

OIL AND GAS DOCKET NO. 10-0262520

**APPLICATION OF BLUE DOLPHIN PRODUCTION LLC TO ADOPT PERMANENT
FIELD RULES FOR THE LAKETON, EAST (ARBUCKLE) FIELD, GRAY COUNTY,
TEXAS**

HEARD BY: Andres J. Trevino, P.E.

DATE OF HEARING: February 12, 2010

APPEARANCES:

David Gross
Dale E. Miller

Don Rhodes

REPRESENTING:

Blue Dolphin Production LLC

Amerind Oil Co. Ltd.
H2 Acquisition LP
James C. Harper III

EXAMINER'S REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

Blue Dolphin Production LLC requests that field rules for the Laketon, East (Arbuckle) Field be adopted. The field is currently governed by Statewide Rules that provide for a 40 acre density and 467'-1,200' well spacing. Blue Dolphin requests that the well density be increased from 40 acres to 640, 1,320/2,640' well spacing and a designated interval be included. Blue Dolphin proposes the following rules for the field:

1. Designation of the field as the correlative interval from 11,444 feet to 12,199 feet as shown on the Array Compensated Resistivity log of the Blue Dolphin's, Thomas Lease, Well No. 1;
2. Minimum well spacing of 1,320/2,640' (lease line/between well),
3. 640 acre gas proration units with 10% tolerance and maximum diagonal of 8,500'; and
4. 100% acreage allocation formula.

This application was unopposed and the examiner recommends that the field rules for the Laketon, East (Arbuckle) Field be adopted as requested.

DISCUSSION OF THE EVIDENCE

The Laketon, East (Arbuckle) Field was discovered in 1967 at a depth of 11,440' subsurface depth. The top and base of the Arbuckle is found between 11,444 feet and 12,199 feet as shown on the log of the Blue Dolphin's, Thomas Well No. 1. The field is governed by Statewide field rules. Temporary field rules were first adopted in 1968 by Oil and Gas Docket No. 10-58,979 which allowed 1,867'/3,735' well spacing and 640 acre density. The field was developed with four wells drilled on a 640 acre density. The field rules were later rescinded by order effective December 1971 after the last well in the field ceased producing. Blue Dolphin believes the field was prematurely abandoned and significant reserves remain in the field. Cumulative production from the field is 4.8 BCF of gas and 8,227 barrels of condensate.

Blue Dolphin drilled and completed the Thomas Well No. 1 in January 2009 into a lower zone within the Arbuckle adjacent to Sun Oil's Boston Gas Unit No. 1. The well flowed at a rate of 1.468 MMCF of gas with a bottom hole pressure of 4,173 psi. Blue Dolphin recompleted the well into a zone nearly identical to the Boston Gas Unit No. 1 which was drilled in 1967. The well flowed at a rate of 4.965 MMCF of gas with a bottom hole pressure of 3,699 psi. The bottom hole pressure in the Thomas well was near the original virgin formation pressure of 4,833 psig of the Boston Gas Unit No.1. Blue Dolphin believes the original Boston Gas unit No. 1 was prematurely abandoned and their analysis of BHP/Z and cumulative production data indicates significant reserves remain in place. Blue Dolphin requests 640 acre gas unit density as the Thomas Well No. 1 BHP/Z plot analysis shows the well will have an estimated ultimate recovery range between 10.7 to 15.6 BCF of gas. The calculated drainage area ranged from 483 acres to 698 acres for the well based on 2.5% porosity, 60% water saturation and 250 foot net effective pay thickness. There are over 71 gas fields in the District 10 area that have a density of 640 acres per well and 1320'/2,640' well spacing. Adopting the proposed field rules will prevent the drilling of unnecessary wells.

The proposed minimum well spacing, 1,320'/2,640' (leaseline/between well), will provide for additional flexibility in locating new wells and is similar to other fields in the area.

Continuation of the 100% acreage allocation formula will provide for the protection of correlative rights pursuant to State Statutes.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.

3. The Laketon, East (Arbuckle) Field was discovered in 1967 at a depth of 11,440' subsurface depth.
 - a. Temporary field rules were first adopted in 1968 by Oil and Gas Docket No. 10-58,979 which allowed 1,867'/3,735' well spacing and 640 acre density.
 - b. The field rules were later rescinded by order effective December 1971 after the last well in the field ceased producing.
 - c. The field is currently governed by Statewide Rules.
4. The proposed correlative interval for the field is from 11,444 feet to 12,199 feet as shown on the Array Compensated Resistivity log of the Blue Dolphin's, Thomas Lease, Well No. 1. This interval includes the top and base of the Arbuckle.
5. The base 640 acre gas unit density is warranted as the Thomas Well No. 1 BHP/Z plot analysis shows the well will drain a large area.
 - a. BHP/Z plot analysis was performed on the Thomas Well No. 1 and showed the well will have an estimated ultimate recovery range between 10.7 to 15.6 BCF of gas.
 - b. The calculated drainage area ranged from 483 acres to 698 acres.
 - c. There are over 71 gas fields in the District 10 area that have a density of 640 acres per well and 1320'/2,640' well spacing.
6. The proposed minimum well spacing, 1,320'/2,640 (leaseline/between well), will provide for additional flexibility in locating new wells and is similar to other fields in the area.
7. Continuation of the 100% acreage allocation formula will provide for the protection of correlative rights pursuant to State Statutes.

CONCLUSIONS OF LAW

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Consideration of field rules, a determination of their effectiveness and appropriate actions is a matter within the Commission jurisdiction.

4. Adoption of the proposed field rules will prevent waste, foster conservation and protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed permanent field rules for the Laketon, East (Arbuckle) Field.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner
Office of General Counsel