

**OIL AND GAS DOCKET NO. 7C-0254126**

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**THE APPLICATION OF HUNT OIL COMPANY TO AMEND THE FIELD RULES FOR THE AMACKER-TIPPETT (DEVONIAN) FIELD, UPTON COUNTY, TEXAS**

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**Heard by:** Andres J. Trevino, P.E. on November 27, 2007

**Appearances:**

Philip Whitworth  
Dale Miller

**Representing:**

Hunt Oil Company

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field rules for the Amacker-Tippett (Devonian) Field were adopted in Final Order No. 7-26,863, effective December 16, 1957, and amended in November 2000 and September 2003. The rules are summarized as follows:

1. Designation of the field as the correlative interval from 10,270 feet to 11,116 feet as shown on the log of the Hunt Oil Company - Amacker lease No. 106-1 Well;
2. 467'-933' well spacing for vertical wells; for horizontal wells, 467' minimum perpendicular distance from any point on horizontal well to any property line and 933' minimum distance to any point on another horizontal well on the same lease; no between well spacing requirement between horizontal wells which do not overlap more than 300 feet; penetration point and terminus of horizontal well a minimum of 100 feet from property line; multiple drainholes in a horizontal well not subject to drainhole length overlap restrictions;
3. 160 acre units plus 10% tolerance and a maximum diagonal of 3,800 feet; optional 80 acre units with a maximum diagonal of 3,250 feet;
4. Allocation based on 67% acreage and 33% per well.

Hunt requests that Rule 2 and Rule 3 be amended to provide for no between well spacing between vertical and horizontal wells and an optional 40 acre density in the field.

Hunt proposes the following:

2. no between well spacing requirement between horizontal and vertical wells;
3. 160 acre units plus 10% tolerance and a maximum diagonal of 4,500 feet; optional 40 acre units with a maximum diagonal of 2,100 feet and operators will be allowed to list the number of assigned to each well on a Form P-15 without being required to file well plats as long as the allocation formula is suspended;

Hunt also requests the allocation formula remains suspended. This application was unopposed and the examiner recommends that the rule amendment proposed by Hunt be adopted for the Amacker-Tippett (Devonian) Field.

### **DISCUSSION OF EVIDENCE**

The Amacker-Tippett (Devonian) Field was discovered in 1955 at a depth of 10,900 feet. The field is a retrograde condensate reservoir which is classified as non-associated 100% AOF. There are 106 producing gas wells and 7 producing oil wells in the field. Although the field has been classified as a non-associated field by a Commission memo dated September 25, 1957 and a Commission Order Docket No. 7C-0237618, effective June 8, 2004, which classified all wells as permanent gas wells, oil wells remain on the proration schedule in error.

Beginning in 2000, the field has been redeveloped with horizontal wells. Cumulative production in the first 45 years of production amounted to 122 BCF of gas and 4.1 million barrels of condensate/oil. Seven years later, after horizontal well redevelopment started, cumulative production from the field has increased to 240 BCF of gas and 8.9 million barrels of condensate/oil.

The Devonian is naturally fractured with east-west oriented fractures. The horizontal laterals are typically north-south oriented and are usually 4,000-5,000 feet in length. The horizontal wellbores have allowed penetration into the fractures to drain gas trapped within the fractures.

Hunt is requesting 160 acre gas units with optional 40 acre units to allow additional infill drilling. Hunt provided drainage calculations for 25 wells in the field which demonstrated the wells will ultimately drain an average of 42.2 acres. These calculations are based on 5.1% porosity, 21.2% water saturation and net pay of 339 feet. Estimated ultimate recoveries range from 1.0 BCF to 19.2 BCF. Drainage acres ranged from 7.2 acres to 141.7 acres.

Hunt is also requesting no between well spacing between vertical and horizontal wells. Numerous vertical wells still exist in the field which were drilled during the initial development of the field. With the additional infill development of the field expected to occur, numerous Rule 37 exceptions would be needed. The no between well spacing between vertical and horizontal wells will allow Hunt to place horizontal wells at optimum

locations near older vertical wells without the need for unnecessary Rule 37 exceptions.

Hunt also requests that operators in the field be allowed to list the number of acres assigned to each well on Form P-15 without being required to file well plats as long as the allocation formula is suspended. Currently any additional wells drilled will require new plats to be redrawn and prepared by a surveyor and submitted to the Commission for review. This is unnecessary as the allocation formula is suspended and requires the unnecessary expenditures of both time and money for the operators in the field and Commission staff. The proposed language in the order is similar to language adopted for the Newark, East (Barnett Shale) Field.

The proposed amended rules will promote the recovery of additional reserves with horizontal drainhole wells. Similar rules have been adopted in other fields which have natural fractures and/or are developed with horizontal wells.

### **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. The Amacker-Tippett (Devonian) Field was discovered in 1955 at a depth of 10,900 feet.
3. The field is classified as a non-associated field by Commission memo dated September 25, 1957 and has 106 producing gas wells and 7 producing oil wells. Cumulative production from the field is 240 BCF of gas and 8.9 million barrels of condensate/oil.
4. The field operates under rules providing for 467'-933' well spacing and 160/optional 80 acre density.
5. The Devonian has natural vertical fractures with east-west oriented fractures. Since 2001, numerous horizontal wells have been drilled in the field.
6. Hunt provided drainage calculations for 25 wells in the field which demonstrated the wells will ultimately drain an average of 42.2 acres. Estimated ultimate recoveries range from 1.0 BCF to 19.2 BCF. Drainage acres ranged from 7.2 acres to 141.7 acres.
7. Numerous vertical wells still exist in the field which were drilled during the initial development of the field. With the additional infill development of the field expected to occur, numerous Rule 37 exceptions would be needed.
8. The allocation formula is currently suspended.
9. The proposed spacing rule for the field is similar to spacing rules adopted in other field which have natural vertical fractures.

**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. Adoption of the amended field rules for the Amacker-Tippett (Devonian) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

**RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the Commission amend Rule 2 and Rule 3 of the field rules for the Amacker-Tippett (Devonian) Field as proposed by Hunt Oil Company.

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner