# HOBBS: OCD

OMB No. 1004-0137 Expires July 31, 2010

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MAR 21 2016

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM 181599

6. If Indian, Allotee or Tribe Name

	KEULIVI	an have	4			
la. Type of work:	ER		7. If Unit or CA Agr	reement, Na	me and	No.
lb. Type of Well: Oil Well Gas Well Other	Single Zone Multi	ole Zone	8. Lease Name and Crazy Wolf 1 B2M		om #1	3/60 H
2. Name of Operator Mewbourne Oil Company (1474)	4)		9. API Well No.	5-4	317	35
3a. Address PO Box 5270	3b. Phone No. (include area code)		10. Field and Pool, or	Explorator	y	
Hobbs, NM 88241	575-393-5905		Tonto West Bone	Spring (5	9477)	)
4. Location of Well (Report location clearly and in accordance with an	y State requirements.*)		11. Sec., T. R. M. or I	Blk. and Su	rvey or	Area
At surface 185' FSL & 660' FWL Sec. 1, T19S, R32E			Sec. 1, T19S, R32	2E		
At proposed prod. zone 330' FNL & 660' FWL Sec. 1, T19S	, R32EUNORTHOD	X				
<ul><li>14. Distance in miles and direction from nearest town or post office*</li><li>18 miles south of Maljamar, NM</li></ul>	LOCATION		12. County or Parish Lea		13. St NM	ate
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 200	17. Spacir 160	ng Unit dedicated to this	well		
18. Distance from proposed location* 70'- Cimarex Querecho 1	19. Proposed Depth	20. BLM/	BIA Bond No. on file			
to nearest well, drilling, completed, Fed Com #1H applied for, on this lease, ft.	14,252.6'-MD 9,590.0'-TVD	4,252.6'-MD NM-1693			3 nationwide, NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*		23. Estimated duration			
3670'	11/01/2014	11/01/2014 60 Days				
	24. Attachments					
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Item 20 above).  Lands, the 5. Operator certific	ation	ormation and/or plans a			
25. Signature Bun 78	Name (Printed/Typed) BRANEY B	SHOP		Date 9-2	4-1	4
Title						4.
Approved by (Signature) Steve Caffey	Name (Printed/Typed)		,	DaMAR	1	7 2016
Title FIELD MANAGER	Office	ARLSBA	D FIELD OFFICE			
Application approval does not warrant or certify that the applicant hold conduct operations thereon.  Conditions of approval, if any, are attached.	s legal or equitable title to those righ		APPROVAL F			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	rime for any person knowingly and voo any matter within its jurisdiction.	villfully to n	nake to any department	or agency	of the 1	United
(Continued on page 2)	V2.	1	*(Ins	tructions	on p	age 2)
Capitan Controlled Water Basin	07/02	-116	pr.			

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

# 1. Geologic Formations

TVD of target	9690	Pilot hole depth	NA
MD at TD:	14253	Deepest expected fresh water:	320

#### **Back Reef**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Surface Formation	Hom KD	Target Zone.	
Rustler	1420	Water	
Top of Salt	1545	Salt	
Tansill			
Yates	3230	Oil/Gas	
Seven Rivers	3620		
Queen	4085	Oil/Gas	
San Andres	5520		
Delaware(Lamar)	5755	Oil/Gas	
Bone Spring	7445	Oil/Gas	
2 <sup>nd</sup> Bone Spring	9305	Target Zone	
Wolfcamp		Will Not Penetrate	
Cisco			
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

See COA Program

Hole	Casing	g Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF
Size	From	To	Size	(lbs)		- 4	Collapse	Burst	Tension
17.5"	0	1200	13.375"	48	H40	STC	1.19	2.77	4.54
17.5"	1200	1445 1475	13.375"	54.5	J55	STC	1.5	4.38	38.49
12.25"	0	3280 3560	9.625"	36	J55	LTC	1.18	2.06	3.84
8.75"	0	9213	7"	26	HCP110	LTC	1.63	2.08	2.67
8.75"	9213	9974	7"	26	HCP110	BUTT	1.55	1.98	41.95
6.125"	9774	14253	4.5"	13.5	P110	LTC	2.12	2.46	5.57
				BLM Min	imum Safet	y 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

	YorN
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 <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?	

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> 0 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	820	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	5	Tail: Class C + 0.005pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter.	480	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
COA	200	14.8	1.34	6.3	5	Tail: Class C + 0.005pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
Prod.	390	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	None					Packer/Port completion system will be used

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 (	3080" 3300'	25%
Liner	9774'	Tie back 200' inside 7" csg

(200' He back minimum)

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

#### 4. Pressure Control Equipment

No Variance Requested

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		1	Tested to:			
			Ar	nular	X	1250#			
			Blin	d Ram					
12-1/4"	13-5/8"	2M	Pip	e Ram					
			Doub	ole Ram					
			Other*						
			An	nular	X	1500#			
			Blind Ram		X				
8-3/4"	11"	3M	Pipe Ram		X				
0-5/4	11		Doub	ole Ram		3000#			
			Other *						
			An	nular	X	1500#			
			Blin	d Ram	X				
6.125"	11"	2M	1" 2M	11" 3M	11" 2M	Pipe Ram		X	
0.123	11	JIVI	Doub	ole Ram		3000#			

<sup>\*</sup>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.

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

	A variance is requested for the use of a flexible choke line from the BOP to Choke
N	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

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1445 1475	FW Gel	8.6-8.8	28-34	N/C
1445	3280 3500'	Saturated Brine	10.0-10.2	29-34	N/C
3280	9213	FW	8.5-9.3	28-34	N/C
9213	14253	FW w/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	Visual Monitoring
of fluid?	

SL: 185' FSL & 660' FWL BHL: 330' FNL & 660' FWL

#### 6. Logging and Testing Procedures

Logg	ging, Coring and Testing.
X	Will run GR/CNL from KOP 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

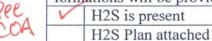
Additional logs planned		Interval
X	GR	KOP(9213) to TD
	Density	Int. shoe to KOP
	CBL	Production casing
	Mud log	Intermediate shoe to TD
	PEX	

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4182 psi
Abnormal Temperature	No

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

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.



#### 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