

**OIL AND GAS DOCKET NO. 03-0250219**

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**THE APPLICATION OF PATTERSON PETROLEUM LP TO AMEND FIELD RULES AND MAKE TEMPORARY FIELD RULES PERMANENT FOR THE ROSENBERG, W. (LWR COOK MTN) FIELD, FORT BEND COUNTY, TEXAS**

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**Heard by:** Donna K. Chandler on March 1, 2007

**Appearances:**

Dale Miller

**Representing:**

Patterson Petroleum LP

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Temporary field rules for the Rosenberg, W. (Lwr Cook Mtn) Field were adopted on September 7, 2005 in Docket No. 03-0243357. The rules are summarized as follows:

1. Designation of the field as the correlative interval from 9,250 feet to 9,700 feet as shown on the log of the Mueller No. 1;
2. 467'-1,200' well spacing;
3. 160 acre gas units with a maximum diagonal of 4,500 feet;
4. Allocation based on 100% acreage.

Patterson Petroleum LP requests that Rule 3 be amended to provide for 80/optional 40 acre density and that the amended rules be made permanent.

This application was unopposed and the examiner recommends approval of the amendment to the field rules for the Rosenberg, W. (Lwr Cook Mtn) Field as requested by Patterson. It is further requested that the amended rules be made permanent for the field.

**DISCUSSION OF THE EVIDENCE**

The Rosenberg, W. (Lwr Cook Mtn) Field was discovered in December 2004 at a depth of 9,400 feet. The discovery well for the field was the Mueller No. 1 by Patterson Petroleum LP. In March 2006, Patterson completed its Dyer No. 7, and in July 2006,

Patterson completed its Dyer No. 9. Cumulative production from the field is 1.43 BCF of gas and 20,500 BC.

The Mueller No. 1 has produced 869 MMCF of gas and has an estimated ultimate recovery of 1.4 BCF. The Dyer No. 7 has produced 245 MMCF of gas and has an estimated ultimate recovery of 693 MMCF. The Dyer No. 9 has produced 320 MMCF of gas and has an estimated ultimate recovery of 2.3 BCF.

Volumetric calculations based on average parameters for the three wells are slightly different than the parameters used in the original hearing. Average porosity is 21%, average water saturation is 45% and average net pay thickness is 30 feet. Using these parameters, recoverable gas beneath 80 acres is 2.47 BCF of gas and recoverable gas beneath 40 acres is 1.23 BCF of gas. The calculated drainage area for the Mueller No. 1 is 45 acres. The calculated drainage area for the Dyer No. 9 is 74 acres. On this basis, Patterson requests that the density rule for the field be amended from 160 acres to 80/optional 40 acres.

#### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and there were no protests.
2. The Rosenberg, W. (Lwr Cook Mtn) Field was discovered in December 2004. There are currently three gas wells producing from the field, all of which are operated by Patterson Petroleum LP.
3. Temporary field rules were adopted in September 2005. The rules provide for a designated interval, 467'-1,200' well spacing, 160 acre density and allocation based on 100% acreage.
4. Amending the density rule to provide for 80/optional 40 acres is necessary to adequately drain the reserves in the Rosenberg, W. (Lwr Cook Mtn) Field.
  - a. Estimated ultimate recoveries for the three wells in the field range from 693 MMCF to 2.3 BCF.
  - b. Recoverable gas beneath 80 acres is 2.47 BCF of gas and recoverable gas beneath 40 acres is 1.23 BCF of gas. These estimates are based on average reservoir properties of the three producing wells.
  - c. The calculated drainage areas for wells in the field range from 45 acres to 74 acres.

**CONCLUSIONS OF LAW**

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. Amending the field rules and making the amended rules permanent for the Rosenberg, W. (Lwr Cook Mtn) Field is necessary to prevent waste, protect correlative rights, and promote orderly development of the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the field rules for the Rosenberg, W. (Lwr Cook Mtn) Field be amended to provide for 80/optional 40 acre density and that the amended rules be made permanent.

Respectfully submitted,

Donna K. Chandler  
Technical Hearings Examiner