

OCD Hobbs
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

ATS- 15-310

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No. **NMNM128927**
NMNM 0105560(SL) NMNM0128910

6. If Indian, Allottee or Tribe Name **(H)**

1a. Type of work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NMNM125386A, Red Hills West Unit

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Red Hills West Unit #009H **(39542)**

2. Name of Operator Mewbourne Oil Company **(14744)**

9. API Well No.
70-025-42705

3a. Address PO Box 5270
Hobbs, NM 88241

3b. Phone No. (include area code)
575-393-5905

10. Field and Pool, or Exploratory
Jennings Uppers Bone Spring Shale

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At surface 330' FSL & 380' FWL, Sec. 8, T26S, R32E
At proposed prod. zone 330' FNL & 380' FWL, Sec. 8, T26S, R32E

JUL 27 2015

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 8, T26S, R32E

14. Distance in miles and direction from nearest town or post office*
29 miles west of Jal, NM

RECEIVED

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)
330'

16. No. of acres in lease
160 acres

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
510'-MOC Red Hills West Unit #003

19. Proposed Depth
13,640.00' MD
9,200'-TVD

20. BLM/BIA Bond No. on file
NM-1693 nationwide, NMB-000919

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3199'

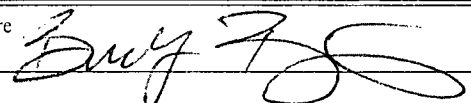
22. Approximate date work will start*
02/01/2015

23. Estimated duration
60 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|---|---|
| <ul style="list-style-type: none"> 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). | <ul style="list-style-type: none"> 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 required by the BLM. |
|---|---|

25. Signature 	Name (Printed/Typed) BRADLEY BISHER	Date 12-5-14
Title		

Approved by (Signature) Steve Caffey	Name (Printed/Typed)	Date JUL 23 2015
Title FIELD MANAGER	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.

APPROVAL FOR TWO YEARS

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)

Carlsbad Controlled Water Basin

Ka
07/27/15

PM

Approval Subject to General Requirements
& Special Stipulations Attached

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

JUL 28 2015

Mewbourne Oil Co, Red Hills West Unit #009H
 Sec 8, T26S, R32E
 SL: 330' FSL & 380' FWL
 BHL: 330' FNL & 380' FWL

HOBBS OCD

JUL 27 2015

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1. Geologic Formations

TVD of target	9200'	Pilot hole depth	NA
MD at TD:	13640'	Deepest expected fresh water:	250

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1025	Water	
Top of Salt	1400	Salt	
Base of Salt/Tansill	4160	Barren	
Delaware (Lamar)	4380	Oil/Gas	
Manzanita Marker			
Bone Spring	9050	Target Zone	
2 nd Bone Spring			
Wolfcamp		Will Not Penetrate	
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

Mewbourne Oil Co, Red Hills West Unit #009H

Sec 8, T26S, R32E

SL: 330' FSL & 380' FWL

BHL: 330' FNL & 380' FWL

2. Casing Program

See COA

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0'	1050' <i>1120'</i>	13.375"	48	H40	STC	1.36	3.17	6.39
12.25"	0'	3400'	9.625"	36	J55	LTC	1.14	1.99	2.63
12.25"	3400'	4300'	9.625"	40	J55	LTC	1.14	1.75	14.44
8.75"	0'	8627'	5.5"	17	P110	LTC	1.67	2.37	1.91
8.75"	8627'	9527'	5.5"	17	P110	BTC	1.46	2.22	5.21
8.75"	9527'	13640'	5.5"	17	P110	LTC	1.56	2.22	6.35
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? 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 intermediate 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.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
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 Co, Red Hills West Unit #009H
Sec 8, T26S, R32E
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3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf	565	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride + 0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Class C + 0.005pps Static Free + 1% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter. <i>See COA</i>	670	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride + 5#/sk LCM + 0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod.	1010	11.2	2.99	17	74	Class C (15:61:11)+5#/sk LCM+0.6%FL52+3% Sodium Metasilicate+9.2#/sk CSE2

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4100'	25%

Mewbourne Oil Co, Red Hills West Unit #009H
 Sec 8, T26S, R32E
 SL: 330' FSL & 380' FWL
 BHL: 330' FNL & 380' FWL

4. Pressure Control Equipment

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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M	Annular	x	1250#
			Blind Ram		See COF - must test to 2,000 PSI
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	3M	Annular	x	1500#
			Blind Ram	x	3000#
			Pipe Ram	x	
			Double Ram		
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 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. 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.

X	Formation integrity test will be performed per Onshore Order #2. 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 Onshore Oil and Gas Order #2 III.B.1.i.
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Mewbourne Oil Co, Red Hills West Unit #009H

Sec 8, T26S, R32E

SL: 330' FSL & 380' FWL

BHL: 330' FNL & 380' FWL

N	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y /N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.	

See Conf
5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1050 1120'	FW Gel	8.6-8.8	28-34	N/C
1050	4300	Saturated Brine	10.0-10.2	28-34	N/C
4300	8627	Cut Brine	8.5-9.3	28-34	N/C
8627	13640	FW/Polymer	8.5-9.3	28-34	N/C

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?	Visual Monitoring
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Mewbourne Oil Co, Red Hills West Unit #009H
Sec 8, T26S, R32E
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (8627) to surface. Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
X	Gamma
	Density
	CBL
	Mud log
	PEX
	From KOP(8627) to TD

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3956 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

*See
COA*

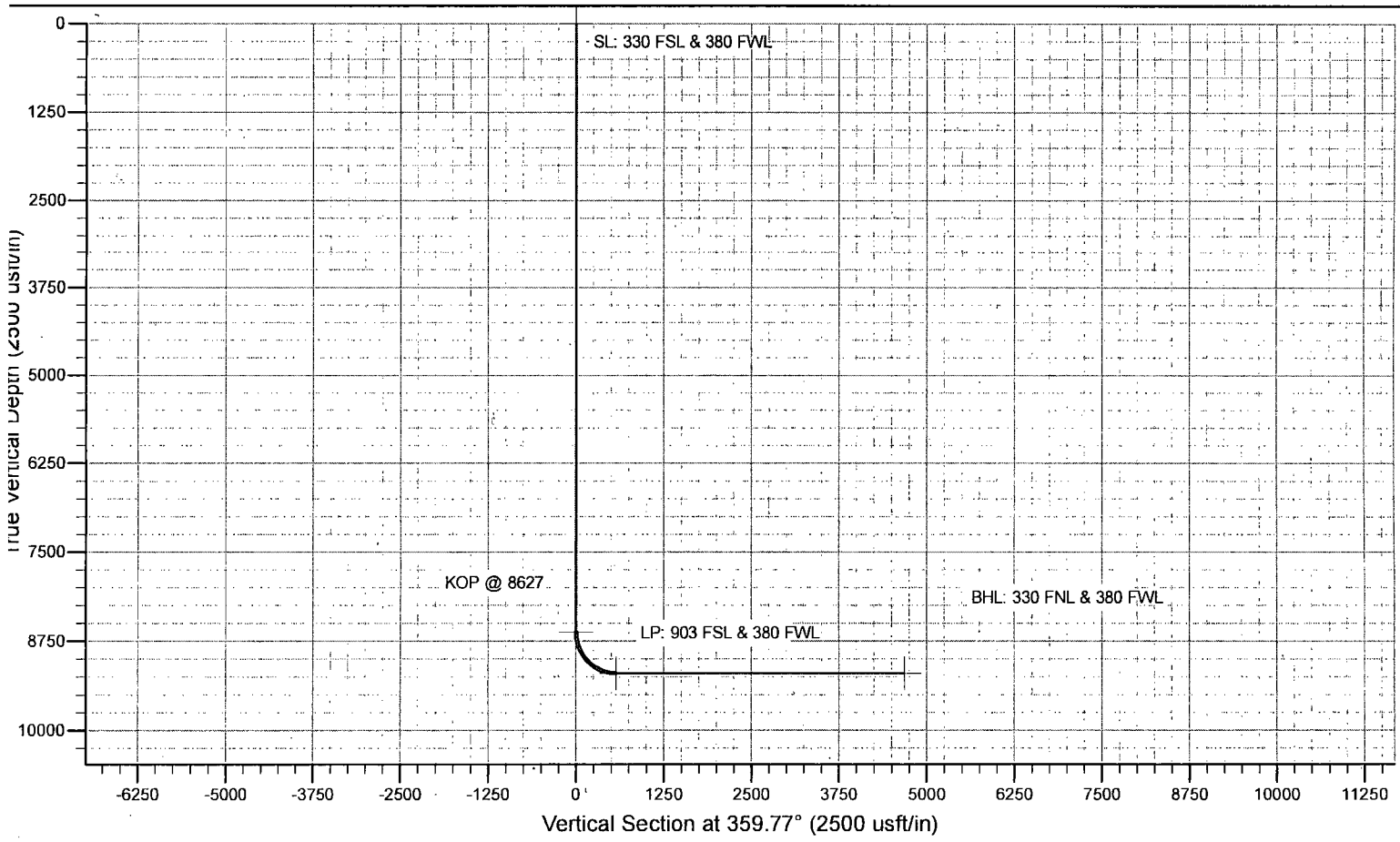
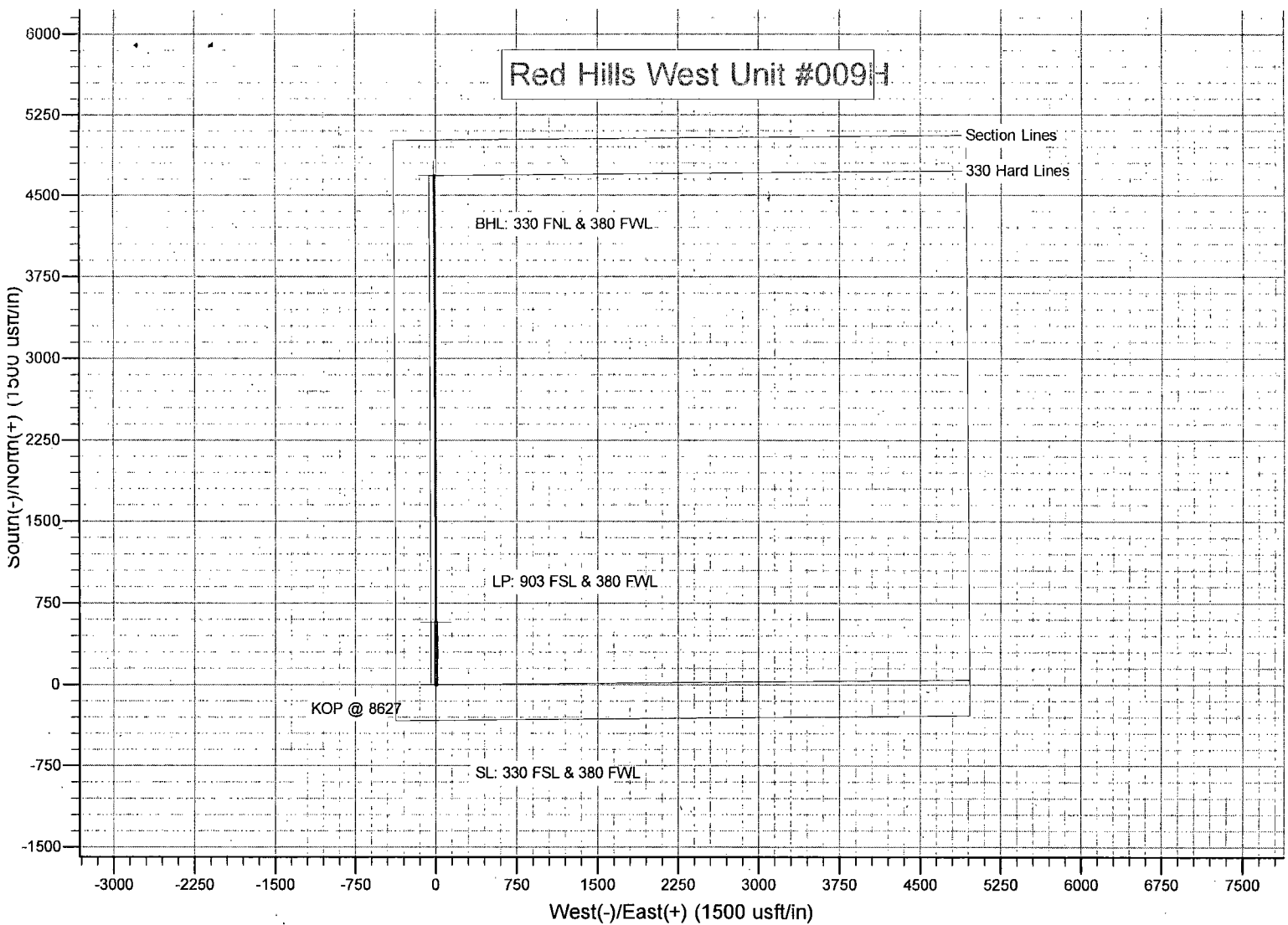
Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be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

8. Other facets of operation

Is this a walking operation? If yes, describe.
 Will be pre-setting casing? If yes, describe.

Attachments

- ☐ Directional Plan
☐ Other, describe



Mewbourne Oil Company

**Lea County, New Mexico
Red Hills West Unit #009H
Sec 8, T26S, R32E
SL: 330' FSL & 380' FWL
BHL: 330' FNL & 380' FWL**

Plan: Design #1

Standard Planning Report

16 July, 2015

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #009H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3224.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3224.0usft (Original Well Elev)
Site:	Red Hills West Unit #009H	North Reference:	Grid
Well:	Sec 8, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 380' FWL		
Design:	Design #1		

Project:	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Red Hills West Unit #009H		
Site Position:		Northing:	382,841.65 usft
From:	Map	Easting:	694,940.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 3.547 N
		Longitude:	103° 42' 14.908 W
		Grid Convergence:	0.33 °

Well	Sec 8, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	382,841.65 usft	Latitude:	32° 3' 3.547 N
	+E/-W	0.0 usft	Easting:	694,940.00 usft	Longitude:	103° 42' 14.908 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,224.0 usft	Ground Level:	3,199.0 usft

Wellbore	BHL: 330' FNL & 380' FWL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/16/2015	7.13	59.90	48,091

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	359.77	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,627.0	0.00	0.00	8,627.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,527.1	90.00	359.77	9,200.0	573.0	-2.3	10.00	10.00	0.00	-0.23	
13,638.7	90.00	359.77	9,200.0	4,684.6	-19.0	0.00	0.00	0.00	0.00	BHL: 330 FNL & 380 I

Planning Report

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Site:	Red Hills West Unit #009H	North Reference:	Grid
Well:	Sec 8, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 380' FWL		
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 330 FSL & 380 FWL									
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

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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)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,627.0	0.00	0.00	8,627.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 8627									
8,700.0	7.30	359.77	8,699.8	4.6	0.0	4.6	10.00	10.00	0.00
8,800.0	17.30	359.77	8,797.4	25.9	-0.1	25.9	10.00	10.00	0.00
8,900.0	27.30	359.77	8,889.8	63.8	-0.3	63.8	10.00	10.00	0.00
9,000.0	37.30	359.77	8,974.2	117.2	-0.5	117.2	10.00	10.00	0.00
9,100.0	47.30	359.77	9,048.1	184.4	-0.7	184.4	10.00	10.00	0.00
9,200.0	57.30	359.77	9,109.2	263.4	-1.1	263.4	10.00	10.00	0.00
9,300.0	67.30	359.77	9,155.6	351.8	-1.4	351.8	10.00	10.00	0.00
9,400.0	77.29	359.77	9,186.0	447.0	-1.8	447.0	10.00	10.00	0.00
9,500.0	87.29	359.77	9,199.4	545.9	-2.2	545.9	10.00	10.00	0.00
9,527.1	90.00	359.77	9,200.0	573.0	-2.3	573.0	10.00	10.00	0.00
LP: 903 FSL & 380 FWL									
9,600.0	90.00	359.77	9,200.0	645.9	-2.6	645.9	0.00	0.00	0.00
9,700.0	90.00	359.77	9,200.0	745.9	-3.0	745.9	0.00	0.00	0.00
9,800.0	90.00	359.77	9,200.0	845.9	-3.4	845.9	0.00	0.00	0.00
9,900.0	90.00	359.77	9,200.0	945.9	-3.8	945.9	0.00	0.00	0.00
10,000.0	90.00	359.77	9,200.0	1,045.9	-4.3	1,045.9	0.00	0.00	0.00
10,100.0	90.00	359.77	9,200.0	1,145.9	-4.7	1,145.9	0.00	0.00	0.00
10,200.0	90.00	359.77	9,200.0	1,245.9	-5.1	1,245.9	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #009H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3224.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3224.0usft (Original Well Elev)
Site:	Red Hills West Unit #009H	North Reference:	Grid
Well:	Sec 8, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 380' FWL		
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)
10,300.0	90.00	359.77	9,200.0	1,345.9	-5.5	1,345.9	0.00	0.00	0.00
10,400.0	90.00	359.77	9,200.0	1,445.9	-5.9	1,445.9	0.00	0.00	0.00
10,500.0	90.00	359.77	9,200.0	1,545.9	-6.3	1,545.9	0.00	0.00	0.00
10,600.0	90.00	359.77	9,200.0	1,645.9	-6.7	1,645.9	0.00	0.00	0.00
10,700.0	90.00	359.77	9,200.0	1,745.9	-7.1	1,745.9	0.00	0.00	0.00
10,800.0	90.00	359.77	9,200.0	1,845.9	-7.5	1,845.9	0.00	0.00	0.00
10,900.0	90.00	359.77	9,200.0	1,945.9	-7.9	1,945.9	0.00	0.00	0.00
11,000.0	90.00	359.77	9,200.0	2,045.9	-8.3	2,045.9	0.00	0.00	0.00
11,100.0	90.00	359.77	9,200.0	2,145.9	-8.7	2,145.9	0.00	0.00	0.00
11,200.0	90.00	359.77	9,200.0	2,245.9	-9.1	2,245.9	0.00	0.00	0.00
11,300.0	90.00	359.77	9,200.0	2,345.9	-9.5	2,345.9	0.00	0.00	0.00
11,400.0	90.00	359.77	9,200.0	2,445.9	-9.9	2,445.9	0.00	0.00	0.00
11,500.0	90.00	359.77	9,200.0	2,545.9	-10.3	2,545.9	0.00	0.00	0.00
11,600.0	90.00	359.77	9,200.0	2,645.9	-10.8	2,645.9	0.00	0.00	0.00
11,700.0	90.00	359.77	9,200.0	2,745.9	-11.2	2,745.9	0.00	0.00	0.00
11,800.0	90.00	359.77	9,200.0	2,845.9	-11.6	2,845.9	0.00	0.00	0.00
11,900.0	90.00	359.77	9,200.0	2,945.9	-12.0	2,945.9	0.00	0.00	0.00
12,000.0	90.00	359.77	9,200.0	3,045.9	-12.4	3,045.9	0.00	0.00	0.00
12,100.0	90.00	359.77	9,200.0	3,145.9	-12.8	3,145.9	0.00	0.00	0.00
12,200.0	90.00	359.77	9,200.0	3,245.9	-13.2	3,245.9	0.00	0.00	0.00
12,300.0	90.00	359.77	9,200.0	3,345.9	-13.6	3,345.9	0.00	0.00	0.00
12,400.0	90.00	359.77	9,200.0	3,445.9	-14.0	3,445.9	0.00	0.00	0.00
12,500.0	90.00	359.77	9,200.0	3,545.9	-14.4	3,545.9	0.00	0.00	0.00
12,600.0	90.00	359.77	9,200.0	3,645.9	-14.8	3,645.9	0.00	0.00	0.00
12,700.0	90.00	359.77	9,200.0	3,745.9	-15.2	3,745.9	0.00	0.00	0.00
12,800.0	90.00	359.77	9,200.0	3,845.9	-15.6	3,845.9	0.00	0.00	0.00
12,900.0	90.00	359.77	9,200.0	3,945.9	-16.0	3,945.9	0.00	0.00	0.00
13,000.0	90.00	359.77	9,200.0	4,045.9	-16.4	4,045.9	0.00	0.00	0.00
13,100.0	90.00	359.77	9,200.0	4,145.9	-16.9	4,145.9	0.00	0.00	0.00
13,200.0	90.00	359.77	9,200.0	4,245.9	-17.3	4,245.9	0.00	0.00	0.00
13,300.0	90.00	359.77	9,200.0	4,345.9	-17.7	4,345.9	0.00	0.00	0.00
13,400.0	90.00	359.77	9,200.0	4,445.9	-18.1	4,445.9	0.00	0.00	0.00
13,500.0	90.00	359.77	9,200.0	4,545.9	-18.5	4,545.9	0.00	0.00	0.00
13,600.0	90.00	359.77	9,200.0	4,645.9	-18.9	4,645.9	0.00	0.00	0.00
13,638.7	90.00	359.77	9,200.0	4,684.6	-19.0	4,684.7	0.00	0.00	0.00
BHL: 330 FNL & 380 FWL									

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #009H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3224.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3224.0usft (Original Well Elev)
Site:	Red Hills West Unit #009H	North Reference:	Grid
Well:	Sec 8, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 380' FWL		
Design:	Design #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
SL: 330 FSL & 380 FWL	0.00	0.00	0.0	0.0	0.0	382,841.65	694,940.00	32° 3' 3.547 N	103° 42' 14.908 W
- plan hits target center									
- Point									
KOP @ 8627	0.00	0.00	8,627.0	0.0	0.0	382,841.65	694,940.00	32° 3' 3.547 N	103° 42' 14.908 W
- plan hits target center									
- Point									
LP: 903 FSL & 380 FWL	0.00	0.00	9,200.0	573.0	-2.3	383,414.65	694,937.70	32° 3' 9.217 N	103° 42' 14.895 W
- plan hits target center									
- Point									
BHL: 330 FNL & 380 FW	0.00	0.00	9,200.0	4,684.6	-19.0	387,526.29	694,920.96	32° 3' 49.907 N	103° 42' 14.812 W
- plan hits target center									
- Point									