

CARMONA RESOURCES



SITE INFORMATION

Closure Report
Cave Lion 5 Fed 2 6 8 9 TB
Incident #: NAPP2414241608
Lea County, New Mexico
Unit N Sec 05 T26S R35E
32.0657493°, -103.3916158°

Produced Water Release
Point of Release: Pinhole in water tank
Release Date: 05.20.24
Volume Released: 90 barrels of Produced Water
Volume Recovered: 90 barrels of Produced Water

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



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NMOCD CORRESPONDENCE

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June 27, 2024

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

**Re: Closure Report
Cave Lion 5 Fed 2 6 8 9 TB
Marathon Oil Corporation
Incident ID: NAPP2414241608
Site Location: Unit N, S05, T26S, R35E
(Lat 32.0657493°, Long -103.3916158°)
Lea County, New Mexico**

To whom it may concern:

On behalf of Marathon Oil Corporation, Carmona Resources, LLC has prepared this letter to document the Cave Lion 5 Fed 2 6 8 9 TB site activities. The site is located at 32.0657493°, -103.3916158° within Unit N, S05, T26S, R35E, in Lea County, New Mexico (Figures 1 and 2).

1.0 Site Information and Background

Based on the Notice of Release obtained from the New Mexico Oil Conservation Division (NMOCD), the incident was discovered on May 20, 2024, due to a pinhole that developed on the water tank inside the secondary containment. The incident released approximately ninety (90) barrels of produced water, with ninety (90) barrels of produced water recovered. All fluids were contained within the lined facility. See Figure 3. The Notice of Release form is attached in Appendix B.

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, there is one known water source within a 0.50-mile radius of the location. The nearest well is located approximately 0.06 miles northwest of the site in S05, T26S, R35E and was drilled in 2022. The well has a reported groundwater depth of 101' feet below the ground surface (ft bgs). A copy of the associated point of diversion is attached in Appendix C.

3.0 NMAC Regulatory Criteria

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

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 1,000 mg/kg (GRO + DRO).
- TPH: 2,500 mg/kg (GRO + DRO + MRO).
- Chloride: 20,000 mg/kg.

4.0 Liner Inspection Activities

On May 28, 2024, Carmona Resources, LLC conducted liner inspection activities to assess the liner's integrity within the facility. Prior to the liner inspection, the NMOCD division office was notified via web portal on May 23, 2024, per Subsection D of 19.15.29.12 NMAC. See Appendix B. Carmona Resources,



LLC personnel inspected the liner visually and found it to be intact with no integrity issues. Refer to the Photolog attached in Appendix A.

5.0 Conclusions

Based on the liner inspection throughout the facility, no further actions are required at the site. The final C-141 is attached, 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

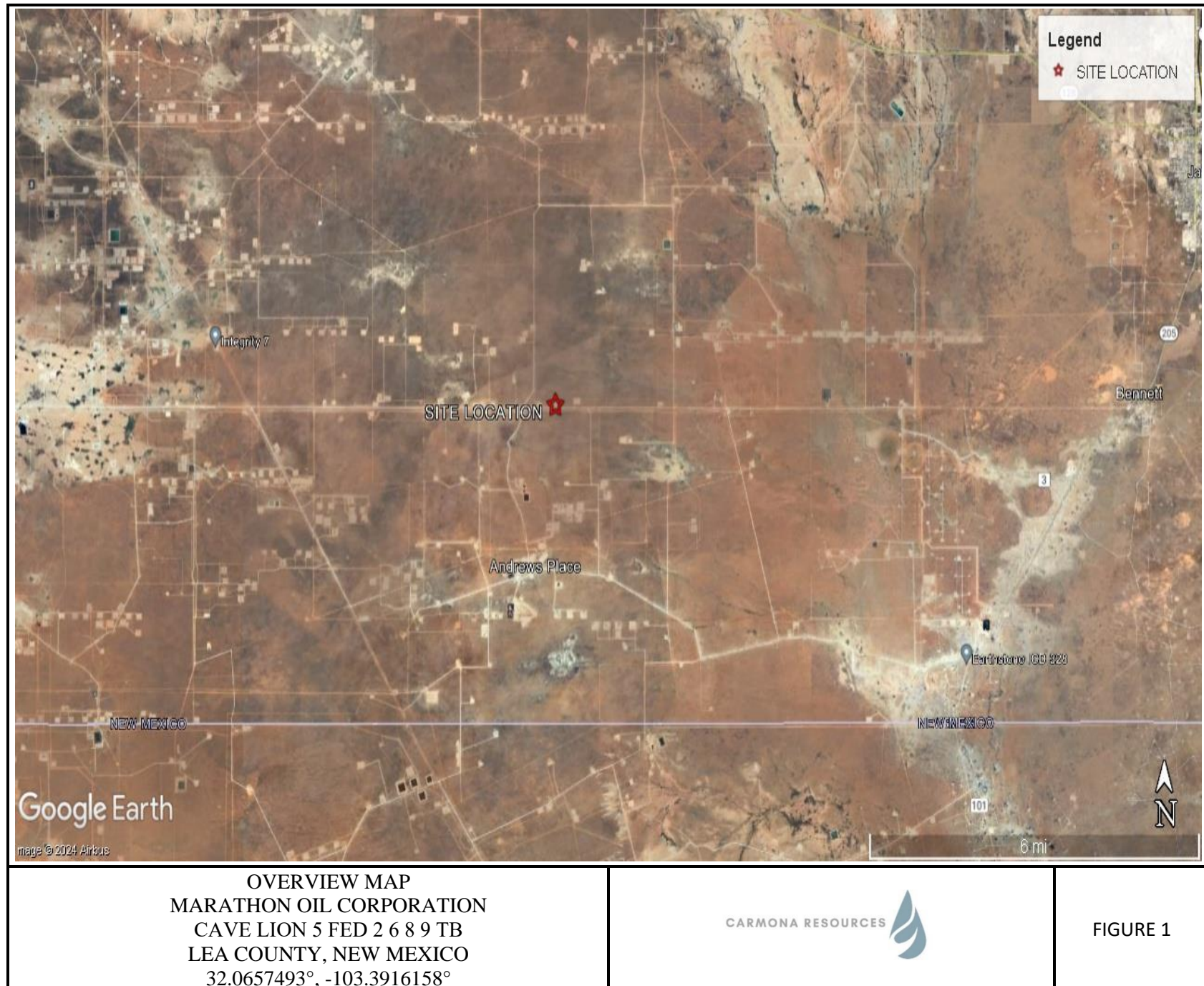
Clinton Merritt
Sr. Project Manager

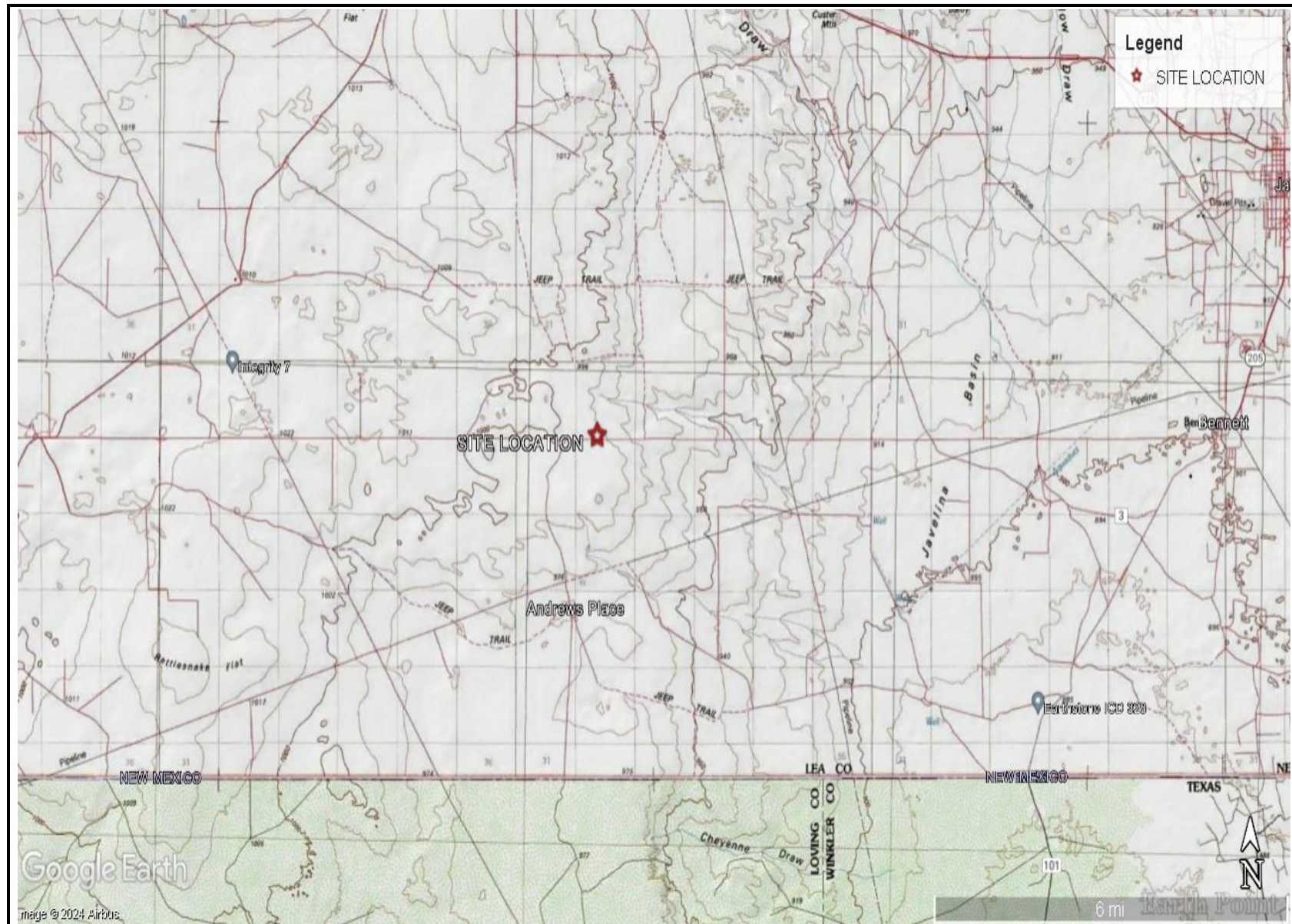
Ashton Thielke
Sr. Project Manager

FIGURES

CARMONA RESOURCES



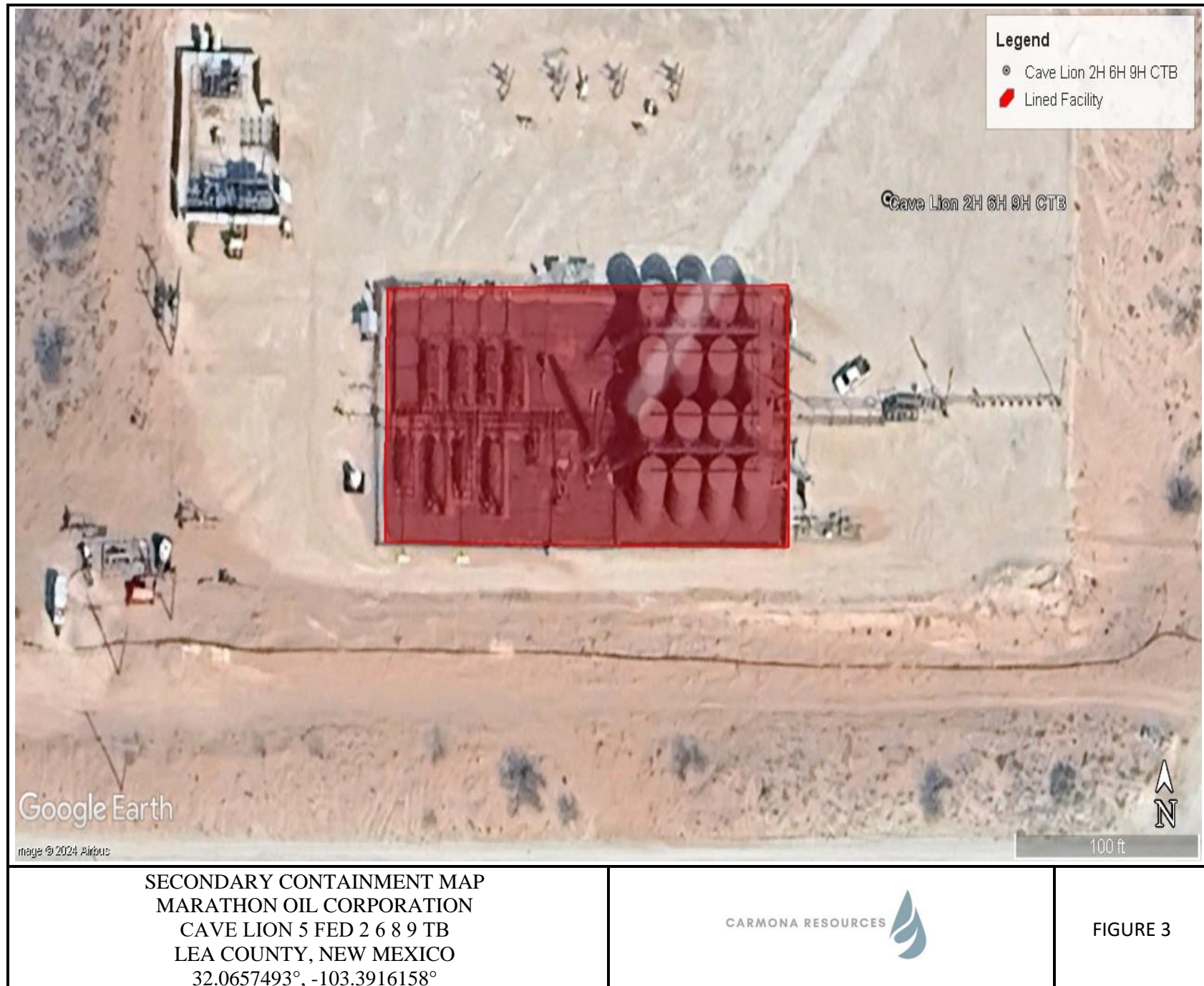




TOPOGRAPHIC MAP MARATHON
OIL CORPORATION
CAVE LION 5 FED 2 6 8 9 TB
LEA COUNTY, NEW MEXICO
32.0657493°, -103.3916158°



FIGURE 2



APPENDIX A

CARMONA RESOURCES



PHOTOGRAPHIC LOG

Marathon Oil Corporation

Photograph No. 1

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View West of lease signs at facility pad.



Photograph No. 2

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View West of the lined facility.



Photograph No. 3

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View South of the lined facility.



PHOTOGRAPHIC LOG

Marathon Oil Corporation

Photograph No. 4

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View Southwest of the lined facility.



Photograph No. 5

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View South of the lined facility.



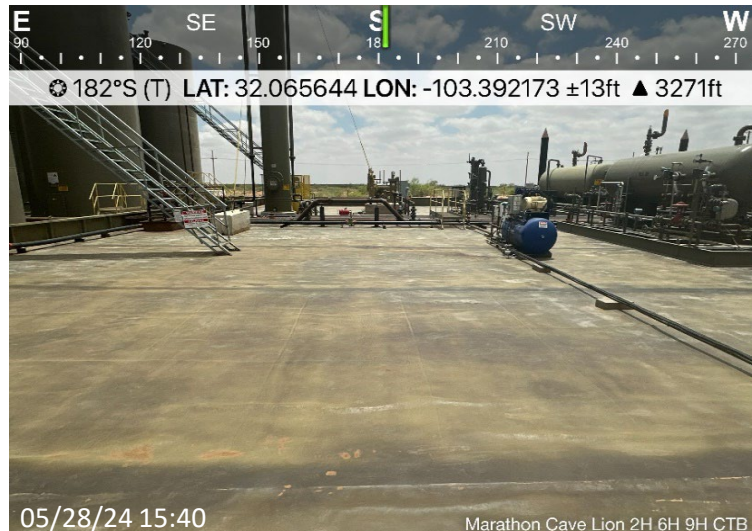
Photograph No. 6

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View South of the lined facility.



PHOTOGRAPHIC LOG

Marathon Oil Corporation

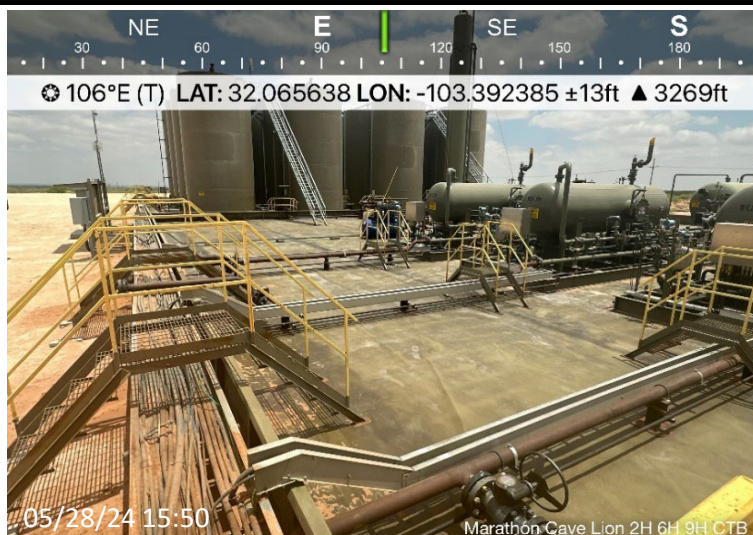
Photograph No. 7

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View East of the lined facility.



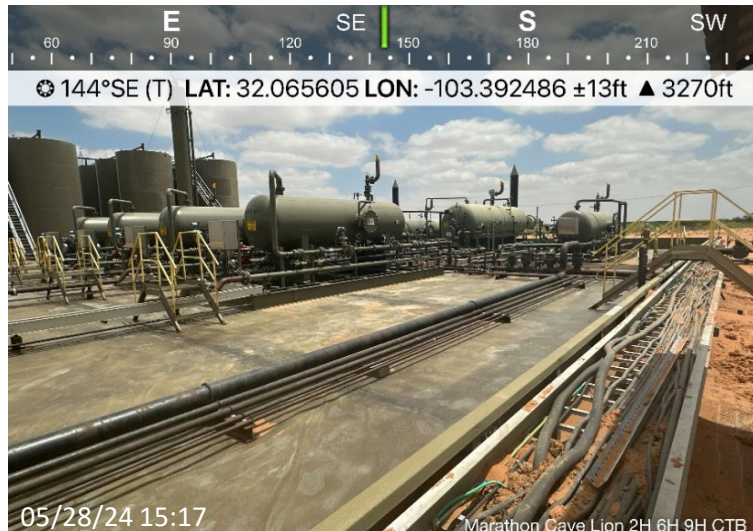
Photograph No. 8

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View Southeast of the lined facility.



Photograph No. 9

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View Northwest of the lined facility.



PHOTOGRAPHIC LOG

Marathon Oil Corporation

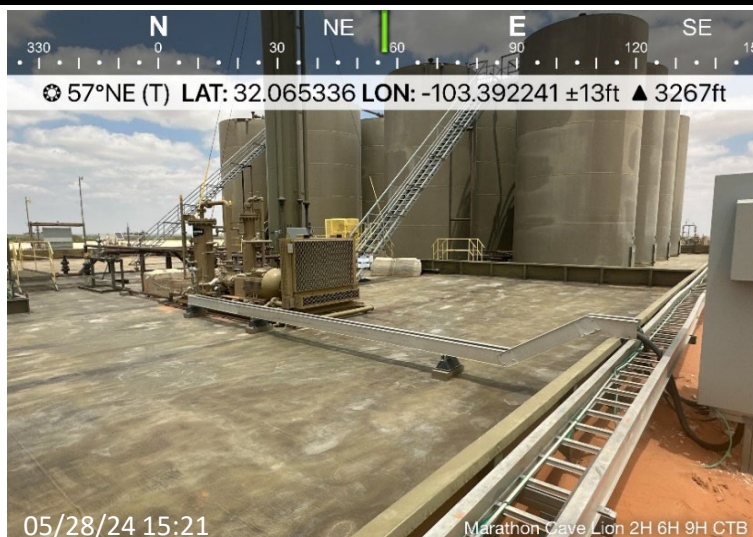
Photograph No. 10

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View Northeast of the lined facility.



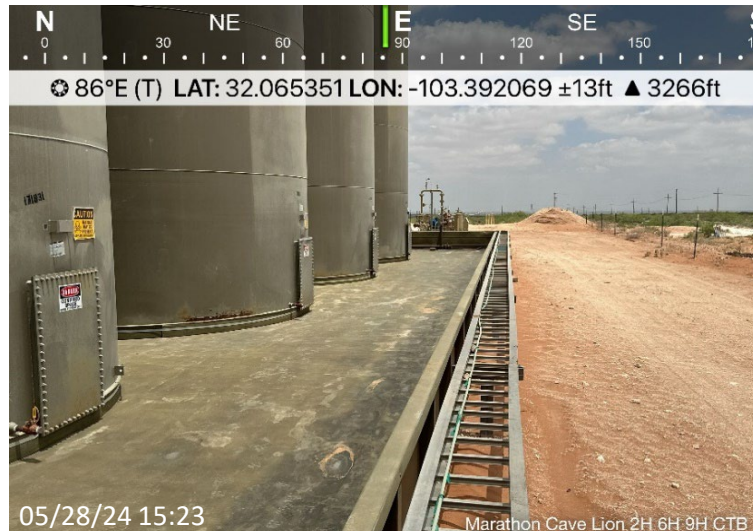
Photograph No. 11

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View East of the lined facility.



Photograph No. 12

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View Northwest of the lined facility.



PHOTOGRAPHIC LOG

Marathon Oil Corporation

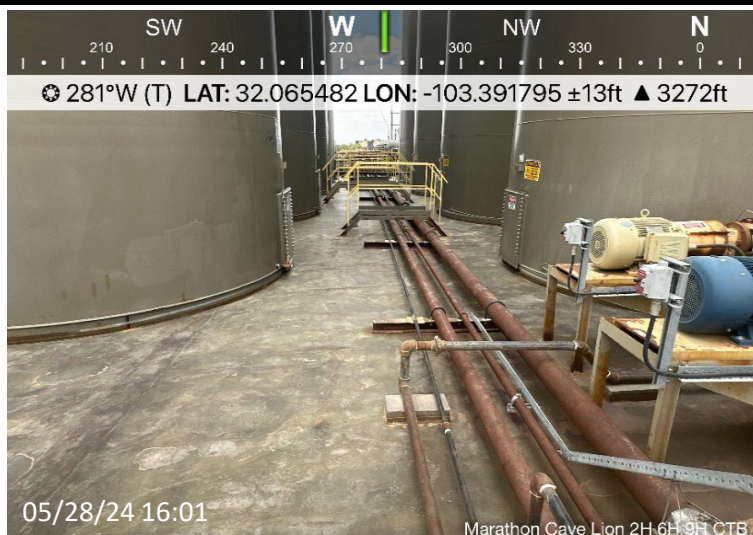
Photograph No. 13

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View West of the lined facility.



Photograph No. 14

Facility: Cave Lion 5 Fed 2 6 8 9 TB

County: Lea County, New Mexico

Description:

View West of the lined facility.



APPENDIX B

CARMONA RESOURCES



OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[NOTIFY] Notification Of Release (NOR) Application

Submission Information

Submission ID:	346291	Districts:	Hobbs
Operator:	[372098] MARATHON OIL PERMIAN LLC	Counties:	Lea
Description:	MARATHON OIL PERMIAN LLC [372098] , CAVE LION 5 FED 2689 TB , nAPP2414241608		
Status:	APPROVED		
Status Date:	05/21/2024		
References (2):	fAPP2126037448, nAPP2414241608		

Forms

This application type does not have attachments.

Questions

Location of Release Source

Please answer all the questions in this group.

Site Name	CAVE LION 5 FED 2689 TB
Date Release Discovered	05/20/2024
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Production Tank Produced Water Released: 286 BBL Recovered: 0 BBL Lost: 286 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

Acknowledgments

- ☒ I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
- ☒ I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
- ☒ I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
- ☒ 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.
- ☒ I acknowledge the fact that 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.
- ☒ I acknowledge the fact that, 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.

Comments

No comments found for this submission.

Conditions

Summary: icastro (5/21/2024), When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.

Reasons

No reasons found for this submission.

Fees

No fees found for this submission.

Go Back

CMERRITT (AGENT FOR MARATHON OIL PERMIAN LLC) SIGN OUT HELP

Searches Operator Data Submissions Administration

EMNRD Home OCD Main Page OCD Rules Help

OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[C-141] Initial C-141 (C-141-V-INITIAL) Application

Submission Information

Submission ID:	347390	Districts:	Hobbs
Operator:	[372098] MARATHON OIL PERMIAN LLC	Counties:	Lea
Description:	MARATHON OIL PERMIAN LLC [372098] , CAVE LION 5 FED 2689 TB , nAPP2414241608		
Status:	APPROVED		
Status Date:	05/23/2024		
References (2):	fAPP2126037448, nAPP2414241608		

Forms

Attachments: [Volume Calculation](#)

Questions

Prerequisites

Incident ID (n#)	nAPP2414241608
Incident Name	NAPP2414241608 CAVE LION 5 FED 2689 TB @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Facility	[fAPP2126037448] CAVE LION 5 FED 2689 TB

Location of Release Source

Please answer all the questions in this group.

Site Name	CAVE LION 5 FED 2689 TB
Date Release Discovered	05/20/2024
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
-----------------------------------	---------------

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)	Spill was contained inside lined secondary containment. Spill was caused due to the water tank developing a pin hole, causing the failure.

Nature and Volume of Release (continued)

Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	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: Isaac Castro
Email: icastro@marathonoil.com
Date: 05/23/2024

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)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.

What is the minimum distance, between the closest lateral extents of the release and the following surface areas:

A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

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	No
---	----

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.

Comments

No comments found for this submission.

Conditions

Summary: scwells (5/23/2024). None

Reasons

No reasons found for this submission.

Fees

Summary:

		Created	Type	Amount	Status	Saved
FQRHS-240523-C-1410	Fee	5/23/2024	SB553 A.(2) [ADMIN]	\$150.00	Paid [PAID]	5/23/2024
	Payment	5/23/2024	Credit Card [CC]	\$150.00	Paid [PAID]	5/23/2024

Go Back

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 347101

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:
	372098
	Action Number:
	347101
Action Type: [NOTIFY] Notification Of Liner Inspection (C-141L)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2414241608
Incident Name	NAPP2414241608 CAVE LION 5 FED 2689 TB @ 0
Incident Type	Produced Water Release
Incident Status	Notification Accepted
Incident Facility	[fAPP2126037448] CAVE LION 5 FED 2689 TB

Location of Release Source	
Site Name	CAVE LION 5 FED 2689 TB
Date Release Discovered	05/20/2024
Surface Owner	Federal

Liner Inspection Event Information	
Please answer all the questions in this group.	
What is the liner inspection surface area in square feet	22,519
Have all the impacted materials been removed from the liner	Yes
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	05/28/2024
Time liner inspection will commence	03:00 PM
Please provide any information necessary for observers to liner inspection	Clinton Merritt 432-813-9044
Please provide any information necessary for navigation to liner inspection site	From the intersection of NM 128 and Battle Axe Road, travel south on Battle Axe Road for 11.03 miles. Turn east onto Anthony road and travel 8.37 miles.

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 347101

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 347101
	Action Type: [NOTIFY] Notification Of Liner Inspection (C-141L)

CONDITIONS

Created By	Condition	Condition Date
icastro	Failure to notify the OCD of liner inspections including any changes in date/time per the requirements of 19.15.29.11.A(5)(a)(ii) NMAC, may result in the inspection not being accepted.	5/23/2024

APPENDIX C

CARMONA RESOURCES



Nearest water well

Marathon Oil Permian LLC

Legend

- 0.06 Miles
- 0.50 Mile Radius
- CAVE LION 5 FED 2689 TB (05.20.2024)
- NMSEO Water Well

101' - Drilled 2022

CAVE LION 5 FED 2689 TB (05.20.2024)



Low Karst

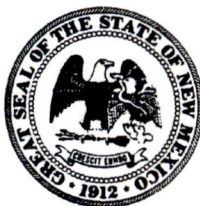
Marathon Oil Permian LLC

Legend

- CAVE LION 5 FED 2689 TB (05.20.2024)
- Low

CAVE LION 5 FED 2689 TB (05.20.2024)





WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE 011 APR 8 2022 PM 3:16

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (TW-1)		WELL TAG ID NO.		OSE FILE NO(S). C-4601			
	WELL OWNER NAME(S) Marathon Oil				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 4111 S Tidwell Rd.				CITY Carlsbad	STATE NM	ZIP 88220	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 3	SECONDS 58	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	23	33	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE SE Sw Sec. 05 T26S R35E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 3/31/2022		DRILLING ENDED 3/31/2022		DEPTH OF COMPLETED WELL (FT) temporary well	BORE HOLE DEPTH (FT) ±100.8	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a	DATE STATIC MEASURED 4/6/2022	
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	100.8	±6.5	Boring	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4601-POD 1	POD NO. 1	TRN NO. 721041
LOCATION 26.35.05.343	WELL TAG ID NO. ---	PAGE 1 OF 2

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
4. HYDROGEOLOGIC LOG OF WELL	0	4	4	Sand, medium/ fine grained poorly graded, Red	Y ✓ N	
	4	19	15	Sand, medium/ fine grained poorly graded, Tan	Y ✓ N	
	19	101	82	Sand, medium/ fine grained poorly graded, Reddish Brown	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
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					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	<div style="text-align: right; color: blue; font-style: italic;">USE OIT APR 8 2022 PM 3:15</div>	
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Carmelo Trevino, Cameron Pruitt		

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> SIGNATURE OF DRILLER / PRINT SIGNEE NAME </div> <div style="text-align: center;"> Jackie D. Atkins DATE </div> </div>	4/7/2022

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4601-POD 1	POD NO. 1	TRN NO. 721041
LOCATION 26-35.05-343	WELL TAG ID NO. —	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 721041
File Nbr: C 04601
Well File Nbr: C 04601 POD1

Apr. 08, 2022

MELODIE SANJARI
MARATHON OIL
4111 S TIDWELL RD
CARLSBAD, NM 88220

Greetings:

The above numbered permit was issued in your name on 03/10/2022.

The Well Record was received in this office on 04/08/2022, stating that it had been completed on 03/31/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 03/10/2023.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Maret Amaral".

Maret Amaral
(575) 622-6521

drywell



2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

08/016/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4601 Pod1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4601 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

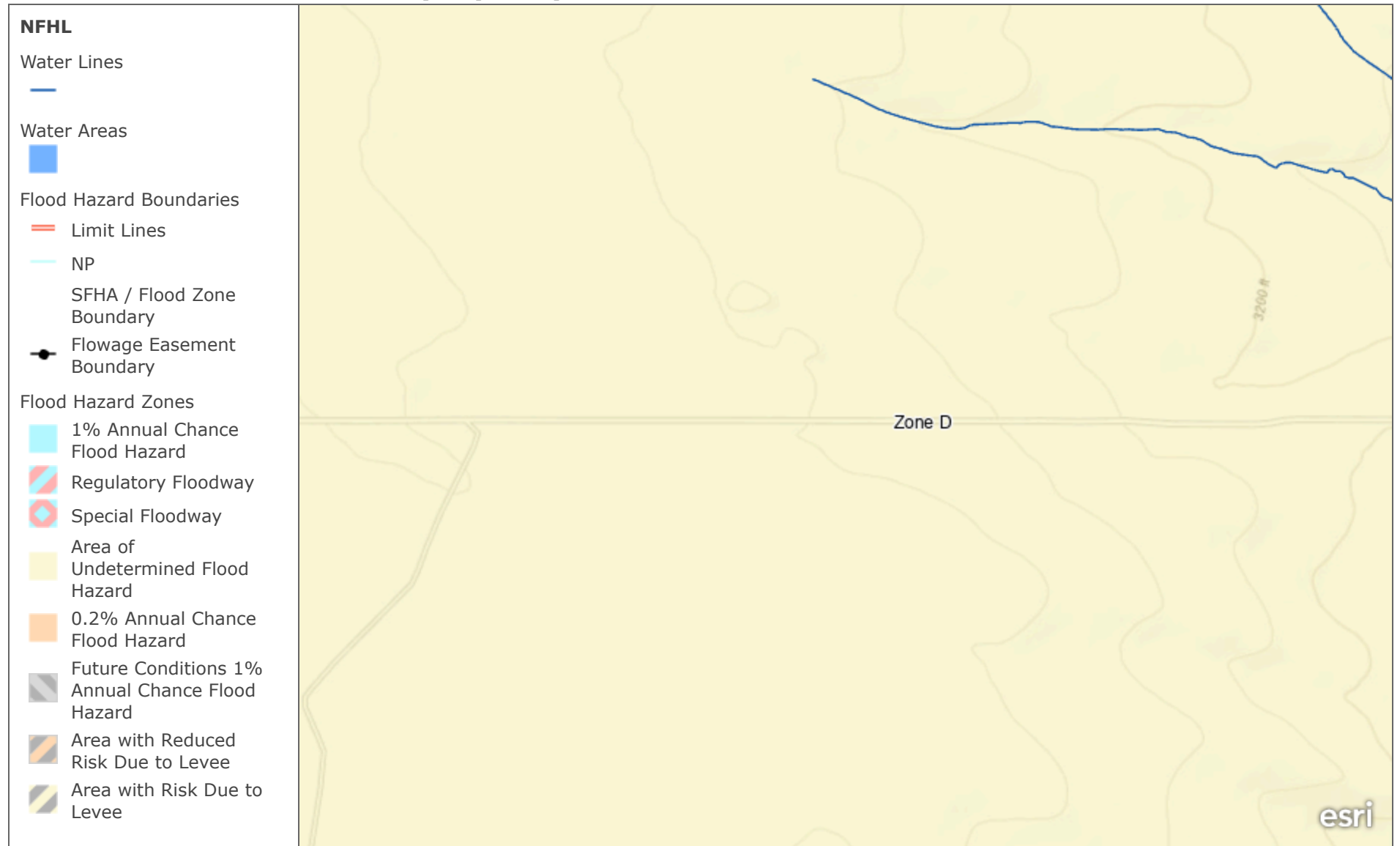
A handwritten signature in black ink, appearing to read "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

OSE DII APR 8 2022 PM3:15

FEMA National Flood Hazard Layer (NFHL)



FEMA flood layer

0.3mi

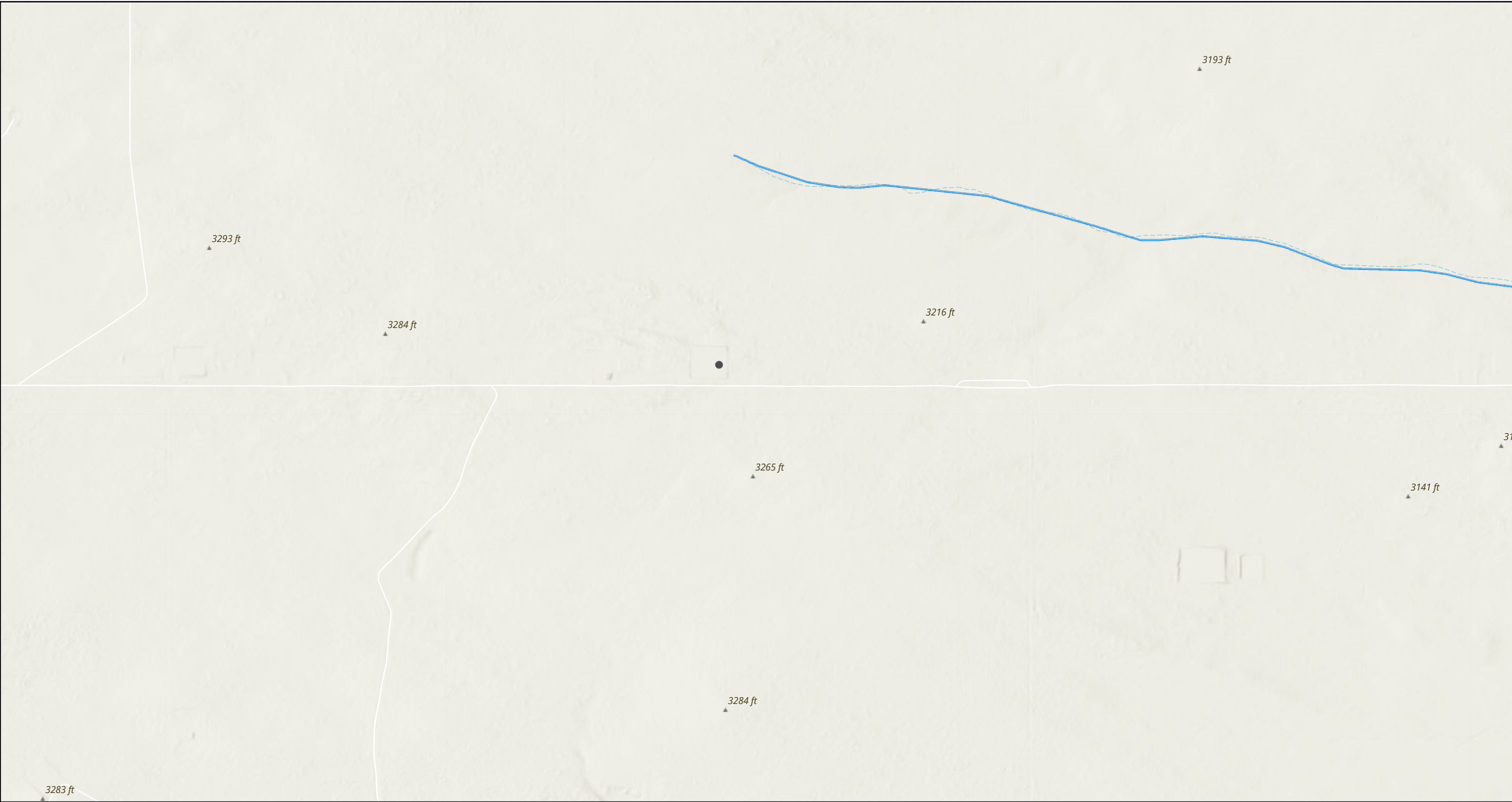
Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

FEMA National Flood Hazard Layer (NFHL)



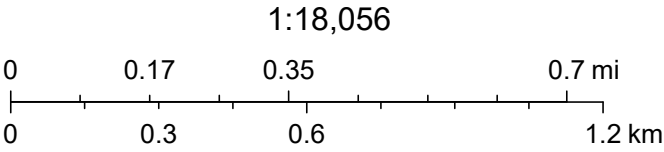
Maxar | Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

CAVE LION 5 FED 2689 TB (05.20.2024)



5/23/2024, 9:14:41 AM

— OSE Streams



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NM OSE

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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

Action 359636

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:	372098
	Action Number:	359636
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2414241608
Incident Name	NAPP2414241608 CAVE LION 5 FED 2689 TB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2126037448] CAVE LION 5 FED 2689 TB

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CAVE LION 5 FED 2689 TB
Date Release Discovered	05/20/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Production Tank Produced Water Released: 90 BBL Recovered: 90 BBL Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Spill was contained inside lined secondary containment. Spill was caused due to the water tank developing a pin hole, causing the failure.

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QUESTIONS, Page 2

Action 359636

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:	372098
	Action Number:	359636
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	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: Isaac Castro Email: icastro@marathonoil.com Date: 07/12/2024
--	--

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QUESTIONS, Page 3

Action 359636

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:
	372098
	Action Number:
	359636
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

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 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (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	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

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	Yes
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	05/23/2024
On what date will (or did) the final sampling or liner inspection occur	05/28/2024
On what date will (or was) the remediation complete(d)	05/28/2024
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0
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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QUESTIONS, Page 4

Action 359636

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:	372098
	Action Number:	359636
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Remediation Plan (continued)**

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.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

Is (or was) there affected material present needing to be removed	Yes
Is (or was) there a power wash of the lined containment area (to be) performed	Yes
OTHER (Non-listed remedial process)	Not answered.

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: Isaac Castro Email: icastro@marathonoil.com Date: 07/12/2024
--	---

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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QUESTIONS, Page 6

Action 359636

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:
	372098
	Action Number:
	359636
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	347101
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	05/28/2024
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	22519

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	On May 28, 2024, Carmona Resources, LLC conducted liner inspection activities to assess the liner's integrity within the facility. Prior to the liner inspection, the NMOCD division office was notified via web portal on May 23, 2024, per Subsection D of 19.15.29.12 NMAC. See Appendix B. Carmona Resources, 310 West Wall Street, Suite 500 Midland TX, 79701 432.813.1992 LLC personnel inspected the liner visually and found it to be intact with no integrity issues.

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

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

I hereby agree and sign off to the above statement	Name: Isaac Castro Email: icastro@marathonoil.com Date: 07/12/2024
--	--

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CONDITIONS

Action 359636

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 359636
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	7/15/2024