rosa, EMNRD; Smith, Cory, EMNRD; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Maralo Federal Com #1 (nAPP2202451213) Extension Request

Cindy,

The 30-day extension request is approved. The remediation closure report is due by 9/23/2024. Please ensure that the C-141N is completed at least 2 business days prior to collecting any additional confirmation/final samples pursuant to 19.15.29.12 D.(1)(a) NMAC.

Please include a copy of this correspondence in the remediation closure report.

Thank you,

**Brittany Hall** ● Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.517.5333 | [Brittany.Hall@emnrd.nm.gov](mailto:Brittany.Hall@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

---

**From:** Cindy Cottrell <ccottrell@jdmii.com>  
**Sent:** Tuesday, August 20, 2024 2:49 PM  
**To:** Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>  
**Cc:** Daniel Dominguez <ddominguez@hungry-horse.com>; Greg Boans <gboans@jdmii.com>; Rusty Cooper <rcooper@jdmii.com>; Luke Pumphrey <lpumphrey@jdmii.com>  
**Subject:** [EXTERNAL] Maralo Federal Com #1 (nAPP2202451213) Extension Request

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

Good afternoon,

We need to request a 30-day extension for the Maralo closure report due on 8/23/24 because some of the floor samples from the closure sampling on August 9, 2024 did not meet closure criteria. Additional excavation inside the battery will be required to complete the remediation. New closure samples will also need to be obtained following the excavation. Please let me know if you need any additional details.

Thank you for your consideration.

Cindy Cottrell

Regulatory Coordinator & Corporate Secretary

7250 Dallas Parkway, Suite 1400

Plano, TX 75024

Direct Line: 469-573-6413



## **Attachment III**

### **Depth to Groundwater**



New Mexico Office of the State Engineer  
Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 568069.48      Northing (Y): 3631325.45      Radius: 805

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

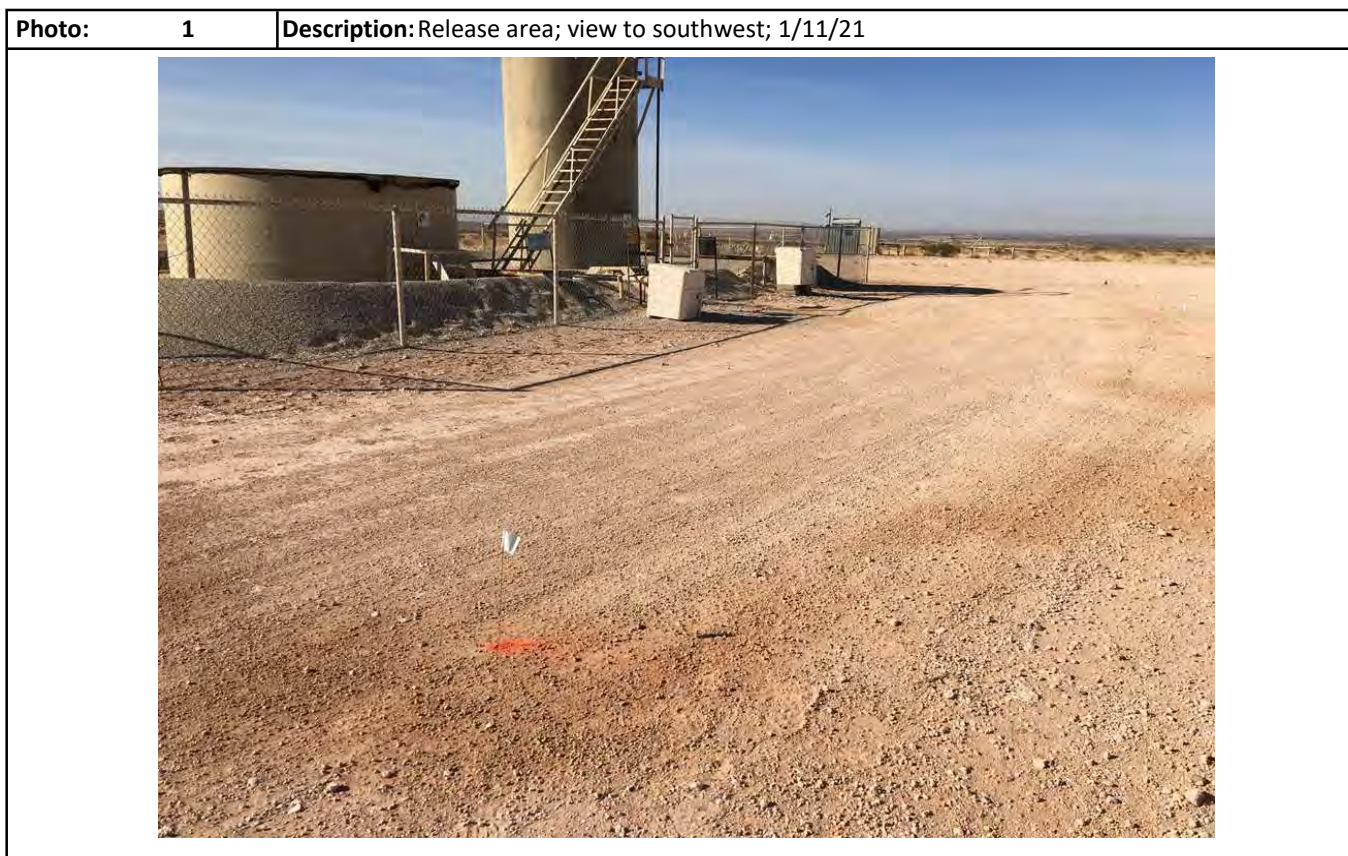
4/17/24 8:07 AM

WELLS WITH WELL LOG INFORMATION

## **Attachment IV Site Photographs**



## Photographs





## Photographs





Photographs





Photographs





## Photographs



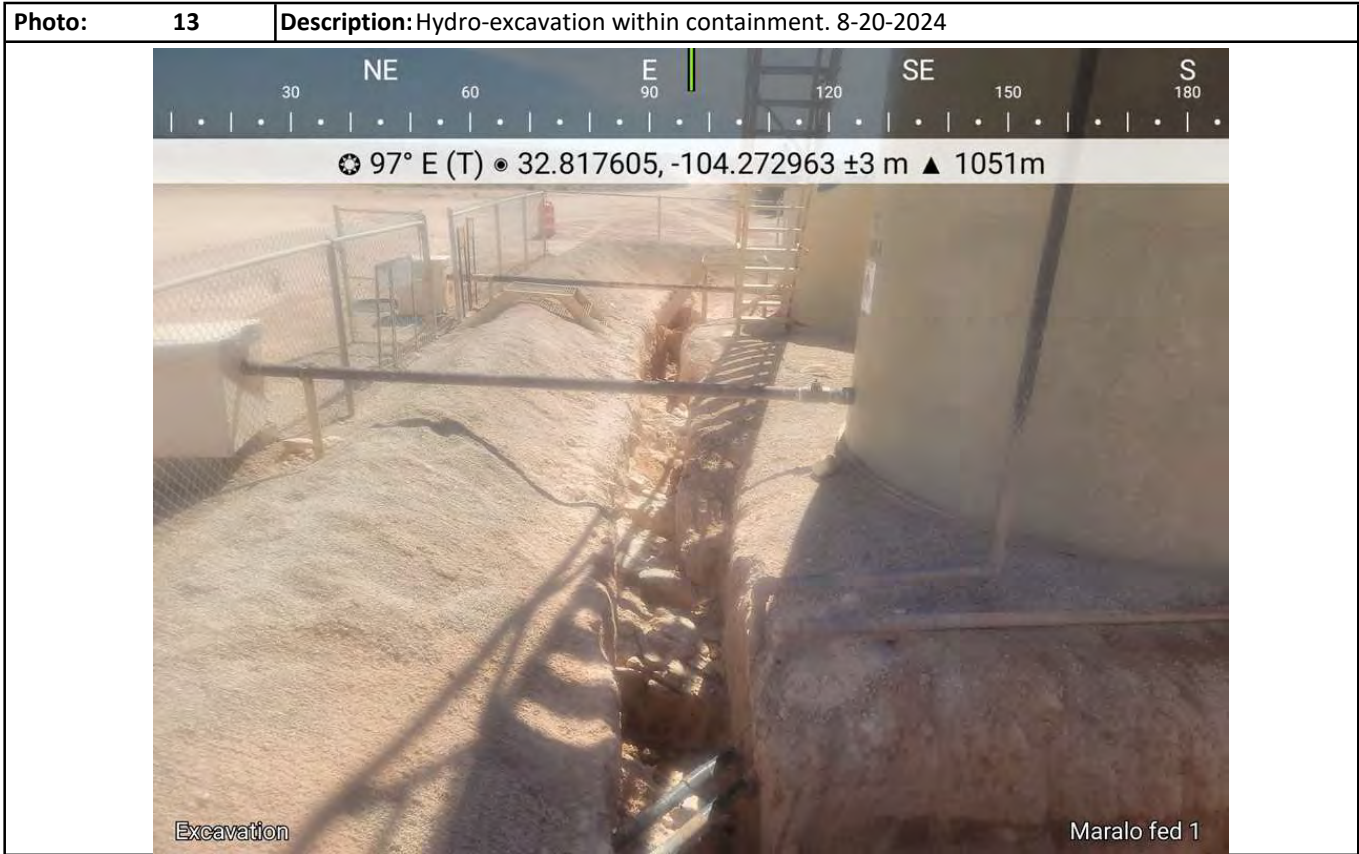


Photographs



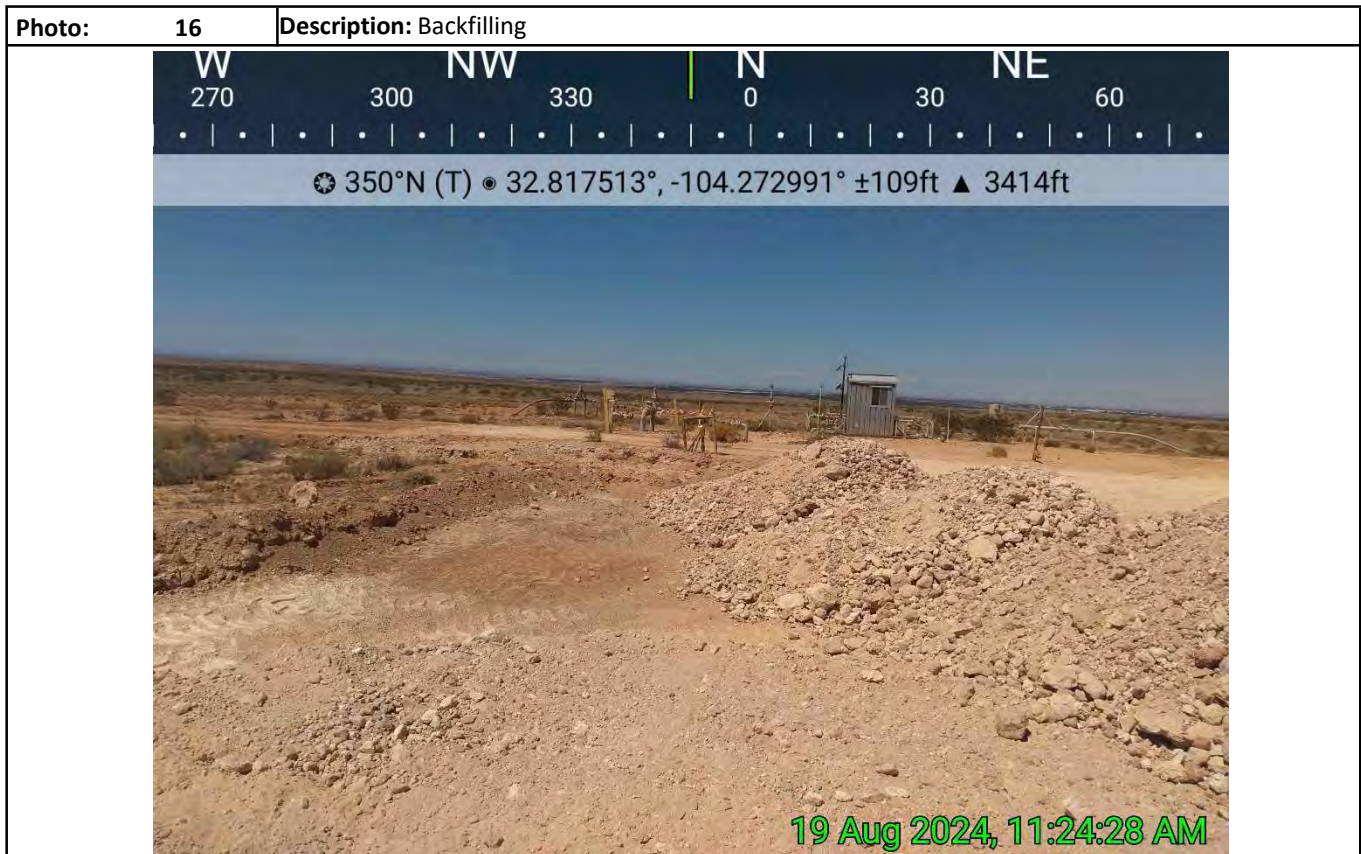


Photographs



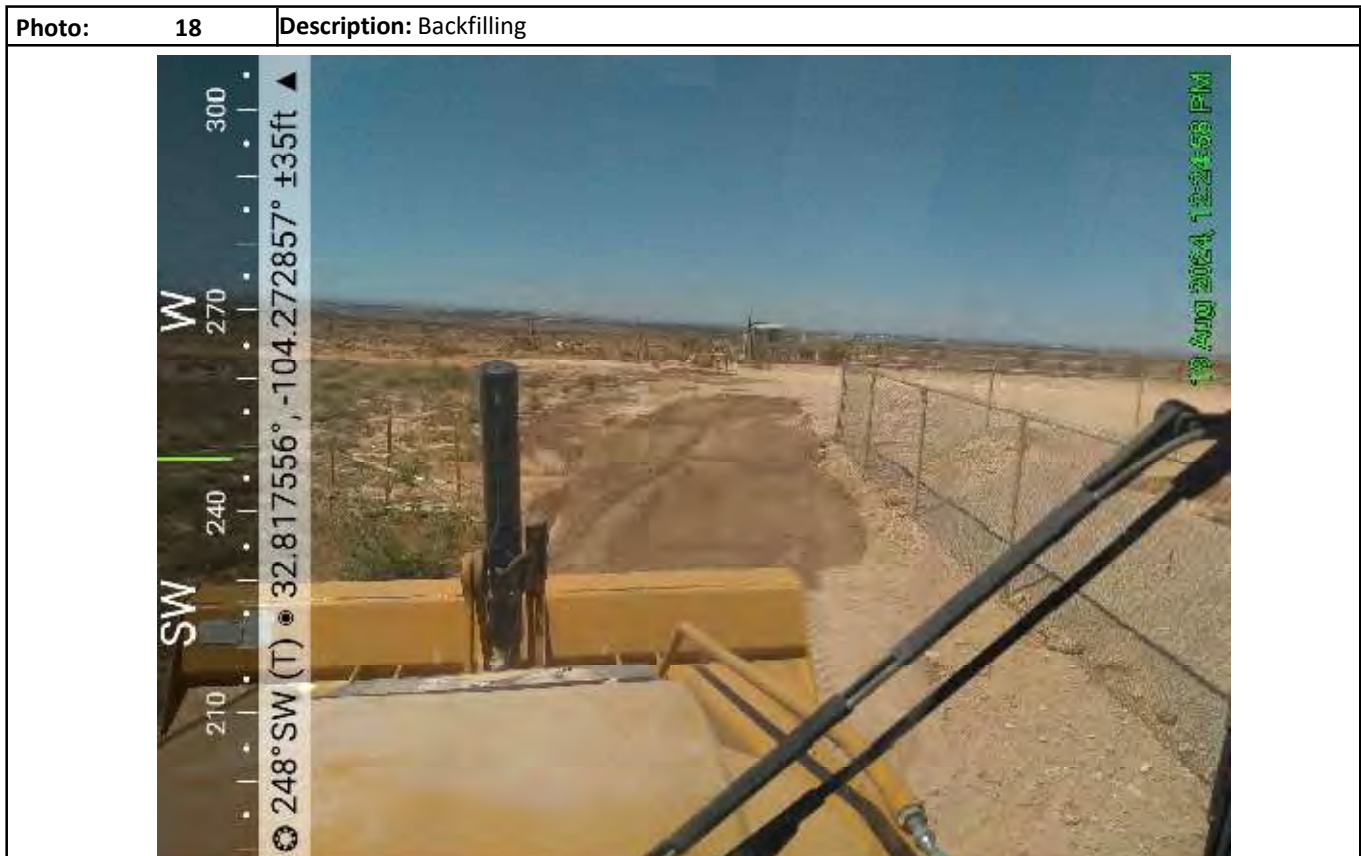


Photographs



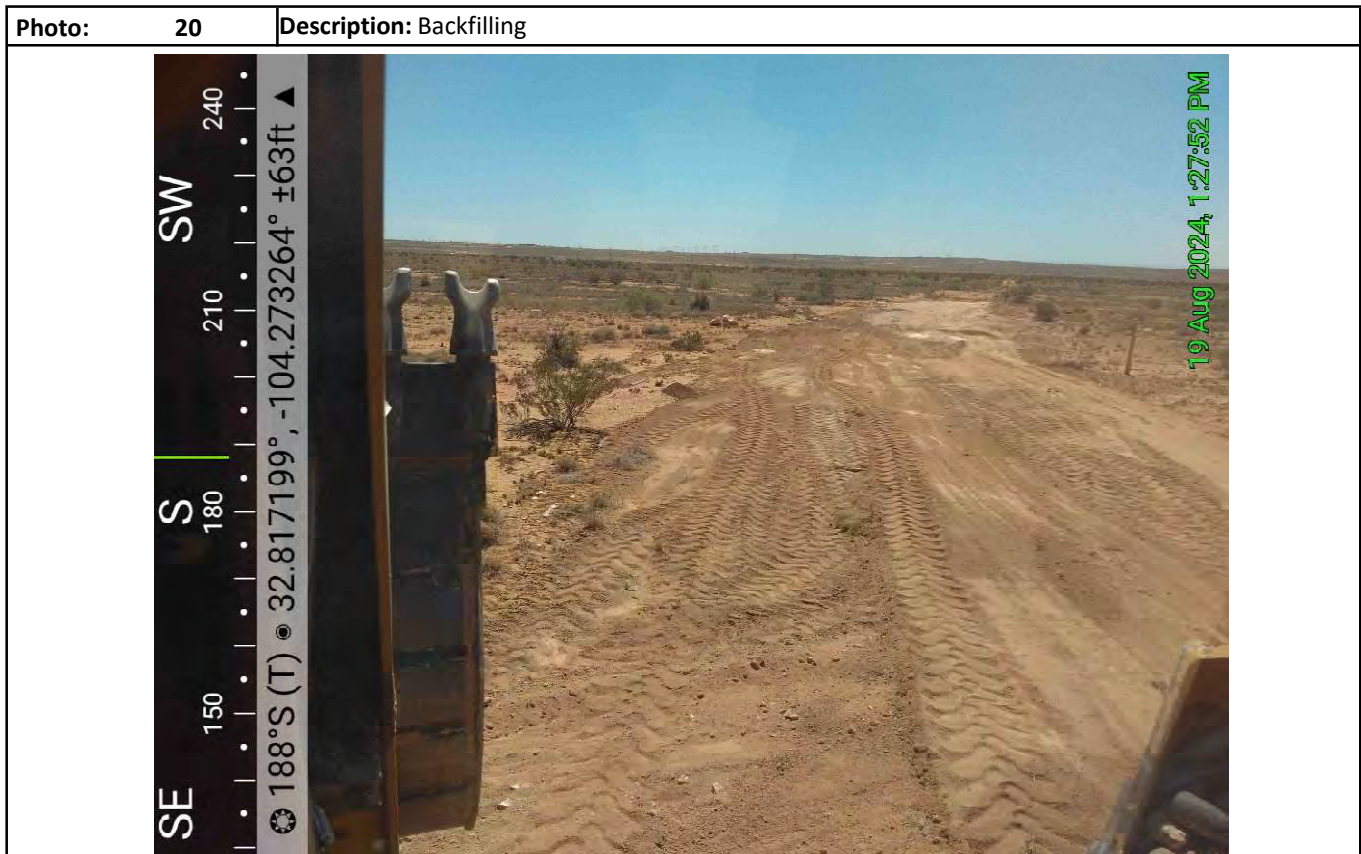


Photographs





Photographs





## Photographs



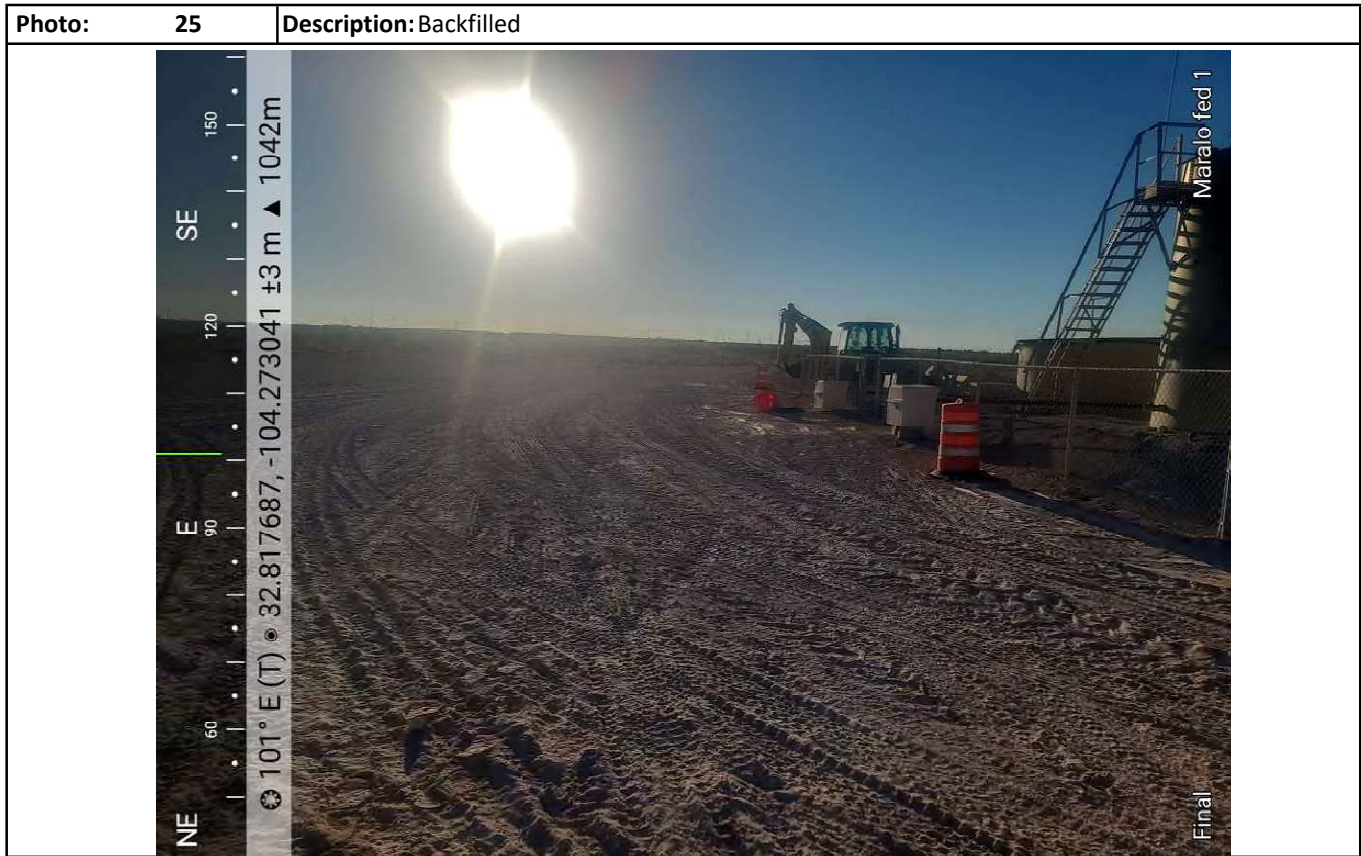


Photographs



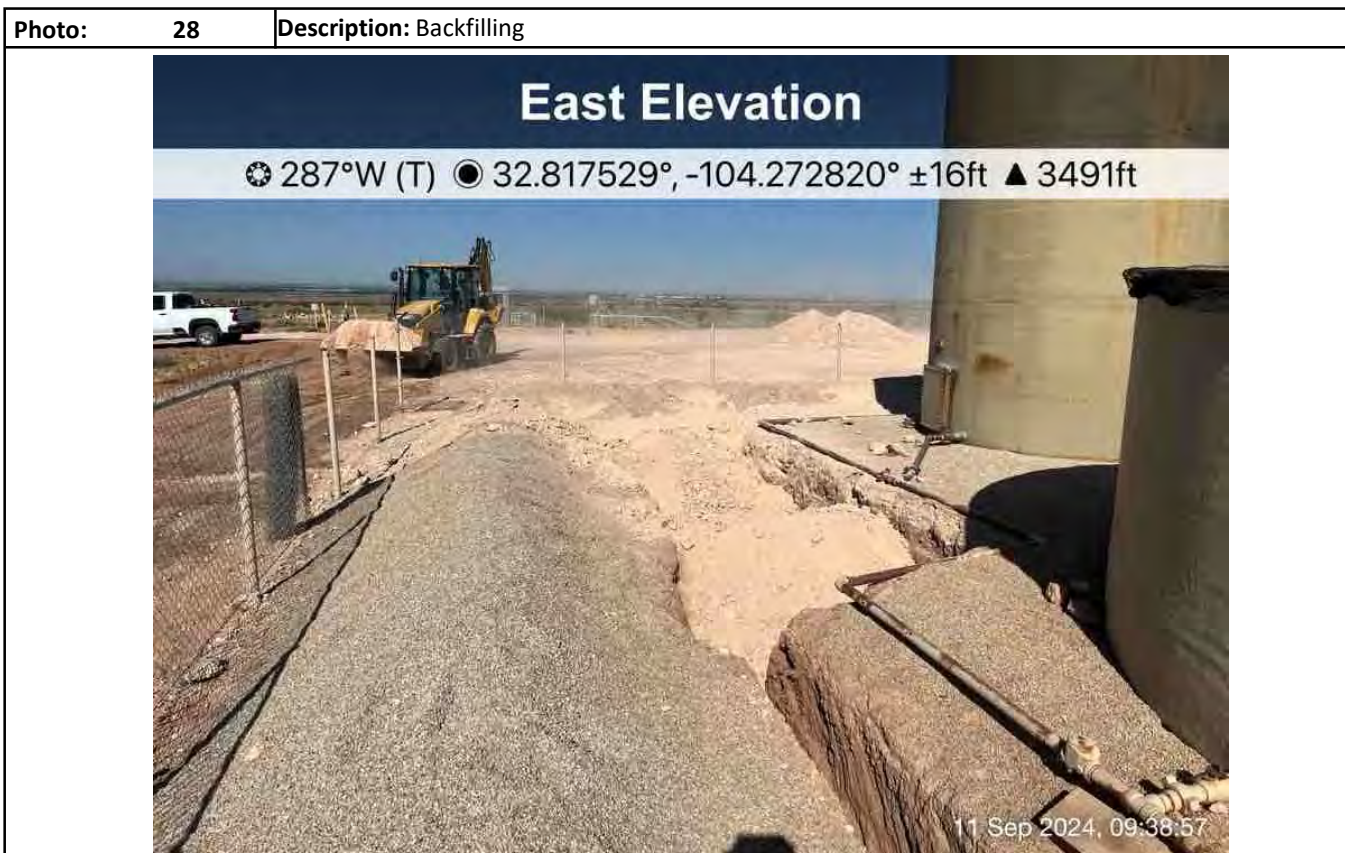


Photographs





## Photographs





## Photographs





## Photographs



## **Attachment V**

### **Field Data**



## Sample Log

Hungry Horse, LLC

Project: Marais Federal Com #1

Karst Yes Water &lt;50'

Standard TPH 100mg/kg, Chloride 600mg/kg

Date: 6-6-24

GPS: 32.8178253, -104.2728271

Sampler: Jerry Heidelberg

Sample ID	Depth	PID/Odor	Chloride	GPS
HZ1	Surf		2.00 49X4=196	
	1'		1.80 43X4=172	
HZ2	Surf		2.20 57X4=228	
	1'		2.00 49X4=196	
HZ3	Surf		2.40 65X4=260	
	1'		1.60 36X4=144	
HZ4	Surf		2.60 73X4=292	
	1'		2.00 49X4=196	
HZ5	Surf		2.00 49X4=196	
	1'		1.80 43X4=172	
HZ6	Surf		1.80 43X4=172	
	1'		2.00 49X4=196	
HZ7	Surf		2.40 65X4=260	
	1'		1.80 43X4=172	
HZ8	Surf		2.60 73X4=292	
	1'		2.20 57X4=228	
HZ9	Surf		2.80 83X4=332	
	1'		2.40 65X4=260	
HZ10	Surf		2.60 73X4=292	
HZ10	1'		1.80 43X4=172	
SP1	Surf	Yes	2.80 83X4=332	
	1'	Yes	1.80 43X4=172	
	2'	Yes	2.60 73X4=292	
	3'	Yes	2.00 49X4=196	
	4'	NO	2.00 49X4=196	
SP2	Surf	Yes	2.60 73X4=292	
	1'	Yes	2.40 65X4=260	
	2'	Yes	2.00 49X4=196	
	3'	NO	1.80 43X4=172	
	4'	NO	1.60 36X4=144	
SP3	Surf	NO	6.00 142X4=5704	
	1'	NO	5.20 125X4=980	
	2'	NO	6.00 322X4=1312	
	3'	NO	4.80 115X4=848	
	4'	NO	3.60 95X4=560	

Sample Point = SP1 @ ## etc

Floor = FL1 etc

Sidewall = SW1 etc

Horizontal = HZ1 etc

Refusal = SP1 @ 4'-R

GPS Sample Points, Center of Comp Areas

Test Trench = TT1 @ ##

Resamples = SP1b @ 5' or SW #1b

Stockpile = Stockpile #1



## Sample Log

Hungry Horse, LLC

Project: Maralo Federal Com #1

Karst Yes Water &lt;50'

Standard TPH 100mg/kg, Chloride 600mg/kg

Date:

GPS: 32.8178253, -104.2728271

Sampler: Jerry Heidelberg

Sample ID	Depth	PID/Odor	Chloride	GPS
SP4	Surf	Little	5.8H@1322X4= 5.288	
	1'	NO	4.2@165X4= 660	
	2'	NO	3.0@92X4= 368	
	3'			
	4'			
SP5	Surf	NO	6.4@371X4= 1.508	
	1'	NO	2.6@73X4= 292	
	2'			
	3'			
	4'			
SP6	Surf	NO	6.8@433X4= 1.732	
	1'	NO	2.8@83X4= 332	
	2'			
	3'			
	4'			
SP7	Surf	NO	1.0>100	
	1'	NO	2.8@83X4= 332	
	2'	NO	2.8@83X4= 332	
	3'			
	4'			
SP8	Surf	NO	1.6@36X4= 144	
	1'		2.6@73X4= 292	
	2'			
	3'			
	4'			
SP9	Surf	NO	1.2>100	
	1'	NO	1.8@43X4= 172	
	2'			
	3'			
	4'			
SP10	Surf	NO	2.0@49X4=	
	1'	NO	1.8@43X4= 172	
	2'			
	3'			
	4'			

Sample Point = SP1 @ ## etc

Floor = FL1 etc

Sidewall = SW1 etc

Horizontal = HZ1 etc

Refusal = SP1 @ 4'-R

GPS Sample Points, Center of Comp Areas

Test Trench = TT1 @ ##

Resamples= SP1b @ 5' or SW #1b

Stockpile = Stockpile #1

## **Attachment VI**

### **Laboratory Analytical Results**





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

January 31, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MARALO FED #1 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 01/27/22 9:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 01/31/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 1 @ 0-4' BGS (H220316-01)**

BTEX 8021B		mg/kg	Analyzed By: MS/					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	01/29/2022	ND	2.03	102	2.00	2.58	
<b>Toluene*</b>	<b>25.3</b>	2.00	01/29/2022	ND	1.96	97.9	2.00	0.624	GC-NC1
<b>Ethylbenzene*</b>	<b>29.3</b>	2.00	01/29/2022	ND	1.96	98.0	2.00	1.09	
<b>Total Xylenes*</b>	<b>255</b>	6.00	01/29/2022	ND	5.97	99.5	6.00	0.350	
<b>Total BTEX</b>	<b>310</b>	12.0	01/29/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 159 % 69.9-140

Chloride, SM4500Cl-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	01/28/2022	ND	400	100	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>6900</b>	10.0	01/28/2022	ND	201	100	200	1.03	
<b>DRO &gt;C10-C28*</b>	<b>2010</b>	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 376 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.8 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 2 @ 0-4' BGS (H220316-02)**

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/29/2022	ND	2.03	102	2.00	2.58	
Toluene*	10.8	0.200	01/29/2022	ND	1.96	97.9	2.00	0.624	GC-NC1
Ethylbenzene*	6.92	0.200	01/29/2022	ND	1.96	98.0	2.00	1.09	
Total Xylenes*	52.9	0.600	01/29/2022	ND	5.97	99.5	6.00	0.350	
Total BTEX	70.6	1.20	01/29/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 193 % 69.9-140

Chloride, SM4500Cl-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	01/28/2022	ND	400	100	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	576	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	143	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 102 % 66.9-136

Surrogate: 1-Chlorooctadecane 82.5 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 3 @ 0-4' BGS (H220316-03)**

BTEx 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2022	ND	2.03	102	2.00	2.58	
Toluene*	<0.050	0.050	01/28/2022	ND	1.96	97.9	2.00	0.624	
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.96	98.0	2.00	1.09	
<b>Total Xylenes*</b>	<b>0.226</b>	0.150	01/28/2022	ND	5.97	99.5	6.00	0.350	
Total BTEX	<0.300	0.300	01/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 95.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.0 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 01/31/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 4 @ 0-4' BGS (H220316-04)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/28/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 95.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 5 @ 0-4' BGS (H220316-05)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1920	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 97.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.4 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 6 @ 0-4' BGS (H220316-06)**

BTX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350		
Total BTX	<0.300	0.300	01/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 114 % 66.9-136

Surrogate: 1-Chlorooctadecane 113 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 7 @ 0-4' BGS (H220316-07)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 92.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 01/31/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 8 @ 0-4' BGS (H220316-08)**

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58	
Toluene*	0.602	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624	GC-NC1
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09	
Total Xylenes*	11.5	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350	
Total BTEX	12.1	0.300	01/29/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 379 % 69.9-140

Chloride, SM4500Cl-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	01/28/2022	ND	400	100	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>451</b>	10.0	01/28/2022	ND	201	100	200	1.03	
<b>DRO &gt;C10-C28*</b>	<b>365</b>	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 133 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.0 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 01/31/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 9 @ 0-4' BGS (H220316-09)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 89.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 01/31/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 10 @ 0-4' BGS (H220316-10)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/29/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/29/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/29/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/29/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/29/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 87.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 85.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager

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

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326





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---

February 15, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MARALO FED #1 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/14/22 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received:	02/14/2022	Sampling Date:	01/19/2022
Reported:	02/15/2022	Sampling Type:	Soil
Project Name:	MARALO FED #1 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MURCHISON- EDDY CO.		

**Sample ID: SSA - 1 @ 0-2' (H220562-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2022	ND	432	108	400	0.00	

**Sample ID: SSA - 1 @ 2-4' (H220562-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/15/2022	ND	432	108	400	0.00	

**Sample ID: SSA - 2 @ 0-2' (H220562-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/15/2022	ND	432	108	400	0.00	

**Sample ID: SSA - 2 @ 2-4' (H220562-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/15/2022	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

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

---

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

---

Celey D. Keene, Lab Director/Quality Manager





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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>RT Hicks Consultants</b> Project Manager: <b>Kristin Pope</b> Address: <b>901 Rio Grande Blvd NW, Suite F-142</b> City: <b>Albuquerque</b> State: <b>NM</b> Zip: <b>87104</b> Phone #: <b>505-302-6755</b> Fax #: Project #: Project Owner: <b>Murchison</b> Project Name: <b>Maralo Fed #1 Release</b> Project Location: <b>Eddy Co.</b> Sampler Name: <b>Kristin Pope</b>				<b>BILL TO</b> P.O. #: Company: <b>RT Hicks</b> Attn: <b>Randy</b> Address: City: State: Zip: Phone #: <b>505-266-5004</b> Fax #:				<b>ANALYSIS REQUEST</b>																		
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING		Chloride														
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL													OTHER :	DATE	TIME
<b>H220562</b>																										
1	SSA-1 @ 0-2 ft	G	1			X					X														11-9-22	1225
2	SSA-1 @ 2-4 ft	G	1			X					X														}	1230
3	SSA-2 @ 0-2 ft	G	1			X					X		1238													
4	SSA-2 @ 2-4 ft	G	1			X					X		1246													
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claims, injuries or damages shall be limited to the amount paid by client for the analysis of the sample.																										

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Relinquished By: <i>Kristin Pope</i>		Date: <i>2/14/22</i>		Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <i>9:41</i>		Time: <i>9:41</i>				All Results are emailed. Please provide Email address:	
Relinquished By:		Date: <i>2-14-22</i>		Received By: <i>[Signature]</i>		REMARKS: <i>kristin@rthicksconsult.com</i>	
Time: <i>11:05</i>		Time: <i>11:05</i>					
Delivered By: (Circle One)		Observed Temp. °C <i>3.3</i>		Sample Condition		CHECKED BY:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <i>2.8</i>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		(Initials) <i>TO</i>	
FORM-006 R 3.0						Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
						Thermometer ID # <i>97-113</i>	
						Correction Factor <i>+0.4°C</i> <i>TO</i>	
						Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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

February 16, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MARALO FED #1 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/14/22 11:05.

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 02/14/2022  
Reported: 02/16/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 1 @ 0-2' (H220563-01)**

BTEx 8021B		mg/kg		Analyzed By: MS				I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.124	0.050	02/15/2022	ND	1.84	92.0	2.00	7.59	
Toluene*	7.91	0.050	02/15/2022	ND	1.85	92.4	2.00	8.24	GC-NC1
Ethylbenzene*	<0.050	0.050	02/15/2022	ND	1.85	92.6	2.00	9.92	
Total Xylenes*	107	0.150	02/15/2022	ND	5.73	95.5	6.00	10.3	GC-NC1
Total BTEX	115	0.300	02/15/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 762 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: CK				I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	3220	10.0	02/15/2022	ND	208	104	200	0.994	
DRO >C10-C28*	1010	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	<10.0	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 263 % 66.9-136

Surrogate: 1-Chlorooctadecane 140 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 02/14/2022  
Reported: 02/16/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 1 @ 2-4' (H220563-02)**

BTEx 8021B		mg/kg	Analyzed By: MS					I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2022	ND	1.84	92.0	2.00	7.59	
<b>Toluene*</b>	<b>0.993</b>	0.050	02/15/2022	ND	1.85	92.4	2.00	8.24	GC-NC1
Ethylbenzene*	<0.050	0.050	02/15/2022	ND	1.85	92.6	2.00	9.92	
<b>Total Xylenes*</b>	<b>15.0</b>	0.150	02/15/2022	ND	5.73	95.5	6.00	10.3	GC-NC1
<b>Total BTEx</b>	<b>16.0</b>	0.300	02/15/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 407 % 69.9-140

TPH 8015M		mg/kg	Analyzed By: CK					I-02	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>217</b>	10.0	02/15/2022	ND	208	104	200	0.994	
<b>DRO &gt;C10-C28*</b>	<b>317</b>	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	<10.0	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 132 % 66.9-136

Surrogate: 1-Chlorooctadecane 128 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 02/14/2022  
Reported: 02/16/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 2 @ 0-2' (H220563-03)**

BTEx 8021B		mg/kg	Analyzed By: MS					I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.17</b>	0.050	02/15/2022	ND	1.84	92.0	2.00	7.59	
<b>Toluene*</b>	<b>63.3</b>	1.00	02/16/2022	ND	1.85	92.4	2.00	8.24	GC-NC1
<b>Ethylbenzene*</b>	<b>27.1</b>	1.00	02/16/2022	ND	1.85	92.6	2.00	9.92	GC-NC1
<b>Total Xylenes*</b>	<b>212</b>	0.150	02/15/2022	ND	5.73	95.5	6.00	10.3	GC-NC1
<b>Total BTEX</b>	<b>305</b>	0.300	02/15/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 533 % 69.9-140

TPH 8015M		mg/kg	Analyzed By: CK					I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>2640</b>	10.0	02/15/2022	ND	208	104	200	0.994	
<b>DRO &gt;C10-C28*</b>	<b>271</b>	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	<10.0	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 164 % 66.9-136

Surrogate: 1-Chlorooctadecane 130 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 02/14/2022  
Reported: 02/16/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 2 @ 2-4' (H220563-04)**

BTEx 8021B		mg/kg	Analyzed By: MS					I-02, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/15/2022	ND	1.84	92.0	2.00	7.59	
<b>Toluene*</b>	<b>0.275</b>	0.050	02/15/2022	ND	1.85	92.4	2.00	8.24	GC-NC1
Ethylbenzene*	<0.050	0.050	02/15/2022	ND	1.85	92.6	2.00	9.92	
<b>Total Xylenes*</b>	<b>3.04</b>	0.150	02/15/2022	ND	5.73	95.5	6.00	10.3	GC-NC1
<b>Total BTEX</b>	<b>3.32</b>	0.300	02/15/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 160 % 69.9-140

TPH 8015M		mg/kg	Analyzed By: CK					I-02	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>14.1</b>	10.0	02/15/2022	ND	208	104	200	0.994	
<b>DRO &gt;C10-C28*</b>	<b>16.8</b>	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	<10.0	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 106 % 66.9-136

Surrogate: 1-Chlorooctadecane 119 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
I-02	This result was analyzed outside of the EPA recommended holding time.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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

Celey D. Keene, Lab Director/Quality Manager



**CARDINAL**  
Laboratories

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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 7 of 7

[illegible]



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

February 01, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MARALO FED #1 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 01/27/22 9:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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Method EPA 524.2	Total Trihalomethanes (TTHM)
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Sincerely,

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Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 02/01/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 1 @ 4.2' BGS (H220315-01)**

BTEX 8021B	mg/kg		Analyzed By: MS/					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	01/27/2022	ND	2.03	102	2.00	4.81	
<b>Toluene*</b>	<b>8.21</b>	1.00	01/27/2022	ND	1.97	98.3	2.00	4.83	GC-NC1
<b>Ethylbenzene*</b>	<b>13.5</b>	1.00	01/27/2022	ND	1.94	97.1	2.00	5.07	GC-NC1
<b>Total Xylenes*</b>	<b>113</b>	3.00	01/27/2022	ND	5.87	97.8	6.00	5.36	GC-NC1
<b>Total BTEX</b>	<b>135</b>	6.00	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 162 % 69.9-140

Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	01/28/2022	ND	432	108	400	3.77	

TPH 8015M	mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>2230</b>	10.0	01/28/2022	ND	213	106	200	6.98	
<b>DRO &gt;C10-C28*</b>	<b>776</b>	10.0	01/28/2022	ND	210	105	200	8.92	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 351 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.3 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 2 @ 4.2' BGS (H220315-02)**

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	4.81	
Toluene*	1.39	0.050	01/27/2022	ND	1.97	98.3	2.00	4.83	GC-NC1
Ethylbenzene*	1.54	0.050	01/27/2022	ND	1.94	97.1	2.00	5.07	GC-NC1
Total Xylenes*	14.1	0.150	01/27/2022	ND	5.87	97.8	6.00	5.36	GC-NC1
Total BTEX	17.0	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 285 % 69.9-140

Chloride, SM4500Cl-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/28/2022	ND	432	108	400	3.77	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	133	10.0	01/28/2022	ND	213	106	200	6.98	
DRO >C10-C28*	125	10.0	01/28/2022	ND	210	105	200	8.92	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 125 % 66.9-136

Surrogate: 1-Chlorooctadecane 100 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 3 @ 4.2' BGS (H220315-03)**

BTEx 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	4.81	
Toluene*	<0.050	0.050	01/27/2022	ND	1.97	98.3	2.00	4.83	
Ethylbenzene*	<0.050	0.050	01/27/2022	ND	1.94	97.1	2.00	5.07	
Total Xylenes*	<0.150	0.150	01/27/2022	ND	5.87	97.8	6.00	5.36	
Total BTEx	<0.300	0.300	01/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/28/2022	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	213	106	200	6.98	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	210	105	200	8.92	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 93.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.4 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

R T HICKS CONSULTANTS  
 KRISTIN POPE  
 901 RIO GRANDE BLVD SUITE F-142  
 ALBUQUERQUE NM, 87104  
 Fax To: NONE

Received: 01/27/2022  
 Reported: 02/01/2022  
 Project Name: MARALO FED #1 RELEASE  
 Project Number: NONE GIVEN  
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SSA - 4 @ 4.2' BGS (H220315-04)**

BTEx 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	4.81		
Toluene*	<0.050	0.050	01/27/2022	ND	1.97	98.3	2.00	4.83		
Ethylbenzene*	<0.050	0.050	01/27/2022	ND	1.94	97.1	2.00	5.07		
Total Xylenes*	<0.150	0.150	01/27/2022	ND	5.87	97.8	6.00	5.36		
Total BTEx	<0.300	0.300	01/27/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	01/28/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	<10.0	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 96.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 5 @ 4.2' BGS (H220315-05)**

BTX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19		
Total BTX	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	01/28/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	<10.0	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 102 % 66.9-136

Surrogate: 1-Chlorooctadecane 93.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 6 @ 4.2' BGS (H220315-06)**

BTEx 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19		
Total BTEx	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/28/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	<10.0	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 90.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 7 @ 4.2' BGS (H220315-07)**

BTX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17	
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39	
Ethylbenzene*	0.072	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20	GC-NC1
Total Xylenes*	0.924	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19	GC-NC1
Total BTX	0.996	0.300	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 117 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	01/28/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	<10.0	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 98.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 8 @ 4.2' BGS (H220315-08)**

BTEx 8021B		mg/kg		Analyzed By: MS/					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	0.124	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39	GC-NC1	
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	3.64	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19	GC-NC1	
Total BTEX	3.77	0.300	01/28/2022	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 207 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: GM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	01/28/2022	ND	432	108	400	3.77	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>98.3</b>	10.0	01/31/2022	ND	187	93.7	200	3.96	
<b>DRO &gt;C10-C28*</b>	<b>160</b>	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 119 % 66.9-136

Surrogate: 1-Chlorooctadecane 100 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 9 @ 4.2' BGS (H220315-09)**

BTEx 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19		
Total BTEx	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/28/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	<10.0	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 93.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 88.5 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SSA - 10 @ 4.2' BGS (H220315-10)**

BTEx 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19		
Total BTEx	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/28/2022	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	17.6	10.0	01/31/2022	ND	187	93.7	200	3.96	
DRO >C10-C28*	22.6	10.0	01/31/2022	ND	217	108	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	01/31/2022	ND					

Surrogate: 1-Chlorooctane 90.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BACKGROUND @ 0-4' BGS (H220315-11)**

BTEx 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	1.97	98.7	2.00	3.17		
Toluene*	<0.050	0.050	01/28/2022	ND	1.89	94.5	2.00	3.39		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.90	95.2	2.00	4.20		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.77	96.1	6.00	4.19		
Total BTEX	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 103 % 66.9-136

Surrogate: 1-Chlorooctadecane 104 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

R T HICKS CONSULTANTS  
KRISTIN POPE  
901 RIO GRANDE BLVD SUITE F-142  
ALBUQUERQUE NM, 87104  
Fax To: NONE

Received: 01/27/2022  
Reported: 02/01/2022  
Project Name: MARALO FED #1 RELEASE  
Project Number: NONE GIVEN  
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BACKGROUND @ 4.2' BGS (H220315-12)**

BTEX 8021B		mg/kg		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2022	ND	2.03	102	2.00	2.58		
Toluene*	<0.050	0.050	01/28/2022	ND	1.96	97.9	2.00	0.624		
Ethylbenzene*	<0.050	0.050	01/28/2022	ND	1.96	98.0	2.00	1.09		
Total Xylenes*	<0.150	0.150	01/28/2022	ND	5.97	99.5	6.00	0.350		
Total BTEX	<0.300	0.300	01/28/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/28/2022	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/28/2022	ND	201	100	200	1.03	
DRO >C10-C28*	<10.0	10.0	01/28/2022	ND	207	103	200	3.51	
EXT DRO >C28-C36	<10.0	10.0	01/28/2022	ND					

Surrogate: 1-Chlorooctane 91.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



**CARDINAL**  
Laboratories

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 15 of 16

<b>Company Name:</b> R.T. Hicks Consultants <b>Project Manager:</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
<b>Address:</b> 901 Rio Grande Blvd NW, Suite F-142 <b>City:</b> Albuquerque <b>State:</b> NM <b>Zip:</b> 87104 <b>Phone #:</b> 505-266-5004 <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> Murchison <b>Project Name:</b> Maralo Fed #1 release <b>Project Location:</b> Eddy County <b>Sampler Name:</b> Kristin Pope				<b>P.O. #:</b> <b>Company:</b> R.T. Hicks Consultants <b>Attn:</b> Randy Hicks <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>																	
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		(GRAB OR C/COMP. # CONTAINERS)		MATRIX		PRESERV.		SAMPLING											
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :													
										DATE      TIME											
H220315										11-22    1232											
1 SSA-1 @ 4.2 ft BGS		G 1								1249											
2 SSA-2 @ 4.2 ft BGS		G 1								1303											
3 SSA-3 @ 4.2 ft BGS		G 1								1313											
4 SSA-4 @ 4.2 ft BGS		G 1								1322											
5 SSA-5 @ 4.2 ft BGS		G 1								1346											
6 SSA-6 @ 4.2 ft BGS		G 1								1356											
7 SSA-7 @ 4.2 ft BGS		G 1								1408											
8 SSA-8 @ 4.2 ft BGS		G 1								1426											
9 SSA-9 @ 4.2 ft BGS		G 1								1430											
10 SSA-10 @ 4.2 ft BGS		G 1																			
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>																					
<b>Relinquished By:</b> Kristin Pope				<b>Date:</b> 11-27-22 <b>Time:</b> 10:55		<b>Received By:</b> [Signature]				<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Fax #:</b>											
<b>Relinquished By:</b>				<b>Date:</b> <b>Time:</b>		<b>Received By:</b>				<b>REMARKS:</b>  Email to kristin@rthicksconsult.com											
<b>Delivered By: (Circle One)</b> 2.5" C-0.5"				<b>Sampler - UPS - Bus - Other:</b> 2.0" #113		<b>Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				<b>CHECKED BY:</b> (Initials) [Initials]											



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

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Relinquished By: <i>Kristin Pope</i>		Date: <i>1-27-22</i>	Received By: <i>Tamara Aldridge</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		Time: <i>0955</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:	
		Time:		Email to <a href="mailto:kristin@rthicksconsult.com">kristin@rthicksconsult.com</a>	
Delivered By: (Circle One) <i>2.5°</i>		<i>C-0.5°</i>	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:		<i>2.0° #13</i>	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<i>YO</i>	
			Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326





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

June 13, 2024

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MARALO FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 06/07/24 13:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 1 - SURF (H243275-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392	
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 88.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 1 - 1' (H243275-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 2 - SURF (H243275-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 83.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 2 - 1' (H243275-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 3 - SURF (H243275-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 3 - 1' (H243275-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 4 - SURF (H243275-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 4 - 1' (H243275-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 80.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 5 - SURF (H243275-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.85	92.4	2.00	0.392		
Toluene*	<0.050	0.050	06/11/2024	ND	1.83	91.7	2.00	2.12		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.87	93.7	2.00	3.46		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.43	90.5	6.00	3.64		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 5 - 1' (H243275-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 88.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 6 - SURF (H243275-11)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEx	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 6 - 1' (H243275-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 7 - SURF (H243275-13)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 7 - 1' (H243275-14)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 8 - SURF (H243275-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEx	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 8 - 1' (H243275-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	187	93.7	200	1.78	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	187	93.3	200	0.349	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 9 - SURF (H243275-17)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 9 - 1' (H243275-18)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 10 - SURF (H243275-19)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEx	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: HZ 10 - 1' (H243275-20)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 - SURF (H243275-21)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	90.2	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 - 4' (H243275-22)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 83.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 - SURF (H243275-23)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1880	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	13.1	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 79.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 - 4' (H243275-24)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 - SURF (H243275-25)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4160	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 93.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 - 4' (H243275-26)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 - SURF (H243275-27)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEx	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5300	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 - 2' (H243275-28)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47		
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 - SURF (H243275-29)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	2.03	101	2.00	4.47	
Toluene*	<0.050	0.050	06/11/2024	ND	2.15	107	2.00	3.75	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	2.14	107	2.00	2.70	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	6.59	110	6.00	2.81	
Total BTEX	<0.300	0.300	06/11/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1540	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 - 1' (H243275-30)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 - SURF (H243275-31)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 - 1' (H243275-32)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 - SURF (H243275-33)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11	
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	204	102	200	0.503	
DRO >C10-C28*	<10.0	10.0	06/11/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 82.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 - 2' (H243275-34)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	204	102	200	0.503	
DRO >C10-C28*	119	10.0	06/11/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 62.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 8 - SURF (H243275-35)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEx	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/11/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	204	102	200	0.503	
DRO >C10-C28*	129	10.0	06/11/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 74.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 8 - 1' (H243275-36)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11	
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/11/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/11/2024	ND	204	102	200	0.503	
DRO >C10-C28*	139	10.0	06/11/2024	ND	185	92.3	200	1.70	
EXT DRO >C28-C36	<10.0	10.0	06/11/2024	ND					

Surrogate: 1-Chlorooctane 80.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 9 - SURF (H243275-37)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	207	103	200	0.268	
DRO >C10-C28*	124	10.0	06/10/2024	ND	203	101	200	0.162	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 76.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 9 - 1' (H243275-38)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	207	103	200	0.268	
DRO >C10-C28*	20.5	10.0	06/10/2024	ND	203	101	200	0.162	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 74.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 10 - SURF (H243275-39)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11	
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42	
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686	
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273	
Total BTEX	<0.300	0.300	06/11/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/11/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	207	103	200	0.268	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	203	101	200	0.162	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 06/07/2024  
 Reported: 06/13/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 06/06/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 10 - 1' (H243275-40)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/11/2024	ND	1.82	90.8	2.00	2.11		
Toluene*	<0.050	0.050	06/11/2024	ND	1.84	91.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	06/11/2024	ND	1.74	86.8	2.00	0.686		
Total Xylenes*	<0.150	0.150	06/11/2024	ND	5.42	90.3	6.00	0.273		
Total BTEX	<0.300	0.300	06/11/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/11/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/10/2024	ND	207	103	200	0.268	
DRO >C10-C28*	<10.0	10.0	06/10/2024	ND	203	101	200	0.162	
EXT DRO >C28-C36	<10.0	10.0	06/10/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:							Hungry Horse LLC													
Project Manager:						Daniel Dominguez														
Address:								4024 Plains Hwy												
City:		Lovington	State:		NM	Zip:		88260												
Phone #:		575-393-3386	Fax #:					Attn:	Greg Boans											
Project #:			Project Owner:		Murchison Oil & Gas	City:		Carlsbad												
Project Name:		Maralo Federal Com #1		State:		NM	Zip:	88230												
Project Location:		UL/L Sec 22 T17S - R27E		Phone #:		575-706-0667														
Sampler Name:		Jerry Heidelberg	Fax #:																	
FOR LAB USE ONLY																				
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING										
H343JTS		HZ1-Surf		G	1	X														
2		HZ1-1'		G	1	X					X									
3		HZ2-Surf		G	1	X					X									
4		HZ2-1'		G	1	X					X									
5		HZ3-Surf		G	1	X					X									
6		HZ3-1'		G	1	X					X									
7		HZ4-Surf		G	1	X					X									
8		HZ4-1'		G	1	X					X									
9		HZ5-Surf		G	1	X					X									
10		HZ5-1'		G	1	X					X									
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Relinquished By:		Date:	8-7-24	Received By:																
Requined By:		Date:	8-7-24	Received By:																
Delivered By: (Circle One)		#140		Sample Condition		Cool Intact	Yes	No	Checked BY: (Initials)	pjg										
Sampler - UPS - Bus - Other:		O9	Cool Intact		Yes	No	Checked BY: (Initials)	pjg												
Cardinal cannot accept verbal changes. Please fax written changes to: EZE 202 2475																				





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST																											
Project Manager: Daniel Dominguez		City: Lovington		State: NM		Zip: 88260		Attn: Greg Boans		Company: Murchison Oil & Gas																							
Address: 4024 Plains Hwy		Phone #: 575 393-3386		Fax #:		Project Owner: Murchison Oil & Gas		City: Carlsbad		State: NM		Zip: 88230																					
Project Name: Maralo Federal Com #1		Project Location: U/L L Sec 22 T17S - R27E		Sample Name: Jerry Heidelberg		FOR LAB USE ONLY		FAX #:		Phone #: 575 706-0667																							
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		MATRIX		PRESERV.		SAMPLING																							
		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE :		ICE / COOL		OTHER :		DATE		TIME		Chloride		TPH		BTEX 8021					
H2438X		11		HZ6-Surf		G		1		X		X		6/6/24				X		X		X											
12		HZ6-1'		G		1		X		X		X		6/6/24				X		X		X											
13		HZ7-Surf		G		1		X		X		X		6/6/24				X		X		X											
14		HZ7-1'		G		1		X		X		X		6/6/24				X		X		X											
15		HZ8-Surf		G		1		X		X		X		6/6/24				X		X		X											
16		HZ8-1'		G		1		X		X		X		6/6/24				X		X		X											
17		HZ9-Surf		G		1		X		X		X		6/6/24				X		X		X											
18		HZ9-1'		G		1		X		X		X		6/6/24				X		X		X											
19		HZ10-Surf		G		1		X		X		X		6/6/24				X		X		X											
20		HZ10-1'		G		1		X		X		X		6/6/24				X		X		X											
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Relinquished By: [Signature]		Date: 1335		Received By: [Signature]		Phone Result: [ ] Yes [ ] No		Fax Result: [ ] Yes [ ] No		Add'l Phone #: [ ]		Add'l Fax #: [ ]																					
Delivered By: (Circle One)		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Sample Condition		CHECKED BY: (Initials)		Email results to: pm@hungry-horse.com		gboans@jdmil.com																							
Sampler - UPS - Bus - Other: 09c		#140		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		CHECKED BY: (Initials)		Email results to: pm@hungry-horse.com		gboans@jdmil.com																							









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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

August 16, 2024

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MARALO FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 08/09/24 16:27.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received:	08/09/2024	Sampling Date:	08/09/2024
Reported:	08/16/2024	Sampling Type:	Soil
Project Name:	MARALO FEDERAL COM #1	Sampling Condition:	Cool & Intact
Project Number:	MURCHISON	Sample Received By:	Alyssa Parras
Project Location:	UL/L SEC 22 T17S - R27E		

**Sample ID: FL 1-4.5' (H244835-01)**

BTEX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: CT				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	432	108	400	3.64	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 2-4.5' (H244835-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/13/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 3-4.5' (H244835-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEx	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 4-2' (H244835-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 5-2' (H244835-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 6-2' (H244835-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 7-2' (H244835-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 90.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 8-2' (H244835-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 9-1' (H244835-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 10-1' (H244835-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 11-1' (H244835-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 12-1' (H244835-12)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 13-1' (H244835-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 67.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 14-1' (H244835-14)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853	
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 15-1' (H244835-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 16-1' (H244835-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.98	99.2	2.00	0.853		
Toluene*	<0.050	0.050	08/13/2024	ND	1.94	96.8	2.00	1.43		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.06	103	2.00	1.47		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.07	101	6.00	1.43		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 17-1' (H244835-17)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	QM-07	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 18-1' (H244835-18)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	201	101	200	2.08	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	194	96.8	200	0.567	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 19-3' (H244835-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 20-3' (H244835-20)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 85.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 21-2' (H244835-21)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 22-2' (H244835-22)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 23-2' (H244835-23)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 24-2' (H244835-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 25-1' (H244835-25)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 26-1' (H244835-26)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 27-4' (H244835-27)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<b>0.833</b>	0.050	08/13/2024	ND	2.27	114	2.00	1.51	GC-NC1
Ethylbenzene*	<b>1.11</b>	0.050	08/13/2024	ND	2.44	122	2.00	2.18	GC-NC1
Total Xylenes*	<b>22.5</b>	0.150	08/13/2024	ND	7.19	120	6.00	1.80	GC-NC1
Total BTEX	<b>24.5</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 158 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>272</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>603</b>	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	<b>375</b>	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 141 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 28-4' (H244835-28)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	GC-NC	
Total BTEx	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	32.8	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	191	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 29-4' (H244835-29)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<b>0.532</b>	0.050	08/13/2024	ND	2.44	122	2.00	2.18	GC-NC1
Total Xylenes*	<b>5.77</b>	0.150	08/13/2024	ND	7.19	120	6.00	1.80	GC-NC1
Total BTEX	<b>6.30</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 163 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>336</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>303</b>	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	<b>420</b>	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 136 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 30-4' (H244835-30)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74		
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18		
<b>Total Xylenes*</b>	<b>0.214</b>	0.150	08/13/2024	ND	7.19	120	6.00	1.80		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	35.0	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	285	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 31-4' (H244835-31)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	GC-NC
Ethylbenzene*	<b>0.362</b>	0.050	08/13/2024	ND	2.44	122	2.00	2.18	GC-NC1
Total Xylenes*	<b>1.81</b>	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	<b>2.17</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 177 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>160</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>96.5</b>	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	<b>128</b>	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 32-4' (H244835-32)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<b>0.076</b>	0.050	08/13/2024	ND	2.27	114	2.00	1.51	GC-NC1
Ethylbenzene*	<b>0.201</b>	0.050	08/13/2024	ND	2.44	122	2.00	2.18	GC-NC1
Total Xylenes*	<b>2.45</b>	0.150	08/13/2024	ND	7.19	120	6.00	1.80	GC-NC1
Total BTEX	<b>2.73</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 168 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>208</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>73.6</b>	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	<b>128</b>	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 33-4' (H244835-33)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	0.275	0.050	08/13/2024	ND	2.44	122	2.00	2.18	GC-NC1
Total Xylenes*	1.67	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	1.94	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 234 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: CT	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	195	10.0	08/14/2024	ND	228	114	200	0.244	
DRO >C10-C28*	515	10.0	08/14/2024	ND	215	108	200	2.98	
EXT DRO >C28-C36	<10.0	10.0	08/14/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 1 (H244835-34)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 2 (H244835-35)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 3 (H244835-36)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.20	110	2.00	1.74	
Toluene*	<0.050	0.050	08/13/2024	ND	2.27	114	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.44	122	2.00	2.18	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.19	120	6.00	1.80	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 4 (H244835-37)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	QM-07
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEx	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 87.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 5 (H244835-38)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	231	115	200	0.186	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 96.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 6 (H244835-39)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 7 (H244835-40)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEx	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 8 (H244835-41)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEx	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 9 (H244835-42)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 10 (H244835-43)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 11 (H244835-44)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	08/13/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 12 (H244835-45)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/13/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 13 (H244835-46)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 88.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 14 (H244835-47)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/13/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 15 (H244835-48)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 97.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 16 (H244835-49)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 17 (H244835-50)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/13/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.4 % 49.1-148

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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 18 (H244835-51)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 19 (H244835-52)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 20 (H244835-53)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/14/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 21 (H244835-54)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 22 (H244835-55)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06	
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/14/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 23 (H244835-56)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.32	116	2.00	1.06		
Toluene*	<0.050	0.050	08/13/2024	ND	2.15	107	2.00	1.14		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.14	107	2.00	1.72		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.49	108	6.00	1.37		
Total BTEX	<0.300	0.300	08/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 96.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 24 (H244835-57)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 25 (H244835-58)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	196	98.2	200	0.968	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	193	96.7	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 26 (H244835-59)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 27 (H244835-60)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 28 (H244835-61)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 29 (H244835-62)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/14/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 30 (H244835-63)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 31 (H244835-64)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33	
Total BTEX	<0.300	0.300	08/13/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 80.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 32 (H244835-65)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 33 (H244835-66)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 82.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 34 (H244835-67)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18		
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.45	122	2.00	8.15		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	7.53	126	6.00	8.33		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/13/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 35 (H244835-68)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
Toluene*	<b>0.097</b>	0.050	08/13/2024	ND	2.33	117	2.00	7.42	GC-NC1
Ethylbenzene*	<b>0.238</b>	0.050	08/13/2024	ND	2.45	122	2.00	8.15	GC-NC1
Total Xylenes*	<b>4.52</b>	0.150	08/13/2024	ND	7.53	126	6.00	8.33	GC-NC1
Total BTEX	<b>4.86</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 238 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>96.0</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>295</b>	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<b>405</b>	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 151 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 36 (H244835-69)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
Toluene*	<b>0.073</b>	0.050	08/13/2024	ND	2.33	117	2.00	7.42	GC-NC1
Ethylbenzene*	<b>0.234</b>	0.050	08/13/2024	ND	2.45	122	2.00	8.15	GC-NC1
Total Xylenes*	<b>3.49</b>	0.150	08/13/2024	ND	7.53	126	6.00	8.33	GC-NC1
Total BTEX	<b>3.80</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 232 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>144</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>216</b>	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	<b>257</b>	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 141 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 37 (H244835-70)**

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
<b>Toluene*</b>	<b>0.821</b>	0.050	08/13/2024	ND	2.33	117	2.00	7.42	GC-NC1
<b>Ethylbenzene*</b>	<b>0.923</b>	0.050	08/13/2024	ND	2.45	122	2.00	8.15	GC-NC1
<b>Total Xylenes*</b>	<b>15.6</b>	0.150	08/13/2024	ND	7.53	126	6.00	8.33	GC-NC1
<b>Total BTEx</b>	<b>17.4</b>	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 336 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1280</b>	10.0	08/13/2024	ND	199	99.5	200	1.70	
<b>DRO &gt;C10-C28*</b>	<b>753</b>	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 289 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/09/2024  
 Reported: 08/16/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/09/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 38 (H244835-71)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	2.18	109	2.00	6.18	
Toluene*	<0.050	0.050	08/13/2024	ND	2.33	117	2.00	7.42	
Ethylbenzene*	0.069	0.050	08/13/2024	ND	2.45	122	2.00	8.15	GC-NC1
Total Xylenes*	0.289	0.150	08/13/2024	ND	7.53	126	6.00	8.33	
Total BTEx	0.358	0.300	08/13/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 143 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: CT	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	08/13/2024	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	21.4	10.0	08/13/2024	ND	199	99.5	200	1.70	
DRO >C10-C28*	28.0	10.0	08/13/2024	ND	198	99.1	200	0.269	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
A-01	CCV failed high biased. All samples ND, data not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST																							
Project Manager: Daniel Dominguez		Address: 4024 Plains Hwy		City: Lovington		State: NM		Zip: 88260		Company: Murchison Oil & Gas		Attn: Greg Boans		Address: 5325 Sierra Vista		City: Carlsbad		State: NM		Zip: 88230		Phone #: 575 706-0867		Fax #:					
Project #: 575 393-3386		Fax #: 575 393-3386		Project Owner: Murchison Oil & Gas		City: Carlsbad		State: NM		Zip: 88230		Phone #: 575 706-0867		Fax #:		Project Name: Maralo Federal Com #1		Project Location: UL/L Sec 22 T17S - R27E		Sampler Name: Jerry Heidelberg		FOR LAB USE ONLY		Lab I.D. Sample I.D.					
Project Name: Maralo Federal Com #1		Project Location: UL/L Sec 22 T17S - R27E		Sampler Name: Jerry Heidelberg		FOR LAB USE ONLY		Lab I.D. Sample I.D.		FL1-4.5'		FL2-4.5'		FL3-4.5'		FL4-2'		FL5-2'		FL6-2'		FL7-2'		FL8-2'		FL9-1'		FL10-1'	
Relinquished By: [Signature]		Date: 8/24/24		Time: 11:23		Received By: [Signature]		Date: 8/24/24		Time: 11:23		Sample Condition: Cool Intact		Checked By: [Signature]		REMARKS: 48 hr RUSH!		Email results to: pm@hungry-horse.com		gboans@jdmil.com		Phone Result: [ ] Yes [ ] No		Add'l Phone #:		Fax Result: [ ] Yes [ ] No		Add'l Fax #:	
Delivered By: (Circle One) 3.3.24		Sampler - UPS - Bus - Other: 2.7.24		Sample Condition: Cool Intact		Checked By: [Signature]		REMARKS: 48 hr RUSH!		Email results to: pm@hungry-horse.com		gboans@jdmil.com		Phone Result: [ ] Yes [ ] No		Add'l Phone #:		Fax Result: [ ] Yes [ ] No		Add'l Fax #:		Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476		Released by Imaging: 9/25/2024 2:29:49 PM					





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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Daniel Dominguez		Company: Murchison Oil & Gas					
Address: 4024 Plains Hwy		Attn: Greg Boans					
City: Lovington	State: NM	Zip: 88260	Address: 5325 Sierra Vista				
Phone #: 575 393-3386	Fax #:	City: Carlsbad					
Project #:	Project Owner: Murchison Oil & Gas	State: NM	Zip: 88230				
Project Name: Maralo Federal Com #1		Phone #: 575 706-0667					
Project Location: UL L Sec 22 T17S - R27E		Fax #:					
Sampler Name: Jerry Heidelberg							
FOR LAB USE ONLY							
Lab I.D. #844835	Sample I.D.						
11	FL11-1'	C 1	X	8/9/24	8:50	X	X
12	FL12-1'	C 1	X	8/9/24	8:55	X	X
13	FL13-1'	C 1	X	8/9/24	9:00	X	X
14	FL14-1'	C 1	X	8/9/24	9:05	X	X
15	FL15-1'	C 1	X	8/9/24	9:10	X	X
16	FL16-1'	C 1	X	8/9/24	9:15	X	X
17	FL17-1'	C 1	X	8/9/24	9:20	X	X
18	FL18-1'	C 1	X	8/9/24	9:25	X	X
19	FL19-3'	C 1	X	8/9/24	9:30	X	X
20	FL20-3'	C 1	X	8/9/24	9:35	X	X
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Relinquished By: [Signature]	Date: 8-24-24	Received By: [Signature]	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:			
Relinquished By: [Signature]	Date: 8-24-24	Received By: [Signature]	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:			
Delivered By: (Circle One) 83c 2-7c		Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: [Signature]				
Sampler - UPS - Bus - Other:							
† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476							
REMARKS: 48 hr RUSH! Email results to: pm@hungry-horse.com gboans@jdmil.com							
AG 24 CFA-0.0c # 140							





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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Daniel Dominguez		Company: Murchison Oil & Gas					
Address: 4024 Plains Hwy		Attn: Greg Boans					
City: Lovington	State: NM	Zip: 88260					
Phone #: 575 393-3386	Fax #:	Address: 5325 Sierra Vista					
Project #:	Project Owner: Murchison Oil & Gas	City: Carlsbad					
Project Name: Maralo Federal Com #1		State: NM	Zip: 88230				
Project Location: UL / L Sec 22 T17S - R27E		Phone #: 575 706-0667					
Sampler Name: Jerry Heidelberg		Fax #:					
FOR LAB USE ONLY							
Lab I.D. Sample I.D.		MATRIX		PRESERV.		SAMPLING	
		GROUNDWATER					
		WASTEWATER					
		SOIL					
		OIL					
		SLUDGE					
		OTHER :					
		ACID/BASE					
		ICE / COOL					
		OTHER :					
		DATE		TIME			
21 FL21-2'		C 1		8/9/24 9:40		X X X	
22 FL22-2'		C 1		8/9/24 9:45		X X X	
23 FL23-2'		C 1		8/9/24 9:50		X X X	
24 FL24-2'		C 1		8/9/24 9:55		X X X	
25 FL25-1'		C 1		8/9/24 10:00		X X X	
26 FL26-1'		C 1		8/9/24 10:05		X X X	
27 FL27-4'		C 1		8/9/24 10:10		X X X	
28 FL28-4'		C 1		8/9/24 10:15		X X X	
29 FL29-4'		C 1		8/9/24 10:20		X X X	
30 FL30-4'		C 1		8/9/24 10:25		X X X	
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Reinquisitioned By: <i>[Signature]</i>		Date: 8/24		Time: 10:27		Received By: <i>[Signature]</i>	
Delivered By: (Circle One) <i>UPS</i>		Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) <i>AB</i>		REMARKS: 48 hr RUSHI	
Sampler - UPS - Bus - Other: <i>2.7c</i>						Email results to: pm@hungry-horse.com	
Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476						gboans@jdmil.com	





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[illegible]





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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC  
Project Manager: Daniel Dominguez  
Address: 4024 Plains Hwy  
City: Lovington State: NM Zip: 88260  
Phone #: 575 393-3386 Fax #:   
Project #:   
Project Owner: Murchison Oil & Gas  
Project Name: Maralo Federal Com #1  
Project Location: U/L L Sec 22 T17S - R27E  
Sampler Name: Jerry Heidelberg

P.O. #:   
Company: Murchison Oil & Gas  
Attn: Greg Boans  
Address: 5325 Sierra Vista  
City: Carlsbad  
State: NM Zip: 88230  
Phone #: 575 706-0667  
Fax #:   
BILL TO

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			Chloride	TPH	BTEX 8021							
44	SW11	C 1	X							8/9/24	11:35	X	X	X							
45	SW12	C 1	X							8/9/24	11:40	X	X	X							
46	SW13	C 1	X							8/9/24	11:45	X	X	X							
47	SW14	C 1	X							8/9/24	11:50	X	X	X							
48	SW15	C 1	X							8/9/24	11:55	X	X	X							
49	SW16	C 1	X							8/9/24	12:00	X	X	X							
50	SW17	C 1	X							8/9/24	12:05	X	X	X							
51	SW18	C 1	X							8/9/24	12:10	X	X	X							
52	SW19	C 1	X							8/9/24	12:15	X	X	X							
53	SW20	C 1	X							8/9/24	12:20	X	X	X							

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

Relinquished By:   
Date: 8-24-24  
Time: 10:22  
Received By:   
Time:   
Delivered By: (Circle One) 3.3i  
Sampler - UPS - Bus - Other: 2.7i

Sample Condition: Cool ☒ Intact ☒  
Checked By: (Initials) AP  
REMARKS: 48 hr RUSH!  
Email results to: pm@hungry-horse.com  
gboans@jdmil.com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST																											
Project Manager: Daniel Dominguez		Company: Murchison Oil & Gas																															
Address: 4024 Plains Hwy		Attn: Greg Boans																															
City: Lovington	State: NM	Zip: 88260	Address: 5325 Sierra Vista																														
Phone #: 575 393-3386	Fax #:	City: Carlsbad																															
Project #:	Project Owner: Murchison Oil & Gas	State: NM		Zip: 88230																													
Project Name: Maralo Federal Com #1		Phone #: 575 706-0667																															
Project Location: U/L L Sec 22 T17S - R27E		Fax #:																															
Sampler Name: Jerry Heidelberg																																	
FOR LAB USE ONLY																																	
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE		ICE / COOL		OTHER :		DATE		TIME		Chloride		TPH		BTEX 8021	
54		SW21	C 1	X																													
55		SW22	C 1	X																													
56		SW23	C 1	X																													
57		SW24	C 1	X																													
58		SW25	C 1	X																													
59		SW26	C 1	X																													
60		SW27	C 1	X																													
61		SW28	C 1	X																													
62		SW29	C 1	X																													
63		SW30	C 1	X																													
PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.														Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:																	
Relinquished By: <i>[Signature]</i> Date: 8/24/24														Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:																	
Relinquished By: <i>[Signature]</i> Date: 8/24/24														REMARKS: 48 hr RUSH!																			
Delivered By: (Circle One) 83c														Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>		CHECKED BY: (Initials) AB																	
Sampler - UPS - Bus - Other: 2.7c														<input type="checkbox"/> Yes <input type="checkbox"/> No																			
† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476														CF - 0.6c		# 140																	



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(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

August 14, 2024

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MARALO FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 08/12/24 16:05.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received:	08/12/2024	Sampling Date:	08/12/2024
Reported:	08/14/2024	Sampling Type:	Soil
Project Name:	MARALO FEDERAL COM #1	Sampling Condition:	Cool & Intact
Project Number:	MURCHISON	Sample Received By:	Alyssa Parras
Project Location:	UL/L SEC 22 T17S - R27E		

**Sample ID: TOPSOIL (H244858-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/13/2024	ND	1.99	99.6	2.00	1.73	
Toluene*	<0.050	0.050	08/13/2024	ND	2.01	100	2.00	0.260	
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.07	104	2.00	0.847	
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.12	102	6.00	1.08	
Total BTEX	<0.300	0.300	08/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/13/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	232	116	200	0.185	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	215	107	200	0.393	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 67.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/12/2024  
 Reported: 08/14/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/12/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CALICHE (H244858-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/13/2024	ND	1.99	99.6	2.00	1.73		
Toluene*	<0.050	0.050	08/13/2024	ND	2.01	100	2.00	0.260		
Ethylbenzene*	<0.050	0.050	08/13/2024	ND	2.07	104	2.00	0.847		
Total Xylenes*	<0.150	0.150	08/13/2024	ND	6.12	102	6.00	1.08		
Total BTEX	<0.300	0.300	08/13/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/13/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	232	116	200	0.185	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	215	107	200	0.393	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 70.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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

Page 5 of 5



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

August 29, 2024

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MARALO FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 08/27/24 14:48.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received:	08/27/2024	Sampling Date:	08/27/2024
Reported:	08/29/2024	Sampling Type:	Soil
Project Name:	MARALO FEDERAL COM #1	Sampling Condition:	Cool & Intact
Project Number:	MURCHISON	Sample Received By:	Alyssa Parras
Project Location:	UL/L SEC 22 T17S - R27E		

**Sample ID: FL 27 B - 5' (H245215-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	2.16	108	2.00	7.45	
Toluene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.20	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.21	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	6.29	105	6.00	7.53	
Total BTEX	<0.300	0.300	08/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/28/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 68.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 28 B - 5' (H245215-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	2.16	108	2.00	7.45	
Toluene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.20	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.21	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	6.29	105	6.00	7.53	
Total BTEX	<0.300	0.300	08/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/28/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 75.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 29 B - 5' (H245215-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	2.16	108	2.00	7.45	
Toluene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.20	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.21	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	6.29	105	6.00	7.53	
Total BTEx	<0.300	0.300	08/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/28/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 89.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 30 B - 5' (H245215-04)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	2.16	108	2.00	7.45	
Toluene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.20	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.21	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	6.29	105	6.00	7.53	
Total BTEX	<0.300	0.300	08/28/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/28/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.2 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 31 B - 5' (H245215-05)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	2.16	108	2.00	7.45	
Toluene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.20	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	2.10	105	2.00	7.21	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	6.29	105	6.00	7.53	
Total BTEx	<0.300	0.300	08/28/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/28/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 80.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 32 B - 5' (H245215-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2024	ND	1.91	95.4	2.00	3.78	
Toluene*	<0.050	0.050	08/28/2024	ND	1.86	92.8	2.00	0.931	
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	1.87	93.4	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/28/2024	ND	5.55	92.4	6.00	1.53	
Total BTEX	<0.300	0.300	08/28/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/28/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 08/27/2024  
 Reported: 08/29/2024  
 Project Name: MARALO FEDERAL COM #1  
 Project Number: MURCHISON  
 Project Location: UL/L SEC 22 T17S - R27E

Sampling Date: 08/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FL 33 B - 5' (H245215-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/28/2024	ND	1.91	95.4	2.00	3.78		
Toluene*	<0.050	0.050	08/28/2024	ND	1.86	92.8	2.00	0.931		
Ethylbenzene*	<0.050	0.050	08/28/2024	ND	1.87	93.4	2.00	1.33		
Total Xylenes*	<0.150	0.150	08/28/2024	ND	5.55	92.4	6.00	1.53		
Total BTEX	<0.300	0.300	08/28/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/28/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2024	ND	201	101	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2024	ND	194	97.0	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	08/28/2024	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO												ANALYSIS REQUEST																			
Project Manager: Daniel Dominguez		Address: 4024 Plains Hwy		City: Lovington		State: NM		Zip: 88260		Company: Murchison Oil & Gas		Attn: Greg Boans		Address: 5325 Sierra Vista		City: Carlsbad		State: NM		Zip: 88230		Phone #: 575 706-0667		Fax #:											
Project #: 575 393-3386		Fax #:		Project Owner: Murchison Oil & Gas		City:		State:		Zip:		Phone #:		Fax #:		Project Name: Maralo Federal Com #1		Project Location: U/L L Sec 22 T17S - R27E		Sampler Name: Jerry Heidelberg		FOR LAB USE ONLY													
Lab I.D. H2452A15		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		Chloride		TPH		BTEX 8021	
1 FL27b-5'		C 1		X		8/27/24		8:05		X		X		X																					
2 FL28b-5'		C 1		X		8/27/24		8:10		X		X		X																					
3 FL29b-5'		C 1		X		8/27/24		8:15		X		X		X																					
4 FL30b-5'		C 1		X		8/27/24		8:20		X		X		X																					
5 FL31b-5'		C 1		X		8/27/24		8:25		X		X		X																					
6 FL32b-5'		C 1		X		8/27/24		8:30		X		X		X																					
7 FL33b-5'		C 1		X		8/27/24		8:35		X		X		X																					

**Attachment VII**  
**Lea Land, LLC Disposal Facility Waste Manifests**





**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		No. 206319	Trailer No. REYES 09	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas  <b>Phone:</b> 575706-0667		<b>Address:</b> 7250 Dallas Pkwy #1400 Plano, Texas 75024	
	<b>Disposal Date:</b> 07-25-2024 08:45 AM			
	<b>Name Or Description Of Waste Shipped:</b> <input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 27200, 28180, 29040    TC84420			
	<b>Lease/Job Name:</b> MARALO FED COM #001			
<b>Generator's Representative:</b> GREG BOANS				
<b>TRANSPORTER</b>	<b>Name:</b> Hungry Horse  <b>Emergency Contact:</b> Vernon Black  <b>Emergency Contact Phone:</b> (575) 631-2253			
	<b>Transporter: Acknowledgment of Delivery of Material</b>  <b>Printed/Typed Name (Impreso/Mecanografico):</b> Aldo Garibani			
	<b>Signature (Firma):</b> <i>[Signature]</i> <b>Date:</b> 07-25-2024 08:45 AM			
	<b>Signature (Firma):</b> <i>[Signature]</i> <b>Date:</b> 07-25-2024 08:45 AM			
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
	<b>Comments:</b>			
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
<b>Authorized Signature:</b> <i>[Signature]</i>		<b>Unit No:</b> IIA	<b>Date:</b> 07-25-2024	<b>Time:</b> 08:45 AM

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257



# LEA LAND, LLC SURFACE WASTE LANDFILL

mile marker #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206320	<b>Trailer No.</b> ASJ BLUE	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas		<b>Address:</b> 7250 Dallas Pkwy #1400 Plano, TX 75024	
	<b>Phone:</b> 575706-0667		<b>Disposal Date:</b> 07-25-2024 08:53 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 21,500.24040    TC 50540			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM #001 MARLO			
	<b>Generator's Representative:</b> GREG BOANS			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Gregorio Tanango</u>			
	<b>Signature (Firma):</b> <u>[Signature]</u> #2 <b>Date:</b> 07-25-2024 08:53 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
<b>Comments:</b>				
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 07-25-2024	<b>Time:</b> 08:53 AM

LEA LAND, LLC

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**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206376	<b>Trailer No.</b> REYES 09	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-26-2024 08:36 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 30620, 31880, 31680 TC 93580			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM #001 API-30-015-22958 MARLO			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> X Aldo Garibaldy			
	<b>Signature (Firma):</b> X Aldo Ce <b>Date:</b> 07-26-2024 08:36 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>	
<b>DISPOSAL FACILITY</b>	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
	<b>Authorized Signature:</b> M Sanchez		<b>Unit No:</b> IIA	<b>Date:</b> 07-26-2024
			<b>Time:</b> 08:36 AM	

LEA LAND, LLC

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**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206377	<b>Trailer No.</b> REYES 06	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-26-2024 08:36 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 25780, 26140, 27140    TC 79100			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM #001			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Leonardo Garibaldi</u>			
	<b>Signature (Firma):</b> <u>X</u> <u>LEONARDO</u>		<b>Date:</b> 07-26-2024 08:36 AM	
	<b>Lea Land, LLC</b>	<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>		<b>(575) 887-4048</b>
	<b>Permit No:</b> NM-1-0035-New Mexico	<b>Comments:</b>		
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>M. Sanchez</u>		<b>Unit No:</b> IIA	<b>Date:</b> 07-26-2024	<b>Time:</b> 08:36 AM

LEA LAND, LLC

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**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206431	<b>Trailer No.</b> REYES 09	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-29-2024 08:30 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 35,620, 35,980, 36,000 TC107660			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM #001 API# 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> Aldo Garibaldi			
	<b>Signature (Firma):</b> X Aldo Date: 07-29-2024 08:30 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>	
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b>		<b>Unit No:</b> IIA	<b>Date:</b> 07-29-2024	<b>Time:</b> 08:30 AM

LEA LAND, LLC  
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**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206432	<b>Trailer No.</b> REYES 06	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-29-2024 08:34 AM	
	<b>Name Or Description Of Waste Shipped:</b> <input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 26540, 27140, 28080    1281760			
	<b>Lease/Job Name:</b> MARLO FED COM #001 API# 30-015-22958			
<b>TRANSPORTER</b>	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
	<b>Transporter: Acknowledgment of Delivery of Material</b>  <b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Leonardo Garibaldi</u> <b>Signature (Firma):</b> <u>X</u> <u>LEONARDO</u> <b>Date:</b> 07-29-2024 08:34 AM			
<b>DISPOSAL FACILITY</b>	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
	<b>Comments:</b>			
	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
<b>Authorized Signature:</b> <u>[Signature]</u>		<b>Unit No:</b> IIA	<b>Date:</b> 07-29-2024	<b>Time:</b> 08:34 AM

LEA LAND, LLC

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**LEA LAND**  
— LLC —

## LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206504	<b>Trailer No.</b> REYES 09	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-30-2024 08:48 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 27260, 27920, 28140, 783320			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARALO FED COM #001 API 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Aldo Garibaldi</u>			
	<b>Signature (Firma):</b> <u>Aldo W</u> <b>Date:</b> 07-30-2024 08:48 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
<b>Comments:</b>				
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> 		<b>Unit No:</b> IIA	<b>Date:</b> 07-30-2024	<b>Time:</b> 08:48 AM

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**LEA LAND**  
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## LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206505	<b>Trailer No.</b> REYES 06	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-30-2024 08:51 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 23680, 24180, 24260    To 72180			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARALO FED COM #001 API 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Leonardo Caribandi</u>			
	<b>Signature (Firma):</b> <u>LEONARDO</u> <b>Date:</b> 07-30-2024 08:51 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>(575) 887-4048</b>	
<b>Comments:</b>				
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> 		<b>Unit No:</b> IIA	<b>Date:</b> 07-30-2024	<b>Time:</b> 08:51 AM

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# LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206562	<b>Trailer No.</b> REYES 09	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-31-2024 08:38 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 27400, 27680, 27780, 282860			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM # 001 API# 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Aldo Garibaldi</u>			
	<b>Signature (Firma):</b> <u>Aldo G</u> <b>Date:</b> 07-31-2024 08:38 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>	
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b> <u>M Sanchez</u>		<b>Unit No:</b> IIA	<b>Date:</b> 07-31-2024	<b>Time:</b> 08:38 AM

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## LEA LAND, LLC SURFACE WASTE LANDFILL

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<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206564	<b>Trailer No.</b> REYES 06	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 07-31-2024 08:41 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 26020, 26920, 26980, TC 79920			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM # 001 API# 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> <u>Leonardo Garibald:</u>			
	<b>Signature (Firma):</b> <u>X LEONARDO</u> <b>Date:</b> 07-31-2024 08:41 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>	
<b>DISPOSAL FACILITY</b>	<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.			
	<b>Authorized Signature:</b> <u>M. Sanchez</u>		<b>Unit No:</b> IIA	<b>Date</b> 07-31-2024
			<b>Time</b> 08:41 AM	

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# LEA LAND, LLC SURFACE WASTE LANDFILL

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

<b>NON-HAZARDOUS WASTE MANIFEST</b>		<b>No.</b> 206622	<b>Trailer No.</b> REYES 06	
<b>GENERATOR</b>	<b>Company Name:</b> Murchison Oil & Gas Inc.		<b>Address:</b> 7250 Dallas Pkwy Suite #1400 Plano, TX 75024	
	<b>Phone:</b> (575) 706-0667		<b>Disposal Date:</b> 08-01-2024 08:22 AM	
	<b>Name Or Description Of Waste Shipped:</b>			
	<input checked="" type="checkbox"/> RCRA Exempt <input type="checkbox"/> RCRA Non-Exempt			
	<b>Weight (lbs):</b> 24720, 24860, TC 49580			
<b>TRANSPORTER</b>	<b>Lease/Job Name:</b> MARLO FED COM #001 API# 30-015-22958			
	<b>Generator's Representative:</b> Greg Boans			
	<b>Name:</b> Hungry Horse			
	<b>Emergency Contact:</b> Vernon Black			
	<b>Emergency Contact Phone:</b> (575) 631-2253			
<b>DISPOSAL FACILITY</b>	<b>Transporter: Acknowledgment of Delivery of Material</b>			
	<b>Printed/Typed Name (Impreso/Mecanografico):</b> Leonardo Garibald:			
	<b>Signature (Firma):</b> X LEONARDO <b>Date:</b> 08-01-2024 08:22 AM			
	<b>Lea Land, LLC</b>		<b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East Of Carlsbad, NM</b>	
	<b>Permit No:</b> NM-1-0035-New Mexico		<b>Comments:</b>	
<b>Disposal Facility's Certification:</b> I Hereby Certify That The Above-Described Wastes Were Delivered To This Facility.				
<b>Authorized Signature:</b>		<b>Unit No:</b> IIA	<b>Date:</b> 08-01-2024	<b>Time:</b> 08:22 AM

LEA LAND, LLC

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**District I**  
1625 N. French Dr., Hobbs, NM 88240  
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**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS  
  
Action 386032

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:
	15363
	Action Number: 386032
Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202451213
Incident Name	NAPP2202451213 MARALO FEDERAL COM #1 @ 30-015-22958
Incident Type	Oil Release
Incident Status	Deferral Request Received
Incident Well	[30-015-22958] MARALO FEDERAL COM #001

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MARALO FEDERAL COM #1
Date Release Discovered	01/03/2022
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil 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: Freeze   Other (Specify)   Produced Water   Released: 43 BBL   Recovered: 0 BBL   Lost: 43 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Cause: Freeze   Other (Specify)   Condensate   Released: 53 BBL   Recovered: 0 BBL   Lost: 53 BBL.
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)	Load line valve froze and burst

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS, Page 2

Action 386032

**QUESTIONS (continued)**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386032
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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.	

**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	Not answered.

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: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/24/2024
--	---

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

QUESTIONS, Page 3

Action 386032

**QUESTIONS (continued)**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 386032
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS****Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 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
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

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

Requesting a remediation plan approval with this submission	Yes
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.	
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)	5300
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	8910
GRO+DRO (EPA SW-846 Method 8015M)	8910
BTEX (EPA SW-846 Method 8021B or 8260B)	310
Benzene (EPA SW-846 Method 8021B or 8260B)	2.2

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

On what estimated date will the remediation commence	07/15/2024
On what date will (or did) the final sampling or liner inspection occur	08/27/2024
On what date will (or was) the remediation complete(d)	08/27/2024
What is the estimated surface area (in square feet) that will be reclaimed	5300
What is the estimated volume (in cubic yards) that will be reclaimed	307
What is the estimated surface area (in square feet) that will be remediated	5300
What is the estimated volume (in cubic yards) that will be remediated	307

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

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

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**State of New Mexico**  
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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 386032

**QUESTIONS (continued)**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386032
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<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>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> 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: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmil.com Date: 09/24/2024
<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>	



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**District III**

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**District IV**

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

QUESTIONS, Page 5

Action 386032

**QUESTIONS (continued)**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386032
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

**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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	The equipment on site includes a 210 bbl steel production tank, 210 bbl fiberglass water tank and production flowlines. Removal of this equipment to remediate will result in the well being shut in and a major facility deconstruction. Shutting the well in for an extended period could be detrimental to future production.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	500
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	100
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	Not answered.
Enter the well API (30-) on which this deferral should be granted	30-015-22958 MARALO FEDERAL COM #001
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/24/2024

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Action 386032

**QUESTIONS (continued)**

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386032
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	376597
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/27/2024
What was the (estimated) number of samples that were to be gathered	7
What was the sampling surface area in square feet	160

**Remediation Closure Request**

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No
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CONDITIONS  
  
Action 386032

CONDITIONS

Operator:  Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:  15363
	Action Number:  386032
	Action Type:  [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
bhall	Deferral request approved. The contamination that is still in place must be remediated when the tanks and associated piping is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	9/25/2024