

HOBBS OCD

ATS-15-974

Form 3160-3  
(March 2012)

JUN 30 2016

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

RECEIVED


## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.	
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		8. Lease Name and Well No. (316475) Jennings 27 B2AP Fed Com #2H	
2. Name of Operator Mewbourne Oil Company (14744)		9. API Well No. 30-025-43342 (97903)	
3a. Address PO Box 5270 Hobbs, NM 88241		10. Field and Pool, or Exploratory WC-025 G06 52532356; LWR BS	
3b. Phone No. (include area code) 575-393-5905		11. Sec., T. R. M. or Blk. and Survey or Area Sec 27 T25S R32E	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 185' FNL & 660' FEL, Sec 27 T25S R32E At proposed prod. zone 330' FSL & 660' FEL, Sec 27 T25S R32E		12. County or Parish Lea	
14. Distance in miles and direction from nearest town or post office* 27 miles W of Jal, NM		13. State NM	
15. Distance from proposed* 185' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No. of acres in lease NMNM115421 - 80 acres NM0359295A - 880 acres	
17. Spacing Unit dedicated to this well 160		18. Distance from proposed location* 80' - Jennings 27 W1AP to nearest well, drilling, completed, applied for, on this lease, ft. Fed Com #3H	
19. Proposed Depth 10,777' - TVD 15,250' - MD		20. BLM/BIA Bond No. on file NM1693 nationwide & NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3400' - GL		22. Approximate date work will start* 11/29/2015	
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.                                                                                               | 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 09/29/2015
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Title

Approved by (Signature) <b>James A. Amos</b>	Name (Printed/Typed)	Date <b>JUN 27 2016</b>
Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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  
States any false, fictitious or fraudulent statements or representat

any department or agency of the United

(Continued on page 2)

See attached NMOC  
Conditions of Approval

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

K2  
07/01/16SEE ATTACHED FOR  
CONDITIONS OF APPROVALApproval Subject to General Requirements  
& Special Stipulations Attached

**Mewbourne Oil Company, Jennings 27 B2AP Fed Com #2H**  
**Sec 27, T25S, R32E**  
**SL: 185' FNL & 660' FEL**  
**BHL: 330' FSL & 660' FEL**

**1. Geologic Formations**

TVD of target	10777'	Pilot hole depth	NA
MD at TD:	15250'	Deepest expected fresh water:	275'

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	739		
Top of Salt	1110	Salt	
Castile			
Base of Salt	4447		
Yates			
Lamar	4670		
Cherry Canyon	5722		
Manzanita Marker	5873		
Brushy Canyon	7450		
Bone Spring	8712	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	9732		
2 <sup>nd</sup> Bone Spring Sand	10287	Target Zone	
3 <sup>rd</sup> 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'	<i>765' 850'</i>	13.375"	48	H40	STC	1.86	4.35	8.77
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.67
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	11.43
12.25"	4393'	4590'	9.625"	40	N80	LTC	1.29	2.41	93.61
8.75"	0'	740'	5.5"	17	P110	BTC	19.43	19.43	2.11
8.75"	740'	10213'	5.5"	17	P110	LTC	1.41	2.00	1.80
8.75"	10213'	10953'	5.5"	17	P110	BTC	1.35	1.91	6.38
8.75"	10953'	15250'	5.5"	17	P110	LTC	1.33	1.90	6.08
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 <sup>rd</sup> 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 <sup>nd</sup> 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?	

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**3. Cementing Program**

Casing	# Sks	Wt. lb/ gal	Yld ft <sup>3</sup> / sack	H <sub>2</sub> O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	380	12.5	2.12	11	10	Class C + 0.005pps Static Free + 1% CaCl <sub>2</sub> + 0.25 pps CelloFlake + 0.005 gps FP-6L
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Inter.	725	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	1155	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

See  
COA

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4390'	25%



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**4. Pressure Control Equipment**

Variance: None
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BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	X	1500#
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	5M <del>3M</del>	Annular	X	1500#
			Blind Ram	X	5000 # <del>3000#</del>
			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.
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?

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<b>N</b>	<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"> <li>• Provide description here</li> </ul> <p>See attached schematic.</p>
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### 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	765' 850'	FW Gel	8.6-8.8	28-34	N/C
765	4590	Saturated Brine	10.0	28-34	N/C
4590	10213	Cut Brine	8.6-9.5	28-34	N/C
10213	15250	FW w/Polymer	8.6-9.5	30-40	<20cc

See  
COA

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
---------------------------------------------------------	-------------------

### 6. Logging and Testing Procedures

Logging, Coring and Testing.	
<b>X</b>	Will run GR/CNL from KOP (10213') 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
<b>X</b> Gamma Ray	10213'(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	4667 psi
Abnormal Temperature	No

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

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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.

	H <sub>2</sub> S is present
X	H <sub>2</sub> S 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