# THE APPLICATION OF O'RYAN OIL AND GAS TO AMEND FIELD RULES 2 AND 3 FOR THE TYNES (SMACKOVER) FIELD, NAVARRO COUNTY, TEXAS

**Heard by:** Richard D. Atkins, P.E. - Technical Examiner

Hearing Date: July 22, 2008

Appearances: Representing:

Joe T. Sanders O'Ryan Oil and Gas

Kerry A. Pollard

#### **EXAMINER'S REPORT AND RECOMMENDATION**

## STATEMENT OF THE CASE

Field rules for the Tynes (Smackover) Field were adopted in Oil and Gas Docket No. 5-92,005, effective July 11, 1988, as amended. The rules are summarized as follows:

- 1. A correlative interval from 9,530 feet to 9,700 feet as shown on the log of the TXO Yarber Estate Lease, Well No. 1;
- 933'-1,867' well spacing;
- 3. 160 acre proration units;
- 4. Allocation based on 100% acreage.

O'Ryan Oil and Gas requests to amend Field Rules 2 and 3 for the Tynes (Smackover) Field as follows:

- 2. 467'-933' well spacing;
- 3. 160 acre proration units with optional 80 acre density.

The application was unprotested and the examiner recommends that the field rules for the Tynes (Smackover) Field be amended as requested by O'Ryan.

#### DISCUSSION OF EVIDENCE

The Tynes (Smackover) Field was discovered in April 1988 by the completion of the TXO Production Corp. - Yarber Estate Lease Well No. 1 through perforations from 9,533

feet to 9,547 feet. The well potentialed for 507 BOPD, 560 MCFGPD and 4 BWPD. TXO plugged the discovery well in March 1994.

In July 2007, O'Ryan Oil and Gas completed the Hulan Yarber (Smackover) Unit, Well No. 1, through perforations from 9,538 feet to 9,564 feet. The well potentialed for 454 BOPD, 877 MCFGPD and 18 BWPD. Cumulative production from the field through April 2008 is 148.3 MBO and 159.8 MMCFG. The field has a top allowable of 471 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel. O'Ryan is the only operator in the field.

The Tynes (Smackover) Field produces from the Smackover formation at an average depth of approximately 9,500 feet. The Smackover formation is highly faulted and consists of dolomitized limestone that has a uniform average matrix porosity of 17%. The average water saturation is 32% and the average net pay thickness is 22.7 feet. A strong water drive is the primary drive mechanism for the reservoir and O'Ryan estimated a recovery factor of 70%. Using an estimated ultimate recovery of 500 MBO, O'Ryan calculated a drainage area of only 56.1 acres.

Based on the calculated drainage area, O'Ryan requests 467'-933' well spacing and 160 acre density with optional 80 acre units, to allow for future infill development. The optional 80 acre density will allow wells to be placed at optimum structural locations within the Smackover formation to recover any attic oil that is currently trapped up-dip from the existing producing well.

#### FINDINGS OF FACT

- 1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
- The Tynes (Smackover) Field was discovered in April 1988 by the completion of the TXO Production Corp. - Yarber Estate Lease Well No. 1 through perforations from 9,533 feet to 9,547 feet. TXO plugged the discovery well in March 1994.
- 3. In July 2007, O'Ryan Oil and Gas completed the Hulan Yarber (Smackover) Unit, Well No. 1, through perforations from 9,538 feet to 9,564 feet. The well potentialed for 454 BOPD, 877 MCFGPD and 18 BWPD.
- 4. Cumulative production from the field through April 2008 is 148.3 MBO and 159.8 MMCFG.
- 5. The Tynes (Smackover) Field produces from the Smackover formation at an average depth of approximately 9,500 feet.

- 6. Using an estimated ultimate recovery of 500 MBO, O'Ryan calculated a drainage area of only 56.1 acres.
- 7. Based on the calculated drainage area, O'Ryan requests 467'-933' well spacing and 160 acre density with optional 80 acre units, to allow for future infill development.
- 8. The optional 80 acre density will allow wells to be placed at optimum structural locations within the Smackover formation to recover any attic oil that is currently trapped up-dip from the existing producing wells.

## **CONCLUSIONS OF LAW**

- 1. Proper notice of this hearing was issued.
- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
- 3. Amending the Field Rules for the Tynes (Smackover) Field is necessary to prevent waste, protect correlative rights, and promote development of the field.

### RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiner recommends that Field Rules 2 and 3 for the Tynes (Smackover) Field be amended to provide for 467'/933' well spacing and 160 acre units with optional 80 acre density.

Respectfully submitted,

Richard D. Atkins, P.E. Technical Examiner