

**THE APPLICATION OF O' RYAN OIL & GAS TO AMEND FIELD RULES IN THE TROOPER (SMACKOVER) FIELD, NAVARRO COUNTY, TEXAS**

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**Heard by:** Andres J. Trevino, P.E., Technical Examiner

**Hearing Date:** July 8, 2008

**Appearances:**

**Representing:**

Philip Whitworth  
Joe T. Sanders  
Kerry Pollard, P.E.

O' Ryan Oil & Gas

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

This is the unprotested application of O' Ryan Oil & Gas for the Commission to amend the field rules for the Trooper (Smackover) Field as adopted in Order No. 05-93,010, effective May 15, 1989, as amended, which currently provides for:

1. Designation of the field as the correlative interval from 9,248 feet to 9,350 feet as shown on the log of the TXO.'s, Burnett No. H-1;
2. 933'-1,867' well spacing;
3. 160 acre oil units with 40 acre tolerance;
4. Allocation based on 100% acreage.

O' Ryan Oil & Gas requests that Field Rule 2 & 3 be adopted as follows :

2. 467'- 933' well spacing;
3. 160 acre oil units, maximum diagonal of 4,500', 80 acre optional units, maximum diagonal of 3,250';

The examiner recommends that the field rules for the Trooper (Smackover) Field be amended as requested.

### DISCUSSION OF EVIDENCE

The Trooper (Smackover) Field was discovered in 1985 at a depth of approximately 9,350 feet. Cumulative production from the field is approximately 1,661,737 BO and 1.47 BCF of gas. As of April 2008, there are two wells in the field, one a gas injection well and an oil well which currently produces about 144.2 BOPD. There are no other operators in the field.

Field rules were first adopted in May 1989, with Oil & Gas Docket 05-93,010 which provided for 933'-1,867' well spacing, 160 acre oil units and allocation based on 100% acreage. Trooper (Smackover) Field has no gas cap, has a strong water drive and is approximately 200 acres in size. The two wells completed in the field, the Burnett H-1 and the Sloan B-1 have cumulative production of 906,801 BO and 754,936 BO respectfully. The Burnett H-1 also known as the Burnett-Sloan Unit No.1 is authorized to inject excess H<sub>2</sub>S gas into the reservoir that is not used for gas lift operations as the casinghead gas contains 7% H<sub>2</sub>S. O' Ryan believes the wells will have recovery factors in excess of 50% due to the strong water drive. It was initially believed in the 1989 field rules hearing that the two wells would drain the field.

O' Ryan now believes that "attic" oil may exist between the two wells that may be trapped and isolated by the water drive. O' Ryan believes the two existing wells will not recover the trapped attic oil located in a higher structural position between the two existing wells. O' Ryan requests an 80 acre optional drilling unit and 467'/933' well spacing to allow flexibility in locating wells along the best structural position in this relatively small field. Allowing infill drilling will allow wells to effectively and efficiently recover the remaining hydrocarbons.

O' Ryan operates an analogous field just to the north, the Big "R" (Smackover) Field. The Big "R" (Smackover) Field was discovered in 1989 with the completion of the Sloan "D" No.1. The well had an initial potential of 529 BOPD, 459 MCF of gas and 2.9 BWPD. The well has produced 573,832 BO since 1989. It was believed the Sloan D No.1 would adequately drain the 50 acre reservoir of the Big "R" (Smackover) Field. O' Ryan recently completed a second well, the Sloan "D" No. 2 in the Big "R" (Smackover) Field in March 2008. The well was tested on June 2008 at a rate of 475 BOPD, 1,585 MCF of gas and no water. O' Ryan believes the high production rate and high flowing pressures is evidence the single Sloan "D" No.1 will not drain the entire field but will cause waste by leaving behind recoverable hydrocarbons.

Numerous other Smackover fields that exist along the Talco-Mexia Fault have similar 160 acre density as the current Trooper (Smackover) Field rules which may need to be amended to allow denser drilling.

### 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.

2. Field rules for the Trooper (Smackover) Field provide for 933'-1,867' well spacing, 160 acre oil units and allocation based on 100% acreage.
3. The Trooper (Smackover) Field was discovered in 1985 and cumulative production from the field is approximately 1,661,737 BO and 1.47 BCF of gas. The Trooper (Smackover) Field has a water drive and estimated recovery factor of in excess of 50%.
4. Current production from the only active oil well in the field is approximately 144.2 BOPD total.
5. Field rules providing for 160/optional 80 acre units and 467'/933' well spacing is appropriate for the field.
  - a. Oil is believed to have been bypassed by the strong water drive of the field.
  - b. A well, the Sloan D-2 drilled into the Big "R" (Smackover) Field, an analogous field to the north, produced at a rate of 475 BOPD indicating oil is not being drained with existing 160 acre density.
7. Numerous other Smackover fields in the area have similar 160 acre density which may need amended to allow denser drilling.

### **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 field rules for the Trooper (Smackover) Field is necessary to prevent waste and protect correlative rights.

### **RECOMMENDATION**

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

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner