THE APPLICATION OF XTO ENERGY, INC. TO CONSIDER EXCEPTION TO STATEWIDE RULE 10 IN THE PINETREE ISD LEASE WELL NO. 10, WILLOW SPRINGS (COTTON VALLEY) AND WILLOW SPRINGS (TRAVIS PEAK) FIELDS, GREGG COUNTY, TEXAS

Heard by: Donna K. Chandler on July 21, 2006

Appearances: Representing:

Rick Johnston XTO Energy, Inc.

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

## STATEMENT OF THE CASE

XTO Energy, Inc. requests authority to downhole commingle production from the Willow Springs (Cotton Valley) and Willow Springs (Travis Peak) Fields in its Pine Tree ISD Lease Well No. 10. The ownership in the two fields is not identical and XTO requests approval of its method of allocating production to each field.

This application was unprotested and the examiner recommends approval.

## **DISCUSSION OF THE EVIDENCE**

The Willow Springs (Travis Peak) Field was discovered in 1954 at a depth of approximately 7,600 feet. The Willow Springs (Cotton Valley) Field was discovered in 1975 at a depth of approximately 11,450 feet. Both fields operate under rules providing for 467'-1,200' well spacing and 40 acre density. The allocation formula is suspended in both fields.

The well is currently being completed on a 700.7 acre pooled unit that includes the Sabine River and a long, narrow railroad track right-of-way. The well is a directional well which was drilled from a surface location off the lease and a bottomhole location under the river. XTO obtained an exception to Rule 37 for both fields.

The well is completed with 5½" casing, which makes a dual completion difficult. Also, both the Travis Peak and Cotton Valley must be fracture-stimulated, which is also difficult to accomplish with a dual completion. Additionally, it is likely that the Travis Peak will eventually need artificial lift. Downhole commingling is expected to increase the ultimate recovery of the well by 52 MMCF. Recent tests show that fluids from the two intervals are compatible and no scaling problems have been noted in other wells after commingling. Therefore, should any crossflow between the zones occur, there will be no

reservoir damage.

There is a division of ownership at 9,100 feet TVD, which is 9,195 feet MD in this well. This depth is just below the top of the Cotton Valley at 8,923 feet TVD. XTO owns 100% of the working interest above 9,100 feet TVD. There are an additional ten people with over-riding interests (that collectively own 3.92% of the income interest) above 9,100 feet TVD. XTO owns 91.76% of the working interest below 9,100 feet TVD. There are two other working interest owners below 9,100 feet TVD that have a total of 5.38% of the income interest.

The interval to be commingled extends from the top of the Travis Peak at approximately 7,500 feet to the base of the Cotton Valley at approximately 10,700 feet. The subject well will be perforated and stimulated in six stages, with each stage separately perforated and fracture stimulated. The change in ownership occurs within Stage 3 of the Cotton Valley.

XTO's analysis indicates that the hydrocarbon pore volume above 9,100 feet TVD id 2.98 feet and hydrocarbon pore volume below 9,100 feet TVD is 5.77 feet. In this wellbore. Based on this analysis, XTO proposes to assign 34% of the production from the well to the interest ownership above 9,100 feet TVD and 66% to the interest ownership below 9,100 feet TVD.

Several wells on this lease have already been commingled in these two fields and are assigned to the Willow Springs (Cotton Valley) Field. The allocation of production in the prior wells has also been based on hydrocarbon pore volume.

Notice of this hearing was issued to all interest owners with known addresses, and was also published in the Longview News Journal on June 13, 20, 27 and July 4, 2006. No one appeared at the hearing to protest XTO's proposed allocation of production to interests above and below the division line within the Willow Springs (Cotton Valley) Field.

## FINDINGS OF FACT

- 1. Notice of this hearing was issued to all offset operators in the fields and to interest owners in the subject well.
- 2. Notice of this hearing was published in the Longview News Journal, a newspaper of general circulation in Gregg County, on June 13, 20, 27 and July 4, 2006.
- 3. The Willow Springs (Travis Peak) Field was discovered in 1954 at a depth of approximately 7,600 feet and the Willow Springs (Cotton Valley) Field was discovered in 1975 at a depth of approximately 11,450 feet. Both fields

- operate under rules providing for 467'-1,200' well spacing and 40 acre density. The allocation formula is suspended in both fields.
- 4. The subject well is currently being completed on a 700.7 acre pooled unit that includes the Sabine River and a long, narrow railroad track right-of-way. The well is a directional well with a bottomhole location under the river. XTO obtained an exception to Rule 37 for both fields.
- 5. A dual completion is not feasible for this well.
  - a. The well is completed with 5½" casing, which makes a dual completion difficult.
  - b. Both the Travis Peak and Cotton Valley must be fracture-stimulated, which is difficult to accomplish with a dual completion.
  - c. It is likely that the Travis Peak will eventually need artificial lift.
- 6. Downhole commingling is expected to increase the ultimate recovery of the well by 52 MMCF.
- 7. Cross-flow between the zones is not expected. However, should a limited amount occur when the well is shut-in, there will be no damage. Fluids from the two intervals are compatible and no scaling problems have been noted in other wells after commingling.
- 8. The working interest and over-riding interest ownership in this well are different with respect to the two fields. The change of interest ownership occurs at a depth of 9,100 feet TVD.
- 9. Allocation of production from above and below 9,100 feet TVD based on hydrocarbon pore volume is a reasonable method which will protect correlative rights of all owners.
  - a. XTO's analysis indicates that the hydrocarbon pore volume above 9,100 feet TVD id 2.98 feet and hydrocarbon pore volume below 9,100 feet TVD is 5.77 feet. In this wellbore.
  - b. Based on this analysis, 34% of the production from the well will be assigned to the interest ownership above 9,100 feet TVD and 66% of the production will be assigned to the interest ownership below 9,100 feet TVD.
- Several wells on this lease have already been commingled in these two fields and are assigned to the Willow Springs (Cotton Valley) Field. The allocation of production in the prior wells has also been based on hydrocarbon pore

volume.

# **CONCLUSIONS OF LAW**

- 1. Proper notice was issued as required by all applicable codes and regulatory statutes.
- 2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
- 3. Approval of the requested Rule 10 exception will prevent waste and the proposed method of allocating production will protect correlative rights.

## **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the requested Rule 10 exception be approved and that the proposed method of allocating production be approved.

Respectfully submitted,

Donna K. Chandler Technical Hearings Examiner