Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

OCD Artesia

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

OF LAND MANAGEMENT

5. Lease Serial No. NMNM13237

| SUNDRY | NMNM13237 | NMNM13237 | | | | |
|---|--|--|--|------------------|--|--|
| Do not use the abandoned we | 6. If Indian, Allottee | 6. If Indian, Allottee or Tribe Name | | | | |
| SUBMIT IN TRI | 7. If Unit or CA/Agr | 7. If Unit or CA/Agreement, Name and/or No. | | | | |
| 1. Type of Well Gas Well Gas Well Oth | | 8. Well Name and No. RUGER 31 DA FED COM 1H | | | | |
| 2. Name of Operator MEWBOURNE OIL COMPAN | 9. API Well No. 30-015-41952- | 9. API Well No. 30-015-41952-00-X1 | | | | |
| 3a. Address | | 3b. Phone No. (include area code Ph: 575-393-5905 Fx: 575-397-6252 |) 10. Field and Pool, o WINCHESTER | r Exploratory | | |
| HOBBS, NM 88241 4. Location of Well (Footage, Sec., T | P. M. or Survey Description | | 11. County or Parish, and State | | | |
| | | • | | | | |
| Sec 31 T19S R29E NWNW 99 32.621835 N Lat, 104.120840 | EDDY COUNT | Y, NM | | | | |
| 12. CHECK APPR | ROPRIATE BOX(ES) TO | O INDICATE NATURE OF | NOTICE, REPORT, OR OTHE | ER DATA | | |
| TYPE OF SUBMISSION | . TYPE OF ACTION | | | | | |
| Notice of Intent | Acidize | Deepen | ☐ Production (Start/Resume) | ■ Water Shut-Off | | |
| | ☑ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ■ Well Integrity | | |
| ■ Subsequent Report | □ Casing Repair | ■ New Construction | ☐ Recomplete | ☐ Other | | |
| ☐ Final Abandonment Notice | □ Change Plans | □ Plug and Abandon | ☐ Temporarily Abandon | | | |
| | ☐ Convert to Injection | ☐ Plug Back | ■ 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 recomplete 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 recompletion 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.) | | | | | | |
| Mewbourne Oil Company has the casing design & cement po Jackson with any questions. | an approved APD for the rogram. Please see attac | above well. MOC would like ched sheet for details. Please | to make changes to call Levi | | | |
| | | Δ | ccented for record | ļ | | |
| Bonds on file: NM1693 nation | wide & NMB000919 | , | nccepted for record NMOCD TES 2-24 | 3 | | |
| | | | | א/מה | | |
| SEE ATT | TACHED FOR | | 2-24 | | | |

CONDITIONS OF APPROVAL

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.

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

Electronic Submission #232487 verified by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER MASON on 02/05/2014 (14JAM0110SE) Name (Printed/Typed) JACKIE LATHAN Title **AUTHORIZED REPRESENTATIVE** (Electronic Submission) Signature Date 01/20/2014 THIS SPACE FOR FEDERAL OR STATE OFFICE USE **FEB** Approved By_ Title Conditions of approval, if any, are attached. Approval of this notice does not warrant or

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.

Office

MEWBOURNE OIL COMPANY

701 S. CECIL PO BOX 5270 HOBBS, NM 88240 (575) 393-5905 (575) 397-6252 FAX

Mewbourne Oil Company has an approved APD for the Ruger 31 DA Federal #1H

Mud & casing to remain as approved for 17 ½" & 12 ¼" hole.

Currently MOC is approved to drill $8\frac{3}{4}$ " hole through the curve and run 7" casing. Then drill $6\frac{1}{8}$ " lateral section and run $4\frac{1}{2}$ " liner w/packer & port system.

MOC is requesting to change the following:

Drill 8 3/4" curve and lateral section.

KOP will remain the same.

5 ½" 17# HCP110 LTC & BTC casing will be ran from surface to TD.

| <u>Hole Size</u> | Casing | Wt/Ft. | <u>Grade</u> | <u>Depth</u> | Jt Type |
|------------------|------------|--------|--------------|----------------|---------|
| 8 3/4" | 5 ½" (new) | 17# | P110 | 0-7165' MD | LT&C |
| 8 3/4" | 5 ½" (new) | 17# | P110 | 7165'-7905' MD | BT&C |
| 8 3/4" | 5 ½" (new) | 17# | P110 | 7905'-TD | LT&C |

Cmt will consist of:

650 sacks Class H light cement with fluid loss, LCM, & salt additives. Yield at 2.63 cuft/sk. Mix water @ 14.95 gal/sk. Tail w/ 1100 sacks Class H cmt. Yield at 1.21 cuft/sk. Mix water @ 5.3 gal/sk. Calculated to tie back 200' into 9 %" casing set at 2925' w/25% excess.

Cased hole logs will be ran in 5 ½" casing during completion process.

CONDITIONS OF APPROVAL

OPERATOR'S NAME: | Mewbourne Oil Company

LEASE NO.: | NMNM-13237

WELL NAME & NO.: Ruger 31 DA Fed Com 1H
SURFACE HOLE FOOTAGE: 0990' FNL & 0170' FWL
BOTTOM HOLE FOOTAGE 0660' FNL & 0330' FEL

LOCATION: | Section 31, T. 19 S., R 29 E., NMPM

COUNTY: Eddy County, New Mexico

Well Name

Remove "COM" from the name as the well is within one lease and does not qualify for a Communitization Agreement. Submit sundry to rename the well.

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Bone Spring formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
- 2. 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. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

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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. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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.

High Cave/Karst

Capitan Reef

Possible water flows in the Artesia Group, Salado, Capitan Reef, Delaware, and Bone Spring.

Possible lost circulation in the Artesia Group, Rustler, Capitan Reef, Delaware, and Bone Spring.

1. The 13-3/8 inch surface casing shall be set at approximately 305 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.

- 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 9-5/8 inch intermediate casing, which shall be set at approximately 2925 feet, is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan Reef.

Special Capitan Reef requirements:

If any lost circulation occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Operator to submit the following:
 - 1. Mud volume every eight hours.
 - 2. Rate of penetration every eight hours.
 - 3. Report any lost circulation per 24 hour period, even if circulation is reestablished. Operator shall switch to fresh water mud at first lost circulation below Base of Salt.
 - 4. Deviation of hole.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 1500'). Operator shall provide method of verification. Excess calculates to 11% Additional cement may be required.
- 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.

C. 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 surface casing shoe shall be **2000** (2M) psi.
 - 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.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** 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).

- b. The tests shall be done by an independent service company utilizing a test plug **not** a **cup** or **J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.
- f. 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. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CRW 021214