

**OIL AND GAS DOCKET NO. 06-0225919**

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**THE APPLICATION OF VALENCE OPERATING COMPANY TO AMEND FIELD RULES  
IN THE YANTIS, SW. (SMACKOVER) FIELD, RAINS AND WOOD COUNTIES, TEXAS**

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**Heard by:** Margaret Allen, Technical Hearings Examiner

**Procedural history**

Application received: August 24, 2000

Hearing held: September 13, 2000

**Appearances**

David Gross

Richard E. McArthur

Gary Sowyrda

Representing

Valence Operating Company

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field rules for the Yantis, SW. (Smackover) Field, adopted under Docket No. 5-52,345, effective June 18, 1963. The rules were amended under Docket No. 06-0221692, on June 22, 1999, and are summarized as follows:

1. Designated interval from 12,335 to 13,015 feet as shown on the log of the Valence Operating West Yantis Gas Unit 2 Well No. 2;
2. 660-1320' well spacing;
3. 320-acre proration units with maximum diagonal of 4500'; and
4. Allocation based on acreage.

Valence is seeking to amend field rule 3 as follows:

3. 320 acre proration units with 160 acre optional units and 10% tolerance acreage.

**DISCUSSION OF THE EVIDENCE**

The Yantis, SW. (Smackover) Field was discovered in 1960, and has produced 110.3 BCF. When the field rules were amended in 1999, there was only one active well in the field, the W. Yantis GU 2 Well No. 2. The W. Yantis GU 2 Well No. 2 replaced Well No. 1 which was submerged by the formation of Lake Worth. Between them, these two wells have produced 38.2 BCF.

In January of 2000, the W. Yantis GU 2 Well No. 3 was completed, and it has already produced 1.2 BCF. About 4000 feet to the southwest of Well No. 3 is the W. Yantis GU 4 Well No. 1. This well produced 11.7 BCF before being shut-in during 1991. The applicant believes that the reservoir between Well Nos. 2-3 and 4-1 is discontinuous and an infill well between these wells would encounter reserves that could not be produced by the existing wells.

The Smackover produces from dolomitized grainstones. While the overall interval is easily correlated, the individual porous streaks do not extend from well to well. The gas/water contact in Well No. 4-1 is more than 100 feet deeper than in the wells on Gas Unit 2. The bottomhole pressure in the newly drilled Well No. 2-3 was 2496 psi, closer to the most recent pressure in Well No. 4-1 (2624 psi) than that in Well No. 2-2 (1808 psi), even though Well No. 2-2 is only 1600 feet away.

There are also differences between the wells in the field in the produced fluids, with Well No. 2-3 having a higher gas/oil ratio than the other two wells studied. This is a retrograde condensate reservoir and the gas/oil ratio in Well No. 2-3 has increased just during the few months this well has been producing.

The good performance from the new well causes the applicant to think that the reservoir is more heterogenous than it originally thought. If another infill well between Well Nos. 2-3 and 4-1 is successful, the applicant may drill additional wells on the optional 160 acre density.

**FINDINGS OF FACT**

1. Notice of this hearing was given to all operators in the Yantis, SW. (Smackover) Field on September 1, 1999.
2. The Yantis, SW. (Smackover) Field has produced 110.3 BCF since it was discovered in 1960.
3. The three wells on the only active lease, the W. Yantis GU 2, have produced 39.4 BCF.
4. The newest well, the W. Yantis GU2 Well No. 3 was completed in January of 2000, has already produced 1.2 BCF, and is producing about 6 MMCF per day.

5. The reservoir is heterogeneous as demonstrated by differences in gas/water contacts, bottomhole pressures and gas/oil ratios among the various wells.
6. The overall Smackover interval can be correlated between the field wells but the individual porous streaks cannot.
7. Infill drilling may be able to encounter significant reserves that cannot be recovered by the existing wells.

#### **CONCLUSIONS OF LAW**

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested amendment to the field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoir.

#### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends the field rules for the Yantis, SW. (Smackover) Field be amended to provide for 160 acre optional units, as per the attached order.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: September 25, 2000

Exhibits

1. List of Smackover fields with rules
2. Distances between wells
3. Production and completion data
4. Structure map
5. Stratigraphic cross section
6. Structural cross section
7. BHP in various wells
8. Condensate yield
9. Tabulation of yield data