

February 8, 2006

OIL AND GAS DOCKET NO. 06-0245720

**APPLICATION OF CHESAPEAKE OPERATING, INC. TO CONSIDER PERMANENT
FIELD RULES FOR THE NACONICHE CREEK (COTTON VALLEY) FIELD,
NACOGDOCHES COUNTY, TEXAS**

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

DATE OF HEARING: February 8, 2006

APPEARANCES:

Bill G. Spencer
Cary A. McGregor

REPRESENTING:

Chesapeake Operating, Inc.

EXAMINER'S REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

This is the unprotested application of Chesapeake Operating, Inc. for the Commission to consider permanent field rules for the Naconiche Creek (Cotton Valley) Field as follows:

1. The entire combined correlative interval from 10,225' to 11,290' as shown on the electric log of the Prairie Producing Company, Joe B. Strong Lease Well No. 1 (API No. 42-347-30677), Maria D. Castro Survey, A-133, Nacogdoches County, Texas, should be designated as the Naconiche Creek (Cotton Valley) Field.
2. Minimum well spacing of 467'/933' (leaseline/between well);
3. 40 acre gas proration unit density with 10% tolerance and maximum diagonal of 2100';
4. An allocation formula based on 95% deliverability and 5% per well. It is further requested that the allocation formula be suspended.

The subject field rules were noticed with no field interval designation and the allocation formula based on 95% deliverability and 5% acres. At the hearing, Chesapeake requested the designation of a field interval and the allocation formula be amended from 5% acres to 5% per well. Because there are no wells in the field, Chesapeake was the only operator for notice issues. The examiner recommends approval of the application.

DISCUSSION OF THE EVIDENCE

The Naconiche Creek (Cotton Valley) was discovered in 1982 by completion of the Prairie Producing Company, Joe B. Strong Lease Well No. 1 through perforations from 11,167' to 11,230' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated. The discovery well is the only well that ever produced from the field. Over a nine month period, the well produced $\pm 25,000$ MCF of gas before being re-completed to upper zones in the Travis Peak and Pettit Formations. No other wells have produced from the field since 1983. Chesapeake has now permitted 11 wells for the subject field. Several of the wells are currently being drilled and completed.

The proposed minimum well spacing and density rules are identical to the Naconiche Creek (Rod.-TP Cons.) Field which overlies the Cotton Valley Field. The wells that are producing from the overlying Rodessa - Travis Peak reservoirs or currently shut-in can be deepened to the Cotton Valley thus using the existing wellbores. This will provide for the recovery of reserves that otherwise would go unrecovered. The entire combined correlative interval from 10,225' to 11,290' as shown on the electric log of the Prairie Producing Company, Joe B. Strong Lease Well No. 1 (API No. 42-347-30677), Maria D. Castro Survey, A-133, Nacogdoches County, Texas, should be designated as the Naconiche Creek (Cotton Valley) Field.

Gas well proration unit density of 40 acres is necessary to provide for the effective and efficient depletion of the reservoir. Volumetric analysis estimates the gas-in-place to be 514 MMCF for 40 acres. Applying the recovery factor of 40%, the recoverable reserves are 206 MMCF; a recovery factor of 60%, the recoverable reserves are 309 MMCF; and a recovery factor of 80%, the recoverable reserves are 411 MMCF.¹

Minimum well spacing of 467'/933' (leaseline/between well) will provide uniform flexibility in locating wells in the subject field. There are eleven other Cotton Valley Fields in the county area that have identical minimum well spacing and density rules.

A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula for gas wells based on 95% deliverability and 5% per well satisfies this requirement. Though there are no wells currently completed in the field and on the Commission's proration schedule, Chesapeake proposes that the allocation formula be suspended as it will have a 100% market for all the produced gas.

FINDINGS OF FACT

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.

¹Average porosity 11%, average water saturation 40%, pay thickness 18.5'.

3. The Naconiche Creek (Cotton Valley) was discovered in 1982 by completion of the Prairie Producing Company, Joe B. Strong Lease Well No. 1 through perforations from 11,167' to 11, 230' subsurface depth.
 - a. The field is governed by Statewide Rules and designated as Non-Associated.
 - b. The discovery well is the only well that ever produced from the field and was plugged in 1983.
4. The entire combined correlative interval from 10,225' to 11,290' as shown on the electric log of the Prairie Producing Company, Joe B. Strong Lease Well No. 1 (API No. 42-347-30677), Maria D. Castro Survey, A-133, Nacogdoches County, Texas, should be designated as the Naconiche Creek (Cotton Valley) Field.
5. Gas well proration unit density of 40 acres is necessary to provide for the effective and efficient depletion of the reservoir.
 - a. The proposed density rules are identical to the Naconiche Creek (Rod.-TP Cons.) Field which overlies the Cotton Valley Field. The wells that are producing from the overlying Rodessa - Travis Peak reservoirs or currently shut-in can be deepened to the Cotton Valley thus using the existing wellbores.
 - b. There are eleven other Cotton Valley Fields in the county area that have identical density rules.
6. Minimum well spacing of 467'/933' (leaseline/between well) will provide uniform flexibility in locating wells in the subject field. There are eleven other Cotton Valley Fields in the county area that have identical minimum well spacing rules.
7. A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes.
 - a. The proposed two-factor allocation formula for gas wells based on 95% deliverability and 5% per well satisfies this requirement.
 - b. Though there are no wells currently completed in the field and on the Commission's proration schedule, Chesapeake proposes that the allocation formula be suspended as it will have a 100% market for all the produced gas.

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. Consideration for field rules, a determination of the effectiveness of the rules and appropriate actions is a matter within the Commission jurisdiction.
4. Adoption of the proposed field rules 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 for the Naconiche Creek (Cotton Valley) Field.

Respectfully submitted,

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