

August 25 ,2000

**OIL AND GAS DOCKET NO. 06-0225737**

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**APPLICATION OF BARROW-SHAVER RESOURCES COMPANY TO CONSIDER  
TEMPORARY FIELD RULES FOR THE NORTH OMEN (PETTIT) FIELD, SMITH  
COUNTY, TEXAS**

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

**DATE OF HEARING:** August 25, 2000

**APPEARANCES:**

Jim Clark

**REPRESENTING:**

Barrow-Shaver Resources Company

**PROTESTANT:** none

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

This is the unprotested application of Barrow-Shaver Resources Company for the Commission to consider temporary field rules for the North Omen (Pettit) Field that provide for:

1. The entire correlative interval from 8,100' to 8,220' subsurface depth as shown on the Type log of the Barrow-Shaver Resources Co. (Pioneer Natural Resources), Arp Gas Unit Well No. 1, in the Thomas C. Williams Survey, A-1018, Smith County, Texas be recognized and designated as the North Omen (Pettit) Field.
2. Minimum well spacing of 467'/1200' (lease line/between well),
3. 160 acre proration units with 40 acre tolerance and maximum diagonal of 4,500' and optional 80 acre density with a maximum diagonal of 3,250';
4. An allocation formula based on 100% acreage.

### **DISCUSSION OF THE EVIDENCE**

The North Omen (Pettit) Field was discovered November 13, 1999 by completion of the Pioneer Natural Resources, Arp Lease Well No. 1 through selected perforations from 8,100' to 8,156' and 8,186' to 8,198' subsurface depth. The field is governed by Statewide Rules. Cox & Perkins is the only operator in the field with one well and a second well being completed. The discovery well potentialed at 152 BOPD, 54 MCFD and 2 BWPD.

The proposed field rules are based on the parameters and the field rules for the nearby and much larger Good Omen (Pettit) Field that was discovered in 1955 and has 51 producing wells. The Good Omen (Pettit) Field and the subject field produce from the same Pettit intervals/sand members and should have similar reservoir characteristics. Basic reservoir parameters are: average porosity of 13.3%, average water saturation of 20%, a formation volume factor of 1.551 and a solution drive recovery factor of 15.1%. Engineering analysis was made of the six wells that were completed at the time of the initial temporary field rule hearing for the Good Omen (Pettit) Field. The drainage area of these six wells ranges from 44 acres to 180 acres.

One hundred and sixty (160) acre proration units and optional 80 density should be appropriate well density for wells completed in the subject field. Cumulative production from the Arp Oil Unit Well No. 1 is 3,523 BO. It is estimated that the per well recovery should be 46,000 BO. The subject well has a pay thickness of 5.7 feet. The calculated drainage area is 100.4 acres. There is no reason to believe that the wells completed in the subject field will not reflect the drainage areas seen in the Good Omen (Pettit) Field.

The proposed minimum well spacing, 467'/1200' (leaseline/between well), is necessary to provide for flexibility in locating wells in this area. The 100% acreage allocation formula will provide for the protection of correlative rights.

### **FINDINGS OF FACT**

Based on the evidence presented, the examiner proposes the following findings:

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The North Omen (Pettit) Field was discovered November 13, 1999 by completion of the Pioneer Natural Resources, Arp Lease Well No. 1 through selected perforations from 8,100' to 8,156' and 8,186' to 8,198' subsurface depth.

4. The entire correlative interval from 8,100' to 8,220' subsurface depth as shown on the Type log of the Barrow-Shaver Resources Co. (Pioneer Natural Resources), Arp Gas Unit Well No. 1, in the Thomas C. Williams Survey, A-1018, Smith County, Texas be recognized and designated as the North Omen (Pettit) Field.
5. One hundred and sixty (160) acre proration units and optional 80 density should be appropriate well density for wells completed in the subject field.
  - a. Cumulative production from the Arp Oil Unit Well No. 1 is 3,523 BO.
  - b. It is estimated that the per well recovery should be 46,000 BO. The calculated drainage area is 100.4 acres.
  - c. Engineering analysis was made of the six wells that were completed at the time of the initial temporary field rules hearing for the Good Omen (Pettit) Field (a similar, nearby reservoir to the subject field discovered in 1955). The drainage area of these six wells ranges from 44 acres to 180 acres.
6. The proposed minimum well spacing, 467'/1200' (leaseline/between well) is necessary to provide for flexibility in locating wells in this area.
7. The 100% acreage allocation formula will provide for the protection of correlative rights.

**CONCLUSIONS OF LAW**

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Adoption of the proposed fields rule will prevent waste, foster conservation and protect correlative rights.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed field rules as temporary for 18 months for the North Omen (Pettit) Field.

Respectfully submitted,

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