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HOBBSOCD

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Lime Rock Resources A, L.P.
LEASE NO.:	NMNM99146
WELL NAME & NO.:	Denius Federal #1
SURFACE HOLE FOOTAGE:	1980' FSL & 990' FEL, Section 33, T17S, R33E
BOTTOM HOLE FOOTAGE	2310' FSL & 2310' FWL
LOCATION:	Section 34, T 17 S, R 33 E, NMPM
COUNTY:	Lea County, New Mexico

I. DRILLING – ADDITION OF HORIZONTAL LEG

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. BOPE test

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. **Hydrogen Sulfide has been encountered in the Abo formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to milling out the window. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**

B. CASING – Addition of horizontal leg

Changes to the approved casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

A RBP is to be set at +/- 8375 feet. A whipstock is to be set on the RBP and a window will be milled from +/- 8360-8375 feet to drill the lateral portion (+/- 3144 feet) with a 4-3/4 inch bit to 11731 feet MD/ 8429 feet VD. After the lateral is drilled, the well will be acidized using a coiled tubing unit and the whipstock/RBP removed. The well will be produced from the existing Abo perms at 8574-8753 feet and from the open-hole lateral in the Abo zone.

1. **The 13-3/8 inch surface casing is set at 306 feet with cement circulated to surface.**

2. The 8-5/8 inch intermediate casing is set at 4764 feet with TOC cement at 2270 feet (CBL).
3. The 5-1/2 inch production casing is set at 8950 feet with calculated TOC at 7700 feet. A CBL shall be run from 8100 feet to surface by the operator to verify TOC. This will also add to information that will be required when the well is plugged. BLM is to review the CBL prior to starting 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 the lateral leg shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company using a test plug.
 - 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.

D. DRILL STEM TEST

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

E. SUBSEQUENT REPORT

A subsequent report will need to be filed after the work is done containing the final directional survey and well tests.

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