

OIL AND GAS DOCKET NO. 06-0230602

**THE APPLICATION OF SAMSON LONE STAR L.P. FOR PERMANENT FIELD RULES
IN THE CARTHAGE, NORTH (COTTON VALLEY) FIELD, HARRISON AND PANOLA
COUNTIES, TEXAS**

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: February 4, 2002

Hearing held: March 13, 2002

Appearances

Gaye White

Raymond L. Taylor

Bruce Cone

Representing

Samson Lone Star L.P.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Samson Lone Star is seeking the following operating rules for the Carthage, North (Cotton Valley) Field:

1. Designated interval from 8449 to 9820 feet as shown on the log of the Fina Oil & Chemical Company Werner Saw Mill Gas Unit Lease Well No. 6;
2. allocation based on 95% on deliverability and 5% per well.

Field rules have never been adopted but the producing interval of the discovery well extended from 9730 to 9965' in the Sun Oil Company Blocker Heirs Gas Unit No. 1. Samson would also like the allocation formula to remain suspended.

DISCUSSION OF THE EVIDENCE

The Carthage, North (Cotton Valley) Field was discovered at a depth of 9730' in 1981, and has 62 wells in it. There are nine operators and Samson operates 23 of the wells. The discovery well for the field is about fifteen miles north of the recent activity that has greatly increased the number of wells. This application will expand the designated interval for the field to match the current drilling and completion techniques.

The discovery well, the Sun Oil Company Blocker Heirs GU Well No. 1 was completed only in the lowermost Taylor Sand of the Cotton Valley Formation, between about 9720' and 9980'. Subsequent wells have been perforated in the Taylor and in the upper Cotton Valley. The sandstones were deposited in packages, but the individual sand lenses tend to be small and discontinuous.

Individual wells in the Cotton Valley need to be perforated in several sands to be economic. Samson testified that the field was essentially dormant until 2000 because it was not economic to complete a well only in the Taylor. The wells drilled since 2000 have been perforated in numerous sands and are expected to produce one to one and a half BCF. The Taylor Sand is somewhat more permeable than the rest of the Cotton Valley and Taylor completions produce 600 to 800 MMCF. Completions in upper Cotton Valley sandstones produce 400 to 600 MMCF. A well is economically successful if it produces 1.2 BCF or more.

The reservoir porosity in the Carthage, North (Cotton Valley) Field is 7 to 9%, water saturation is 30 to 50% and the permeability is very low. The drainage areas of the individual sands tend to be 30 to 40 acres in the upper Cotton Valley and 60 to 120 acres in the Taylor. Some of the lenses within the Cotton Valley produce water. The massive fracture stimulations necessary to produce these wells tends to put both gas-bearing and water-bearing sandstones in communication.

Other Cotton Valley fields such as Bethany, East have designated intervals that comprise the entire Cotton Valley Formation including the Taylor. Samson is requesting the designated field interval extend from 8449' to 9820' as shown on the log of the Fina Oil & Chemical Company Werner Saw Mill Gas Unit Lease Well No. 6. Because of the multiple lenticular reservoirs within the proposed designated interval, a two-factor allocation formula is required by statute. One based 5% per well and 95% on deliverability is close to Statewide Rules and will satisfy the statutory requirements. The field is otherwise on Statewide Rules.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the field and to all offset operators and unleased mineral interest owners to the discovery tract on May 9, 2001.
2. The Carthage, North (Cotton Valley) Field was discovered at a depth of 9730' in 1981.
3. Samson operates 23 of the wells of the 62 wells in the field and most of the development has occurred since 2000.
4. The discovery well, Sun Oil Company Blocker Heirs GU Well No. 1 was completed only in the Taylor Sand, the lowermost sandstone of the Cotton Valley Formation.
5. The recent development wells are about 15 miles south of the discovery well and are perforated in the Taylor and upper Cotton Valley sandstones.
6. The Cotton Valley contains multiple, lenticular reservoirs and it is not economic to complete in a single sandstone lens at a time.
7. The entire Cotton Valley Formation is productive and extends from 8449 feet to 9820 feet, as shown on the log of the Fina Oil & Chemical Company Werner Saw Mill Gas Unit Lease Well No. 6.
8. A two-factor allocation formula is necessary for statutory reasons due to the multiple reservoirs within the designated interval.
9. A formula based 5% per well and 95% on deliverability is close to the Statewide allocation

formula, and will satisfy the statutory requirements.

10. The Carthage, North (Cotton Valley) is otherwise on Statewide Rules.

CONCLUSIONS OF LAW

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoir.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested designated interval and two-factor allocation formula be adopted as field rules for the Carthage, North (Cotton Valley) Field, as per the attached order.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: April 9, 2002