

**OIL AND GAS DOCKET NO. 08-0251527**

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**THE APPLICATION OF CHESAPEAKE OPERATING, INC. TO CONSIDER PERMANENT FIELD RULES FOR THE TWO GEORGES (BONE SPRING) FIELD, LOVING COUNTY, TEXAS**

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**Heard by:** Donna K. Chandler on May 25, 2007

**Appearances:**

Bill Spencer  
Cary McGregor

**Representing:**

Chesapeake Operating, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Chesapeake Operating, Inc. requests that field rules be adopted for the Two Georges (Bone Spring) Field. The proposed rules are summarized as follows:

1. Designation of the field as the interval from the base of the Delaware to the top of the Wolfcamp as found between approximately 8,900 feet and 11,720 feet as shown on the log of the Blk. 19 University 20 "B" Well No. 1;
2. 467'-933' well spacing;
3. 320 acre oil units with optional 40 acre units;
4. Allocation based on 95% potential and 5% per well.

Chesapeake had requested that these rules be adopted on a permanent basis. The examiner recommends that the rules be adopted on a temporary basis, subject to review in 24 months. The examiner also recommends that allocation be based on 95% acreage and 5% per well. Chesapeake did not consider this recommendation to be adverse.

**DISCUSSION OF EVIDENCE**

The Two Georges (Bone Spring) Field was discovered in 1997 at a depth of 11,562 feet. The discovery well for the field was the Blk. 19 University 20 "B" No. 1. There are

three producing oil wells on the May 2007 proration schedule. However, Chesapeake has recently completed three new horizontal wells in the field. At least sixteen more wells have been permitted for this field, several of which are horizontal. In 1998, field rules were adopted for the field which provided for 160/optional 80 acre density. These rules were rescinded in 2001 and the field has operated under Statewide Rules since 2001.

Cumulative production from the three original vertical wells in the field is 102,000 BO and 195 MCF of gas. These three wells are now marginal producers, each producing less than 10 BOPD. The wells produce from various Bone Spring sand members.

Pogo Producing Co. drilled the first horizontal well in the Bone Spring in 2006 in the Block 20 (Bone Spring) Field in Winkler County approximately five miles to the west. This Block 20 (Bone Spring) Field operates under Statewide Rules.

Chesapeake completed its first horizontal well in April 2007, the University 19-14 W No. 1H. This well has a 3,000 foot lateral in the 3<sup>rd</sup> Bone Spring "A" Sand from 11,802 to 14,725 feet. This well produced at a rate of 121 BOPD, 181 MCFD and 534 BWPD on initial test. Chesapeake completed its Mitchell 28-27 No. 1H in April 2007 in the 3<sup>rd</sup> Bone Spring. This well had an initial potential of 178 BOPD, 274 MCFD and 492 BWPD. Both wells are expected to be on artificial lift soon. A potential test was not available for the University 10-12 No. 1H.

The University 20-18 W No. 1 in the Two Georges (Bone Spring) Field has produced about 56,000 BO and is expected to ultimately recover in excess of 100,000 BO. Using 9.5% porosity and 31.5% water saturation, recoverable reserves beneath 320 acres in the Two Georges (Bone Spring) Field are approximately 270,000 BO.

The War-Wink, S. (Wolfcamp) Field is approximately 6 miles to the southeast and produces from an interval correlative to the Two Georges (Bone Spring) Field, despite the reservoir nomenclature in the field name. This field operates under rules providing for 160/optional 80 acre density. Some wells in this field have produced over 160,000 BO and will drain between 160 and 320 acres.

The wells projected for completion in the subject field are typically drilled to the deeper Morrow for testing. The Bone Spring horizontal development is just beginning. With the limited data available for the Two Georges (Bone Spring) Field, Chesapeake is relying on data from the War-Wink, S. (Wolfcamp) Field to facilitate the horizontal development in the subject field.

Chesapeake requests that the field be designated as the correlative interval from 8,900 feet to 11,720 feet as shown on the log of the University 20 "B" No. 1. This interval includes the entire Bone Spring, which consists of several separate sand members. A two factor allocation formula based on 95% acreage and 5% per well will meet statutory requirements.

**FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Two Georges (Bone Spring) Field was discovered in 1997 at a depth of 11,562 feet.
3. There are three marginal producing oil wells on the May 2007 proration schedule.
4. Chesapeake has recently completed three new horizontal wells in the field and has plans to drill several more.
5. Adoption of a 320/optional 40 acre density rule for the subject field is appropriate on a temporary basis.
  - a. Development of the Bone Spring with horizontal wellbores is relatively new in this area.
  - b. The University 20-18 W No. 1, an older vertical well in the Two Georges (Bone Spring) Field, has produced about 56,000 BO and is expected to ultimately recover in excess of 100,000 BO.
  - c. Recoverable reserves beneath 320 acres in the Two Georges (Bone Spring) Field are approximately 270,000 BO.
  - d. The War-Wink, S. (Wolfcamp) Field is approximately 6 miles to the southeast and produces from an interval correlative to the Two Georges (Bone Spring) Field.
  - e. Some wells in the War-Wink, S. (Wolfcamp) Field have produced over 160,000 BO and will drain between 160 and 320 acres.
6. The Two Georges (Bone Spring) Field should be designated as the correlative interval from 8,900 feet to 11,720 feet as shown on the log of the University 20 "B" No. 1. This interval includes the entire Bone Spring, which consists of several separate sand members.
7. A two factor allocation formula based on 95% acreage and 5% per well will 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. Adoption of the proposed field rules for the Two Georges (Bone Spring) Field on a temporary basis is necessary to prevent waste, protect correlative rights and promote development of the field.

**RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the Commission adopt the field rules proposed by Chesapeake Operating, Inc. for the Two Georges (Bone Spring) Field on a temporary basis, subject to review in 24 months.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner