

**OIL AND GAS DOCKET NO. 04-0225103**

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**THE APPLICATION OF CONOCO INC. FOR MER AND NET GOR AUTHORITY FOR ITS T.B. SLICK A-527 LEASE WELL NOS. 189 AND 192 IN THE RINCON (80 VICKSBURG) FIELD, STARR COUNTY, TEXAS**

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

**Procedural history**

Application received: June 9, 2000

Hearing held: October 18, 2000

**Appearances**

Jamie Nielson  
Martin Walters

Representing  
Conoco, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Conoco requested an MER of 600 BOPD and increased Net GOR authority for its T. B. Slick A-527 Lease Well Nos. 189 and 192, Rincon (80 Vicksburg) Field, Starr County, Texas. Conoco is also seeking to have all overproduction for these wells canceled. The examiner recommends that an MER of 1000 barrels of oil per day and increased GOR authority with a daily gas limit of 3500 MCF apply to all wells in the field and Conoco agrees.

**DISCUSSION OF THE EVIDENCE**

The Rincon (80 Vicksburg) Field was designated in February of 2000, and has only two wells, both operated by Conoco. The allowable for oil wells in this field is 130 BOPD, based on the discovery allowable for wells at this depth, though the allowable for Well No. 189 is penalized to 108 BOPD due to high GOR.

The Rincon (80 Vicksburg) reservoir dips to the east and is bounded on the west by a fault. The oil/water contact is at -4439 feet and the gas/oil contact at -4381 feet. Well Nos. 189 and 192 are the only wells needed to drain the oil reservoir though a well may eventually be drilled updip in the gas cap.

The initial potential of Well No. 189 was 266 BOPD and 643 MCF/D, as measured on October 11, 1999. The initial potential of Well No. 192, on October 21, 1999, was 744 BOPD and 369 MCF/D. The cumulative production of Well No. 189 is 101,000 BO and 148 MMCF of gas;

and of Well No. 192 is 110,000 BO and 212 MMCF. The logs of both wells indicate laminated sandstones with thin sandstone beds layered with siltstones and shales. The low vertical permeability makes it unlikely that higher production rates will cone water upward or gas downward.

Well No. 192 has the higher GOR and Conoco tested this well between June 7 and July 25, 2000. The test indicated that the neither the GOR nor the water cut were particularly rate sensitive, as long as the producing rate was above 400 BOPD. At rates below 400 BOPD, the well loaded with liquids and died. On a 14/64th inch choke, the well averaged 426 BOPD, with 20% water cut and a GOR of 3697. On an 18/64th inch choke, the well averaged 576 BOPD, with 18% water cut and a GOR of 3748. On a 25/64th inch choke, the well averaged 833 BOPD, with 14% water cut and a GOR of 3087. When the choke was increased to 28/64th inches for three days, the daily oil rate was 963 barrels, with a water cut of 13% and GOR of 3284.

The T.B. Slick A-527 Lease has accumulated 134,000 barrels of oil and 185 MMCF of gas overproduction during the year it has been producing. Both wells in the Rincon (80 Vicksburg) Field are on the same lease and cancellation of this overage will not harm correlative rights.

### **EXAMINER'S OPINION**

When Well No. 192 was being tested, the average daily oil rate was closest to 600 barrels when the well was on an 18/64th inch choke. On this choke size, the average oil rate was 576 barrels, with a gas/oil ratio of 3748 cubic feet per barrel and 18% water cut. The lowest gas/oil ratio during the test, occurred on a 25/64th inch choke, between June 23 and 25, when the daily oil rate averaged 963 barrels, with a gas/oil ratio of 2126 cubic feet per barrel and 12% water cut. This three-day test period may not necessarily represent the most efficient production rates for a longer period of time. However, this test does indicate that a daily rate of 1000 barrels per day may be significantly more efficient than the requested rate of 600 barrels per day. There is, therefor, no reason to limit the increased gas/oil ratio authority to less than 1000 barrels per day.

### **FINDINGS OF FACT**

1. Notice of this hearing was issued to all affected persons on September 12, 2000.
2. The Rincon (80 Vicksburg) Field was designated as a new field in February of 2000, and has two wells, both operated by Conoco.
3. The current daily allowable is 130 barrels of oil, based on the discovery allowable for wells at this depth.
4. The initial potential of the T.B. Slick A-527 Well No. 189 was 266 BOPD and 643 MCF/D, and the initial potential of Well No. 192 was 744 BOPD and 369 MCF/D.

5. The cumulative production of Well No. 189 is 101,000 BO and 148 MMCF of gas; and of Well No. 192 is 110,000 BO and 212 MMCF.
6. Low vertical permeability in this laminated sandstone reservoir makes it unlikely that higher production rates will cone water upward or gas downward.
7. Producing rate tests from the T.B. Slick A-527 Lease Well No. 192 indicate that increasing this well's allowable to 1000 barrels per day will not cause waste.
  - a. At rates below 400 BOPD, the well loaded with liquids and died.
  - b. On a 14/64th inch choke, the well averaged 426 BOPD, with 20% water cut and a GOR of 3697.
  - c. On an 18/64th inch choke, the well averaged 576 BOPD, with 18% water cut and a GOR of 3748.
  - d. On a 25/64th inch choke, the well was most efficient, averaging 833 BOPD, with 14% water cut and a GOR of 3087.
  - e. When the choke was increased to 28/64th inches for three days, the daily oil rate was 958 barrels, with a GOR of 3284 and water cut of 12%.
  - f. The highest daily producing rates during the seven days that the well was tested on a 25/64th inch choke were 986 barrels of oil and 2895 MCF of gas
8. Both wells in the Rincon (80 Vicksburg) Field are on the same lease, and will likely be the only oil wells ever completed in the field.
9. Requiring the subject wells to be shut-in to make up overproduction will not protect correlative rights nor prevent waste.

**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. Granting an MER of 1000 barrels of oil per day and increased Net GOR authority to produce up to 3.5 MMCF per day will not cause waste and will protect correlative rights within the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that all of the wells in the Rincon (80 Vicksburg) Field be allowed to produce up to 1000 barrels of oil per day and 3500 MCF per day. All overproduction for the wells on Hunt Oil Company's T.B. Slick A-527 Lease in the Rincon (80 Vicksburg) Field should be canceled.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner

Date of Commission Action: November 9, 2000

**EXHIBITS**

1. Proration schedule
2. Forms W-2
3. Log of Well No. 189
4. Log of Well No. 192
5. Map
6. Production data
7. Graph of test data
8. Performance gradient graph