

OIL AND GAS DOCKET NO. 7C-0226275

**THE APPLICATION OF OCEAN ENERGY, INC. FOR INCREASED GAS OIL RATIO
AUTHORITY FOR ITS BARNETT '21' LEASE WELL NO. 3, AMACKER-TIPPETT
(WOLFCAMP) FIELD, UPTON COUNTY, TEXAS**

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: September 29, 2000

Hearing held: October 24, 2000

Appearances

	Representing
Richard Johnston	Ocean Energy, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Ocean Energy is seeking increased gas/oil ratio authority for its Barnett '21' Lease Well No. 3 to allow this well to produce up to 3000 MCF per day.

DISCUSSION OF THE EVIDENCE

The Amacker-Tippett (Wolfcamp) Field was discovered in 1954, and has ten wells carried in it. The wells in the field are not in a single homogeneous reservoir but rather produce from multiple small porosity pods that are not necessarily in pressure communication. The subject well, Ocean's Barnett '21' Lease Well No. 3 is the only active well in its particular feature. The field rules for the Amacker-Tippett (Wolfcamp) Field allow wells to produce 435 BOPD with a daily gas limit of 870 MCF.

Well No. 3 was completed in January of 1999, with perforations from 8980 to 9000 feet, at the base of the Wolfcamp structure. The initial potential was 94 BOPD, with 59 MCF per day and no water. In February, 1999, Ocean filed a new Form W-2 after it had added perforations from 8752 to 8760 feet. The new potential was reported to be 578 BOPD with 1009 MCF per day. The reservoir is highly fractured and production is due to both gravity and solution gas drives.

The well was carried in the Amacker-Tippett, SW (Wolfcamp) Field until December of 1999, and its cumulative production in that field was 231,630 BO and 513 MMCF of gas. It was transferred to the Amacker-Tippett (Wolfcamp) Field and the cumulative production reported in this field is 65,290 BO and 356 MMCF of gas. The gas/oil ratio has increased from about 4000 cubic

feet per barrel to 7000 since the well was transferred to the Amacker-Tippett (Wolfcamp) Field.

The increasing gas/oil ratio is a natural result of the depletion of the solution gas drive. The well is on rod pump making it impractical to test the well for rate sensitivity. Other wells in the Amacker-Tippett (Wolfcamp) Field have received increased net gas/oil ratio authority after step rate tests. None of the wells tested in this field have shown that the oil production will be harmed by increased gas production.

During September of 2000, the well averaged 275 BOPD and 2157 MCF/D. The total monthly production was 8242 BO and 64,700 MCF of gas for a gas/oil ratio of 7850 cubic feet per barrel. The well has accumulated 161 MMCF of gas overproduction since February of 2000. The applicant is requesting a net gas/oil ratio with a daily gas limit of 3 MMCF per day as the gas/oil ratio is increasing steadily and the well is expected to produce this much gas fairly soon. There is already an MER in the Amacker-Tippett, SW (Wolfcamp) Field which allows wells to produce 1100 BOPD and 2200 MCF/D.

There has been an increase rather than decline in daily oil production capability since December, 1999, when the daily rate was 221 BO. The operator curtailed production from April through June to stay within the gas limit. In July, 2000, the operator ceased curtailment and the well's daily oil rate was 297 barrels; in August, the daily oil rate was 299 barrels. Until the oil rate declines, the gas rate will continue to increase as the gas/oil ratio increases.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the Amacker-Tippett (Wolfcamp) Field, on October 13, 2000.
2. The subject well, the Barnett '21' No. 3, was drilled in 1999 and has perforations from 8980 to 9000 feet, at the base of the Wolfcamp structure, and from 8752 to 8760 feet at the top of the structure.
3. This well is the only active well in this particular reservoir pod within the Amacker-Tippett (Wolfcamp) Field.
4. The current allowable is 435 BOPD with 870 MCF of gas per day.
5. A step-rate test is impractical because the well is being rod pumped, but none of the other Wolfcamp wells tested in this field have shown any rate sensitivity.
6. The well's cumulative production is 297,000 and 869 MMCF of gas.
7. During September, 2000, the well averaged 275 BOPD and 2157 MCF/D, for a gas/oil ratio of 7850 cubic feet per barrel.

8. Since the well was transferred from the Amacker-Tippett, SW (Wolfcamp) Field to the Amacker-Tippett (Wolfcamp) Field in December, 1999, the oil production rate capability has not decreased but the gas/oil ratio has increased from about 4000 cubic feet per barrel to 7000.
9. The increased gas/oil ratio is a natural result of the partial solution gas drive and will continue to increase.
10. If the oil rate remains steady and the gas/oil ratio increases at a steady rate, the well will soon be capable of producing 3 MMCF per day.
11. Requiring the well to stay within its current daily gas limit of 870 MCF will not increase the well's ultimate oil recovery.
12. This is the only well in this particular reservoir and requiring the well to make up overproduction is not necessary to 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. The requested increase in gas allowable for the Barnett '21' Lease Well No. 3 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 the Ocean Energy, Inc. Barnett '21' Well No. 3, Amacker-Tippett (Wolfcamp) Field be allowed to produce up to 3,000 MCF of gas per day. All overproduction for this well should be canceled.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: November 9th, 2000

Exhibits

1. Proration schedule
2. Map
3. Final order transferring the well to the current field
4. Forms W-2
5. Log
6. Decline curves
7. Monthly production tabulation
8. GOR over time