15-632

OCD Hobbs HOBBS OCD

JUN 17 2016

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM 105559	
6. If Indian, Allotee or Tribe Name	
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 #015H (39542)
2. Name of Operator Mewbourne Oil Company (14744)	9. API Well No. 30-025-43306
3a. Address PO Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 575-393-5905
	10. Field and Pool, or Exploratory Jennings Upper Bone Spring Shale (97838) KZ
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 665' FNL & 1985' FWL, Sec. 10, T26S, R32E At proposed prod. zone 330' FNL & 2310' FWL, Sec. 3, T26S, R32E	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 10, T26S, R32E
14. Distance in miles and direction from nearest town or post office* 29 miles west of Jal, NM	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 NMNM 105559 (320 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. 335'- Red Hills West Unit #2H (MOC)	19. Proposed Depth 14,558.4' MD 9115'-TVD / 20. BLM/BIA Bond No. on file NM-1693 nationwide, NMB-000919
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3267'	22. Approximate date work will start* 06/15/2015 / 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:

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 required by the BLM.

25. Signature B. Bishop	Name (Printed/Typed) BRADLEY BISHOP	Date 5-7-15
Title		
Approved by (Signature) James A. Amos	Name (Printed/Typed)	Date JUN 14 2016
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, ar

APPROVAL FOR TWO YEARS

See attached NMOCD Conditions of Approval

Title 18 U.S.C. Section 1001 and T
States any false, fictitious or frau

wingly and willfully to make to any department or agency of the United
risdiction.

(Continued on page 2)

*(Instructions on page 2)

KZ 06/17/16

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Mewbourne Oil Co, Red Hills West Unit #015H
Sec 10, T26S, R32E
SL: 665' FNL & 1985' FWL, Sec 10
BHL: 330' FNL & 2310' FWL, Sec 3

1. Geologic Formations

TVD of target	9115'	Pilot hole depth	NA
MD at TD:	14558'	Deepest expected fresh water:	250'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1007	Water	
Top of Salt	1127	Salt	
Base of Salt/Castile	4345	Barren	
Delaware (Lamar)	4543	Oil/Gas	
Manzanita Marker	5767		
Bone Spring	8679	Target Zone	
2nd 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.

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2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	1032'	13.375"	48	H40	STC	1.38	3.22	6.50
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.76
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	13.04
12.25"	4393'	4450'	9.625"	40	N80	LTC	1.34	2.48	324.17
8.75"	0'	8542'	7"	26	HCP110	LTC	1.76	2.24	2.82
8.75"	8542'	9442'	7"	26	HCP110	BTC	1.65	2.10	35.47
6.125"	8542'	14558'	4.5"	13.5	P110	LTC	2.26	2.62	4.15
				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 3rd 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 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf	550	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% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter. See COA	700	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.	620	12	2.12	11	10	Lead: Class C (60:40:0)+3% Sodium Chloride+5#/sk LCM+0.7% Sodium Metasillicate+0.3% FL52A+6%MPA5
	400	15.6	1.18	5.2	12	Tail: Class H+0.1%R3+0.3%FL52A
Liner See COA	240	11.2	2.97	18	16	Class C (60:40:0)+4% MPA5+1.2% BA10A+10#/sk BA90+5%A10+0.65%ASA301+1.5%SMS+1.2%R21

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	4250'	25%
Liner	8542'	25%

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4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
See COA 12-1/4"	13-5/8"	2M	Annular	X	1250#
			Blind Ram		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 *		
6-1/8"	11"	3M	Annular	X	1500#
			Blind Ram	X	3000#
			Pipe Ram	X	
			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.

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 COA

Yes

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1032	FW Gel	8.6-8.8	28-34	N/C
1032	4450	Saturated Brine	10.0-10.2	28-34	N/C
4450	8542	Cut Brine	8.5-9.3	28-34	N/C
8542	14558	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/PVT/Pason

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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (8542) 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	From KOP(8542) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4010 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. No
Will be pre-setting casing? If yes, describe. No

Attachments
✓ Directional Plan
___ Other, describe