

**THE APPLICATION OF SAMSON LONE STAR, LLC TO ADOPT FIELD RULES FOR THE WASKOM (HAYNESVILLE) FIELD, HARRISON COUNTY, TEXAS**

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**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner

**HEARING DATE:** February 11, 2009

**APPEARANCES:**

**REPRESENTING:**

Mickey R. Olmstead  
James M. Clark  
Randal L. Maxwell  
Casey Clawson

Samson Lone Star, LLC

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Samson Lone Star, LLC ("Samson") requests that Field Rules be adopted for the Waskom (Haynesville) Field. The proposed rules are summarized as follows:

1. Designation of the field as the correlative interval from 9,750 feet to 11,835 feet as shown on the log of the J. W. Joiner GU 1 Lease, Well No. 4;
2. 467'-933' well spacing, no minimum spacing requirement between horizontal and vertical wells and special provisions for take points and off lease penetration points in horizontal wells;
3. 640 acre gas units with optional 40 acre density;
4. Provisions for stacked laterals;
5. Allocation based on 95% deliverability and 5% per well with AOF status.

This application was unopposed and the examiner recommends that Field Rules for the Waskom (Haynesville) Field be adopted as proposed by Samson.

## **OIL AND GAS DOCKET NO. 06-0260774**

### **DISCUSSION OF EVIDENCE**

Prior to October 2008, the Waskom (Cotton Valley) Field correlative interval contained the Cotton Valley, Bossier and Haynesville formations. In October 2008, the correlative interval for the Waskom (Cotton Valley) Field was amended to exclude the Bossier and Haynesville shales and this left some wells orphaned from the Waskom (Cotton Valley) Field. Samson then applied for and received a new field designation for the Waskom (Haynesville) Field. The new field is classified as a non-associated gas field and operates under Statewide Rules. The current field designation as approved on Form P-7 includes only the Haynesville interval from 10,905 feet to 11,835 feet. To date, no wells have been transferred into the new field.

Samson requests that the correlative interval from 9,750 feet to 11,835 feet as shown on the log of the J. W. Joiner GU 1 Lease, Well No. 4, be considered a single field known as the Waskom (Haynesville) Field. This interval includes the entire Bossier and Haynesville shales and is located between the base of the Cotton Valley sands and the top of the Louann salt formations.

Samson proposes that the same Field Rules that currently exist for the Waskom (Cotton Valley) Field be adopted for the Waskom (Haynesville) Field. These rules provide for 467'-933' well spacing, no minimum spacing requirement between horizontal and vertical wells and 640 acre gas units with optional 40 acre density. The same field rules will provide consistency in developing both fields and will allow greater flexibility in selecting future drilling locations.

Operators are currently developing the field with horizontal wellbores. Samson requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines and between-wells for horizontal drainhole wells. Samson's proposed rule specifies that, for purposes of lease line and between-well spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. Similar rules have been adopted in other tight reservoirs, including the Barnett Shale, some Cotton Valley fields and other Granite Wash Fields.

The proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line. Horizontal drainhole length on a lease is then maximized, resulting in additional recovery of gas. For purposes of assignment of additional acreage pursuant to Rule 86, it is proposed that the distance between the first and last take-point in a horizontal well be used.

Samson requests that field rules for the subject field provide for off-lease penetration points. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be

## **OIL AND GAS DOCKET NO. 06-0260774**

on the lease. In some cases, it is beneficial to penetrate the reservoir off lease, while still having “take points” no closer to lease lines than allowed under the field rules. In this field, it generally requires 500-600 feet of horizontal displacement to make the 90 degree turn from the penetration point until the well is horizontal. If the penetration point is required to be on the lease, then the first point of production is about 600 feet from the lease line. The proposed rules will allow a longer length of producing drainhole, resulting in the recovery of additional reserves. Similar rules allowing offsite penetration points have been adopted in other fields, after notice to the mineral owners of the off-lease tract on which the penetration point is to be located and if no protest is received.

Samson also requests that spacing rules for the field be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the Bossier and Haynesville shale interval is over 2,000 feet. Samson believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal wells. Similar stacked lateral rules have already been adopted in several Granite Wash fields in the area, as well as in the Newark, East (Barnett Shale) Field. The rule would allow stacked horizontal laterals within the Bossier and Haynesville 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.

Samson requests that a two factor allocation formula based on 95% deliverability and 5% per well be adopted for the field. Samson also requests that the allocation formula be suspended, as there is a 100% market for all the gas produced and that the filing of P-15's and plats not be required.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. Prior to October 2008, the Waskom (Cotton Valley) Field correlative interval contained the Cotton Valley, Bossier and Haynesville formations. In October 2008, the correlative interval for the Waskom (Cotton Valley) Field was amended to exclude the Bossier and Haynesville shales and this left some wells orphaned from the Waskom (Cotton Valley) Field.
3. Samson applied for and received a new field designation for the Waskom (Haynesville) Field. The new field is classified as a non-associated gas field and operates under Statewide Rules. The current field designation as approved on Form P-7 includes only the Haynesville interval from 10,905 feet to 11,835 feet.

## OIL AND GAS DOCKET NO. 06-0260774

4. Samson requests that the correlative interval from 9,750 feet to 11,835 feet as shown on the log of the J. W. Joiner GU 1 Lease, Well No. 4, be considered a single field known as the Waskom (Haynesville) Field. This interval includes the entire Bossier and Haynesville shales and is located between the base of the Cotton Valley sands and the top of the Louann salt formations.
5. Samson proposes that the same Field Rules that currently exist for the Waskom (Cotton Valley) Field be adopted for the Waskom (Haynesville) Field. These rules provide for 467'-933' well spacing, no minimum spacing requirement between horizontal and vertical wells and 640 acre gas units with optional 40 acre density.
6. A spacing rule which utilizes "take-points" in a horizontal well for the determination of distances to lease lines and between wells will prevent waste and will not harm correlative rights.
  - a. The Bossier and Haynesville are shale formations and are not commercially productive unless fracture-stimulated.
  - b. A take-point in a horizontal well in this field may be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
  - c. Adoption of the proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line.
  - d. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
7. Allowing off-lease penetration points, after notice to mineral owners of the offsite tract, will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells.
8. The proposed "stacked lateral" rule for the Waskom (Haynesville) Field will allow stacked horizontal laterals within the Bossier and Haynesville shale correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes.
9. For purposes of assignment of additional acreage pursuant to Rule 86, the distance between the first and last take-point in a horizontal well should be

**OIL AND GAS DOCKET NO. 06-0260774**

used.

10. Allocation based on 95% deliverability and 5% per well will protect correlative rights. Suspending the allocation formula is appropriate, as there is a 100% market for all the gas produced.

**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. Adopting Field Rules for the Waskom (Haynesville) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

**RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission adopt Field Rules for the Waskom (Haynesville) Field as proposed by Samson.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner