

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

EC

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.*5. Lease Serial No.
NMNM121950

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.8. Well Name and No.
WATERLOO FEDERAL 49. API Well No.
30-005-64228-00-X110. Field and Pool, or Exploratory
ROUND TANK-SAN ANDRES11. County or Parish, and State
CHAVES COUNTY, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

MACK ENERGY CORPORATION

Contact: JERRY W SHERRELL

E-Mail: jerrys@mec.com

3a. Address

P.O. BOX 960
ARTESIA, NM 88211-0960

3b. Phone No. (include area code)

Ph: 575-748-1288

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 20 T15S R29E SENW 2310FNL 1650FWL

12. CHECK 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"/> Fracture Treat	<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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Mack Energy proposes to drill and set surface casing using an Auger Rig. BLM will be notified prior to spud of hole and setting/cementing of casing. A 20" hole will be drilled to competent bedrock at 200-220', based on COA. 8 5/8" 32# J-55 ST&C New casing will be set and cemented w/350sx 6.32gl/sx Class C + PF1, yield 1.33, weight 14.8ppg, 100% excess. Casing will be capped and secured, cellar will be fenced. Mack Energy will move in a drilling rig capable of drilling to TD. Work will be done using a closed loop system.

This will eliminate the conductor pipe.

Conductor pipe will be set if wellbore issues are encountered.

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 10 2015

Accepted for record
NMOCD

RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #304133 verified by the BLM Well Information System
For MACK ENERGY CORPORATION, sent to the Roswell
Committed to AFMSS for processing by DAVID GLASS on 06/05/2015 (15DRG0091SE)

Name (Printed/Typed) JERRY W SHERRELL

Title PRODUCTION CLERK

Signature (Electronic Submission)

Date 06/05/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DAVID R GLASS

Title PETROLEUM ENGINEER

Date 06/05/2015

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 Roswell

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.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

ROSWELL FIELD OFFICE CONDITIONS OF APPROVAL

OPERATOR'S NAME: Mack Energy Corporation - Sherrell, Jerry

LEASE NO.: NMNM121950

WELL NAME & NO.: WATERLOO FEDERAL - 4

SURFACE HOLE FOOTAGE: [2310] ' F [N] L [1650] ' F [W] L

BOTTOM HOLE FOOTAGE: [2310] ' F [N] L [1650] ' F [W] L

LOCATION: Section 020, T015. S., R 028 E., NMPM

COUNTY: Chaves County, New Mexico

1. DRILLING:

DRILLING OPERATIONS REQUIREMENTS:

A. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

- Spudding well,
- Setting and/or Cementing of all casing strings,
- BOPE tests.

The Roswell Field Office Engineer on-call phone number is: (575) 627-0205.

- B. A Hydrogen Sulfide (H₂S) Drilling Operation Contingency Plan shall be activated prior to drilling into the Queen formation. A copy of the plan shall be posted at the drilling site.
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- D. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
- E. The operator will accurately measure the drilling rate in feet/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion.

- F. Air, air-mist or fresh water and nontoxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

CASING:

- A. Deepest depth of usable water occurs at an approximate depth of 83 feet. The 8-5/8 inch usable water protection casing string(s) shall be set in competent bedrock above the top of the salt between 200 feet and 220 feet.
- If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).
 - Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 - If cement falls back, remedial action will be done prior to drilling out that string.
- B. The minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to circulate to the surface. If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- C. 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.
- D. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the Authorized Officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

PRESSURE CONTROL:

- A. Prior to drilling below the 8-5/8 inch surface casing shoe, the blowout preventer assembly (BOP/BOPE) shall be installed. The BOP/BOPE shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.

B. Before drilling below the 8-5/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi. If operator chooses to use a control device greater than the minimum stand they will have to follow all guidelines as stated within Bureau of Land Management 43 CFR part 3160 and Onshore Oil and Gas Order No. 2 - Drilling Operations.

C. The BOPE shall be installed before drilling below the 8-5/8 inch surface casing shoe and shall be tested as described in Onshore Oil and Gas Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

- The BLM Roswell Field Office shall be notified a minimum of 24 hours in advance for a representative to witness the tests.
- 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.
- All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman like manner. Hard line connections shall be required.

The requested variance to test the BOPE prior to drilling below the 8-5/8 inch surface casing to the reduced pressure of 2000 psi by a third party is approved.

2. CLOSED LOOP SYSTEMS:

No reserve pit will be used. Steel tanks are required for drilling operations. The operator shall properly dispose of drilling contents at an authorized disposal facility. No open top tanks are permitted.