

**OIL AND GAS DOCKET NO. 03-0226202**

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**THE APPLICATION OF COLUMBUS ENERGY CORP. FOR INCREASED NET GAS OIL RATIO AUTHORITY FOR ITS JONES UNIT LEASE WELL NO. 1, SRALLA ROAD (JACKSON, W.) FIELD, HARRIS COUNTY, TEXAS**

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

**Procedural history**

Application received: September 13, 2000

Hearing held: November 7, 2000

**Appearances**

Representing

Carroll Martin

Columbus Energy Corporation

Greg Cloud

James N. Bostic

Etoco Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Columbus Energy seeks increased net gas/oil ratio authority for its Jones Unit Lease Well No. 1, in the Sralla Road (Jackson, W.) Field. The application was protested by Etoco Inc. who requested a continuance until it completes its new well in the same field. Etoco intends to spud this nearby well within a week and believes that evidence from that well could affect a determination of the appropriate gas limit for the Jackson Unit No. 1. The motion for continuance was denied at the hearing on November 7, 2000. Etoco then agreed not to protest the application as long as Columbus Energy did not request a daily gas limit above 1175 MCF.

**DISCUSSION OF THE EVIDENCE**

The Sralla Road (Jackson, W.) Field was discovered in 1995, and has nine gas wells and six oil wells. The field was developed from northeast to southwest along a fault and all of the wells are operated by either Etoco or Columbus. The oil allowable is 402 BOPD with a daily gas limit of 804 MCF, while the 49(b) allowable for the gas wells is 1401 MCF per day.

Columbus' Jones Unit No. 1 is the most southwesterly well in the field and is apparently fault-separated from the other field wells. Etoco's Bishop Unit Well No. 1 is a gas well between the subject well and the other wells in the Sralla Road (Jackson, W.) Field. In 1999, the Bishop No. 1

encountered virgin pressure and was granted a new field discovery as the Sralla Road (Jackson, SW) Field. The Jones Unit No. 1 oil well had been placed in the Sralla Road (Jackson, W.) Field in June of 1998 though it also encountered virgin pressure of 6077 psi. The Jones Unit No. 1 is perforated between 8646 and 8654 feet (true vertical depth of 8576 to 8585 feet), and produces oil structurally higher than either the gas wells in the Sralla Road (Jackson, W.) Field or Etoco's Bishop No. 1 gas well in the Sralla Road (Jackson, SW) Field.

The initial potential of the Jones Unit No. 1 was 249 BOPD with a gas oil ratio of 911 cubic feet per barrel. The gas/oil ratio has increased gradually to 8000 cubic feet per barrel as a result of the solution gas drive. The net pay is only about six feet which is typical for the wells in the Sralla Road (Jackson, W.) Field. The other oil wells in the Sralla Road (Jackson, W.) Field have exhibited similar increases in the gas/oil ratio and most of these wells now produce 50,000 to 60,000 cubic feet per barrel. The Jones Unit No. 1 was not put on production until June of 1999, and it has since produced 86,000 barrels of oil and 265 MMCF.

The well was step-rate tested between October 11 and November 6, 2000. When produced on a 7/64th inch choke, the Jones Unit No. 1 averaged 98 BOPD with a gas/oil ratio of 8743 cubic feet per barrel. On an 8/64th inch choke, it averaged 103 BOPD with a gas/oil ratio of 8151. On a 9/64th inch choke, the well produced an average of 141 BOPD and 1188 MCF per day. The average gas/oil ratio on this choke was 8481 cubic feet per barrel but if the rate for one day where paraffin hampered flow is removed, the average gas/ oil ratio on this choke size was 8031 cubic feet per barrel.

The well has accumulated 9382 MCF of overproduction between April of 2000 and the end of September. There are no other wells in the same producing reservoir as the Jones Unit No. 1, and therefor correlative rights would not be harmed by the cancellation of this overproduction.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all operators in the Sralla Road (Jackson, W.) Field, on October 6, 2000.
2. The Sralla Road (Jackson, W.) Field has nine gas and six oil wells, all operated by either Columbus Energy or Etoco.
3. The daily allowable for oil wells in the field is 402 barrels of oil and 804 MCF, while the 49(b) allowable for the gas wells is 1401 MCF per day.
4. The initial potential of Columbus' Jones Unit Well No. 1, in June of 1998, was 249 BOPD, with a gas/oil ratio of 911 cubic feet per barrel.
5. The well's cumulative production is 86,000 BO and 265 MMCF of gas.
6. The well's gas/oil ratio has increased as have the ratios of the other oil wells in the Sralla

- Road (Jackson, W.) Field, due to the solution gas drive.
7. A step-rate test conducted between October 11 and November 6, 2000, showed that the Jones Unit No. 1 is not rate-sensitive and producing with a higher gas limit will not waste reservoir energy.
    - a. When produced on a 7/64th inch choke, the Jones Unit No. 1 averaged 98 BOPD with a gas/oil ratio of 8743 cubic feet per barrel.
    - b. On an 8/64th inch choke, it averaged 103 BOPD with a gas/oil ratio of 8151 cubic feet per barrel.
    - c. On a 9/64th inch choke, the well produced an average of 141 BOPD and 1188 MCF per day for a gas/oil ratio of 8481 cubic feet per barrel or less.
  8. The Jones Unit No. 1 is in a separate reservoir compartment from the other wells in the Sralla Road (Jackson, W.) Field.
    - a. The initial bottom-hole pressure measured in 1998, was virgin pressure at 6077 psi, when the bottom-hole pressure in the other field wells had been depleted to about 4000 psi.
    - b. The Jones Unit No. 1 produces oil structurally higher than the gas wells in the Sralla Road (Jackson, W.) Field.
    - c. A gas well between the Jones Unit No. 1 and the other wells in the Sralla Road (Jackson, W.) Field was granted a new field discovery in 1999, because it also had virgin pressure.
  9. The Jones Unit No. 1 accumulated 9300 MCF of overproduction between April, 2000, and the end of September.
  10. The Jones Unit No. 1 is the only well in this reservoir compartment and requiring the well to be shut-in to make up overproduction will not protect correlative rights.

#### 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. Increasing the daily limit for the Jones Unit Lease Well No. 1 may prevent waste and will protect correlative rights within the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the Columbus Energy Corporation Jones Unit Well No. 1, Sralla Road (Jackson, W.) Field be allowed to produce up to 1175 MCF per day and that the overproduction for this well be canceled.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: November 9, 2000

Exhibits

1. Map
2. Oil proration schedule
3. Gas proration schedule
4. cross section
5. Pressure history
6. Perforation data
7. Form W-2
8. Log
9. Production data table
10. Graph of production data
11. Graph of production data from other oil wells
12. Well test
13. Gas overproduction