₹. j. #	OCD Hobbs		A	75-11	l-1.	59	
Forn 3160 -3 (March 2012)	HOBBS O	CD	OMB	1 APPROVE No. 1004-013 October 31, 2	7	•	
UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MAI	INTERIOR MAY 0.5 201	6	5. Lease Serial No. NMNM128929, NI				
APPLICATION FOR PERMIT TO		D	6. If Indian, Alloted	e or Tribe N	Name	<u>, ,,,</u>	
la. Type of work: 🔽 DRILL 🗌 REENT	TER		7 If Unit or CA Ag	reement, Na	me and	No.	
1b. Type of Well: Well Well Gas Well Other	Single Zone 🔲 Multip	ole Zone	8. Lease Name and Paduca 7/6 W1ED		n #3H	3161	199
2. Name of Operator <sup>*</sup> Mewbourne Oil Company			9. API Well No. 30-02:	5-43	21	7 /	
3a. Address PO Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 575-393-5905		10. Field and Pool, or WC-025 6	Explorator	y	_(	78 N;
4. Location of Well (Report location clearly and in accordance with a			11. Sec., T. R. M. or 1	Blk. and Sur		· · · · · · · · · · · · · · · · · · ·	ν,
At surface 2615' FNL & 1020' FWL, Sec 7 T26S R32E	UNORTHODO	X	Sec 7 T26S R32E				
At proposed prod. zone 330' FNL & 440' FWL, Sec 6 T265 4. Distance in miles and direction from nearest town or post office* 31 miles West of Jal, NM	LOCATION		12. County or Parish Lea		13. Sta NM	te	
5. 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 NMNM128929-760.71 NMNM120910 - 80	17. Spacir	ng Unit dedicated to this 480	well			
<ul> <li>18. Distance from proposed location*</li> <li>160' - Paduca 7/6 A2ED</li> <li>applied for, on this lease, ft.</li> </ul>	······································		WBIA Bond No. on file 93 nationwide, NMB-000919				
Elevations (Show whether DF, KDB, RT, GL, etc.) 3248' - GL	22. Approximate date work will sta ·03/07/2016	t*	23. Estimated duration 60 days	on			
	24. Attachments						
<ol> <li>The following, completed in accordance with the requirements of Onshe</li> <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>	4. Bond to cover the Item 20 above). In Lands, the 5. Operator certific	ne operatio ation	is form: ns unless covered by an ormation and/or plans a	U		·	
25. Signature TS	Name (Printed/Typed) Bradley Bishop			Date 1-2	z - 1	6	
	Name (Printed/Typed)			Date		0010	1
	Office			MAY	3	2016	4
FIELD MANAGER	C		D FIELD OFFICE				د.
Application approval does not warrant or certify that the applicant hol onduct operations thereon. Conditions of approval, if any, are attached.	ds legal or equitable title to those righ	ts in the sul	pject lease which would PPROVAL F	entitle the a DR TW	pplicant OY	ÉARS	}
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a states any false, fictitious or fraudulent statements or representations as	s to any matter within its jurisdiction.	villfully to r	nake to any department	or agency (	of the U	nited	
(Continued on page 2)	K2 106/16		*(Ins	tructions	on pa	nge 2)	
Carlsbad Controlled Water Basin	P11						

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Approval Subject to General Requirements & Special Stipulations Attached

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# SEE ATTACHED FOR CONDITIONS OF APPROVAL

# 1. Geologic Formations

TVD of target	12080'	Pilot hole depth	NA
MD at TD:	19480'	Deepest expected fresh water:	275'

Basin			
Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1057	Water	ę
Top of Salt	1397	Salt	
Base of Salt	4152	Barren	· · · · · · · · · · · · · · · · · · ·
Delaware (Lamar)	4359	Oil/Gas	
Bell Canyon	4431		
Cherry Canyon	5390	· · · · · · · · · · · · · · · · · · ·	
Manzanita Marker	5537	· · · · · · · · · · · · · · · · · · ·	· ·
Brushy Canyon	6882	-	
Bone Spring	8345	Oil/Gas	
1 <sup>st</sup> Bone Spring	9323		
2 <sup>nd</sup> Bone Spring	10022		
3 <sup>rd</sup> Bone Spring	11182	· · · ·	
Wolfcamp	11596	Target Zone	
Atoka			
Morrow			
Barnett Shale			
Devonian			
Granite Wash			

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

	Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF
500	Size	From	То	Size	(lbs)			Collapse	Burst	Tension .
See	17.5"	0'	10851210	13.375"	48	H40	STC	1.31	3.07	6.18
an	12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.87
	12.25"	3453'	4285'	9.625"	40	J55	LTC	1.15	1.77	15.62
ſ	8.75"	0'	11507'	7"	26	P110	LTC	1.30	1.66	2.15
ſ	8.75"	11507'	12407'	7"	26	P110	BTC	1.24	1.59	35.47
	6.125"	11507'	19480'	4 ½"	13.5	P110	LTC	1.70	1.98	3.13
-				,	BLM Min	imum Safet	y Factor	1.125	1 .	1.6 Dry
										1.8 Wet

## 2. Casing Program

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 <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?	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 three strings cemented to surface?	

If yes, are there three strings cemented to surface?

J. Cem	enting r	rogram	-			•
Cásing	. # Sks	Wt. lb/ gål	Yld ft3/ sack	H <sub>2</sub> 0, gal/, sk	500# Comp. Strength (hours),	Slurry Description
Surf	590	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
Inter.	710	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.	520	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	325	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	4085'	25%
Liner	11407'	25%

#### 3. Cementing Program

#### 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min Required WP	Τ,	pe		Tested to:		
	<u>he sele to anno to se site</u>	lin minaife as a inaire.	Anr	nular	X	1500#		
			Blind	l Ram				
12-1/4"	13-5/8"	3M	Pipe	Ram				
· ·			Doubl	le Ram				
			Other*					
			Anr	nular	X	5000#		
		1	Blind	l Ram	x			
8-3/4"	13-5/8"	10M	Pipe	Ram	x	10000#		
			. '	Doubl	le Ram		10000#	
			Other*					
			Anr	nular	X	5000#		
•		•	Blinc	l Ram	x			
6-1/8" 13-5/		101	10M	10M	, 10M	10M	13-5/8" 10M Pipe Ram x	
0-1/0	13-3/0	Double Ram			10000#			
· .			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?					
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.					

#### 5. Mud Program

De	pth	Туре	Weight (ppg)	Viscosity	Water Loss
From	To			ha si	K. S
0'	1085 1210	FW Gel	8.6-8.8	28-34	N/C
1085'	4285'	Saturated Brine	10.0-10.2	28-34	N/C
4285'	11407'	Cut Brine	8.6-9.5	28-34	N/C
11407'	19480'	OBM	10.0-13.0	30-40	<20 cc

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	Pason/PVT/Visual Monitoring
of fluid?	

## 6. Logging and Testing Procedures

Logg	ing, Coring and Testing.
X	Will run GR/CNL from KOP (11407') 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	11407'(KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

5 Drilling Plan

See COA

## 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8167 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers. Weighted mud for possible over-pressure in Wolfcamp formation.

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

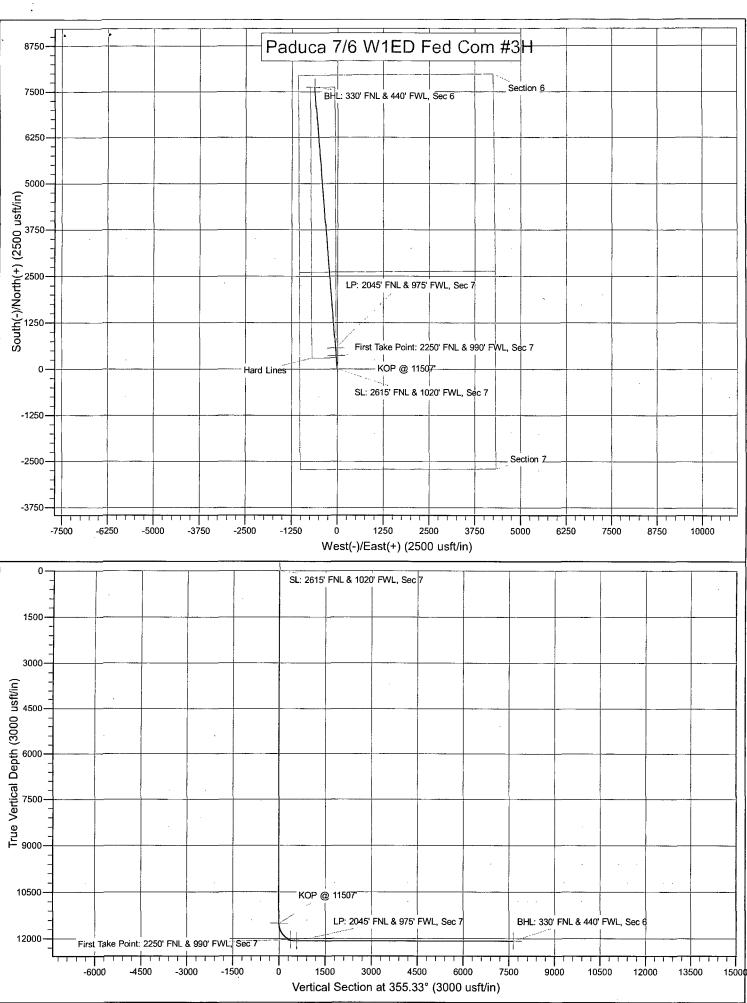
## 8. Other facets of operation

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

Attachments

\_\_\_ Directional Plan

\_\_\_\_ Other, describe



\_\_\_\_\_