

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

NOV 6 2017

**SUBMIT IN TRIPLICATE** - Other instructions on page 2

RECEIVED

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit of CA/Agreement, Name and/or No.
2. Name of Operator Centennial Resource Production, LLC		8. Well Name and No. Crazy Wolf 1/2 B2MM Fed Com 1H
3a. Address 1001 17th Street, Suite 1800 Denver, CO 80202	3b. Phone No. (include area code) (720) 499-1400	9. API Well No. 30-025-43135
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SWSW, Section 1, T 19S, R 32E, NMPM, 330' FSL, 1290' FWL		10. Field and Pool or Exploratory Area Tonto
		11. Country or Parish, State Lea County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

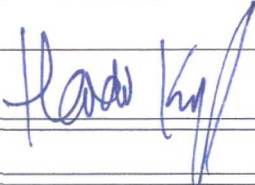
13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Centennial wishes to make the following revisions to the casing and cementing program for this well:

- 1) Remove plans to run a liner
- 2) Run 9-3/8" casing to 5780'
- 3) Run 5.5" casing from surface to TD

A revised casing and cementing program is attached.

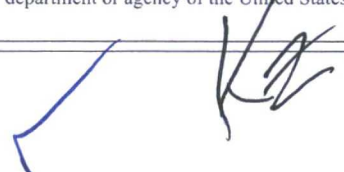
If you require any additional information or have any questions, please feel free to contact me at (720) 499-1422.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Heidi Kaczor		Regulatory Manager	
Signature 		Title	
		Date	09/15/2017

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by Charles Nimmer		Title Petroleum Engineer	Date 10/31/2017
Conditions of approval, if any, are attached. Approval of this notice 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.		Office BLM - Carlsbad	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



**Mewbourne Oil Company, Crazy Wolf 1/2 B2MM Fed Com #1H**

**Sec 1, T19S, R32E**

**SL: 330' FSL & 1290' FWL, Sec 1**

**BHL: 330' FSL & 330' FWL, Sec 2**

**1. Geologic Formations**

TVD of target	9600'	Pilot hole depth	NA
MD at TD:	15650'	Deepest expected fresh water:	325'

**Basin**

<b>Formation</b>	<b>Depth (TVD) from KB</b>	<b>Water/Mineral Bearing/ Target Zone?</b>	<b>Hazards*</b>
Quaternary Fill	Surface		
Rustler	1450	Water	
Top of Salt	1565		
Base Salt			
Yates	3240	Oil/Gas	
Seven Rivers	3620	Oil/Gas	
Queen	4080	Oil/Gas	
Grayburg	4870		
San Andres	5510	Oil/Gas	
Lamar	5760	Oil/Gas	
Bell Canyon		Oil/Gas	
Cherry Canyon		Oil/Gas	
Manzanita Marker			
Brushy Canyon		Oil/Gas	
Bone Spring	7455	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	8675	Oil/Gas	
2 <sup>nd</sup> Bone Spring Sand	9305	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.



**Mewbourne Oil Company, Crazy Wolf 1/2 B2MM Fed Com #1H**

**Sec 1, T19S, R32E**

**SL: 330' FSL & 1290' FWL, Sec 1**

**BHL: 330' FSL & 330' FWL, Sec 2**

**2. Casing Program**

Hole Size	Casing Interval		Casing Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1475'	13.375"	54.5	J55	STC	1.64	3.95	6.39	10.61
12.25"	0'	5780'	9.625"	40	J55	LTC	1.41	2.17	276.55	355.05
8.75"	0'	15650'	5.5"	20	HCP110	DQX	2.52	2.55	1.85	1.85
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	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?	

Mewbourne Oil Company, Crazy Wolf 1/2 B2MM Fed Com #1H

Sec 1, T19S, R32E

SL: 330' FSL & 1290' FWL, Sec 1

BHL: 330' FSL & 330' FWL, Sec 2

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Tld ft3/sack	H2O gal/sack	500# Comp. Strength (hrs)	Slurry Description
Surface	835	12.5	2.12	11	10	Lead: Class C+Salt+Gel_Extender_LCM
	200	14.8	1.34	6.3	8	Tail: Class C+Retarder
Intermediate	750	10.7	3.42	20.93		Lead: 100:0:0 (TXI lightweight: Poz: Gel). Salt 1.74 #/sx, C-45 econolite 2.25%, Phenoseal 1.5 #/sx, STE 6%, Citric Acid 0.05%, C- 19 fla 0.10%, CSA 1000 fla 0.20%, Kol Seal 6 #/sx, Defoamer C- 41P 0.75%, Gyp Seal 8 #/sx
	200	14.8	1.33	6.32	5.50	Tail: 100:0:0 Class C Premium: Poz: Gel. C-51 Suspension agent 0.05%, Retarder C-20 0.05%, Defoamer C- 41P 0.25%
Production	875	10.6	3.17	19.38		Lead: 95:0:0 TXI Lightweight: Poz: Gel. Salt 0.81 #/sx, Phenoseal 2.5 #/sx, STE 6%, Citric Acid 0.18%, CSA 1000 (fla) 0.28%, Kol Seal 6 #/sx, C- 478 (fla) 0.10%
	1,575	14.6	1.26	5.93	13.50	Tail: 50:50:0 Class H Premium: Poz: Gel: CSA 1000 (fla) 0.10%, C-478 (fla) 0.30%, Retarder -20 0.10%, Defoamer C-41P 0.25%

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'	50%
Production	5280'	25%

4. Pressure Control Equipment

Variance: None
----------------



**Mewbourne Oil Company, Crazy Wolf 1/2 B2MM Fed Com #1H**

**Sec 1, T19S, R32E**

**SL: 330' FSL & 1290' FWL, Sec 1**

**BHL: 330' FSL & 330' FWL, Sec 2**

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	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.		
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold.		
	N	Are anchors required by manufacturer?	
Y	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.  <ul style="list-style-type: none"><li>• Provide description here: See attached schematic.</li></ul>		

## 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	1460'	FW Gel	8.6-8.8	28-34	N/C
1460'	3620'	Saturated Brine	10.0	28-34	N/C
3620'	9212'	Cut Brine	8.6-9.5	28-34	N/C
9212'	15750'	OBM	8.6-9.7	30-40	<10cc

**Mewbourne Oil Company, Crazy Wolf 1/2 B2MM Fed Com #1H****Sec 1, T19S, R32E****SL: 330' FSL & 1290' FWL, Sec 1****BHL: 330' FSL & 330' FWL, Sec 2**

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.	
X	Will run GR/CNL from KOP (9122') 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
	Density
	CBL
	Mud log
	PEX

**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	4992 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.

Will be pre-setting casing? If yes, describe.

Attachments

\_\_\_ Directional Plan

\_\_\_ Other, describe