: t		OCD Artesia		
	UNITED STATES PARTMENT OF THE INTERIOF EAU OF LAND MANAGEMEN		0	ORM APPROVED MB No 1004-0137 spires July 31, 2010
SUNDRY N Do not use this	OTICES AND REPORTS ON form proposals to drill or to Jse Form 3160-3 (APD) for s	well\$NOV 19201 o re-enter an	NIMI C 060100M	
SUBMIT	IN TRIPLICATE - Other instructions on page		7 If Unit of CA/Agree	ement, Name and/or No.
I Type of Well Gas W	/ell Other		8. Well Name and No. Brook Federal #3	
2 Name of Operator Mack Ene	ergy Corporation		9 API Well No 30-025-40	338
3a. Address P.O. Box 960 Artesia, NM 4 Location of Well (Footage, Sec., T.	3b. Phone N 88210-0960 (575) 7 ²	o. (include area code) 48-1288	10 Field and Pool or 1 Baish Wolfcamp	Exploratory Area Malianar Yess U
SL 785 FNL & 10 FEL Sec. 30 T1		L Sec. 30 T17S R32E	Eddy, NM	
······································	K THE APPROPRIATE BOX(ES) TO IN	IDICATE NATURE OF NOT	ICE, REPORT OR OTH	ER DA l'A
TYPE OF SUBMISSION	1	TYPE OF AC	TION	
Notice of Intent	Alter Casing	ncture Treat	duction (Start/Resume) clamation	Water Shut-Off Well Integrity
Subsequent Report			complete nporarily Abandon	Other <u>Change TD Depth/Casing</u>
Final Abandonment Notice		· · · · · · · · · · · · · · · · · · ·	iter Disposal	
roposed Casing lole Depth Casing WT 7 1/2 0-760' 13 3/8 48# 2 1/4 0-2100' 8 5/8 24# 7/8 0-10231' 5 1/2 17# roposed Cement 3 3/8-100% excess Lead 475sx C 33 yld). 5/8-100% excess Lead 675sx Cla 34 yld). 1/2-35% excess Lead 525sx 35/6	ST&C J-55 1.218 6.313 LT&C L-80 1.248 2.369 lass C, 4%PF20, 2%PF1, .125#/sx ass C, 4%PF20, 2%PF1, .125#/sx 5/POZ H + 5%PF44 + 6%PF20 + 174 + .5%PF606 + .1% PF153 + . SEE ATTACHE	Tension 3.46 5.90 2.580 xPF29, .2%PF46(13.5 w PF29, .2%PF46(12.9 wt .25#sxPF46 + 3#/sxPF 6% PF13(13.0 wt, 1.47 ED FOR	1, 1.75 yld). Tail 200 , 1.98 yld). Tail 200s 42 + .6%PF13 + .12.	sx Class C, 1%PF1(14.8 wt,
14. I hereby certify that the foregoing is the	rue and correct Name (Printed/Typed)	OF APPROVAL	1DI	DROVEU
Jerry W. Sherrell		Title Production Cler	AP	
Signature Very W-	Shenell	Date 10/22/12	_ / / м	ov 14 2012
/	THIS SPACE FOR FED	ERAL OR STATE OF	FICE USE	DE LAND MANAGEMENT
that the applicant holds legal or equitable to entitle the applicant to conduct operations t	Approval of this notice does not warrant or the to those rights in the subject lease which therein	would Office		ARLSBAU FILLUS
fictitious or fraudulent statements or repres	U S.C. Section 1212, make it a crime for my sentations as to any matter within its jurisdictions and the sentation of the sentence of the sent		to make to any department	or agency of the United States any false
(Instructions on page 2)	SEE ATTACH	IED FOR		

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Fernandez, Edward

From: Sent: To: Cc: Subject: Jerry Sherrell <jerrys@mec.com> Thursday, November 15, 2012 9:30 AM Fernandez, Edward Deana Weaver Brook Federal #3 Sundry

Ed,

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I spoke with our drilling dept. about this issue.

Surface 0-760' drilled with fresh water 8.5lb mud. Intermediate 0-2100' drilled with brine 10lb mud. Production 0-10,231' drilled with cut brine 9.0-9.2lb mud.

Jerry W. Sherrell Mack Energy Corporation. Office 575-748-1288 Cell 432-260-8363 jerrys@mec.com

SEE ATTACHED FOR CONDITIONS OF APPROVAL

CONDITIONS OF APPROVAL Sundry dated Oct 22, 2012

Sundi y dated Oct 22, 2012				
OPERATOR'S NAME:	Mack Energy Corporation			
	LC-060199B			
WELL NAME & NO.:	Brook Federal #3			
SURFACE HOLE FOOTAGE:	0785' FNL & 0010' FEL			
BOTTOM HOLE FOOTAGE	0990' FNL & 0330' FEL			
LOCATION:	Section 30, T. 17 S., R. 32 E., NMPM			
COUNTY:	Lea County, New Mexico			

Original COA still applies with the following changes

A. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible water and brine flows in the Salado and Artesia groups. Possible <u>high pressure gas pockets</u> in Wolfcamp Formation.

- 1. The 8-5/8 inch surface casing shall be set at approximately 760 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the <u>surface casing</u> shoe shall be **2000 (2M)** psi. **Operator installing a 3M system, but testing as a 2M.**
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
- Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the <u>8-5/8 inch</u> intermediate casing shoe shall be 3000 (3M) psi.

- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. BOP/BOPE must be tested by an independent service company within <u>500</u> <u>feet</u> of the top of the <u>Wolfcamp</u> formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

Proposed mud weight may not be adequate for drilling through Wolfcamp.

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