CARMONA RESOURCES

SITE INFORMATION

Closure Report
Dee Boot 24-34-26 WXY 19H
Lea County, New Mexico
Unit A Sec 26 T24S R34E
32.19501949°, -103.43581037°

1RP-5256
nJYH2305951807
Crude Oil
Point of Release: Flare
Release Date: 10/18/18
Volume Released: 0.02 Barrels of Crude Oil
Volume Recovered: 0 barrels of Crude Oil

Included in Marathon's ACO.
Legacy Incident revisited.

CARMONA RESOURCES

Prepared for:
Marathon Oil Corporation
990 Town and Country Blvd,
Houston, Texas 77024

Prepared by:
Carmona Resources, LLC
310 West Wall Street
Suite 500
Midland, Texas 79701

310 West Wall Street, Suite 500
Midland TX, 79701
432.813.1992

CARMONA RESOURCES

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310 West Wall Street, Suite 500
Midland TX, 79701
432.813.1992

CARMONA RESOURCES

July 6, 2023

New Mexico Oil Conservation Division
1220 South St, Francis Drive
Santa Fe, NM 87505

Re: Closure Report
Dee Boot 24-34-26 WXY 19H
Marathon Oil Corporation
nJYH2305951807 / 1RP-5256
Site Location: Unit A, S26, T24S, R34E
(Lat 32.19501949°, Long -103.43581037°)
Lea County, New Mexico

To Whom It May Concern:

On behalf of Marathon Oil Corporation (Marathon), Carmona Resource, LLC has prepared this letter to document additional site activities for the Dee Boot 24-34-26 WXY 19H. The site is located at the GPS 32.19501949°, -103.43581037° within Unit A, S26, T24S, R34E in Lea County, New Mexico.

1.0 Site Information and Background

1RP-5256

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the fire was discovered on October 18, 2018, caused by a equipment malfunction on the temporary flare. It resulted in approximately 0.02 barrels of crude oil being released, and nothing was recovered. See Figure 3. The initial C-141 form is attached in Appendix C.

On March 28, 2023, the New Mexico OCD denied the closure report with the following description:

The responsible party shall remediate the impacted surface area of a release not occurring on a lined, bermed, or otherwise contained exploration, development, production, or storage site to meet the standards of Table I of 19.15.29.12 NMAC or other applicable remediation standards and restore and reclaim the area pursuant to 19.15.29.13 NMAC. The responsible party shall reclaim all areas disturbed by the remediation and closure, except areas reasonably needed for production operations or for subsequent drilling operations, as early and as nearly as practical to their original condition or their final land use and maintain those areas to control dust and minimize erosion to the extent practical. The reclamation must contain a minimum of four feet of non-waste-containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0 or other test methods approved.

2.0 Site Characterization and Groundwater

The site is located within a low karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, no known water features are within a 0.50-mile radius of the location. The nearest identified well is approximately 1.18 miles Southwest of the site in S35, T24S, R34E and was drilled in 2013. The well has a reported depth to groundwater of 223.94 feet below the ground surface (ft bgs). A copy of the associated Summary Report is attached in Appendix D.

310 West Wall Street, Suite 500
Midland, Texas 79701
432.813.1992

CARMONA RESOURCES

3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg.

4.0 Site Assessment Activities

On October 18, 2017, Marathon personnel conducted an initial surface scrape after the release occurred at the area of concern to a depth of 0.25" bgs. On May 30, and June 20, 2023, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts stemming from the release. To assess the vertical and horizontal extent, one (1) sample point (S-1) and four (4) horizontal points (H-1 through H-4) were advanced to depths ranging from the surface to 1.5' bgs inside the release area. See Figure 3 for the sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E.

All samples were below the regulatory requirements for TPH, BTEX, and chloride. Refer to Table 1.

5.0 Conclusions

Based on the assessment results and the analytical data, no further actions are required at the site. The final C-141 is attached in Appendix C, and Marathon formally requests the closure of the spill. If you have any questions regarding this report or need additional information, please contact us at 432-813-1992.

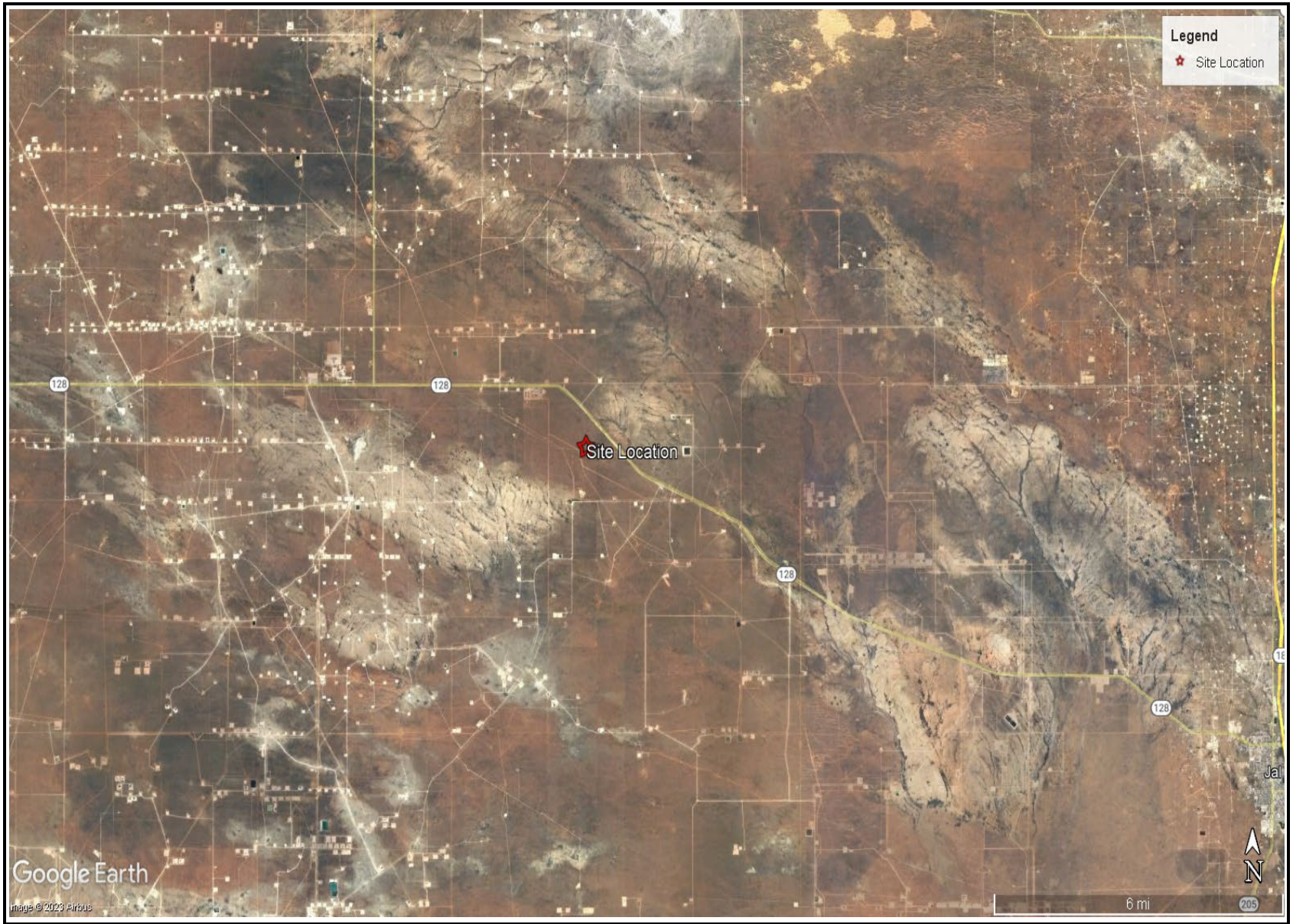
Sincerely,
Carmona Resources, LLC

Mike Carmona
Environmental Manager

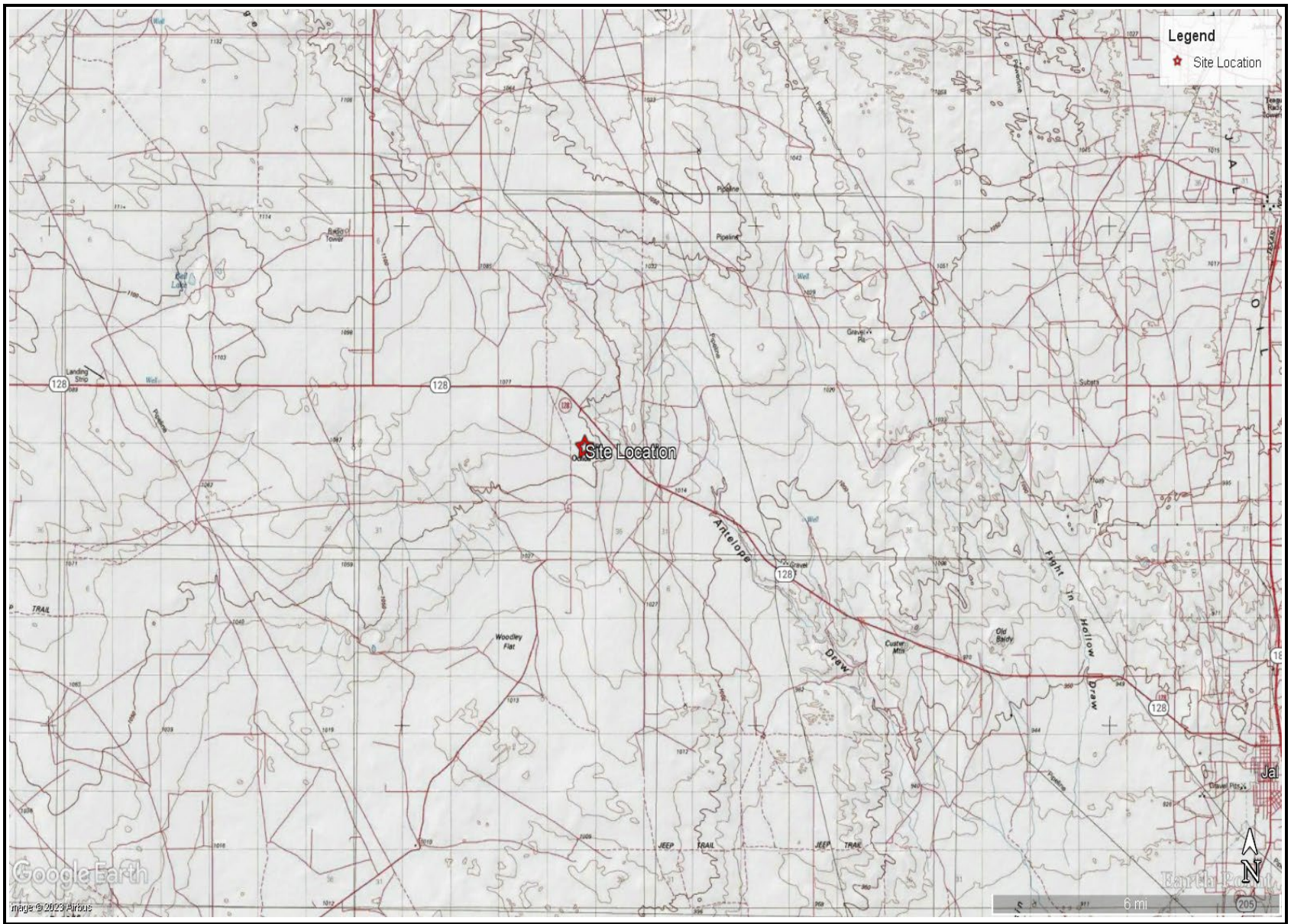
Clinton Merritt
Sr. Project Manager

FIGURES

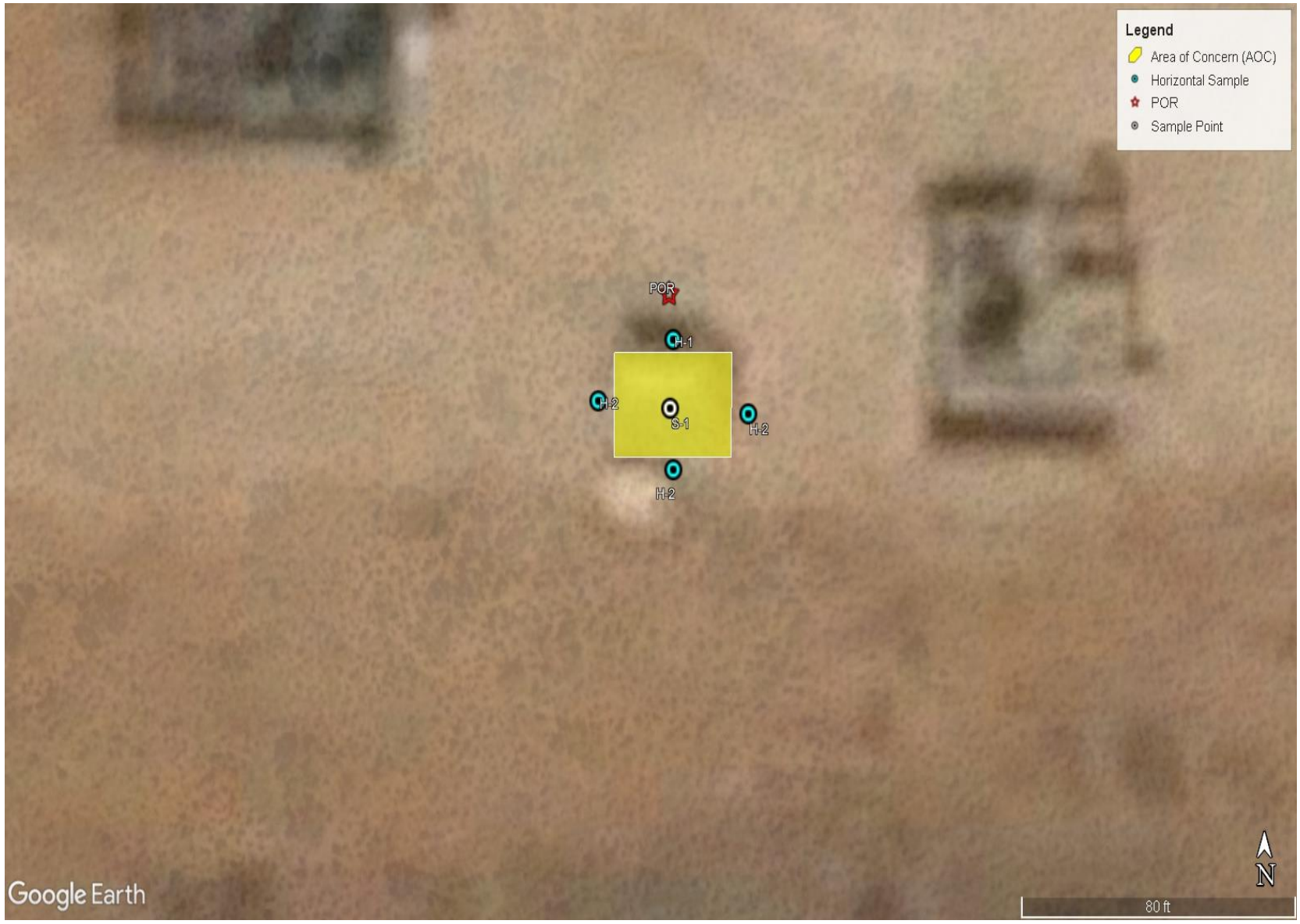
CARMONA RESOURCES



OVERVIEW MAP MARATHON OIL CORPORATION DEE BOOT 24-34-26 WXY 19H LEA COUNTY, NEW MEXICO 32.19501949°, -103.43581037°	CARMONA RESOURCES	FIGURE 1



TOPOGRAPHIC MAP MARATHON OIL CORPORATION DEE BOOT 24-34-26 WXY 19H LEA COUNTY, NEW MEXICO 32.19501949°, -103.43581037°	CARMONA RESOURCES	FIGURE 2



SAMPLE LOCATION MAP MARATHON OIL CORPORATION DEE BOOT 24-34-26 WXY 19H LEA COUNTY, NEW MEXICO 32.19501949°, -103.43581037°	CARMONA RESOURCES	FIGURE 3

APPENDIX A

CARMONA RESOURCES

Table 1
Marathon Oil Co.
Dee Boot 24-34-26 WXY 19H
Lea County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
S-1	6/20/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
	"	1	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
	"	1.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
H-1	5/30/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-2	5/30/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
H-3	5/30/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-4	5/30/2023	0-0.5	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
Regulatory Criteria [A]						100 mg/kg	10 mg/kg				50 mg/kg	600 mg/kg

(-) Not Analyzed

[A] – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(S) Sample Point

(H) Horizontal

APPENDIX B

CARMONA RESOURCES

PHOTOGRAPHIC LOG

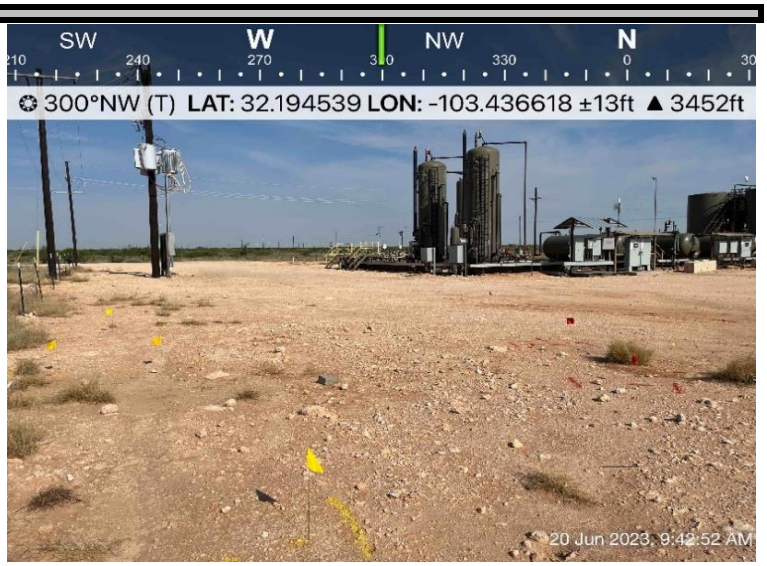
Marathon Oil Corporation

Photograph No. 1

Facility: Dee Boot 24-34-26 WXY 19H

County: Lea County, New Mexico

Description:
View Northwest of sample points S-1.



Photograph No. 2

Facility: Dee Boot 24-34-26 WXY 19H

County: Lea County, New Mexico

Description:
View East of sample points S-1.

Photograph No. 3

Facility: Dee Boot 24-34-26 WXY 19H

County: Lea County, New Mexico

Description:
View Northeast of sample points S-1.

APPENDIX C

CARMONA RESOURCES

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NOY1830940011
District RP	1RP-5256
Facility ID	
Application ID	pOY1830940286

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)* NOY1830940011
Contact mailing address	

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: Callie Kerrigan _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: RECEIVED By Olivia Yu at 11:02 am, Nov 05, 2018 _____ Date: _____

MRO Spill Calculation Tool

Marathon Oil

Standing Liquid Inputs:

	Length (ft.)	Width (ft.)	Avg. Liquid Depth (in.)	% Oil	Total Volume (bbls)	Water Volume (bbls)	Oil Volume (bbls)
Rectangle Area #1					0.00	0.00	0.00
Rectangle Area #2					0.00	0.00	0.00
Rectangle Area #3					0.00	0.00	0.00
Rectangle Area #4					0.00	0.00	0.00
Rectangle Area #5					0.00	0.00	0.00
Rectangle Area #6					0.00	0.00	0.00
Rectangle Area #7					0.00	0.00	0.00
Rectangle Area #8					0.00	0.00	0.00
				Liquid Volume:	**0.00**	**0.00**	**0.00**

Saturated Soil Inputs: Soil Type: Sandy Clay Loam

	Length (ft.)	Width (ft.)	Avg. Saturated Depth (in.)	% Oil	Total Volume (bbls)	Water Volume (bbls)	Oil Volume (bbls)
Rectangle Area #1	5	8	0.25	100%	0.02	0.00	0.02
Rectangle Area #2					0.00	0.00	0.00
Rectangle Area #3					0.00	0.00	0.00
Rectangle Area #4					0.00	0.00	0.00
Rectangle Area #5					0.00	0.00	0.00
Rectangle Area #6					0.00	0.00	0.00
Rectangle Area #7					0.00	0.00	0.00
Rectangle Area #8					0.00	0.00	0.00
				Saturated Volume	**0.02**	**0.00**	**0.02**

	Total Volume (bbls)	Water Volume (bbls)	Oil Volume (bbls)
Total Spill Volume (bbls):	**0.02**	**0.00**	**0.02**
Total Spill Volume (gals):	**0.87**	**0.00**	**0.87**

Comments:

Color Key:	*Required Input Cells*	Supplemental Input Cells	No Input (Calculations)	No Input (Lookup Tables)

Appearance

Cover Type	Microns	Approximate Depth (in)
Water		
Barely Visible	0.5	0.00000164
Silvery	1	0.00000328
Rainbow	5	0.00001640
Ground		
Dull Color	10	0.00003281
Dark Color	50	0.00016404

** Environmental Professional's responsibility to report spills to agencies*

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature:_____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 07/20/2023

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

Closure Approved by: _____ Date: 07/20/2023

Printed Name: Jocelyn Harimon Title: Environmental Specialist

APPENDIX D

CARMONA RESOURCES

Nearest Water Well

Marathon Oil

Legend

- 0.5 Mile Radius
- 1.18 Miles
- 1.22 Miles
- Dee Boot 24-34-26 WXY 19H
- NMSEO Water Well
- USGS Water Well

Dee Boot 24-34-26 WXY 19H

180' - Drilled 2022

223.94' - Drilled 2013

N

3000 ft

Low Karst

Marathon Oil

Legend

Dee Boot 24-34-26 WXY 19H

Low

Dee Boot 24-34-26 WXY 19H

N

600 ft

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 04042 POD1	CUB	LE	2	1	4	36	24S	34E	648539	3561545	1924			
C 03942 POD1	CUB	LE	3	1	2	35	24S	34E	647005	3561246	1928	420	222	198
C 04682	C	LE	4	4	2	25	24S	34E	649349	3562621	1973	290	180	110
CP 00839 POD1	CP	LE		4	3	30	24S	35E	650017	3561833*	2882	175		
C 03932 POD13	CUB	LE	4	2	3	15	24S	34E	645314	3565203	2973	90		
C 03943 POD1	CUB	LE	2	4	2	21	24S	34E	644523	3564266	3133	610	431	179
C 02401	CUB	LE	2	2	1	01	25S	34E	648534	3559896*	3409	275	260	15

Average Depth to Water: **273 feet**
Minimum Depth: **180 feet**
Maximum Depth: **431 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 647440.47 **Northing (Y):** 3563124.94 **Radius:** 4000

***UTM location was derived from PLSS - see Help**

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measureme

Groundwater | New Mexico | GO

Click forNews Bulletins

Groundwater levels for New Mexico

Click to hide state-specific text

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321025103263601

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321025103263601 24S.34E.35.12411

Lea County, New Mexico
Latitude 32°10'44.0", Longitude 103°26'31.2" NAD83
Land-surface elevation 3,409.00 feet above NGVD29
The depth of the well is 257 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measureme	
1953-03-29		D	62610		3185.10	NGVD29	1	Z	A
1953-03-29		D	62611		3186.69	NAVD88	1	Z	A
1953-03-29		D	72019	223.90			1	Z	A
1971-01-13		D	62610		3190.96	NGVD29	1	Z	A
1971-01-13		D	62611		3192.55	NAVD88	1	Z	A
1971-01-13		D	72019	218.04			1	Z	A
1976-01-15		D	62610		3189.94	NGVD29	1	Z	A
1976-01-15		D	62611		3191.53	NAVD88	1	Z	A
1976-01-15		D	72019	219.06			1	Z	A
1981-03-20		D	62610		3191.29	NGVD29	1	Z	A
1981-03-20		D	62611		3192.88	NAVD88	1	Z	A
1981-03-20		D	72019	217.71			1	Z	A
1986-03-06		D	62610		3185.50	NGVD29	1	Z	A
1986-03-06		D	62611		3187.09	NAVD88	1	Z	A
1986-03-06		D	72019	223.50			1	Z	A
1991-05-31		D	62610		3189.82	NGVD29	1	Z	A
1991-05-31		D	62611		3191.41	NAVD88	1	Z	A
1991-05-31		D	72019	219.18			1	Z	A
1996-03-14		D	62610		3189.81	NGVD29	1	S	A
1996-03-14		D	62611		3191.40	NAVD88	1	S	A
1996-03-14		D	72019	219.19			1	S	A
2013-01-16	22:00 UTC	m	62610		3185.06	NGVD29	1	S	USGS S A
2013-01-16	22:00 UTC	m	62611		3186.65	NAVD88	1	S	USGS S A
2013-01-16	22:00 UTC	m	72019	223.94			1	S	USGS S A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measureme
Referenced vertical datum			NGVD29		National Geodetic Vertical Datum of 1929			
Status			1		Static			
Method of measurement			S		Steel-tape measurement.			
Method of measurement			Z		Other.			
Measuring agency					Not determined			
Measuring agency			USGS		U.S. Geological Survey			
Source of measurement					Not determined			
Source of measurement			S		Measured by personnel of reporting agency.			
Water-level approval status			A		Approved for publication -- Processing and review completed.			

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for New Mexico: Water Levels
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2023-05-09 11:02:19 EDT
0.3 0.26 nadww02

New Mexico Office of the State Engineer
Point of Diversion Summary

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

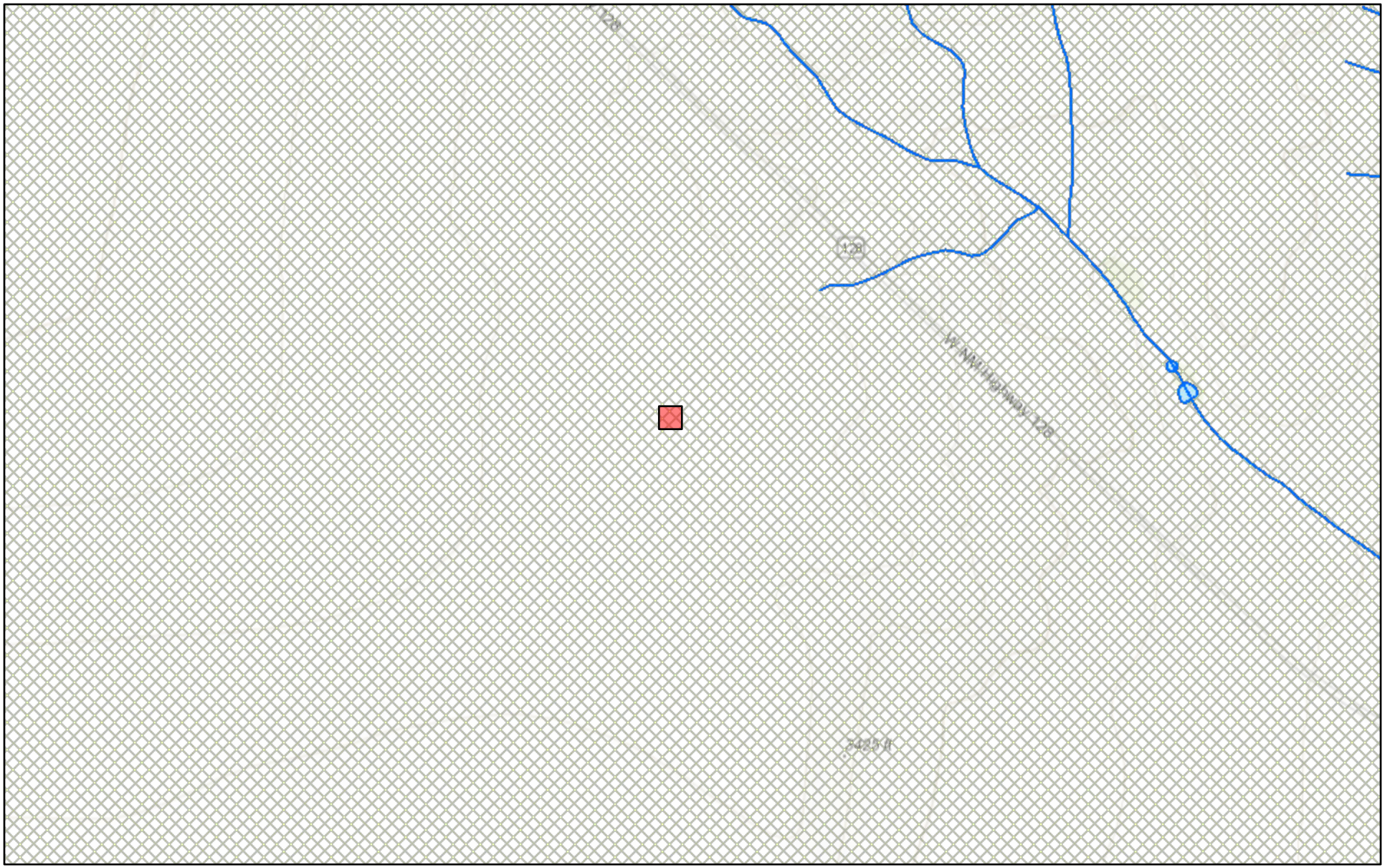
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04682	4	4	2	25	24S	34E	649349	3562621

Driller License:	1058	**Driller Company:**	KEY'S DRILLING & PUMP SERVICE		
Driller Name:	GARY KEY				
Drill Start Date:	12/20/2022	**Drill Finish Date:**	01/18/2023	**Plug Date:**	01/18/2023
Log File Date:	02/08/2023	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	3 GPM
Casing Size:	4.50	**Depth Well:**	290 feet	**Depth Water:**	180 feet

Water Bearing Stratifications:	Top	Bottom	Description
	157	270	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	160	290

New Mexico NFHL Data



May 9, 2023

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

nmflood.org is made possible through a collaboration with NMDHSEM,

This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

APPENDIX E

CARMONA RESOURCES

CARDINAL Laboratories

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

June 02, 2023

CLINT MERRITT

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: DEE BOOT 24,34,26 WXY 19H

Enclosed are the results of analyses for samples received by the laboratory on 05/30/23 11:05.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CLINT MERRITT
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	05/30/2023	Sampling Date:	05/30/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: H - 1 (0-0.5') (H232721-01)

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	05/30/2023	ND	2.14	107	2.00	15.9	
Toluene*	<0.050	0.050	05/30/2023	ND	2.23	112	2.00	17.6	
Ethylbenzene*	<0.050	0.050	05/30/2023	ND	2.13	106	2.00	14.9	
Total Xylenes*	<0.150	0.150	05/30/2023	ND	6.58	110	6.00	14.1	
Total BTEX	<0.300	0.300	05/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	05/30/2023	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	208	104	200	6.96	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	191	95.4	200	8.73	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CLINT MERRITT
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	05/30/2023	Sampling Date:	05/30/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: H - 2 (0-0.5') (H232721-02)

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	05/30/2023	ND	2.14	107	2.00	15.9	
Toluene*	<0.050	0.050	05/30/2023	ND	2.23	112	2.00	17.6	
Ethylbenzene*	<0.050	0.050	05/30/2023	ND	2.13	106	2.00	14.9	
Total Xylenes*	<0.150	0.150	05/30/2023	ND	6.58	110	6.00	14.1	
Total BTEX	<0.300	0.300	05/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	05/30/2023	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	186	92.8	200	5.05	QR-03
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	164	81.8	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *81.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *79.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CLINT MERRITT
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	05/30/2023	Sampling Date:	05/30/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: H - 3 (0-0.5') (H232721-03)

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	05/30/2023	ND	2.14	107	2.00	15.9	
Toluene*	<0.050	0.050	05/30/2023	ND	2.23	112	2.00	17.6	
Ethylbenzene*	<0.050	0.050	05/30/2023	ND	2.13	106	2.00	14.9	
Total Xylenes*	<0.150	0.150	05/30/2023	ND	6.58	110	6.00	14.1	
Total BTEX	<0.300	0.300	05/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	05/30/2023	ND	432	108	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	186	92.8	200	5.05	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	164	81.8	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *90.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CLINT MERRITT
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	05/30/2023	Sampling Date:	05/30/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: H - 4 (0-0.5') (H232721-04)

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	05/30/2023	ND	2.14	107	2.00	15.9	
Toluene*	<0.050	0.050	05/30/2023	ND	2.23	112	2.00	17.6	
Ethylbenzene*	<0.050	0.050	05/30/2023	ND	2.13	106	2.00	14.9	
Total Xylenes*	<0.150	0.150	05/30/2023	ND	6.58	110	6.00	14.1	
Total BTEX	<0.300	0.300	05/30/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	05/30/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	186	92.8	200	5.05	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	164	81.8	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Chain of Custody

Work Order No: H232721

Page 1 of 1

Project Manager:	Clinton Merritt	Bill to: (if different)	Melodie Sanjari
Company Name:	Carmona Resources	Company Name:	Marathon Oil Corporation
Address:	310 W Wall St Ste 500	Address:	990 Town and Country Blvd
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Houston, TX 77024
Phone:		Email:	msanjari@marathonoil.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dee Boot 24,34,26 WXY 19H	Turn Around		Pres. Code	
Project Number:	2025	☑ Routine	☐ Rush		
Project Location	Lea County, New Mexico	Due Date:	5 Day TAT		
Sampler's Name:	CCM				
PO #:					

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Received Intact:	(Yes) No	Thermometer ID:	113
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.6
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	6.1
Total Containers:		Corrected Temperature:	5.5

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 4500
1 H-1 (0-0.5')	5/30/2023	9:32	X		G	1	X	X	X
2 H-2 (0-0.5')	5/30/2023	9:36	X		G	1	X	X	X
3 H-3 (0-0.5')	5/30/2023	9:40	X		G	1	X	X	X
4 H-4 (0-0.5')	5/30/2023	9:42	X		G	1	X	X	X

Preservative Codes

None: NO DI Water: H_2O

Cool: Cool MeOH: Me

HCL: HC HNO_3: HN

H_2S0_4: H_2 NaOH: Na

H_3PO_4: HP

$NaHSO_4$: NABIS

$Na_2S_2O_3$: $NaSO_3$

Zn Acetate+NaOH: Zn

NaOH+Ascorbic Acid: SAPC

Sample Comments

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	5-30-23 1105		

CARDINAL Laboratories

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

June 27, 2023

CONNER MOEHRING

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: DEE BOOT 24,34,26 WXY 19H

Enclosed are the results of analyses for samples received by the laboratory on 06/20/23 10:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	06/20/2023	Sampling Date:	06/20/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: S - 1 (0-0.5') (H233181-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2023	ND	2.17	109	2.00	2.83	
Toluene*	<0.050	0.050	06/22/2023	ND	2.14	107	2.00	2.56	
Ethylbenzene*	<0.050	0.050	06/22/2023	ND	2.10	105	2.00	2.97	
Total Xylenes*	<0.150	0.150	06/22/2023	ND	6.39	106	6.00	3.28	
Total BTEX	<0.300	0.300	06/22/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/21/2023	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/26/2023	ND	172	86.1	200	0.174	
DRO >C10-C28*	<10.0	10.0	06/26/2023	ND	174	87.1	200	0.969	
EXT DRO >C28-C36	<10.0	10.0	06/26/2023	ND					

Surrogate: 1-Chlorooctane *140 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *152 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	06/20/2023	Sampling Date:	06/20/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: S - 1 (1') (H233181-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/22/2023	ND	2.17	109	2.00	2.83	
Toluene*	<0.050	0.050	06/22/2023	ND	2.14	107	2.00	2.56	
Ethylbenzene*	<0.050	0.050	06/22/2023	ND	2.10	105	2.00	2.97	
Total Xylenes*	<0.150	0.150	06/22/2023	ND	6.39	106	6.00	3.28	
Total BTEX	<0.300	0.300	06/22/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/21/2023	ND	400	100	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	06/21/2023	ND	172	86.1	200	0.174	
DRO >C10-C28*	<10.0	10.0	06/21/2023	ND	174	87.1	200	0.969	
EXT DRO >C28-C36	<10.0	10.0	06/21/2023	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

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

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

Received:	06/20/2023	Sampling Date:	06/20/2023
Reported:	06/27/2023	Sampling Type:	Soil
Project Name:	DEE BOOT 24,34,26 WXY 19H	Sampling Condition:	Cool & Intact
Project Number:	2025	Sample Received By:	Tamara Oldaker
Project Location:	MARATHON OIL CO - LEA CO, NM		

Sample ID: S - 1 (1.5') (H233181-03)

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	06/22/2023	ND	2.17	109	2.00	2.83	
Toluene*	<0.050	0.050	06/22/2023	ND	2.14	107	2.00	2.56	
Ethylbenzene*	<0.050	0.050	06/22/2023	ND	2.10	105	2.00	2.97	
Total Xylenes*	<0.150	0.150	06/22/2023	ND	6.39	106	6.00	3.28	
Total BTEX	<0.300	0.300	06/22/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/21/2023	ND	400	100	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	06/21/2023	ND	172	86.1	200	0.174	
DRO >C10-C28*	<10.0	10.0	06/21/2023	ND	174	87.1	200	0.969	
EXT DRO >C28-C36	<10.0	10.0	06/21/2023	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *116 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Chain of Custody

Work Order No: H233181

Page 1 of 1

Project Manager:	Clinton Merritt	Bill to: (if different)	Melodie Sanjari
Company Name:	Carmona Resources	Company Name:	Marathon Oil Corporation
Address:	310 W Wall St Ste 500	Address:	990 Town and Country Blvd
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Houston, TX 77024
Phone:	Email:	msanjari@marathonoil.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dee Boot 24,34,26 WXY 19H	Turn Around	
Project Number:	2025	☑ Routine ☐ Rush	
Project Location	Lea County, New Mexico	Due Date:	5 Day TAT
Sampler's Name:	CCM		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Received Intact:	Yes No	Thermometer ID:	113
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.6°C
Sample Custody Seals:	Yes No N/A	Temperature Reading:	6.0°C
Total Containers:		Corrected Temperature:	5.4°C

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 4500
1 S-1 (0-0.5')	6/20/2023	8:05	X		G	1		X	X	X
2 S-1 (1')	6/20/2023	8:10	X		G	1		X	X	X
3 S-1 (1.5')	6/20/2023	8:15	X		G	1		X	X	X

Parameters

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O

Cool: Cool MeOH: Me

HCL: HC HNO_3: HN

H_2S0_4: H_2 NaOH: Na

H_3PO_4: HP

$NaHSO_4$: NABIS

$Na_2S_2O_3$: $NaSO_3$

Zn Acetate+NaOH: Zn

NaOH+Ascorbic Acid: SAPC

Sample Comments

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	6.20.23 1030		

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 237830

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 237830
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	7/20/2023