

**OIL AND GAS DOCKET NO. 04-0250906**

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**THE APPLICATION OF SUEMAUR EXPL. & PROD., LLC TO CONSIDER PERMANENT GAS WELL CLASSIFICATION FOR THE GILLESPIE G.U. WELL NO. 2 IN THE BRAYTON, N. (VICKSBURG 9900) FIELD, NUECES COUNTY, TEXAS**

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**Heard by:** Donna K. Chandler, Technical Examiner

**Hearing Date:** April 5, 2007

**Appearances:**

**Representing:**

Dale Miller

Suemaaur Expl. & Prod., LLC

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Suemaaur Expl. & Prod., LLC requests that its Gillespie G.U. No. 2 in the Brayton, N. (Vicksburg 9900) Field be classified as a gas well. The well produced less than three months from the field prior to being recompleted.

The application is unopposed and the examiner recommends approval of the gas well classification during the time the well was producing from the Brayton, N. (Vicksburg 9900) Field.

**DISCUSSION OF EVIDENCE**

The Gillespie G. U. No. 2 was completed in October 2006 in the Brayton, N. (Vicksburg 9900) Field, with perforations between 9,540 feet and 9,594 feet. On initial test, the well produced at a maximum rate of 576 MCFD with a gas-liquid ratio of 3,673 cubic feet per barrel. There are no other gas wells currently carried in this associated gas field. On December 12, 2006, the well was recompleted to the Brayton, N. (Vicksburg 9250) Field.

The data submitted on Form G-5 for the well indicated that the well should be classified as an oil well because it did not meet Commission criteria for administrative classification as a gas well. Suemaaur submitted PVT analysis but the Commission declined to administratively classify the well as a gas well.

The PVT analysis was performed on a fluid sample taken from the well on October 16, 2006. The sample was recombined at a reservoir temperature of 263 degrees F and reservoir pressure of 7,228 psia. The recombined fluid was evaluated during a Constant Composition Expansion at pressures ranging from 7,500 psi down to 500 psi. The reservoir fluid is single phase gas until the reservoir pressure reaches 5,642 psia, the retrograde dew point pressure.

The PVT analysis confirms that the well produced from a retrograde condensate reservoir. The well stream contained 10.07 mole percent heptanes plus and 70.67 mole percent methane. Typical retrograde gases contain less than 12.5 mole percent heptanes plus and at least 70 mole percent methane.

Suemauro believes the well should be classified as a gas well because the volume of liquid in the reservoir below 5,642 psia is not mobile and will not be recovered as liquid. The PVT analysis shows that the maximum percentage of hydrocarbon pore space occupied by retrograde liquid would be 38.5 percent, when the reservoir pressure reached 4,500 psia. However, because this well has been recompleted after producing only 19 MMCF of gas, it is unlikely that the reservoir pressure fell below the dew point pressure and reservoir fluids remained single phase.

#### **FINDINGS OF FACT**

1. Notice of this hearing was given to all affected persons at least ten days prior to the date of hearing. No protests were received.
2. The Gillespie G. U. No. 2 was completed in the Brayton, N. (Vicksburg 9900) Field in September 2006 and was recompleted to a shallower field in December 2007 after producing only 19 MMCF of gas.
3. PVT data indicate that the Gillespie G. U. No. 2 produces from a retrograde condensate gas reservoir with a dew point pressure of 5,642 psia.
4. PVT data for the Gillespie G. U. No. 2 indicate that the maximum percentage of hydrocarbon pore space occupied by retrograde liquid would be 38.5 percent when the pressure in the reservoir reached 4,500 psia. However, the reservoir pressure was never reduced below the dew point pressure prior to recompletion of the well.
6. Liquid hydrocarbons produced at the surface from this reservoir are the product of condensation and should not be classified as crude petroleum oil.
7. Because the liquids produced from the well are not crude petroleum oil, the subject well should be classified as a gas well for the time period during which it was completed in the Brayton, N. (Vicksburg 9900) Field.

**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. The Suemaur Expl. & Prod., LLC - Gillespie G. U. No. 2 in the Brayton, N. (Vicksburg 9900) Field, Nueces County, Texas is a gas well based on the definition of a gas well pursuant to Statewide Rule 79 (a) (11) (C).

**RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the Suemaur Expl. & Prod., LLC - Gillespie G. U. No. 2 in the Brayton, N. (Vicksburg 9900) Field be classified as a gas well for the time period that it produced from the Brayton, N. (Vicksburg 9900) Field.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner