OIL AND GAS DOCKET NO. 06-0224642

APPLICATION OF VASTAR RESOURCES INC. TO CONSIDER AN INCREASED NET GOR AUTHORITY FOR THE G.T. ALLISON OIL UNIT WELL NO. 11-U, IN THE CARTHAGE (TRAVIS PEAK) FIELD, PANOLA COUNTY, TEXAS

HEARD BY: Thomas H. Richter, P.E.

DATE OF HEARING: June 1, 2000

APPEARANCES: REPRESENTING:

Ana Maria Marsland, attorney Molly Boyd Allen Light Vastar Resources Inc.

PROTESTANTS: None

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

This is the unprotested application of Vastar Resources for a net gas-oil ratio (GOR) which results in a casinghead gas limit of 750 MCF of gas per day for the G.T. Allison Oil Unit Well No. 11-U in the Carthage (Travis Peak) Field. Vastar also requests that all overproduction be canceled. The examiner recommends approval.

DISCUSSION OF THE EVIDENCE

The Carthage (Travis Peak) Field was discovered in 1987 at approximately 6,190 feet subsurface depth. This field is governed by Statewide Rules. The top allowable for a well completed at this depth is 111 BOPD and a casinghead gas limit of 222 MCF per day. This is a multiple operator and multiple well field.

The Vastar Resources Inc., G.T. Allison Oil Unit Well No. 11-U first produced from the Carthage (Travis Peak) Field in August 1999 through selected perforations from 6,222' to 6,356' subsurface depth. The well is a dual completion with the Cotton Valley Formation through perforations from 8,530' to 9,274' subsurface depth. The Cotton Valley is produced through tubing and packer. The Travis Peak produces into the casing annulus and then through 1-1/2 inch coiled tubing in the casing annulus. The perforated interval in the Travis Peak Formation extends across a 134' interval. Each sequence of perforations is separated by shales. Oil zones were expected and

not gas. Because of the low permeability of the Travis Peak Formation, fracture stimulation is necessary. It is believed that the fracture stimulation treatment, fractured through the shale sections and there is communication in the reservoir. Cumulative production from August 1999 through April 2000 is 10,960 BO and 147,760 MCF of gas. Production in April was 34 BOPD and 650 MCFD.

The well was tested over a 30 day period with the following results:

| CHOKE (64 <u>ths</u>) | OIL (BOPD) | GAS (MCFD) | GOR | FTP (PSI) | WTR (BPD) |
|------------------------|---------------|---------------|-------|--------------|--------------|
| 20 | 26 | 609 | 23424 | 550 | 2 |
| 64 | 30 | 697 | 23233 | 275 | 4 |
| 10 | 13 | 352 | 27077 | 800 | 0 |
| 8 | 13 | 278 | 21384 | 1050 | 0 |

The test data shows that at the lower producing rates which are closer to the casinghead gas limit, water production ceases. The velocity is insufficient to lift formation water. This will result in well bore loading. It is therefore necessary for the well to be produced at the higher rate to keep the wellbore from loading with water, thereby restricting the entry of oil.

It is estimated that if the well continues to produce at the gas rate limit of 222 MCFD, the well will recover only another 85 MMCF. Producing at the higher rate will result in the recovery of 230 MMCF, a difference of 145 MMCF.

It is further requested that all casinghead gas and oil production produced in excess of the penalized allowable be canceled. Vastar received a letter from its casinghead gas purchaser stating it had capacity to receive the additional gas without curtailment to its system.

FINDINGS OF FACT

- 1. Notice of this application was given to all person entitled to notice at least ten (10) days prior to the hearing.
- 2. There was no protest of the application.
- 3. The Carthage (Travis Peak) Field was discovered in 1987 at approximately 6,190 feet subsurface depth.
 - a. The field is governed by Statewide Rules.
 - b. The top allowable for a well completed at this depth is 111 BOPD and a casinghead gas limit of 222 MCF per day.

- c. This is a multiple operator and multiple well field.
- 4. The Vastar Resources Inc., G.T. Allison Oil Unit Well No. 11-U first produced from the Carthage (Travis Peak) Field in August 1999 through selected perforations from 6,222' to 6,356' subsurface depth.
 - a. The Travis Peak produces into the casing annulus and then through 1-1/2 inch coiled tubing in the casing annulus.
 - b. Cumulative production from August 1999 through April 2000 is 10,960 BO and 147,760 MCF of gas. Production in April was 34 BOPD and 650 MCFD.
- 5. The well was tested over a 30 day period with the following results:

| CHOKE (64 <u>ths</u>) | OIL (BOPD) | GAS (MCFD) | GOR | FTP (PSI) | WTR (BPD) |
|------------------------|---------------|---------------|-------|--------------|--------------|
| 20 | 26 | 609 | 23424 | 550 | 2 |
| 64 | 30 | 697 | 23233 | 275 | 4 |
| 10 | 13 | 352 | 27077 | 800 | 0 |
| 8 | 13 | 278 | 21384 | 1050 | 0 |

- a. The test data shows that at the lower producing rates which are closer to the casinghead gas limit, water production ceases. The velocity is insufficient to lift formation water. This will result in well bore loading.
- 6. All casinghead gas and oil production produced in excess of the penalized allowable should be canceled.

CONCLUSIONS OF LAW

- 1. Notice of this hearing was provided in accordance with all applicable regulatory statutes and rules.
- 2. All things have occurred or been accomplished to afford the Commission the jurisdiction to consider and decide this matter.
- 3. Consideration and approval of this application for a net gas-oil ratio is a matter properly within the jurisdiction of the Commission to foster conservation and prevent waste.
- 4. Approval of the proposed application of Strand Energy, L.C. for Commission consideration for a net gas-oil ratio for the Reed Lease Well No. 2 in the Carthage (Travis Peak) Field will

foster conservation and prevent waste.

5. Cancellation of the casinghead gas and oil production in excess of the penalized allowable will not harm correlative rights.

EXAMINER'S RECOMMENDATION

It is recommended that the application of Vastar Resources Inc. for Commission consideration for a net gas-oil ratio for the G.T. Allison Oil Unit Well No. 11-U in the Carthage (Travis Peak) be approved. It is further recommended that the casinghead gas and oil production produced in excess of the penalized allowable be canceled.

Respectfully submitted,

Thomas H. Richter, P.E. Technical Examiner Office of General Counsel