

Form 3160-3  
(October 2024)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2027

5. Lease Serial No.

NMNM105561

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

NMNM125386B/INITIAL WOLFCAMP PA

8. Lease Name and Well No.

RED HILLS WEST UNIT

37H

9. API Well No.

30-025-55502

10. Field and Pool, or Exploratory

"WC-025 G-08 S253235G/Lower Bone Sp

11. Sec., T. R. M. or Blk. and Survey or Area

SEC 10/T26S/R32E/NMP

1a. Type of work: ☒ DRILL ☐ REENTER  
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other  
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☒ Multiple Zone

2. Name of Operator  
MEWBOURNE OIL COMPANY3a. Address  
P O BOX 5270, HOBBS, NM 882413b. Phone No. (include area code)  
(575) 393-5905

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface SWSW / 150 FSL / 810 FWL / LAT 32.0506915 / LONG -103.66873

At proposed prod. zone NENW / 100 FNL / 2330 FWL / LAT 32.0794081 / LONG -103.663968

14. Distance in miles and direction from nearest town or post office\*

30 miles

12. County or Parish

LEA

13. State

NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

160 feet

16. No of acres in lease

17. Spacing Unit dedicated to this well

320.0

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

20 feet

19. Proposed Depth

11014 feet / 21488 feet

20. BLM/BIA Bond No. in file

FED: NMB106714150

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3216 feet

22. Approximate date work will start\*

08/16/2025

23. Estimated duration

60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature  
(Electronic Submission)

Name (Printed/Typed)

BRADLEY BISHOP / Ph: (575) 393-5905

Date

07/02/2025

Title

Regulatory

Approved by (Signature)

(Electronic Submission)

Name (Printed/Typed)

CODY LAYTON / Ph: (575) 234-5959

Date

09/22/2025

Title

Assistant Field Manager Lands &amp; Minerals

Office

Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)



C-102  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
			Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
				<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled		

## WELL LOCATION INFORMATION

API Number <b>30-025-55502</b>	Pool Code <b>97903</b>	Pool Name <b>WC-025 G-08 S253235G;LWR BONE SPRING</b>
Property Code <b>39542</b>	Property Name <b>RED HILLS WEST UNIT</b>	Well Number <b>037H</b>
OGRID No. <b>14744</b>	Operator Name <b>MEWBOURNE OIL COMPANY</b>	Ground Level Elevation <b>3216'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

## Surface Location

UL <b>M</b>	Section <b>10</b>	Township <b>26S</b>	Range <b>32E</b>	Lot	Ft. from N/S <b>150 FSL</b>	Ft. from E/W <b>810 FWL</b>	Latitude <b>32.0506915°N</b>	Longitude <b>103.6687300°W</b>	County <b>LEA</b>
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## Bottom Hole Location

UL <b>C</b>	Section <b>3</b>	Township <b>26S</b>	Range <b>32E</b>	Lot	Ft. from N/S <b>100 FNL</b>	Ft. from E/W <b>2330 FWL</b>	Latitude <b>32.0794081°N</b>	Longitude <b>103.6639680°W</b>	County <b>LEA</b>
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Dedicated Acres <b>320</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API RED HILLS WEST UNIT 036H	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>U</b>
Order Numbers. <b>N/A</b>			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL <b>N</b>	Section <b>10</b>	Township <b>26S</b>	Range <b>32E</b>	Lot	Ft. from N/S <b>10 FSL</b>	Ft. from E/W <b>2330 FWL</b>	Latitude <b>32.0503151°N</b>	Longitude <b>103.6638226°W</b>	County <b>LEA</b>
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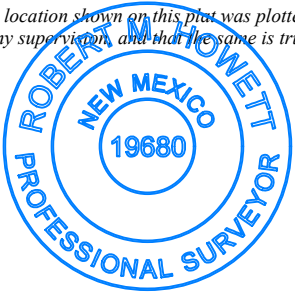
## First Take Point (FTP)

UL <b>N</b>	Section <b>10</b>	Township <b>26S</b>	Range <b>32E</b>	Lot	Ft. from N/S <b>100 FSL</b>	Ft. from E/W <b>2330 FWL</b>	Latitude <b>32.0505624°N</b>	Longitude <b>103.6638242°W</b>	County <b>LEA</b>
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## Last Take Point (LTP)

UL <b>C</b>	Section <b>3</b>	Township <b>26S</b>	Range <b>32E</b>	Lot	Ft. from N/S <b>100 FNL</b>	Ft. from E/W <b>2330 FWL</b>	Latitude <b>32.0794081°N</b>	Longitude <b>103.6639680°W</b>	County <b>LEA</b>
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Unitized Area or Area of Uniform Interest <b>N/A</b>	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: <b>3216'</b>
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<b>OPERATOR CERTIFICATIONS</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  <b>Brett Miller</b> <b>03/13/2025</b>		<b>SURVEYOR CERTIFICATIONS</b>  <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me under my supervision, and that the same is true and correct to the best of my belief.</i>  	
Signature <b>Brett Miller</b>		Signature and Seal of Professional Surveyor <b>Robert M. Howett</b>	
Printed Name <b>brett.miller@mewbourne.com</b>		Certificate Number <b>19680</b>	Date of Survey <b>02/11/2023</b>
Email Address			

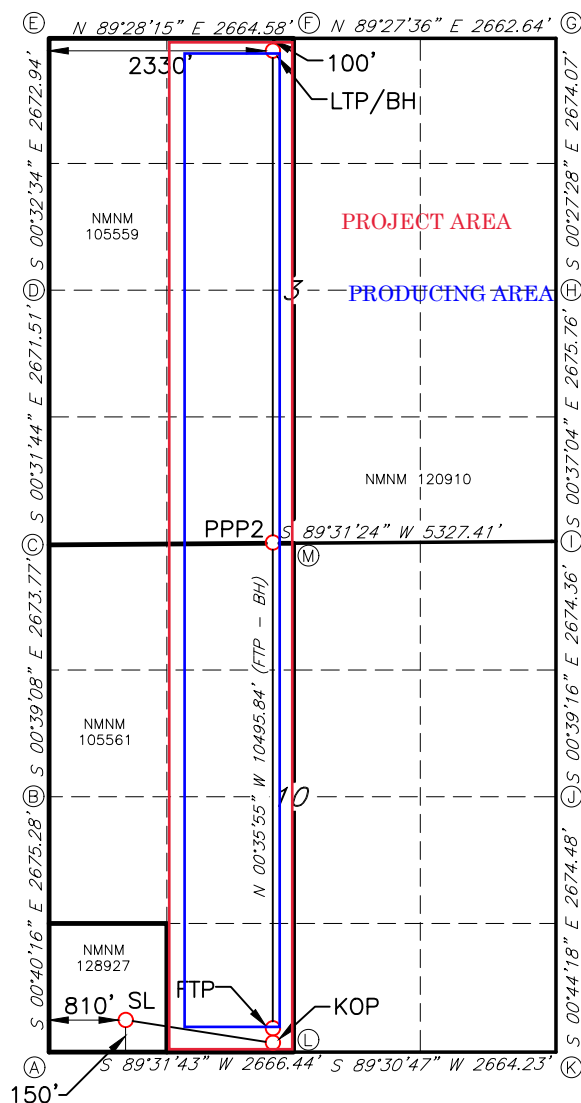
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

## ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

## RED HILLS WEST UNIT #037H



GEODETTIC DATA  
NAD 83 GRID - NM EAST

SURFACE LOCATION (SL)  
150' FSL & 810' FWL (SEC.10)  
N: 382813.3 - E: 747245.2  
LAT: 32.0506915° N  
LONG: 103.6687300° W

PROPOSED PENETRATION POINT 2 (PPP2)  
0' FSL & 2336' FWL (SEC.3)  
N: 388023.7 - E: 748710.6  
LAT: 32.0649889° N  
LONG: 103.6638961° W

KICK OFF POINT (KOP)  
10' FSL & 2330' FWL (SEC.10)  
N: 382685.8 - E: 748766.5  
LAT: 32.0503151° N  
LONG: 103.6638226° W

LAST TAKE POINT/BOTTOM HOLE (LTP/BH)  
100' FSL & 2330' FWL (SEC.3)  
N: 393269.0 - E: 748655.8  
LAT: 32.0794081° N  
LONG: 103.6639680° W

FIRST TAKE POINT (FTP)  
100' FSL & 2330' FWL (SEC.10)  
N: 382775.7 - E: 748765.4  
LAT: 32.0505624° N  
LONG: 103.6638242° W

CORNER DATA  
NAD 83 GRID - NM EAST

A: FOUND BRASS CAP "1939"  
N: 382656.6 - E: 746437.1

B: FOUND BRASS CAP "1939"  
N: 385331.2 - E: 746405.8

C: FOUND BRASS CAP "1939"  
N: 388004.3 - E: 746375.4

D: FOUND BRASS CAP "1939"  
N: 390675.2 - E: 746350.7

E: FOUND BRASS CAP "1916"  
N: 393347.5 - E: 746325.4

F: FOUND BRASS CAP "1916"  
N: 393372.1 - E: 748989.4

G: FOUND BRASS CAP "1916"  
N: 393397.2 - E: 751651.4

H: FOUND BRASS CAP "1939"  
N: 390723.7 - E: 751672.7

I: FOUND BRASS CAP "1939"  
N: 388048.6 - E: 751701.6

J: FOUND BRASS CAP "1939"  
N: 385374.9 - E: 751732.1

K: FOUND BRASS CAP "1939"  
N: 382701.2 - E: 751766.6

L: FOUND BRASS CAP "1939"  
N: 382678.5 - E: 749103.0

M: CALCULATED POINT  
N: 388026.4 - E: 749038.5

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Mewbourne Oil Co. **OGRID:** 14744 **Date:** 3/14/25

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
RED HILLS WEST UNIT 37H		M 10 26S 32E	150' FSL x 810' FWL	1000	3000	4000
				Y1-300 Y2-200 Y3-100	Y1-900- Y2-600 Y3-300	Y1-1200 Y2-800 Y3-400

**IV. Central Delivery Point Name:** RED HILLS WEST UNIT 37H [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
RED HILLS WEST UNIT 37H		4/14/25	5/14/25	6/14/25	6/29/25	7/4/25

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.



**Section 2 – Enhanced Plan**  
**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

Page 8

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Bradley Bishop</i>
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	3/14/25
Phone:	575-393-5905
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

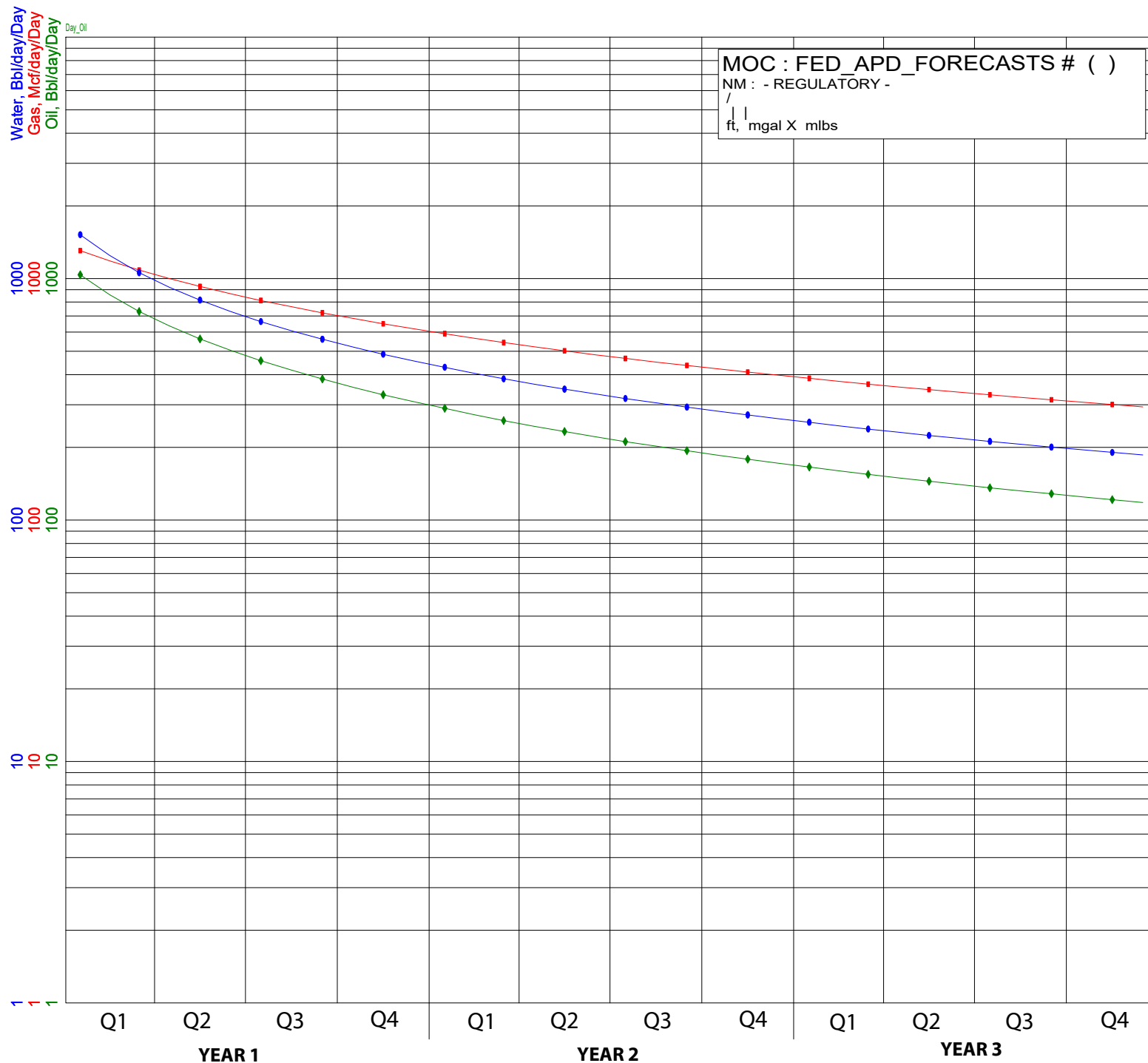
## Mewbourne Oil Company

## Natural Gas Management Plan – Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8 :
- A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
  - B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
  - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
  - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
  - E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
  - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.



Oil, Bbl/day	◆
Qual=	LEABS2.0
Ref=	1/2025
Cum=	0
Rem=	332092
EUR=	332092
Yrs=	3.000
Qi=	1150.0
b=	0.950000
De=	74.000000
Df=	23.848091
Qab=	116.7

Gas, Mcf/day	■
Qual=	LEABS2.0
Ref=	1/2025
Cum=	0
Rem=	621833
EUR=	621833
Yrs=	3.000
Qi=	1375.0
b=	1.050000
De=	56.000000
Df=	20.240305
Qab=	291.1

Water, Bbl/d	●
Qual=	LEABS2.0
Ref=	1/2025
Cum=	0
Rem=	492387
EUR=	492387
Yrs=	3.000
Qi=	1700.0
b=	1.050000
De=	74.000000
Df=	22.172770
Qab=	183.7



Mewbourne Oil Company, Red Hills West Unit 37H

Sec 10, T26S, R32E

SHL: 150' FSL 810' FWL (Sec 10)

BHL: 100' FNL 2330' FWL (Sec 3)

Well Location		GL: 3216'									
Point	Calls	Leases	Aliquot	Section	Township	Range	County	Lat	Long	TVD	MD
SHL	SHL: 150' FSL & 810' FWL (Sec 10)	NMNM128927	SWSW	10	26S	32E	Lea	32.0506915	- 103.6687300	0'	0'
KOP	KOP: 10' FSL & 2330' FWL (Sec 10)	NMNM105561	SESW	10	26S	32E	Lea	32.0503151	- 103.6638226	10,471'	10,577'
FTP	FTP: 100' FSL & 2330' FWL (Sec 10)	NMNM105561	SESW	10	26S	32E	Lea	32.0505624	- 103.6638242	10,779'	10,903'
PPP2	PPP2: 0' FSL & 2336' FWL (Sec 3)	NMNM105559	SESW	3	26S	32E	Lea	32.0649889	- 103.6638961	11,029'	16,243'
BHL	BHL: 100' FNL & 2330' FWL (Sec 3)	NMNM105559	NENW	3	26S	32E	Lea	32.0794081	- 103.6639680	11,014'	21,488'

GEOLOGY							
Formation	Est. Top (TVD)	Lithology	Mineral Resources	Formation	Est. Top (TVD)	Lithology	Mineral Resources
Rustler	635'	Dolomite/Anhydrite	Usable Water	Yeso			
Castile				Delaware (Lamar)	4525'	Limestone/Dolomite	Oil/Natural Gas
Salt Top	745'	Salt	None	Bell Canyon	4555'	Sandstone	Oil/Natural Gas
Marker Bed 126				Cherry Canyon	5415'	Sandstone	Oil/Natural Gas
Salt Base	4305'	Salt	None	Manzanita Marker	5725'	Limestone	Oil/Natural Gas
Yates				Basal Brushy Canyon	8435'	Sandstone	Oil/Natural Gas
Seven Rivers				Bone Spring	8665'	Limestone	Oil/Natural Gas
Queen				1st Bone Spring	9575'	Sandstone	Oil/Natural Gas
Capitan				2nd Bone Spring	10045'	Sandstone	Oil/Natural Gas
Grayburg				3rd Bone Spring	11335'	Sandstone	Oil/Natural Gas
San Andres				Wolfcamp	11785'	Shale/Sandstone/Limestone	Oil/Natural Gas

Casing Program Design A						BLM Minimum Safety Factors		1.125	1.0	1.6 Dry	1.6 Dry
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst		1.8 Wet	1.8 Wet
Surface	17.5"	0'	0'	710'	710'	13.375" 48# H40 STC	2.43	5.45		SF Jt Tension	SF Body Tension
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96		9.45	15.87
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73		12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44		128.85	160.14
Production	8.75"	0'	0'	10577'	10471'	7" 26# P110 LTC	1.18	1.88		2.52	3.02
Production	8.5"	10577'	10471'	21488'	11014'	4.5" 13.5# RYS110 CDC HTQ	1.55	1.80		2.90	2.86

All casing strings will be tested in accordance with 43 CFR Part 3172. Must have table for contingency casing.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM’s minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50’ above the Reef?	
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-Q?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500’ into previous casing?	
Is well located in R-111-Q and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100’ to 600’ below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Red Hills West Unit 37H  
Sec 10, T26S, R32E  
SHL: 150' FSL 810' FWL (Sec 10)  
BHL: 100' FNL 2330' FWL (Sec 3)

Design A - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft³/sack	TOC/BOC	Volume, ft³	% Excess	Slurry Description
13.375 in	LEAD	340	12.5	2.12	0' - 519'	730	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	519' - 710'	268		Class C: Retarder
9.625 in	LEAD	700	12.5	2.12	0' - 3772'	1490	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3772' - 4450'	268		Class C: Retarder
7 in - 4.5 in	LEAD	200	12.5	2.12	5725' - 7138'	430	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	3700	15.6	1.18	7138' - 21488'	4366		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 5725'								
2nd Stg 7 in	LEAD	70	12.5	2.12	4250' - 5029'	150	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	5029' - 5725'	134		Class C: Retarder, Fluid Loss, Defoamer

Pressure Control Equipment

BOP installed and tested before drilling hole, in:	Size, in	System Rated WP	Type		Tested to:	Rating Depth	
12.25	13.375	5M	Annular		X	2500#/3500#	21,488'
		5M	Blind Ram		X	5000#	
			Pipe Ram		X		
			Double Ram				
			Other*				

\*Specify if additional ram is utilized.

**Equipment:** Annular, Pipe Rams, Blind Rams, Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

**Variance Request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure. If a breaktesting variance is approved & incorporated, API Standard 53 will be incorporated and testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater, will be performed.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

Y	Formation integrity test will be performed per 43 CFR Part 3172. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR Part 3172.
N	Mewbourne Oil Company request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack.

Mud Program

Depth (MD)	Mud Wt., lb/gal	Mud Type
0' - 710'	8.4 - 8.6	Fresh Water
710' - 4450'	10.0 - 10.2	Brine
4450' - 10577'	8.6 - 9.7	Cut-Brine
10577' - 21488'	10.0 - 12.	OBM

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	Pason/PVT/Visual Monitoring
---	-----------------------------

Mewbourne Oil Company, Red Hills West Unit 37H

Sec 10, T26S, R32E

SHL: 150' FSL 810' FWL (Sec 10)

BHL: 100' FNL 2330' FWL (Sec 3)

Logging and Testing Procedures

Logging, Coring and Testing.	
N	Will run GR/CNL from KOP (10577') to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No logs are planned based on well control or offset log information. Offset Well: Red Hills West Unit #044H
N	Coring? If yes, explain:

Open & Cased Hole Logs Run In the Well

<input type="checkbox"/> Caliper	<input type="checkbox"/> Cement Bond Log	<input type="checkbox"/> CNL/FDC
<input type="checkbox"/> Compensated Densilog	<input type="checkbox"/> Compensated Neutron Log	<input type="checkbox"/> Computer Generated Log
<input type="checkbox"/> Dip Meter Log	<input checked="" type="checkbox"/> Directional Survey	<input type="checkbox"/> Dual Induction/Microresistivity
<input type="checkbox"/> Dual Lateral Log/Microspherically Focused	<input type="checkbox"/> Electric Log	<input type="checkbox"/> Formation Density Compensated Log
<input type="checkbox"/> Gamma Ray Log	<input checked="" type="checkbox"/> Measurement While Drilling	<input type="checkbox"/> Mud Log/Geological Lithology Log
<input type="checkbox"/> Other	<input type="checkbox"/> Porosity-Resistivity Log	<input type="checkbox"/> Sidewall Neutron Log
<input type="checkbox"/> Sonic Log	<input type="checkbox"/> Spontaneous Potential Log	<input type="checkbox"/> Temperature Log

Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6891 psi
BH Temperature	140
Abnormal Temp, Pressure, or Geologic Hazards	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole. Weighted mud for possible over-pressure in Wolfcamp formation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

	H2S is present
X	H2S Plan attached

Mewbourne Oil Company, Red Hills West Unit 37H

Sec 10, T26S, R32E

SHL: 150' FSL 810' FWL (Sec 10)

BHL: 100' FNL 2330' FWL (Sec 3)

Other facets of operation

Mewbourne Oil Company also requests approval to implement additional designs as described below &/or in other attachments. BLM will be notified of elected design.
<b>Offline Cementing Variance:</b> Variance is requested to perform offline cementing according to the attached procedure. <b>R-111Q:</b> Mewbourne proposes performing Open Hole Cementing per R-111Q Guidelines if well is in Potash.

Casing Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt	SF Body
Surface	17.5"	0'	0'	710'	710'	13.375" 48# H40 STC	2.43	5.45	9.45	15.87
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96	2.75	3.43
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73	12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44	128.85	160.14
Production	8.75"	0'	0'	10577'	10471'	7" 26# P110 LTC	1.18	1.88	2.52	3.02
Liner	6.125"	10377'	10275'	21488'	11014'	4.5" 13.5# P110 LTC	1.55	1.80	2.25	2.81

All casing strings will be tested in accordance with 43 CFR Part 3172. Must have table for contingency casing.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-Q?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-Q and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Design B - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft <sup>3</sup> /sack	TOC/BOC	Volume, ft <sup>3</sup>	% Excess	Slurry Description
13.375 in	LEAD	340	12.5	2.12	0' - 519'	730	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	519' - 710'	268		Class C: Retarder
9.625 in	LEAD	700	12.5	2.12	0' - 3772'	1490	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3772' - 4450'	268		Class C: Retarder
1st Stg 7 in	LEAD	130	12.5	2.12	5725' - 7187'	280	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	550	15.6	1.18	7187' - 10577'	649		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 5725'								
2nd Stg 7 in	LEAD	70	12.5	2.12	4250' - 5029'	150	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	5029' - 5725'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	710	13.5	1.85	10377' - 21488'	1320	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-settling Agent



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

09/25/2025

APD ID: 10400105481

Submission Date: 07/02/2025

Highlighted data  
reflects the most  
recent changes

Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16443633	UNKNOWN	3205	28	28	OTHER : Top Soil	NONE	N
16443644	RUSTLER	2570	635	635	ANHYDRITE, DOLOMITE	USEABLE WATER	N
16443645	TOP SALT	2460	745	745	SALT	NONE	N
16443634	BOTTOM SALT	-1100	4305	4305	SALT	NONE	N
16443641	LAMAR	-1320	4525	4525	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	N
16443637	BELL CANYON	-1350	4555	4555	SANDSTONE	NATURAL GAS, OIL	N
16443638	CHERRY CANYON	-2210	5415	5415	SANDSTONE	NATURAL GAS, OIL	N
16443639	MANZANITA	-2520	5725	5725	LIMESTONE	NATURAL GAS, OIL	N
16443646	BRUSHY CANYON	-5230	8435	8435	SANDSTONE	NATURAL GAS, OIL	N
16443632	BONE SPRING	-5460	8665	8665	LIMESTONE	NATURAL GAS, OIL	N
16443635	BONE SPRING 1ST	-6370	9575	9575	SANDSTONE	NATURAL GAS, OIL	Y
16443636	BONE SPRING 2ND	-6840	10045	10045	SANDSTONE	NATURAL GAS, OIL	N
16443643	BONE SPRING 3RD	-8130	11335	11335	SANDSTONE	NATURAL GAS, OIL	Y
16443640	WOLFCAMP	-8580	11785	11785	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Pressure Rating (PSI):** 5M**Rating Depth:** 21488

**Equipment:** Annular, Pipe Rams, Blind Rams, Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure. If a breaktesting variance is approved & incorporated, API Standard 53 will be incorporated and testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater, will be performed.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets

**Choke Diagram Attachment:**

5M\_BOPE\_Choke\_Diagram\_20250616094151.pdf

Flex\_Line\_Specs\_API\_16C\_20250616094157.pdf

**BOP Diagram Attachment:**

MOC\_Break\_Testing\_Variance\_20250616094209.pdf

MOC\_Offline\_Cementing\_Variance\_20250616094217.pdf

5M\_BOPE\_Schematic\_20250616094221.pdf

Multi\_Bowl\_WH\_20250616094227.pdf

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	710	0	710	3216	2506	710	H-40	48	ST&C	2.45	5.45	DRY	9.45	DRY	15.87
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3385	0	3385	3326	-169	3385	J-55	36	LT&C	1.13	1.96	DRY	2.75	DRY	3.43
3	INTERMEDIATE	12.25	9.625	NEW	API	N	3385	4307	3385	4307	-169	-1091	922	J-55	40	LT&C	1.13	1.73	DRY	12.21	DRY	14.79
4	INTERMEDIATE	12.25	9.625	NEW	API	N	4307	4450	4307	4450	-1100	-1234	143	L-80	40	LT&C	1.31	2.44	DRY	99.99	DRY	99.99
5	PRODUCTION	8.75	7.0	NEW	API	Y	0	10577	0	10471	3326	-7255	10577	P-110	26	LT&C	1.18	1.89	DRY	2.55	DRY	3.05



Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
6	PRODUCTION	8.5	4.5	NEW	API	Y	10577	21488	10471	11014	-7255	-7798	10911	OTHER - RYS 110	13.5	OTHER - CDC HTQ	1.55	1.8	DRY	2.9	DRY	2.87

## Casing Attachments

Casing ID: 1 String SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375in\_48\_\_H40\_STC\_Csg\_20250616094334.pdf

Casing ID: 2 String INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625in\_36\_\_J55\_LTC\_Csg\_20250616094435.pdf

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Casing Attachments**

---

**Casing ID:** 3      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**9.625in\_40\_\_J55\_LTC\_Csg\_20250616095129.pdf

---

**Casing ID:** 4      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**9.625in\_40\_\_L80\_LTC\_Csg\_20250616095015.pdf

---

**Casing ID:** 5      **String**      PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:**

Red\_Hills\_West\_Unit\_37H\_Tapered\_String\_20250806153456.pdf

**Casing Design Assumptions and Worksheet(s):**7in\_26\_\_P110\_LTC\_Csg\_20250616094537.pdf

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

## Casing Attachments

Casing ID: 6 String PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Red\_Hills\_West\_Unit\_37H\_Tapered\_String\_20250806153509.pdf

Casing Design Assumptions and Worksheet(s):

4.5in\_13.5\_\_RYS110\_CDC\_HTQ\_Csg\_20250616095958.pdf

## Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	519	340	2.12	12.5	730	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		519	710	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	3772	700	2.12	12.5	1490	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3772	4450	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5725	4250	5029	70	2.12	12.5	150	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		5029	5725	100	1.34	14.8	134	25	Class C	Retarder, Fluid Loss, Defoamer
PRODUCTION	Lead	5725	5725	7138	190	2.12	12.5	410	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent
PRODUCTION	Tail		7138	21488	3700	1.18	15.6	4366	25	CLASS H	RETARDER FLUID LOSS DEFOAMER

Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

**Describe what will be on location to control well or mitigate other conditions:** Formation integrity test will be performed per 43 CFR Part 3172. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR Part 3172.

**Describe the mud monitoring system utilized:** Pason/PVT/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	710	SPUD MUD	8.4	8.6							
710	4450	SALT SATURATED	10	10.2							
4450	1057 7	WATER-BASED MUD	8.6	9.7							
1057 7	2148 8	OIL-BASED MUD	10	12							

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H

## Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

No logs are planned based on well control or offset log information. Offset Well: Red Hills West Unit #044H

**List of open and cased hole logs run in the well:**

DIRECTIONAL SURVEY, MEASUREMENT WHILE DRILLING, MUD LOG/GEOLOGIC LITHOLOGY LOG,

**Coring operation description for the well:**

None

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 6891**Anticipated Surface Pressure:** 4464**Anticipated Bottom Hole Temperature(F):** 140**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

H2S\_Plan\_20250616095805.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

RED\_HILLS\_WEST\_UNIT\_037H\_Dir\_Plan\_20250616103159.pdf

RED\_HILLS\_WEST\_UNIT\_037H\_Dir\_Plot\_20250616103205.pdf

**Other proposed operations facets description:****Other proposed operations facets attachment:**

MOC\_Break\_Testing\_Variance\_20250616095920.pdf

RED\_HILLS\_WEST\_UNIT\_037H\_NGMP\_1\_20250616103219.pdf

Red\_Hills\_West\_Unit\_37H\_Drlg\_Program\_20250806153347.pdf

**Other Variance request(s)?:** N**Other Variance attachment:**

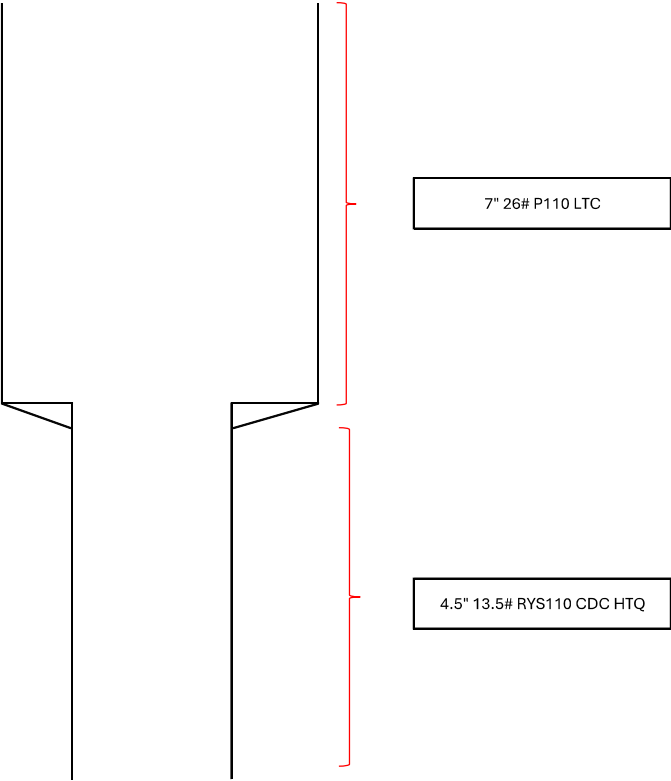
CONFIDENTIAL



Mewbourne Oil Company, Red Hills West Unit 37H  
Sec 10, T26S, R32E  
SHL: 150' FSL & 810' FWL (Sec 10)  
BHL: 100' FNL & 2330' FWL (Sec 3)

Casing Design A

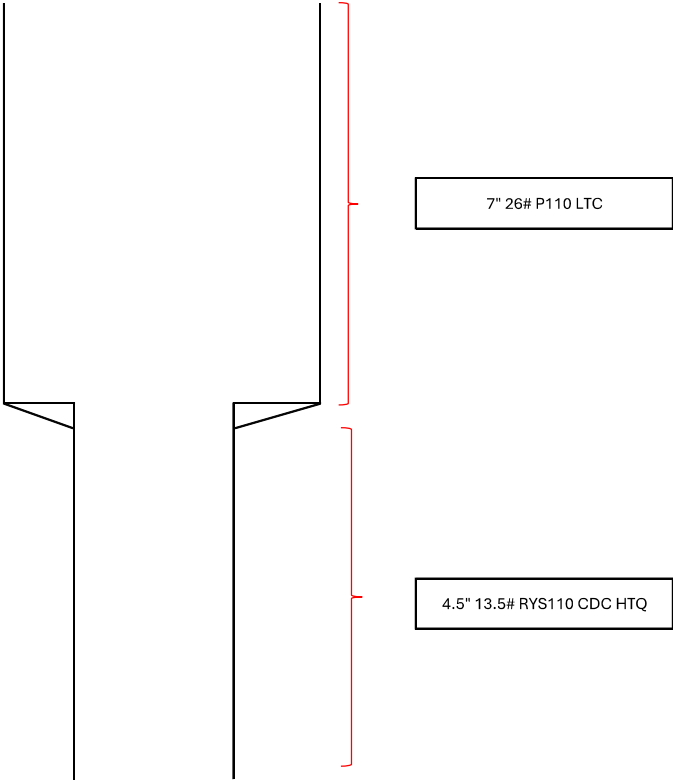
Hole Size	From	To	Csg. Size	#/ft	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
8.75	0'	10577'	7" 26# P110 LTC				1.18	1.88	2.52	3.02
8.5	10577'	21488'	4.5" 13.5# RYS110 CDC HTQ				1.55	1.80	2.90	2.86



Mewbourne Oil Company, Red Hills West Unit 37H  
Sec 10, T26S, R32E  
SHL: 150' FSL & 810' FWL (Sec 10)  
BHL: 100' FNL & 2330' FWL (Sec 3)

Casing Design A

Hole Size	From	To	Csg. Size	#/ft	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
8.75	0'	10577'	7" 26# P110 LTC				1.18	1.88	2.52	3.02
8.5	10577'	21488'	4.5" 13.5# RYS110 CDC HTQ				1.55	1.80	2.90	2.86





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## SUPO Data Report

09/25/2025

APD ID: 10400105481

Submission Date: 07/02/2025

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

### Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

RED\_HILLS\_WEST\_UNIT\_037H\_ExistingRoadMap\_20250616103248.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

**ROW ID(s)**

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Other Description:

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES**Existing Well map Attachment:**

RED\_HILLS\_WEST\_UNIT\_037H\_ExistingWellMap\_20250616103258.pdf

### Section 4 - Location of Existing and/or Proposed Production Facilities

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Production Facilities description:** Battery is in the SWSW of S10 T26S R32E. We will lay 1 4in buried FlexSteel flow line per well, with working pressure of 250# (approx. 850), 1 - 4in buried steel gas lift injection line with working pressure of 1200# (approx. 700), 1 - 4in buried poly gas supply line with work-ing pressure of 150# (approx. 750), & 1 - 2in buried poly air supply line with working pres-sure of 150# (approx. 750). These lines will be installed in one ditch going back to the Red Hills West Unit #010H Battery, following the attached route.

**Production Facilities map:**

RED\_HILLS\_WEST\_UNIT\_045H\_ProductionFacility\_FlowlineMap\_20250107073038.pdf

### Section 5 - Location and Types of Water Supply

#### Water Source Table

**Water source type:** RECYCLED

<b>Water source use type:</b>	DUST CONTROL
	CAMP USE
	SURFACE CASING
	INTERMEDIATE/PRODUCTION CASING
	STIMULATION

**Source latitude:** 32.033346**Source longitude:** -103.670277**Source datum:** NAD83**City:**

<b>Water source permit type:</b>	OTHER
	WATER WELL

<b>Water source transport method:</b>	PIPELINE
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**Source land ownership:** STATE**Source transportation land ownership:** FEDERAL

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Water source volume (barrels):** 1940**Source volume (acre-feet):** 0.2500526**Source volume (gal):** 81480**Water source and transportation**

RED\_HILLS\_WEST\_UNIT\_037H\_WaterSourecTransmap\_20250616103310.pdf

**Water source comments:** LAT: 32.040694 LONG: -103.677351**New water well?** N**New Water Well Info****Well latitude:****Well Longitude:****Well datum:****Well target aquifer:****Est. depth to top of aquifer(ft):****Est thickness of aquifer:****Aquifer comments:****Aquifer documentation:****Well depth (ft):****Well casing type:****Well casing outside diameter (in.):****Well casing inside diameter (in.):****New water well casing?****Used casing source:****Drilling method:****Drill material:****Grout material:****Grout depth:****Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:****Section 6 - Construction Materials****Using any construction materials:** YES**Construction Materials description:** NWSE 26S 32E LAT: 32.042381 LONG: -103.676069**Construction Materials source location**

RED\_HILLS\_WEST\_UNIT\_037H\_CalicheSourecTransmap\_20250616103319.pdf

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H

### Section 7 - Methods for Handling

**Waste type:** SEWAGE**Waste content description:** Human waste & grey water**Amount of waste:** 1500 gallons**Waste disposal frequency :** Weekly**Safe containment description:** 2,000 gallon plastic container**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** City of Carlsbad Water Treatment facility**Waste type:** GARBAGE**Waste content description:** Garbage & trash**Amount of waste:** 1500 pounds**Waste disposal frequency :** One Time Only**Safe containment description:** Enclosed trash trailer**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** Waste Management facility in Carlsbad.**Waste type:** DRILLING**Waste content description:** Drill cuttings**Amount of waste:** 940 barrels**Waste disposal frequency :** One Time Only**Safe containment description:** Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

### Reserve Pit

**Reserve Pit being used?** NO



**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Temporary disposal of produced water into reserve pit?** NO**Reserve pit length (ft.)****Reserve pit width (ft.)****Reserve pit depth (ft.)****Reserve pit volume (cu. yd.)****Is at least 50% of the reserve pit in cut?****Reserve pit liner****Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO**Are you storing cuttings on location?** N**Description of cuttings location****Cuttings area length (ft.)****Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?****Cuttings area liner****Cuttings area liner specifications and installation description**

### Section 8 - Ancillary

**Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities****Comments:**

### Section 9 - Well Site

**Well Site Layout Diagram:**

RED\_HILLS\_WEST\_UNIT\_037H\_WellSiteLayout\_20250616103333.pdf

**Comments:** NONE

Operator Name: MEWBOURNE OIL COMPANY

Well Name: RED HILLS WEST UNIT

Well Number: 37H

## Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Red Hills West Unit 35 36 37 38 39 40 41  
43 42 44

Multiple Well Pad Number: 10

### Recontouring

RED\_HILLS\_WEST\_UNIT\_037H\_InterimReclamationmap\_20250616103344.pdf

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance (acres): 8.47	Well pad interim reclamation (acres): 2.43	Well pad long term disturbance (acres): 6.04
Road proposed disturbance (acres): 0.03	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0.72	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 3.673	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
<b>Total proposed disturbance:</b> 12.893	<b>Total interim reclamation:</b> 2.43	<b>Total long term disturbance:</b> 6.04

**Disturbance Comments:** In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

**Reconstruction method:** The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

**Soil treatment:** NA

**Existing Vegetation at the well pad:** Various brush & grasses

**Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** Various brush & grasses

**Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** NA

**Existing Vegetation Community at the pipeline**

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Existing Vegetation Community at other disturbances:** NA**Existing Vegetation Community at other disturbances****Non native seed used?** N**Non native seed description:****Seedling transplant description:****Will seedlings be transplanted for this project?** N**Seedling transplant description attachment:****Will seed be harvested for use in site reclamation?** N**Seed harvest description:****Seed harvest description attachment:****Seed****Seed Table****Seed Summary****Total pounds/Acre:****Seed Type****Pounds/Acre****Seed reclamation****Operator Contact/Responsible Official****First Name:****Last Name:****Phone:****Email:**

**Seedbed prep:** Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Seed BMP:** To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

**Seed method:** drilling or broadcasting seed over entire reclaimed area.

**Existing invasive species?** N**Existing invasive species treatment description:****Existing invasive species treatment****Weed treatment plan description:** NA**Weed treatment plan**

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H

**Monitoring plan description:** vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion and invasive/noxious weeds are controlled.

**Monitoring plan**

**Success standards:** regrowth within 1 full growing season of reclamation.

**Pit closure description:** NA

**Pit closure attachment:**

**Section 11 - Surface**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**DOD Local Office:****NPS Local Office:****State Local Office:****Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Section 12 - Other****Right of Way needed?** N**Use APD as ROW?****ROW Type(s):****ROW****SUPO Additional Information:****Use a previously conducted onsite?** Y

**Previous Onsite information:** SEP 14 2020 Met w/RRC Surveying & staked location @ 205' FSL & 1890' FWL, Sec 9, T26S, R32E, Lea Co., NM. This location was unacceptable due to buried pipeline. Re-staked location @ 205' FSL & 2090' FWL, Sec 9, T26S, R32E, Lea Co., NM. (Elevation @ 3204'). Pad is 850x450. Topsoil E. Reclaim N, E, S 60. Approx. 60 of road needed off SW corner heading W to Red Hills West Unit #6H. 400x400 battery staked to the NE w/approx. 950 flow line. MOC electric on the NW corner. Need arc study/PA payment. BLM on-site required. Lat: 32.05082251 N, Long: -103.68185743 W NAD83. (BPS) SEP 18 2020 Met w/Paul Murphy (BLM). Surface location approved @ 205' FSL & 2090' FWL, Sec 9, T26S, R32E, Lea Co., NM. On-site date 9/17/2020.

**Other SUPO**

# **Mewbourne Oil Company**

**Lea County, New Mexico NAD 83**

**Red Hills West Unit #037H**

**Sec 15, T26S, R32E**

**SHL: 150' FSL & 810' FWL (Sec 10)**

**BHL: 100' FNL & 2330' FWL (Sec 3)**

**Plan: Design #1**

## **Standard Planning Report**

**22 January, 2025**

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #037H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3244.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3244.0usft (Original Well Elev)
Site:	Red Hills West Unit #037H	North Reference:	Grid
Well:	Sec 15, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2330' FWL (Sec 3)		
Design:	Design #1		

Project	Lea County, New Mexico NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Red Hills West Unit #037H			
Site Position:		Northing:	382,813.30 usft	Latitude:	32.0506898
From:	Map	Easting:	747,345.20 usft	Longitude:	-103.6684073
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Sec 15, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	382,813.30 usft	Latitude:	32.0506898
	+E/-W	0.0 usft	Easting:	747,345.20 usft	Longitude:	-103.6684073
Position Uncertainty	0.0 usft		Wellhead Elevation:	3,244.0 usft	Ground Level:	3,216.0 usft
Grid Convergence:	0.35 °					

Wellbore	BHL: 100' FNL & 2330' FWL (Sec 3)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.18	59.92	48,149.03181032

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	7.14	

Plan Survey Tool Program	Date	1/22/2025			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	21,488.8	Design #1 (BHL: 100' FNL & 2330		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
710.0	0.00	0.00	710.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,145.0	8.70	95.13	1,143.3	-2.9	32.8	2.00	2.00	0.00	95.13	
10,142.9	8.70	95.13	10,037.7	-124.6	1,388.5	0.00	0.00	0.00	0.00	
10,577.9	0.00	0.01	10,471.0	-127.5	1,421.3	2.00	-2.00	0.00	180.00	KOP: 10' FSL & 2330'
11,479.7	90.17	359.40	11,044.0	447.2	1,415.3	10.00	10.00	0.00	-0.60	
21,488.8	90.17	359.40	11,014.0	10,455.7	1,310.6	0.00	0.00	0.00	0.00	BHL: 100' FNL & 2330'

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL: 150' FSL & 810' FWL (Sec 10)									
50.0	0.00	0.00	50.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
650.0	0.00	0.00	650.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
710.0	0.00	0.00	710.0	0.0	0.0	0.0	0.00	0.00	0.00
750.0	0.80	95.13	750.0	0.0	0.3	0.0	2.00	2.00	0.00
800.0	1.80	95.13	800.0	-0.1	1.4	0.0	2.00	2.00	0.00
850.0	2.80	95.13	849.9	-0.3	3.4	0.1	2.00	2.00	0.00
900.0	3.80	95.13	899.9	-0.6	6.3	0.2	2.00	2.00	0.00
950.0	4.80	95.13	949.7	-0.9	10.0	0.4	2.00	2.00	0.00
1,000.0	5.80	95.13	999.5	-1.3	14.6	0.5	2.00	2.00	0.00
1,050.0	6.80	95.13	1,049.2	-1.8	20.1	0.7	2.00	2.00	0.00
1,100.0	7.80	95.13	1,098.8	-2.4	26.4	0.9	2.00	2.00	0.00
1,145.0	8.70	95.13	1,143.3	-2.9	32.8	1.2	2.00	2.00	0.00
1,150.0	8.70	95.13	1,148.3	-3.0	33.6	1.2	0.00	0.00	0.00
1,200.0	8.70	95.13	1,197.7	-3.7	41.1	1.5	0.00	0.00	0.00
1,250.0	8.70	95.13	1,247.1	-4.4	48.7	1.7	0.00	0.00	0.00
1,300.0	8.70	95.13	1,296.5	-5.0	56.2	2.0	0.00	0.00	0.00
1,350.0	8.70	95.13	1,346.0	-5.7	63.7	2.3	0.00	0.00	0.00
1,400.0	8.70	95.13	1,395.4	-6.4	71.2	2.5	0.00	0.00	0.00
1,450.0	8.70	95.13	1,444.8	-7.1	78.8	2.8	0.00	0.00	0.00
1,500.0	8.70	95.13	1,494.2	-7.7	86.3	3.1	0.00	0.00	0.00
1,550.0	8.70	95.13	1,543.7	-8.4	93.8	3.3	0.00	0.00	0.00
1,600.0	8.70	95.13	1,593.1	-9.1	101.4	3.6	0.00	0.00	0.00
1,650.0	8.70	95.13	1,642.5	-9.8	108.9	3.9	0.00	0.00	0.00
1,700.0	8.70	95.13	1,691.9	-10.4	116.4	4.1	0.00	0.00	0.00
1,750.0	8.70	95.13	1,741.4	-11.1	124.0	4.4	0.00	0.00	0.00
1,800.0	8.70	95.13	1,790.8	-11.8	131.5	4.7	0.00	0.00	0.00
1,850.0	8.70	95.13	1,840.2	-12.5	139.0	4.9	0.00	0.00	0.00
1,900.0	8.70	95.13	1,889.6	-13.1	146.6	5.2	0.00	0.00	0.00
1,950.0	8.70	95.13	1,939.1	-13.8	154.1	5.5	0.00	0.00	0.00
2,000.0	8.70	95.13	1,988.5	-14.5	161.6	5.7	0.00	0.00	0.00
2,050.0	8.70	95.13	2,037.9	-15.2	169.2	6.0	0.00	0.00	0.00
2,100.0	8.70	95.13	2,087.3	-15.9	176.7	6.2	0.00	0.00	0.00
2,150.0	8.70	95.13	2,136.8	-16.5	184.2	6.5	0.00	0.00	0.00
2,200.0	8.70	95.13	2,186.2	-17.2	191.8	6.8	0.00	0.00	0.00
2,250.0	8.70	95.13	2,235.6	-17.9	199.3	7.0	0.00	0.00	0.00
2,300.0	8.70	95.13	2,285.0	-18.6	206.8	7.3	0.00	0.00	0.00
2,350.0	8.70	95.13	2,334.5	-19.2	214.4	7.6	0.00	0.00	0.00
2,400.0	8.70	95.13	2,383.9	-19.9	221.9	7.8	0.00	0.00	0.00
2,450.0	8.70	95.13	2,433.3	-20.6	229.4	8.1	0.00	0.00	0.00
2,500.0	8.70	95.13	2,482.7	-21.3	237.0	8.4	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,550.0	8.70	95.13	2,532.2	-21.9	244.5	8.6	0.00	0.00	0.00
2,600.0	8.70	95.13	2,581.6	-22.6	252.0	8.9	0.00	0.00	0.00
2,650.0	8.70	95.13	2,631.0	-23.3	259.6	9.2	0.00	0.00	0.00
2,700.0	8.70	95.13	2,680.4	-24.0	267.1	9.4	0.00	0.00	0.00
2,750.0	8.70	95.13	2,729.9	-24.6	274.6	9.7	0.00	0.00	0.00
2,800.0	8.70	95.13	2,779.3	-25.3	282.2	10.0	0.00	0.00	0.00
2,850.0	8.70	95.13	2,828.7	-26.0	289.7	10.2	0.00	0.00	0.00
2,900.0	8.70	95.13	2,878.1	-26.7	297.2	10.5	0.00	0.00	0.00
2,950.0	8.70	95.13	2,927.6	-27.3	304.8	10.8	0.00	0.00	0.00
3,000.0	8.70	95.13	2,977.0	-28.0	312.3	11.0	0.00	0.00	0.00
3,050.0	8.70	95.13	3,026.4	-28.7	319.8	11.3	0.00	0.00	0.00
3,100.0	8.70	95.13	3,075.8	-29.4	327.4	11.6	0.00	0.00	0.00
3,150.0	8.70	95.13	3,125.3	-30.0	334.9	11.8	0.00	0.00	0.00
3,200.0	8.70	95.13	3,174.7	-30.7	342.4	12.1	0.00	0.00	0.00
3,250.0	8.70	95.13	3,224.1	-31.4	350.0	12.4	0.00	0.00	0.00
3,300.0	8.70	95.13	3,273.5	-32.1	357.5	12.6	0.00	0.00	0.00
3,350.0	8.70	95.13	3,323.0	-32.7	365.0	12.9	0.00	0.00	0.00
3,400.0	8.70	95.13	3,372.4	-33.4	372.6	13.2	0.00	0.00	0.00
3,450.0	8.70	95.13	3,421.8	-34.1	380.1	13.4	0.00	0.00	0.00
3,500.0	8.70	95.13	3,471.2	-34.8	387.6	13.7	0.00	0.00	0.00
3,550.0	8.70	95.13	3,520.7	-35.4	395.2	14.0	0.00	0.00	0.00
3,600.0	8.70	95.13	3,570.1	-36.1	402.7	14.2	0.00	0.00	0.00
3,650.0	8.70	95.13	3,619.5	-36.8	410.2	14.5	0.00	0.00	0.00
3,700.0	8.70	95.13	3,668.9	-37.5	417.8	14.8	0.00	0.00	0.00
3,750.0	8.70	95.13	3,718.4	-38.2	425.3	15.0	0.00	0.00	0.00
3,800.0	8.70	95.13	3,767.8	-38.8	432.8	15.3	0.00	0.00	0.00
3,850.0	8.70	95.13	3,817.2	-39.5	440.4	15.6	0.00	0.00	0.00
3,900.0	8.70	95.13	3,866.6	-40.2	447.9	15.8	0.00	0.00	0.00
3,950.0	8.70	95.13	3,916.1	-40.9	455.4	16.1	0.00	0.00	0.00
4,000.0	8.70	95.13	3,965.5	-41.5	463.0	16.4	0.00	0.00	0.00
4,050.0	8.70	95.13	4,014.9	-42.2	470.5	16.6	0.00	0.00	0.00
4,100.0	8.70	95.13	4,064.3	-42.9	478.0	16.9	0.00	0.00	0.00
4,150.0	8.70	95.13	4,113.8	-43.6	485.6	17.2	0.00	0.00	0.00
4,200.0	8.70	95.13	4,163.2	-44.2	493.1	17.4	0.00	0.00	0.00
4,250.0	8.70	95.13	4,212.6	-44.9	500.6	17.7	0.00	0.00	0.00
4,300.0	8.70	95.13	4,262.0	-45.6	508.2	18.0	0.00	0.00	0.00
4,350.0	8.70	95.13	4,311.5	-46.3	515.7	18.2	0.00	0.00	0.00
4,400.0	8.70	95.13	4,360.9	-46.9	523.2	18.5	0.00	0.00	0.00
4,450.0	8.70	95.13	4,410.3	-47.6	530.8	18.8	0.00	0.00	0.00
4,500.0	8.70	95.13	4,459.7	-48.3	538.3	19.0	0.00	0.00	0.00
4,550.0	8.70	95.13	4,509.1	-49.0	545.8	19.3	0.00	0.00	0.00
4,600.0	8.70	95.13	4,558.6	-49.6	553.4	19.6	0.00	0.00	0.00
4,650.0	8.70	95.13	4,608.0	-50.3	560.9	19.8	0.00	0.00	0.00
4,700.0	8.70	95.13	4,657.4	-51.0	568.4	20.1	0.00	0.00	0.00
4,750.0	8.70	95.13	4,706.8	-51.7	576.0	20.4	0.00	0.00	0.00
4,800.0	8.70	95.13	4,756.3	-52.3	583.5	20.6	0.00	0.00	0.00
4,850.0	8.70	95.13	4,805.7	-53.0	591.0	20.9	0.00	0.00	0.00
4,900.0	8.70	95.13	4,855.1	-53.7	598.6	21.2	0.00	0.00	0.00
4,950.0	8.70	95.13	4,904.5	-54.4	606.1	21.4	0.00	0.00	0.00
5,000.0	8.70	95.13	4,954.0	-55.0	613.6	21.7	0.00	0.00	0.00
5,050.0	8.70	95.13	5,003.4	-55.7	621.2	22.0	0.00	0.00	0.00
5,100.0	8.70	95.13	5,052.8	-56.4	628.7	22.2	0.00	0.00	0.00
5,150.0	8.70	95.13	5,102.2	-57.1	636.2	22.5	0.00	0.00	0.00
5,200.0	8.70	95.13	5,151.7	-57.7	643.8	22.8	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,250.0	8.70	95.13	5,201.1	-58.4	651.3	23.0	0.00	0.00	0.00	
5,300.0	8.70	95.13	5,250.5	-59.1	658.8	23.3	0.00	0.00	0.00	
5,350.0	8.70	95.13	5,299.9	-59.8	666.4	23.6	0.00	0.00	0.00	
5,400.0	8.70	95.13	5,349.4	-60.5	673.9	23.8	0.00	0.00	0.00	
5,450.0	8.70	95.13	5,398.8	-61.1	681.4	24.1	0.00	0.00	0.00	
5,500.0	8.70	95.13	5,448.2	-61.8	689.0	24.4	0.00	0.00	0.00	
5,550.0	8.70	95.13	5,497.6	-62.5	696.5	24.6	0.00	0.00	0.00	
5,600.0	8.70	95.13	5,547.1	-63.2	704.0	24.9	0.00	0.00	0.00	
5,650.0	8.70	95.13	5,596.5	-63.8	711.6	25.2	0.00	0.00	0.00	
5,700.0	8.70	95.13	5,645.9	-64.5	719.1	25.4	0.00	0.00	0.00	
5,750.0	8.70	95.13	5,695.3	-65.2	726.6	25.7	0.00	0.00	0.00	
5,800.0	8.70	95.13	5,744.8	-65.9	734.2	26.0	0.00	0.00	0.00	
5,850.0	8.70	95.13	5,794.2	-66.5	741.7	26.2	0.00	0.00	0.00	
5,900.0	8.70	95.13	5,843.6	-67.2	749.2	26.5	0.00	0.00	0.00	
5,950.0	8.70	95.13	5,893.0	-67.9	756.8	26.8	0.00	0.00	0.00	
6,000.0	8.70	95.13	5,942.5	-68.6	764.3	27.0	0.00	0.00	0.00	
6,050.0	8.70	95.13	5,991.9	-69.2	771.8	27.3	0.00	0.00	0.00	
6,100.0	8.70	95.13	6,041.3	-69.9	779.4	27.6	0.00	0.00	0.00	
6,150.0	8.70	95.13	6,090.7	-70.6	786.9	27.8	0.00	0.00	0.00	
6,200.0	8.70	95.13	6,140.2	-71.3	794.4	28.1	0.00	0.00	0.00	
6,250.0	8.70	95.13	6,189.6	-71.9	802.0	28.4	0.00	0.00	0.00	
6,300.0	8.70	95.13	6,239.0	-72.6	809.5	28.6	0.00	0.00	0.00	
6,350.0	8.70	95.13	6,288.4	-73.3	817.0	28.9	0.00	0.00	0.00	
6,400.0	8.70	95.13	6,337.9	-74.0	824.6	29.2	0.00	0.00	0.00	
6,450.0	8.70	95.13	6,387.3	-74.6	832.1	29.4	0.00	0.00	0.00	
6,500.0	8.70	95.13	6,436.7	-75.3	839.6	29.7	0.00	0.00	0.00	
6,550.0	8.70	95.13	6,486.1	-76.0	847.2	30.0	0.00	0.00	0.00	
6,600.0	8.70	95.13	6,535.6	-76.7	854.7	30.2	0.00	0.00	0.00	
6,650.0	8.70	95.13	6,585.0	-77.3	862.2	30.5	0.00	0.00	0.00	
6,700.0	8.70	95.13	6,634.4	-78.0	869.8	30.8	0.00	0.00	0.00	
6,750.0	8.70	95.13	6,683.8	-78.7	877.3	31.0	0.00	0.00	0.00	
6,800.0	8.70	95.13	6,733.3	-79.4	884.8	31.3	0.00	0.00	0.00	
6,850.0	8.70	95.13	6,782.7	-80.1	892.4	31.6	0.00	0.00	0.00	
6,900.0	8.70	95.13	6,832.1	-80.7	899.9	31.8	0.00	0.00	0.00	
6,950.0	8.70	95.13	6,881.5	-81.4	907.4	32.1	0.00	0.00	0.00	
7,000.0	8.70	95.13	6,931.0	-82.1	915.0	32.4	0.00	0.00	0.00	
7,050.0	8.70	95.13	6,980.4	-82.8	922.5	32.6	0.00	0.00	0.00	
7,100.0	8.70	95.13	7,029.8	-83.4	930.0	32.9	0.00	0.00	0.00	
7,150.0	8.70	95.13	7,079.2	-84.1	937.6	33.2	0.00	0.00	0.00	
7,200.0	8.70	95.13	7,128.7	-84.8	945.1	33.4	0.00	0.00	0.00	
7,250.0	8.70	95.13	7,178.1	-85.5	952.6	33.7	0.00	0.00	0.00	
7,300.0	8.70	95.13	7,227.5	-86.1	960.2	34.0	0.00	0.00	0.00	
7,350.0	8.70	95.13	7,276.9	-86.8	967.7	34.2	0.00	0.00	0.00	
7,400.0	8.70	95.13	7,326.4	-87.5	975.2	34.5	0.00	0.00	0.00	
7,450.0	8.70	95.13	7,375.8	-88.2	982.8	34.8	0.00	0.00	0.00	
7,500.0	8.70	95.13	7,425.2	-88.8	990.3	35.0	0.00	0.00	0.00	
7,550.0	8.70	95.13	7,474.6	-89.5	997.8	35.3	0.00	0.00	0.00	
7,600.0	8.70	95.13	7,524.1	-90.2	1,005.4	35.6	0.00	0.00	0.00	
7,650.0	8.70	95.13	7,573.5	-90.9	1,012.9	35.8	0.00	0.00	0.00	
7,700.0	8.70	95.13	7,622.9	-91.5	1,020.4	36.1	0.00	0.00	0.00	
7,750.0	8.70	95.13	7,672.3	-92.2	1,028.0	36.4	0.00	0.00	0.00	
7,800.0	8.70	95.13	7,721.8	-92.9	1,035.5	36.6	0.00	0.00	0.00	
7,850.0	8.70	95.13	7,771.2	-93.6	1,043.0	36.9	0.00	0.00	0.00	
7,900.0	8.70	95.13	7,820.6	-94.2	1,050.6	37.2	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,950.0	8.70	95.13	7,870.0	-94.9	1,058.1	37.4	0.00	0.00	0.00
8,000.0	8.70	95.13	7,919.4	-95.6	1,065.6	37.7	0.00	0.00	0.00
8,050.0	8.70	95.13	7,968.9	-96.3	1,073.2	38.0	0.00	0.00	0.00
8,100.0	8.70	95.13	8,018.3	-96.9	1,080.7	38.2	0.00	0.00	0.00
8,150.0	8.70	95.13	8,067.7	-97.6	1,088.2	38.5	0.00	0.00	0.00
8,200.0	8.70	95.13	8,117.1	-98.3	1,095.8	38.8	0.00	0.00	0.00
8,250.0	8.70	95.13	8,166.6	-99.0	1,103.3	39.0	0.00	0.00	0.00
8,300.0	8.70	95.13	8,216.0	-99.6	1,110.8	39.3	0.00	0.00	0.00
8,350.0	8.70	95.13	8,265.4	-100.3	1,118.4	39.5	0.00	0.00	0.00
8,400.0	8.70	95.13	8,314.8	-101.0	1,125.9	39.8	0.00	0.00	0.00
8,450.0	8.70	95.13	8,364.3	-101.7	1,133.4	40.1	0.00	0.00	0.00
8,500.0	8.70	95.13	8,413.7	-102.4	1,140.9	40.3	0.00	0.00	0.00
8,550.0	8.70	95.13	8,463.1	-103.0	1,148.5	40.6	0.00	0.00	0.00
8,600.0	8.70	95.13	8,512.5	-103.7	1,156.0	40.9	0.00	0.00	0.00
8,650.0	8.70	95.13	8,562.0	-104.4	1,163.5	41.1	0.00	0.00	0.00
8,700.0	8.70	95.13	8,611.4	-105.1	1,171.1	41.4	0.00	0.00	0.00
8,750.0	8.70	95.13	8,660.8	-105.7	1,178.6	41.7	0.00	0.00	0.00
8,800.0	8.70	95.13	8,710.2	-106.4	1,186.1	41.9	0.00	0.00	0.00
8,850.0	8.70	95.13	8,759.7	-107.1	1,193.7	42.2	0.00	0.00	0.00
8,900.0	8.70	95.13	8,809.1	-107.8	1,201.2	42.5	0.00	0.00	0.00
8,950.0	8.70	95.13	8,858.5	-108.4	1,208.7	42.7	0.00	0.00	0.00
9,000.0	8.70	95.13	8,907.9	-109.1	1,216.3	43.0	0.00	0.00	0.00
9,050.0	8.70	95.13	8,957.4	-109.8	1,223.8	43.3	0.00	0.00	0.00
9,100.0	8.70	95.13	9,006.8	-110.5	1,231.3	43.5	0.00	0.00	0.00
9,150.0	8.70	95.13	9,056.2	-111.1	1,238.9	43.8	0.00	0.00	0.00
9,200.0	8.70	95.13	9,105.6	-111.8	1,246.4	44.1	0.00	0.00	0.00
9,250.0	8.70	95.13	9,155.1	-112.5	1,253.9	44.3	0.00	0.00	0.00
9,300.0	8.70	95.13	9,204.5	-113.2	1,261.5	44.6	0.00	0.00	0.00
9,350.0	8.70	95.13	9,253.9	-113.8	1,269.0	44.9	0.00	0.00	0.00
9,400.0	8.70	95.13	9,303.3	-114.5	1,276.5	45.1	0.00	0.00	0.00
9,450.0	8.70	95.13	9,352.8	-115.2	1,284.1	45.4	0.00	0.00	0.00
9,500.0	8.70	95.13	9,402.2	-115.9	1,291.6	45.7	0.00	0.00	0.00
9,550.0	8.70	95.13	9,451.6	-116.5	1,299.1	45.9	0.00	0.00	0.00
9,600.0	8.70	95.13	9,501.0	-117.2	1,306.7	46.2	0.00	0.00	0.00
9,650.0	8.70	95.13	9,550.5	-117.9	1,314.2	46.5	0.00	0.00	0.00
9,700.0	8.70	95.13	9,599.9	-118.6	1,321.7	46.7	0.00	0.00	0.00
9,750.0	8.70	95.13	9,649.3	-119.2	1,329.3	47.0	0.00	0.00	0.00
9,800.0	8.70	95.13	9,698.7	-119.9	1,336.8	47.3	0.00	0.00	0.00
9,850.0	8.70	95.13	9,748.2	-120.6	1,344.3	47.5	0.00	0.00	0.00
9,900.0	8.70	95.13	9,797.6	-121.3	1,351.9	47.8	0.00	0.00	0.00
9,950.0	8.70	95.13	9,847.0	-121.9	1,359.4	48.1	0.00	0.00	0.00
10,000.0	8.70	95.13	9,896.4	-122.6	1,366.9	48.3	0.00	0.00	0.00
10,050.0	8.70	95.13	9,945.9	-123.3	1,374.5	48.6	0.00	0.00	0.00
10,100.0	8.70	95.13	9,995.3	-124.0	1,382.0	48.9	0.00	0.00	0.00
10,142.9	8.70	95.13	10,037.7	-124.6	1,388.5	49.1	0.00	0.00	0.00
10,150.0	8.56	95.13	10,044.7	-124.7	1,389.5	49.1	2.00	-2.00	0.00
10,200.0	7.56	95.13	10,094.2	-125.3	1,396.5	49.4	2.00	-2.00	0.00
10,250.0	6.56	95.13	10,143.8	-125.8	1,402.6	49.6	2.00	-2.00	0.00
10,300.0	5.56	95.13	10,193.6	-126.3	1,407.9	49.8	2.00	-2.00	0.00
10,350.0	4.56	95.13	10,243.4	-126.7	1,412.3	49.9	2.00	-2.00	0.00
10,400.0	3.56	95.13	10,293.2	-127.0	1,415.8	50.1	2.00	-2.00	0.00
10,450.0	2.56	95.13	10,343.2	-127.2	1,418.5	50.2	2.00	-2.00	0.00
10,500.0	1.56	95.13	10,393.1	-127.4	1,420.2	50.2	2.00	-2.00	0.00
10,550.0	0.56	95.13	10,443.1	-127.5	1,421.2	50.3	2.00	-2.00	0.00

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,577.9	0.00	0.01	10,471.0	-127.5	1,421.3	50.3	2.00	-2.00	0.00
<b>KOP: 10' FSL &amp; 2330' FWL (Sec 10)</b>									
10,600.0	2.21	359.40	10,493.1	-127.1	1,421.3	50.7	10.00	10.00	0.00
10,650.0	7.21	359.40	10,542.9	-123.0	1,421.3	54.8	10.00	10.00	0.00
10,700.0	12.21	359.40	10,592.2	-114.5	1,421.2	63.1	10.00	10.00	0.00
10,750.0	17.21	359.40	10,640.5	-101.8	1,421.0	75.7	10.00	10.00	0.00
10,800.0	22.21	359.40	10,687.6	-85.0	1,420.9	92.4	10.00	10.00	0.00
10,850.0	27.21	359.40	10,733.0	-64.1	1,420.6	113.1	10.00	10.00	0.00
10,900.0	32.21	359.40	10,776.4	-39.3	1,420.4	137.6	10.00	10.00	0.00
10,903.2	32.53	359.40	10,779.1	-37.6	1,420.4	139.3	10.00	10.00	0.00
<b>FTP: 100' FSL &amp; 2330' FWL (Sec 10)</b>									
10,950.0	37.21	359.40	10,817.5	-10.9	1,420.1	165.8	10.00	10.00	0.00
11,000.0	42.21	359.40	10,856.0	21.1	1,419.7	197.5	10.00	10.00	0.00
11,050.0	47.21	359.40	10,891.5	56.2	1,419.4	232.3	10.00	10.00	0.00
11,100.0	52.21	359.40	10,923.8	94.4	1,419.0	270.1	10.00	10.00	0.00
11,150.0	57.21	359.40	10,952.7	135.2	1,418.6	310.5	10.00	10.00	0.00
11,200.0	62.21	359.40	10,977.9	178.3	1,418.1	353.3	10.00	10.00	0.00
11,250.0	67.21	359.40	10,999.3	223.5	1,417.6	398.1	10.00	10.00	0.00
11,300.0	72.21	359.40	11,016.6	270.4	1,417.1	444.5	10.00	10.00	0.00
11,350.0	77.21	359.40	11,029.8	318.6	1,416.6	492.3	10.00	10.00	0.00
11,400.0	82.21	359.40	11,038.7	367.8	1,416.1	541.0	10.00	10.00	0.00
11,450.0	87.21	359.40	11,043.3	417.5	1,415.6	590.4	10.00	10.00	0.00
11,479.7	90.17	359.40	11,044.0	447.2	1,415.3	619.7	10.00	10.00	0.00
11,487.9	90.17	359.40	11,044.0	455.4	1,415.2	627.9	0.00	0.00	0.00
<b>LP: 583' FSL &amp; 2330' FWL (Sec 10)</b>									
11,500.0	90.17	359.40	11,043.9	467.5	1,415.1	639.9	0.00	0.00	0.00
11,550.0	90.17	359.40	11,043.8	517.5	1,414.6	689.4	0.00	0.00	0.00
11,600.0	90.17	359.40	11,043.6	567.5	1,414.0	739.0	0.00	0.00	0.00
11,650.0	90.17	359.40	11,043.5	617.5	1,413.5	788.5	0.00	0.00	0.00
11,700.0	90.17	359.40	11,043.3	667.5	1,413.0	838.1	0.00	0.00	0.00
11,750.0	90.17	359.40	11,043.2	717.5	1,412.5	887.6	0.00	0.00	0.00
11,800.0	90.17	359.40	11,043.0	767.5	1,411.9	937.2	0.00	0.00	0.00
11,850.0	90.17	359.40	11,042.9	817.5	1,411.4	986.7	0.00	0.00	0.00
11,900.0	90.17	359.40	11,042.7	867.5	1,410.9	1,036.2	0.00	0.00	0.00
11,950.0	90.17	359.40	11,042.6	917.5	1,410.4	1,085.8	0.00	0.00	0.00
12,000.0	90.17	359.40	11,042.4	967.5	1,409.8	1,135.3	0.00	0.00	0.00
12,050.0	90.17	359.40	11,042.3	1,017.5	1,409.3	1,184.9	0.00	0.00	0.00
12,100.0	90.17	359.40	11,042.1	1,067.5	1,408.8	1,234.4	0.00	0.00	0.00
12,150.0	90.17	359.40	11,042.0	1,117.5	1,408.3	1,284.0	0.00	0.00	0.00
12,200.0	90.17	359.40	11,041.8	1,167.5	1,407.8	1,333.5	0.00	0.00	0.00
12,250.0	90.17	359.40	11,041.7	1,217.5	1,407.2	1,383.0	0.00	0.00	0.00
12,300.0	90.17	359.40	11,041.5	1,267.5	1,406.7	1,432.6	0.00	0.00	0.00
12,350.0	90.17	359.40	11,041.4	1,317.5	1,406.2	1,482.1	0.00	0.00	0.00
12,400.0	90.17	359.40	11,041.2	1,367.5	1,405.7	1,531.7	0.00	0.00	0.00
12,450.0	90.17	359.40	11,041.1	1,417.5	1,405.1	1,581.2	0.00	0.00	0.00
12,500.0	90.17	359.40	11,040.9	1,467.5	1,404.6	1,630.8	0.00	0.00	0.00
12,550.0	90.17	359.40	11,040.8	1,517.5	1,404.1	1,680.3	0.00	0.00	0.00
12,600.0	90.17	359.40	11,040.6	1,567.5	1,403.6	1,729.9	0.00	0.00	0.00
12,650.0	90.17	359.40	11,040.5	1,617.5	1,403.0	1,779.4	0.00	0.00	0.00
12,700.0	90.17	359.40	11,040.3	1,667.4	1,402.5	1,828.9	0.00	0.00	0.00
12,750.0	90.17	359.40	11,040.2	1,717.4	1,402.0	1,878.5	0.00	0.00	0.00
12,800.0	90.17	359.40	11,040.0	1,767.4	1,401.5	1,928.0	0.00	0.00	0.00
12,850.0	90.17	359.40	11,039.9	1,817.4	1,401.0	1,977.6	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,900.0	90.17	359.40	11,039.7	1,867.4	1,400.4	2,027.1	0.00	0.00	0.00	
12,950.0	90.17	359.40	11,039.6	1,917.4	1,399.9	2,076.7	0.00	0.00	0.00	
13,000.0	90.17	359.40	11,039.4	1,967.4	1,399.4	2,126.2	0.00	0.00	0.00	
13,050.0	90.17	359.40	11,039.3	2,017.4	1,398.9	2,175.7	0.00	0.00	0.00	
13,100.0	90.17	359.40	11,039.1	2,067.4	1,398.3	2,225.3	0.00	0.00	0.00	
13,150.0	90.17	359.40	11,039.0	2,117.4	1,397.8	2,274.8	0.00	0.00	0.00	
13,200.0	90.17	359.40	11,038.8	2,167.4	1,397.3	2,324.4	0.00	0.00	0.00	
13,250.0	90.17	359.40	11,038.7	2,217.4	1,396.8	2,373.9	0.00	0.00	0.00	
13,300.0	90.17	359.40	11,038.5	2,267.4	1,396.2	2,423.5	0.00	0.00	0.00	
13,350.0	90.17	359.40	11,038.4	2,317.4	1,395.7	2,473.0	0.00	0.00	0.00	
13,400.0	90.17	359.40	11,038.2	2,367.4	1,395.2	2,522.6	0.00	0.00	0.00	
13,450.0	90.17	359.40	11,038.1	2,417.4	1,394.7	2,572.1	0.00	0.00	0.00	
13,500.0	90.17	359.40	11,037.9	2,467.4	1,394.2	2,621.6	0.00	0.00	0.00	
13,550.0	90.17	359.40	11,037.8	2,517.4	1,393.6	2,671.2	0.00	0.00	0.00	
13,600.0	90.17	359.40	11,037.6	2,567.4	1,393.1	2,720.7	0.00	0.00	0.00	
13,650.0	90.17	359.40	11,037.5	2,617.4	1,392.6	2,770.3	0.00	0.00	0.00	
13,700.0	90.17	359.40	11,037.3	2,667.4	1,392.1	2,819.8	0.00	0.00	0.00	
13,750.0	90.17	359.40	11,037.2	2,717.4	1,391.5	2,869.4	0.00	0.00	0.00	
13,800.0	90.17	359.40	11,037.0	2,767.4	1,391.0	2,918.9	0.00	0.00	0.00	
13,850.0	90.17	359.40	11,036.9	2,817.4	1,390.5	2,968.4	0.00	0.00	0.00	
13,900.0	90.17	359.40	11,036.7	2,867.4	1,390.0	3,018.0	0.00	0.00	0.00	
13,950.0	90.17	359.40	11,036.6	2,917.4	1,389.5	3,067.5	0.00	0.00	0.00	
14,000.0	90.17	359.40	11,036.4	2,967.4	1,388.9	3,117.1	0.00	0.00	0.00	
14,050.0	90.17	359.40	11,036.3	3,017.4	1,388.4	3,166.6	0.00	0.00	0.00	
14,100.0	90.17	359.40	11,036.1	3,067.4	1,387.9	3,216.2	0.00	0.00	0.00	
14,150.0	90.17	359.40	11,036.0	3,117.4	1,387.4	3,265.7	0.00	0.00	0.00	
14,200.0	90.17	359.40	11,035.8	3,167.4	1,386.8	3,315.3	0.00	0.00	0.00	
14,250.0	90.17	359.40	11,035.7	3,217.4	1,386.3	3,364.8	0.00	0.00	0.00	
14,300.0	90.17	359.40	11,035.5	3,267.4	1,385.8	3,414.3	0.00	0.00	0.00	
14,350.0	90.17	359.40	11,035.4	3,317.4	1,385.3	3,463.9	0.00	0.00	0.00	
14,400.0	90.17	359.40	11,035.2	3,367.3	1,384.7	3,513.4	0.00	0.00	0.00	
14,450.0	90.17	359.40	11,035.1	3,417.3	1,384.2	3,563.0	0.00	0.00	0.00	
14,500.0	90.17	359.40	11,034.9	3,467.3	1,383.7	3,612.5	0.00	0.00	0.00	
14,550.0	90.17	359.40	11,034.8	3,517.3	1,383.2	3,662.1	0.00	0.00	0.00	
14,600.0	90.17	359.40	11,034.6	3,567.3	1,382.7	3,711.6	0.00	0.00	0.00	
14,650.0	90.17	359.40	11,034.5	3,617.3	1,382.1	3,761.1	0.00	0.00	0.00	
14,700.0	90.17	359.40	11,034.3	3,667.3	1,381.6	3,810.7	0.00	0.00	0.00	
14,750.0	90.17	359.40	11,034.2	3,717.3	1,381.1	3,860.2	0.00	0.00	0.00	
14,800.0	90.17	359.40	11,034.0	3,767.3	1,380.6	3,909.8	0.00	0.00	0.00	
14,850.0	90.17	359.40	11,033.9	3,817.3	1,380.0	3,959.3	0.00	0.00	0.00	
14,900.0	90.17	359.40	11,033.7	3,867.3	1,379.5	4,008.9	0.00	0.00	0.00	
14,950.0	90.17	359.40	11,033.6	3,917.3	1,379.0	4,058.4	0.00	0.00	0.00	
15,000.0	90.17	359.40	11,033.4	3,967.3	1,378.5	4,108.0	0.00	0.00	0.00	
15,050.0	90.17	359.40	11,033.3	4,017.3	1,377.9	4,157.5	0.00	0.00	0.00	
15,100.0	90.17	359.40	11,033.1	4,067.3	1,377.4	4,207.0	0.00	0.00	0.00	
15,150.0	90.17	359.40	11,033.0	4,117.3	1,376.9	4,256.6	0.00	0.00	0.00	
15,200.0	90.17	359.40	11,032.8	4,167.3	1,376.4	4,306.1	0.00	0.00	0.00	
15,250.0	90.17	359.40	11,032.7	4,217.3	1,375.9	4,355.7	0.00	0.00	0.00	
15,300.0	90.17	359.40	11,032.5	4,267.3	1,375.3	4,405.2	0.00	0.00	0.00	
15,350.0	90.17	359.40	11,032.4	4,317.3	1,374.8	4,454.8	0.00	0.00	0.00	
15,400.0	90.17	359.40	11,032.2	4,367.3	1,374.3	4,504.3	0.00	0.00	0.00	
15,450.0	90.17	359.40	11,032.1	4,417.3	1,373.8	4,553.8	0.00	0.00	0.00	
15,500.0	90.17	359.40	11,031.9	4,467.3	1,373.2	4,603.4	0.00	0.00	0.00	
15,550.0	90.17	359.40	11,031.8	4,517.3	1,372.7	4,652.9	0.00	0.00	0.00	



## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.0	90.17	359.40	11,031.7	4,567.3	1,372.2	4,702.5	0.00	0.00	0.00
15,650.0	90.17	359.40	11,031.5	4,617.3	1,371.7	4,752.0	0.00	0.00	0.00
15,700.0	90.17	359.40	11,031.4	4,667.3	1,371.1	4,801.6	0.00	0.00	0.00
15,750.0	90.17	359.40	11,031.2	4,717.3	1,370.6	4,851.1	0.00	0.00	0.00
15,800.0	90.17	359.40	11,031.1	4,767.3	1,370.1	4,900.7	0.00	0.00	0.00
15,850.0	90.17	359.40	11,030.9	4,817.3	1,369.6	4,950.2	0.00	0.00	0.00
15,900.0	90.17	359.40	11,030.8	4,867.3	1,369.1	4,999.7	0.00	0.00	0.00
15,950.0	90.17	359.40	11,030.6	4,917.3	1,368.5	5,049.3	0.00	0.00	0.00
16,000.0	90.17	359.40	11,030.5	4,967.3	1,368.0	5,098.8	0.00	0.00	0.00
16,050.0	90.17	359.40	11,030.3	5,017.3	1,367.5	5,148.4	0.00	0.00	0.00
16,100.0	90.17	359.40	11,030.2	5,067.2	1,367.0	5,197.9	0.00	0.00	0.00
16,150.0	90.17	359.40	11,030.0	5,117.2	1,366.4	5,247.5	0.00	0.00	0.00
16,200.0	90.17	359.40	11,029.9	5,167.2	1,365.9	5,297.0	0.00	0.00	0.00
16,243.2	90.17	359.40	11,029.7	5,210.4	1,365.5	5,339.8	0.00	0.00	0.00
PPP2: 0' FSL & 2336' FWL (Sec 3)									
16,250.0	90.17	359.40	11,029.7	5,217.2	1,365.4	5,346.6	0.00	0.00	0.00
16,300.0	90.17	359.40	11,029.6	5,267.2	1,364.9	5,396.1	0.00	0.00	0.00
16,350.0	90.17	359.40	11,029.4	5,317.2	1,364.3	5,445.6	0.00	0.00	0.00
16,400.0	90.17	359.40	11,029.3	5,367.2	1,363.8	5,495.2	0.00	0.00	0.00
16,450.0	90.17	359.40	11,029.1	5,417.2	1,363.3	5,544.7	0.00	0.00	0.00
16,500.0	90.17	359.40	11,029.0	5,467.2	1,362.8	5,594.3	0.00	0.00	0.00
16,550.0	90.17	359.40	11,028.8	5,517.2	1,362.3	5,643.8	0.00	0.00	0.00
16,600.0	90.17	359.40	11,028.7	5,567.2	1,361.7	5,693.4	0.00	0.00	0.00
16,650.0	90.17	359.40	11,028.5	5,617.2	1,361.2	5,742.9	0.00	0.00	0.00
16,700.0	90.17	359.40	11,028.4	5,667.2	1,360.7	5,792.4	0.00	0.00	0.00
16,750.0	90.17	359.40	11,028.2	5,717.2	1,360.2	5,842.0	0.00	0.00	0.00
16,800.0	90.17	359.40	11,028.1	5,767.2	1,359.6	5,891.5	0.00	0.00	0.00
16,850.0	90.17	359.40	11,027.9	5,817.2	1,359.1	5,941.1	0.00	0.00	0.00
16,900.0	90.17	359.40	11,027.8	5,867.2	1,358.6	5,990.6	0.00	0.00	0.00
16,950.0	90.17	359.40	11,027.6	5,917.2	1,358.1	6,040.2	0.00	0.00	0.00
17,000.0	90.17	359.40	11,027.5	5,967.2	1,357.5	6,089.7	0.00	0.00	0.00
17,050.0	90.17	359.40	11,027.3	6,017.2	1,357.0	6,139.3	0.00	0.00	0.00
17,100.0	90.17	359.40	11,027.2	6,067.2	1,356.5	6,188.8	0.00	0.00	0.00
17,150.0	90.17	359.40	11,027.0	6,117.2	1,356.0	6,238.3	0.00	0.00	0.00
17,200.0	90.17	359.40	11,026.9	6,167.2	1,355.5	6,287.9	0.00	0.00	0.00
17,250.0	90.17	359.40	11,026.7	6,217.2	1,354.9	6,337.4	0.00	0.00	0.00
17,300.0	90.17	359.40	11,026.6	6,267.2	1,354.4	6,387.0	0.00	0.00	0.00
17,350.0	90.17	359.40	11,026.4	6,317.2	1,353.9	6,436.5	0.00	0.00	0.00
17,400.0	90.17	359.40	11,026.3	6,367.2	1,353.4	6,486.1	0.00	0.00	0.00
17,450.0	90.17	359.40	11,026.1	6,417.2	1,352.8	6,535.6	0.00	0.00	0.00
17,500.0	90.17	359.40	11,026.0	6,467.2	1,352.3	6,585.1	0.00	0.00	0.00
17,550.0	90.17	359.40	11,025.8	6,517.2	1,351.8	6,634.7	0.00	0.00	0.00
17,600.0	90.17	359.40	11,025.7	6,567.2	1,351.3	6,684.2	0.00	0.00	0.00
17,650.0	90.17	359.40	11,025.5	6,617.2	1,350.8	6,733.8	0.00	0.00	0.00
17,700.0	90.17	359.40	11,025.4	6,667.2	1,350.2	6,783.3	0.00	0.00	0.00
17,750.0	90.17	359.40	11,025.2	6,717.2	1,349.7	6,832.9	0.00	0.00	0.00
17,800.0	90.17	359.40	11,025.1	6,767.1	1,349.2	6,882.4	0.00	0.00	0.00
17,850.0	90.17	359.40	11,024.9	6,817.1	1,348.7	6,932.0	0.00	0.00	0.00
17,900.0	90.17	359.40	11,024.8	6,867.1	1,348.1	6,981.5	0.00	0.00	0.00
17,950.0	90.17	359.40	11,024.6	6,917.1	1,347.6	7,031.0	0.00	0.00	0.00
18,000.0	90.17	359.40	11,024.5	6,967.1	1,347.1	7,080.6	0.00	0.00	0.00
18,050.0	90.17	359.40	11,024.3	7,017.1	1,346.6	7,130.1	0.00	0.00	0.00
18,100.0	90.17	359.40	11,024.2	7,067.1	1,346.0	7,179.7	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Hobbs	<b>Local Co-ordinate Reference:</b>	Site Red Hills West Unit #037H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Project:</b>	Lea County, New Mexico NAD 83	<b>MD Reference:</b>	WELL @ 3244.0usft (Original Well Elev)
<b>Site:</b>	Red Hills West Unit #037H	<b>North Reference:</b>	Grid
<b>Well:</b>	Sec 15, T26S, R32E	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BHL: 100' FNL & 2330' FWL (Sec 3)		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,150.0	90.17	359.40	11,024.0	7,117.1	1,345.5	7,229.2	0.00	0.00	0.00	
18,200.0	90.17	359.40	11,023.9	7,167.1	1,345.0	7,278.8	0.00	0.00	0.00	
18,250.0	90.17	359.40	11,023.7	7,217.1	1,344.5	7,328.3	0.00	0.00	0.00	
18,300.0	90.17	359.40	11,023.6	7,267.1	1,344.0	7,377.8	0.00	0.00	0.00	
18,350.0	90.17	359.40	11,023.4	7,317.1	1,343.4	7,427.4	0.00	0.00	0.00	
18,400.0	90.17	359.40	11,023.3	7,367.1	1,342.9	7,476.9	0.00	0.00	0.00	
18,450.0	90.17	359.40	11,023.1	7,417.1	1,342.4	7,526.5	0.00	0.00	0.00	
18,500.0	90.17	359.40	11,023.0	7,467.1	1,341.9	7,576.0	0.00	0.00	0.00	
18,550.0	90.17	359.40	11,022.8	7,517.1	1,341.3	7,625.6	0.00	0.00	0.00	
18,600.0	90.17	359.40	11,022.7	7,567.1	1,340.8	7,675.1	0.00	0.00	0.00	
18,650.0	90.17	359.40	11,022.5	7,617.1	1,340.3	7,724.7	0.00	0.00	0.00	
18,700.0	90.17	359.40	11,022.4	7,667.1	1,339.8	7,774.2	0.00	0.00	0.00	
18,750.0	90.17	359.40	11,022.2	7,717.1	1,339.2	7,823.7	0.00	0.00	0.00	
18,800.0	90.17	359.40	11,022.1	7,767.1	1,338.7	7,873.3	0.00	0.00	0.00	
18,850.0	90.17	359.40	11,021.9	7,817.1	1,338.2	7,922.8	0.00	0.00	0.00	
18,900.0	90.17	359.40	11,021.8	7,867.1	1,337.7	7,972.4	0.00	0.00	0.00	
18,950.0	90.17	359.40	11,021.6	7,917.1	1,337.2	8,021.9	0.00	0.00	0.00	
19,000.0	90.17	359.40	11,021.5	7,967.1	1,336.6	8,071.5	0.00	0.00	0.00	
19,050.0	90.17	359.40	11,021.3	8,017.1	1,336.1	8,121.0	0.00	0.00	0.00	
19,100.0	90.17	359.40	11,021.2	8,067.1	1,335.6	8,170.5	0.00	0.00	0.00	
19,150.0	90.17	359.40	11,021.0	8,117.1	1,335.1	8,220.1	0.00	0.00	0.00	
19,200.0	90.17	359.40	11,020.9	8,167.1	1,334.5	8,269.6	0.00	0.00	0.00	
19,250.0	90.17	359.40	11,020.7	8,217.1	1,334.0	8,319.2	0.00	0.00	0.00	
19,300.0	90.17	359.40	11,020.6	8,267.1	1,333.5	8,368.7	0.00	0.00	0.00	
19,350.0	90.17	359.40	11,020.4	8,317.1	1,333.0	8,418.3	0.00	0.00	0.00	
19,400.0	90.17	359.40	11,020.3	8,367.1	1,332.4	8,467.8	0.00	0.00	0.00	
19,450.0	90.17	359.40	11,020.1	8,417.1	1,331.9	8,517.4	0.00	0.00	0.00	
19,500.0	90.17	359.40	11,020.0	8,467.0	1,331.4	8,566.9	0.00	0.00	0.00	
19,550.0	90.17	359.40	11,019.8	8,517.0	1,330.9	8,616.4	0.00	0.00	0.00	
19,600.0	90.17	359.40	11,019.7	8,567.0	1,330.4	8,666.0	0.00	0.00	0.00	
19,650.0	90.17	359.40	11,019.5	8,617.0	1,329.8	8,715.5	0.00	0.00	0.00	
19,700.0	90.17	359.40	11,019.4	8,667.0	1,329.3	8,765.1	0.00	0.00	0.00	
19,750.0	90.17	359.40	11,019.2	8,717.0	1,328.8	8,814.6	0.00	0.00	0.00	
19,800.0	90.17	359.40	11,019.1	8,767.0	1,328.3	8,864.2	0.00	0.00	0.00	
19,850.0	90.17	359.40	11,018.9	8,817.0	1,327.7	8,913.7	0.00	0.00	0.00	
19,900.0	90.17	359.40	11,018.8	8,867.0	1,327.2	8,963.2	0.00	0.00	0.00	
19,950.0	90.17	359.40	11,018.6	8,917.0	1,326.7	9,012.8	0.00	0.00	0.00	
20,000.0	90.17	359.40	11,018.5	8,967.0	1,326.2	9,062.3	0.00	0.00	0.00	
20,050.0	90.17	359.40	11,018.3	9,017.0	1,325.6	9,111.9	0.00	0.00	0.00	
20,100.0	90.17	359.40	11,018.2	9,067.0	1,325.1	9,161.4	0.00	0.00	0.00	
20,150.0	90.17	359.40	11,018.0	9,117.0	1,324.6	9,211.0	0.00	0.00	0.00	
20,200.0	90.17	359.40	11,017.9	9,167.0	1,324.1	9,260.5	0.00	0.00	0.00	
20,250.0	90.17	359.40	11,017.7	9,217.0	1,323.6	9,310.1	0.00	0.00	0.00	
20,300.0	90.17	359.40	11,017.6	9,267.0	1,323.0	9,359.6	0.00	0.00	0.00	
20,350.0	90.17	359.40	11,017.4	9,317.0	1,322.5	9,409.1	0.00	0.00	0.00	
20,400.0	90.17	359.40	11,017.3	9,367.0	1,322.0	9,458.7	0.00	0.00	0.00	
20,450.0	90.17	359.40	11,017.1	9,417.0	1,321.5	9,508.2	0.00	0.00	0.00	
20,500.0	90.17	359.40	11,017.0	9,467.0	1,320.9	9,557.8	0.00	0.00	0.00	
20,550.0	90.17	359.40	11,016.8	9,517.0	1,320.4	9,607.3	0.00	0.00	0.00	
20,600.0	90.17	359.40	11,016.7	9,567.0	1,319.9	9,656.9	0.00	0.00	0.00	
20,650.0	90.17	359.40	11,016.5	9,617.0	1,319.4	9,706.4	0.00	0.00	0.00	
20,700.0	90.17	359.40	11,016.4	9,667.0	1,318.9	9,755.9	0.00	0.00	0.00	
20,750.0	90.17	359.40	11,016.2	9,717.0	1,318.3	9,805.5	0.00	0.00	0.00	
20,800.0	90.17	359.40	11,016.1	9,767.0	1,317.8	9,855.0	0.00	0.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #037H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3244.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	MD Reference:	WELL @ 3244.0usft (Original Well Elev)
Site:	Red Hills West Unit #037H	North Reference:	Grid
Well:	Sec 15, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2330' FWL (Sec 3)		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,850.0	90.17	359.40	11,015.9	9,817.0	1,317.3	9,904.6	0.00	0.00	0.00	
20,900.0	90.17	359.40	11,015.8	9,867.0	1,316.8	9,954.1	0.00	0.00	0.00	
20,950.0	90.17	359.40	11,015.6	9,917.0	1,316.2	10,003.7	0.00	0.00	0.00	
21,000.0	90.17	359.40	11,015.5	9,967.0	1,315.7	10,053.2	0.00	0.00	0.00	
21,050.0	90.17	359.40	11,015.3	10,017.0	1,315.2	10,102.8	0.00	0.00	0.00	
21,100.0	90.17	359.40	11,015.2	10,067.0	1,314.7	10,152.3	0.00	0.00	0.00	
21,150.0	90.17	359.40	11,015.0	10,116.9	1,314.1	10,201.8	0.00	0.00	0.00	
21,200.0	90.17	359.40	11,014.9	10,166.9	1,313.6	10,251.4	0.00	0.00	0.00	
21,250.0	90.17	359.40	11,014.7	10,216.9	1,313.1	10,300.9	0.00	0.00	0.00	
21,300.0	90.17	359.40	11,014.6	10,266.9	1,312.6	10,350.5	0.00	0.00	0.00	
21,350.0	90.17	359.40	11,014.4	10,316.9	1,312.1	10,400.0	0.00	0.00	0.00	
21,400.0	90.17	359.40	11,014.3	10,366.9	1,311.5	10,449.6	0.00	0.00	0.00	
21,450.0	90.17	359.40	11,014.1	10,416.9	1,311.0	10,499.1	0.00	0.00	0.00	
21,488.8	90.17	359.40	11,014.0	10,455.7	1,310.6	10,537.5	0.00	0.00	0.00	
BHL: 100' FNL & 2330' FWL (Sec 3)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
SHL: 150' FSL & 810' Fv - hit/miss target - Shape - Point	0.00	0.00	0.0	0.0	0.0	382,813.30	747,345.20	32.0506898		-103.6684073
KOP: 10' FSL & 2330' Fv - plan hits target center - Point	0.00	0.01	10,471.0	-127.5	1,421.3	382,685.80	748,766.50	32.0503152		-103.6638226
FTP: 100' FSL & 2330' F - plan hits target center - Point	0.00	0.00	10,779.1	-37.6	1,420.4	382,775.70	748,765.60	32.0505623		-103.6638237
BHL: 100' FNL & 2330' F - plan hits target center - Point	0.00	0.00	11,014.0	10,455.7	1,310.6	393,269.00	748,655.80	32.0794081		-103.6639680
PPP2: 0' FSL & 2336' Fv - plan hits target center - Point	0.00	0.01	11,029.7	5,210.4	1,365.5	388,023.70	748,710.66	32.0649889		-103.6638959
LP: 583' FSL & 2330' Fv - plan misses target center by 0.3usft at 11487.9usft MD (11044.0 TVD, 455.4 N, 1415.2 E) - Point	0.00	0.00	11,044.0	455.4	1,414.9	383,268.70	748,760.10	32.0519176		-103.6638316



## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	MEWBOURNE OIL COMPANY
<b>WELL NAME &amp; NO.:</b>	RED HILLS WEST UNIT 37H
<b>APD ID:</b>	10400105481
<b>LOCATION:</b>	Section 10, T.26 S., R.32 E. NMP.
<b>COUNTY:</b>	Lea County, New Mexico ▼

COA

H <sub>2</sub> S	<input type="radio"/> No <input checked="" type="radio"/> Yes			
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
Cave / Karst	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input checked="" type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input checked="" type="radio"/> Waste Min. Plan	<input type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose <input type="checkbox"/> Four-String	<input type="checkbox"/> Casing Clearance <input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Pilot Hole <input checked="" type="checkbox"/> Fluid-Filled	<input checked="" type="checkbox"/> Break Testing

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### B. CASING DESIGN

#### Primary Casing Program

**Note:** The surface casing set depth was adjusted on recommendations provided by the BLM geologist. *"The operator proposes to set surface casing at 710 ft. which will be in or above the Magenta Dolomite Aquifer and will not adequately protect all usable water zones. Instead, set surface casing at a depth of approximately 1168 feet. If salt is encountered, set casing at least 25 feet above the salt."*

- The 13-3/8 inch surface casing shall be set at approximately **1,168 ft.** (a minimum of 70 feet into the Rustler Anhydrite, below usable water and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 ft. above the salt.**

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 psi compressive strength**, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Note:** Due to the revised casing set depth, the cement excess has dropped below 25%. More cement might be needed.

2. The **9-5/8** inch intermediate casing shall be set in a competent bed (the base of salt) at approximately **4,450 ft.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- **Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Cave/Karst**.

**Note:** Excess cement is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

**Note:** The intermediate casing must be kept fluid-filled to meet the minimum safety factor requirements for collapse.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.

3. Operator has proposed to set **7 x 4-1/2 inch** tapered production casing at approximately **21,488 ft.** (11,014 ft. TVD). The minimum required fill of cement behind the tapered production casing is:

**Option 1 (Single Stage):** Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification.

**Option 2 (Two-Stage):** Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool: Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office.

**Note:** The production casing must be kept fluid-filled to meet the minimum safety factor requirements for collapse.

### Alternate Casing Program

**Note:** The surface casing set depth was adjusted on recommendations provided by the BLM geologist. *"The operator proposes to set surface casing at 710 ft. which will be in or above the Magenta Dolomite Aquifer and will not adequately protect all usable water zones. Instead, set surface casing at a depth of approximately 1168 feet. If salt is encountered, set casing at least 25 feet above the salt."*

1. The **13-3/8 inch** surface casing shall be set at approximately **1,168 ft.** (a minimum of 70 feet into the Rustler Anhydrite, below usable water and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 ft. above the salt.**
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 psi compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Note:** Due to the revised casing set depth, the cement excess has dropped below 25%. More cement might be needed.

2. The **9-5/8 inch** intermediate casing shall be set in a competent bed (the base of salt) at approximately **4,450 ft.** The minimum required fill of cement behind the **9-5/8 inch** intermediate casing is:
  - **Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Cave/Karst**.

**Note:** Excess cement is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

**Note:** The intermediate casing must be kept fluid-filled to meet the minimum safety factor requirements for collapse.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.

3. Operator has proposed to set **7 inch** production casing at approximately **10,577 ft.** (10,471 ft. TVD). The minimum required fill of cement behind the **7 inch** production casing is:

**Option 1 (Single Stage):** Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Cave/Karst**.

**Option 2 (Two-Stage):** Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
  - b. Second stage above DV tool: Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Cave/Karst**.
4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:
    - Cement should tie-back **at least 100 feet** into previous casing string. Operator shall provide method of verification.

### Offline Cementing

Operator has been (**Approved**) to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**. Offline cementing should commence within 24 hours of landing the casing for the interval. Notify the BLM 4hrs prior to the commencement of any offline cementing procedure at **Lea County: 575-689-5981**.

### C. PRESSURE CONTROL

1. Variance approved to use **flex line** from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**. The BOP/BOPE and annular preventer shall be pressure-tested in accordance with **title 43 CFR 3172**.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in the **title 43 CFR 3172.6(b)(9)** must be followed.

#### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

**D. SPECIAL REQUIREMENT (S)****Unit Wells**

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation but will replace the unit number with the participating area number when the sign is replaced.

**Commercial Well Determination**

A commercial well determination shall be submitted after production has been established for at least six months. **(This is not necessary for secondary recovery unit wells)**

**GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Contact Lea County Petroleum Engineering Inspection Staff:**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981.

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on



which the draw works are located, this does not include the doghouse or stairway area.

3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to

- control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
  8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.



5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. The test shall be run on a 5000-psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one-hour chart. A circular chart shall have a maximum 2-hour clock. If a twelve hour or twenty-four-hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - vii. The BOP/BOPE test shall include a low-pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

#### **C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### **D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**SA 09/12/2025**

Hydrogen Sulfide Drilling Operations Plan  
**Mewbourne Oil Company**

**1. General Requirements**

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H<sub>2</sub>S were found. MOC will have on location and working all H<sub>2</sub>S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

**2. Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

**3. Hydrogen Sulfide Safety Equipment and Systems**

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

1. Well Control Equipment
  - A. Choke manifold with minimum of one adjustable choke/remote choke.
  - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
  - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H<sub>2</sub>S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H<sub>2</sub>S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. **Emergency Phone Numbers**

<b>Eddy County Sheriff's Office</b>	<b>911 or 575-887-7551</b>
<b>Ambulance Service</b>	<b>911 or 575-885-2111</b>
<b>Carlsbad Fire Dept</b>	<b>911 or 575-885-2111</b>
<b>Loco Hills Volunteer Fire Dept.</b>	<b>911 or 575-677-3266</b>
<b>Closest Medical Facility - Columbia Medical Center of Carlsbad</b>	<b>575-492-5000</b>

<b>Mewbourne Oil Company</b>	<b>Hobbs District Office</b>	<b>575-393-5905</b>
	<b>Fax</b>	<b>575-397-6252</b>
	<b>2<sup>nd</sup> Fax</b>	<b>575-393-7259</b>

<b>District Manager</b>	<b>Robin Terrell</b>	<b>575-390-4816</b>
<b>Drilling Superintendent</b>	<b>Frosty Lathan</b>	<b>575-390-4103</b>
	<b>Bradley Bishop</b>	<b>575-390-6838</b>
<b>Drilling Foreman</b>	<b>Wesley Noseff</b>	<b>575-441-0729</b>

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H

### Section 7 - Methods for Handling

**Waste type:** SEWAGE**Waste content description:** Human waste & grey water**Amount of waste:** 1500 gallons**Waste disposal frequency :** Weekly**Safe containment description:** 2,000 gallon plastic container**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** City of Carlsbad Water Treatment facility**Waste type:** GARBAGE**Waste content description:** Garbage & trash**Amount of waste:** 1500 pounds**Waste disposal frequency :** One Time Only**Safe containment description:** Enclosed trash trailer**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** Waste Management facility in Carlsbad.**Waste type:** DRILLING**Waste content description:** Drill cuttings**Amount of waste:** 940 barrels**Waste disposal frequency :** One Time Only**Safe containment description:** Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

### Reserve Pit

**Reserve Pit being used?** NO

**Operator Name:** MEWBOURNE OIL COMPANY**Well Name:** RED HILLS WEST UNIT**Well Number:** 37H**Temporary disposal of produced water into reserve pit?** NO**Reserve pit length (ft.)****Reserve pit width (ft.)****Reserve pit depth (ft.)****Reserve pit volume (cu. yd.)****Is at least 50% of the reserve pit in cut?****Reserve pit liner****Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO**Are you storing cuttings on location?** N**Description of cuttings location****Cuttings area length (ft.)****Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?****Cuttings area liner****Cuttings area liner specifications and installation description**

### Section 8 - Ancillary

**Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities****Comments:**

### Section 9 - Well Site

**Well Site Layout Diagram:**

RED\_HILLS\_WEST\_UNIT\_037H\_WellSiteLayout\_20250616103333.pdf

**Comments:** NONE

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 509303

ACKNOWLEDGMENTS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 509303
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oecd/contact-us>

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

CONDITIONS

Action 509303

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 509303
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
mleal	Cement is required to circulate on both surface and intermediate1 strings of casing.	9/25/2025
mleal	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	9/25/2025
jeffrey.harrison	Any string of casing or liner that is not circulated to surface must have a minimum of 200' of cement tie-back into the previous string of casing.	11/26/2025
jeffrey.harrison	Administrative order required for non-standard location prior to production.	11/26/2025
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/26/2025
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	11/26/2025
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	11/26/2025
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	11/26/2025