

OIL AND GAS DOCKET NO. 08-0255680

THE APPLICATION OF CHESAPEAKE OPERATING, INC. TO CONSIDER NEW FIELD DESIGNATION AND FIELD RULES FOR THE (PROPOSED) WHITEHORSE (SHALE) FIELD, CULBERSON COUNTY, TEXAS

Heard by: Donna K. Chandler on March 12, 2008

Appearances:

Cary McGregor

Representing:

Chesapeake Operating, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Chesapeake Operating, Inc. requests that a new field designation called the Whitehorse (Shale) Field be approved for its University Lands 4627 Well No. 1. Chesapeake also requests that the following temporary field rules be adopted for the Whitehorse (Shale) Field:

1. Designation of the field as the correlative interval from 11,003 feet to 12,042 feet as shown on the log of the University Lands 4627 Well No. 1;
2. 467'-1,200' well spacing;
3. 640 acre gas units with 10% tolerance and a maximum diagonal of 9,000 feet;
4. Allocation based on 95% deliverability and 5% per well.

Chesapeake also requests that the allocation formula for the field be suspended and that P-15 and plats not be required.

There were no protests to this application and the examiner recommends approval of the new field designation and temporary field rules. However, the examiner recommends 933'-1,867' well spacing with allocation based on 75% acreage and 25% deliverability, with the rules being subject to review in 24 months. Chesapeake did not consider this to be an adverse recommendation.

DISCUSSION OF EVIDENCE

Chesapeake completed its University Lands 4627 No. 1 in November 2007. The well is drilled to a total depth of 12,200 feet and is perforated in the Barnett and Woodford Shales between 11,590 feet and 11,980 feet.

The well was produced for only eight days and is shut-in waiting on a pipeline to be built. The 15 mile line is expected to be completed by the end of 2008. Between November 22 and November 29, 2007, the well produced at rates ranging from 1,283 MCFD to 1,794 MCFD.

Chesapeake requests that the Whitehorse (Shale) Field be defined as the correlative interval between 11,033 feet and 12,042 feet as shown on the log of the University Lands 4627 No. 1. This interval is from the base of the Atoka to the top of the Devonian and includes the Penn, Barnett and Woodford Shales.

The University Lands 4627 No. 1 is entitled to a new field designation. There are only two wellbores within a 2½ mile radius of the well. Both wells were drilled to over 12,000 feet. One of the wells was plugged and abandoned as a dry hole in 2001. The other well was drilled by Samson Lone Star LP in April 2007 and is temporarily abandoned with no test information available.

Chesapeake believes that a vertical well in this field will drain 640 acres. Chesapeake estimates that gas-in-place beneath 640 acres is 26,500 MCF/acre. Recoverable reserves beneath 640 acres in the field are 2,650 MCF/acre, assuming only 10% recovery. It is also estimated that the discovery well will ultimately recover 1.4 BCF of gas, assuming 35% exponential decline from 1,700 MCFD. This results in a calculated drainage area of 528 acres.

There is very little data available for the reservoir. Seismic data provides evidence of dense, complex faulting in many areas. These highly faulted areas are generally associated with high water production of several thousand barrels per day. Operators attempt to avoid these areas and for this reason, Chesapeake is requesting closer than normal well spacing rules in conjunction with the 640 acre density. The proposed rules will provide for orderly development of the field during the initial phase of development.

A two factor allocation formula is necessary because the proposed correlative interval for the field includes separate accumulations of hydrocarbons. Allocation based on 75% acreage and 25% deliverability is a reasonable formula which will protect correlative rights and meet statutory requirements.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. Chesapeake completed its University Lands 4627 No. 1 in November 2007 with perforations in the Barnett and Woodford Shales between 11,590 feet and 11,980 feet.
3. The Whitehorse (Shale) Field should be defined as the correlative interval between 11,033 feet and 12,042 feet as shown on the log of the University Lands 4627 No. 1. This interval is from the base of the Atoka to the top of the Devonian and includes the Penn, Barnett and Woodford Shales.
4. The University Lands 4627 No. 1 is entitled to a new field designation because there is no comparable production within 2½ miles.
5. Temporary field rules providing for 640 acre density are appropriate for a 24 month period while the field is being developed.
 - a. The University Lands 4627 No. 1 is currently shut-in until the end of 2008 when a pipeline will be completed to the well.
 - b. The well was tested for several days at rates ranging from 1,283 MCFD to 1,794 MCFD.
 - c. Estimated ultimate recovery for the well is 1.4 BCF of gas.
 - d. The estimated drainage area for the well is 528 acres.
6. Well spacing a minimum of 933 feet from lease lines and 1,867 feet between well is necessary to avoid faulted areas which are usually water-filled. These areas are identified with seismic data.
7. Allocation based on 75% acreage and 25% deliverability is a reasonable formula which will protect correlative rights and meet statutory requirements.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.

3. Approval of the requested new field designation and adoption of temporary field rules will prevent waste, protect correlative rights and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the new field designation and adoption of temporary field rules for the Whitehorse (Shale) Field.

Respectfully submitted,

Donna K. Chandler
Technical Examiner