

**THE APPLICATION OF SAMSON LONE STAR LLC TO AMEND THE FIELD RULES FOR THE HEMPHILL (GRANITE WASH) FIELD, HEMPHILL AND ROBERTS COUNTIES, TEXAS**

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**Heard by:** Richard D. Atkins, P.E. - Technical Examiner

**Hearing Date:** August 6, 2008

**Appearances:**

Glenn E. Johnson  
James M. Clark

Sandra Buch

**Representing:**

Samson Lone Star LLC

Devon Energy Production Company

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field rules for the Hemphill (Granite Wash) Field were originally adopted on April 30, 1979 in Docket No. 10-70,565, as amended. The rules currently in effect for the field are summarized as follows:

1. Correlative interval from 10,565 feet to 12,710 feet as shown on the log of the Hobart Ranch No. 8-68;
2. 467' spacing to lease lines for horizontal and vertical wells, 467' spacing between vertical wells and vertical and horizontal wells, no minimum between-well spacing requirement between horizontal wells and special provisions for "take points";
3. 160 acre/optional 80 acre density, with special provisions for Rule 38 exceptions after notice;
4. Allocation based on 95% deliverability and 5% per well, with AOF status.

Samson Lone Star LLC requests that the field rules be amended to provide for well spacing of 467 feet from lease lines and no minimum between-well spacing and to adopt a field rule to provide for stacked horizontal laterals. At the hearing, Devon Energy Production Company objected to the no minimum between-well spacing. After the hearing,

Samson withdrew their no minimum between-well spacing request.

The amended application was unopposed and the examiner recommends that the field rules for the Hemphill (Granite Wash) Field be amended as proposed.

### **DISCUSSION OF EVIDENCE**

The Hemphill (Granite Wash) Field was discovered in December 1964 and there are currently over 440 wells producing from the field. Average production is about 1.8 BCFG per month. Cumulative production from the field is 662.8 BCFG and 9.2 MMBO. The field is classified as associated prorated with AOF status. There are 3 marginal oil wells carried on the oil proration schedule.

The gross interval of the Granite Wash is continuous across the Hemphill (Granite Wash) Field area. The middle pay interval, the "B" member, is relatively continuous, but the upper interval, the "A" member, and the lower interval, the "C" member, are lenticular and very often discontinuous from well to well. Horizontal drilling in the Hemphill (Granite Wash) Field since 2003 has resulted in increased production from 1 BCFG per month in 2003 to almost 2 BCFG per month in 2008. The Granite Wash formation in the Hemphill Field is comparable to the Mendota, NW. Field located three miles to the northwest and the Buffalo Wallow Field located three miles to the southeast.

Samson submitted a drainage area study performed by Patina Oil & Gas Corp., LP on 100 wells in the Buffalo Wallow Field. On average, a well will recover approximately 1 BCFG and have a drainage area of 12.5 acres. In addition, 89 of the 100 wells studied will have a drainage area of less than 20 acres. Samson also submitted two examples where offset wells were drilled 238 feet and 306 feet from the initial well after several years of production. The offset wells will recover equal to or greater reserves than the initial wells.

Samson believes that the Granite Wash formation in the subject field will require development in some areas using as many as five separate laterals. This approach to development has been successful in the Mendota, NW. Field which is governed by rules for "stacked lateral" wells. Samson requests a rule for the Hemphill (Granite Wash) Field, which mirrors the Mendota, NW. rules. Such a rule would allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainholes which are drilled (1) from different surface locations on the same lease unit no more than 250 feet from each other at the surface and (2) no more than 300 feet from each other in a horizontal plane within the correlative interval. At the depth of the Granite Wash and the expected high pressures and temperatures, it would not be economically feasible to complete all horizontal laterals in a single vertical well.

Samson requests that production from each lateral assigned to a stacked lateral wellbore be reported separately. This separate production report will be a supplement to the PR report for the stacked lateral well. The Commission's compliance section has

designed a form for use in conjunction with this reporting and it is currently being used in the Mendota, NW. (Granite Wash) Field.

**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. The Hemphill (Granite Wash) Field was discovered in December 1964 and there are currently over 440 gas wells and three oil wells producing from the field. Average production is about 1.8 BCFG per month. Cumulative production from the field is 662.8 BCFG and 9.2 MMBO.
3. Field rules for the Hemphill (Granite Wash) Field provide for 467' spacing to lease lines for horizontal and vertical wells, 467' spacing between vertical wells and vertical and horizontal wells and no minimum between-well spacing requirement between horizontal wells.
4. Horizontal drilling in the Hemphill (Granite Wash) Field since 2003 has resulted in increased production from 1 BCFG per month in 2003 to almost 2 BCFG per month in 2008.
5. The Granite Wash formation in the Hemphill Field is comparable to the Mendota, NW. Field located three miles to the northwest and the Buffalo Wallow Field located three miles to the southeast.
6. Samson submitted a drainage area study performed by Patina Oil & Gas Corp., LP on 100 wells in the Buffalo Wallow Field. On average, a well will recover approximately 1 BCFG and have a drainage area of 12.5 acres. In addition, 89 of the 100 wells studied will have a drainage area of less than 20 acres.
7. Samson also submitted two examples in the Buffalo Wallow Field where offset wells were drilled 238 feet and 306 feet from the initial well after several years of production. The offset wells will recover equal to or greater reserves than the initial wells.
8. Samson believes that the Granite Wash formation in the subject field will require development in some areas using as many as five separate laterals. This approach to development has been successful in the Mendota, NW. Field.
9. The proposed "stacked lateral" rule for the Hemphill (Granite Wash) Field will

allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes.

**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. Amending the field rules for the Hemphill (Granite Wash) Field as proposed by Samson Lone Star LLC is necessary to prevent waste and protect correlative rights.

**RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the field rules for the Hemphill (Granite Wash) Field be amended as proposed by Samson.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner