

UNORTHODOX
LOCATION

OCD Hobbs

HOBBS OCD

ATS-16-519

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APR 18 2016

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-20965-A & Fee 02965A	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Mewbourne Oil Company		7. If Unit or CA Agreement, Name and No. [316104]	
3a. Address PO Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Pepper Ridge 15 B2CN Fed Com #3H	
3b. Phone No. (include area code) 575-393-5905		9. API Well No. 30-025-43161	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 185' FNL & 2200' FWL, Sec 15 T26S R33E At proposed prod. zone 330' FSL & 2200' FWL, Sec 15 T26S R33E		10. Field and Pool, or Exploratory Bone Spring [7280]	
11. Sec., T. R. M. or Blk. and Survey or Area Sec 15 T26S R33E		12. County or Parish Lea	
13. State NM		14. Distance in miles and direction from nearest town or post office* 22 miles SW of Jal, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 185'	16. No. of acres in lease 2,174.12	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50' - Pepper Ridge 15 A3CN Fed Com #1H	19. Proposed Depth 10,871' - TVD 15,390' - MID	20. BLM/BIA Bond No. on file NM-1693 Nationwide, NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3302' - GL	22. Approximate date work will start* 02/28/2016	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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) Bradley Bishop	Date 12/31/2015
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Title	
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Approved by (Signature) JS/STEPHEN J. CAFFEY	Name (Printed/Typed)	Date APR 13 2016
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Title FOR	Office BLM-CARLSBAD FIELD OFFICE
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Application conduct operations under Conditions of Approval	The NMOC Gas Capture Plan notice has been posted on the web site under Announcements/Notice to Operators. A copy of the GCP form is included with the notice and is also in the Forms section under Unnumbered forms. Please submit accordingly in a timely manner.	to those rights in the subject lease which would entitle the applicant to APPROVAL FOR TWO YEARS
Title 18 U.S. States any fa		vingly and willfully to make to any department or agency of the United rsidiction.
(Continue)		*(Instructions on page 2)

Witness Surface &
Intermediate CasingK2
04/15/16 Carlsbad Controlled Water BasinAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHEDSEE ATTACHED FOR
CONDITIONS OF APPROVAL

APR 22 2016

Mewbourne Oil Company, Pepper Ridge 15 B2CN Fed Com #3H

Sec 15, T26S, R33E

SL: 185' FNL & 2200' FWL

BHL: 330' FSL & 2200' FWL

1. Geologic Formations

TVD of target	10871'	Pilot hole depth	NA
MD at TD:	15390'	Deepest expected fresh water:	125'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	921	Water	
Top of Salt	1290	Salt	
Castile	3189		
Base Salt	4739		
Lamar	4975	Oil	
Bell Canyon	5017	Oil	
Cherry Canyon	6091		
Manzanita Marker	6289		
Brushy Canyon	7679		
Bone Spring	9129	Oil/Gas	
1 st Bone Spring Sand	10049		
2 nd Bone Spring Sand	10628	Target Zone	
3 rd Bone Spring Sand			
Abo			
Wolfcamp		Will Not Penetrate	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

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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'	945' 990'	13.375	48	H40	STC	1.51	3.52	7.10
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.49
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	8.98
12.25"	4393'	4900'	9.625"	40	N80	LTC	1.21	2.26	36.35
8.75"	0'	10347'	7"	26	HCP110	LTC	1.45	1.85	2.40
8.75"	10347'	11092'	7"	26	HCP110	BTC	1.38	1.76	42.85
6.125"	10347'	15390'	4.5"	13.5	P110	LTC	1.89	2.20	4.95
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
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?	
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?	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	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	500	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.	820	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.	350	12.5	2.12	11	9	Lead: 60:40:0 Class C + 15.00 lb/sk BA-90 + 4.00% MPS-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free
	400	15.6	1.18	5.2	10	Tail: Class H + 0.65% FL-52 + 0.10% R-3 + 0.005 lb/sk Static Free
Liner	210	11.2	2.97	17	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

*See
COA*

A copy of cement test will be available on location at time of cement job providing pump times, compressive strengths, etc.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4700'	25%
Liner	10347'	25%

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4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
<i>See CDA</i> 12-1/4"	13-5/8"	<i>2m</i> 3M	Annular	X	1250#
			Blind Ram		<i>must test to 2000 psi</i>
			Pipe Ram		
			Double Ram		
			Other*		
<i>See CDA</i> 8-3/4"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		
<i>See CDA</i> 6-1/8"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			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.
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See COA

Y	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.
N	Are anchors required by manufacturer?
N	<p>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.</p> <ul style="list-style-type: none"> • Provide description here <p>See attached schematic.</p>

5. Mud Program

See COA

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	945' 990'	FW Gel	8.6-8.8	28-34	N/C
945'	4900'	Saturated Brine	10.0	28-34	N/C
4900'	10347'	Cut Brine	8.6-9.5	28-34	N/C
10347'	15390'	FW w/ Polymer	8.6-9.5	30-40	<20cc

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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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (10347') to surface (horizontal well – vertical portion of hole). 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 Ray	10347'(KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

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7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4709 psi
Abnormal Temperature	No

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

5e2
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
X	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

Pepper Ridge 15 B2CN Fed Com #3H

