

November 3, 2000

OIL AND GAS DOCKET NO. 04-0226351

THE APPLICATION OF KALER ENERGY CORP. TO AMEND FIELD RULES IN THE SCHMIDT (FRIO VICKSBURG) FIELD, HIDALGO COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: September 27, 2000

Hearing held: November 16, 2000

Appearances

Matthew Sjoberg
Dale Miller

Representing
Kaler Energy Corp.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

The existing rules for the Schmidt (Frio Vicksburg) Field were adopted June 1, 1965, under Docket No. 4-54,695, as amended, and are summarized as follows:

1. 933-1867 foot well spacing;
2. 320 acres with 10% tolerance; and
3. allocation based acreage; and
4. surface casing rule.

Kaler Energy seeks the following amended rules:

1. Designated interval from 8240 to 8800 feet as shown on the log of the Shell Oil Company and Atlantic Refining Company J. M. Schmidt Well No. 1;
2. 467-1200 foot well spacing;
3. 320 acre proration units with 80-acre optional units; and
4. allocation based on acreage.

DISCUSSION OF THE EVIDENCE

The Schmidt (Frio Vicksburg) Field was discovered in 1962, and has had 12 wells completed in it at one time or another. There are two active wells operated by Shell Western E&P, three new wells completed by Kaler and three shut-in wells. One of Kaler's new wells encountered near virgin pressure despite being only a half mile from an older well. The other two Kaler wells were also drilled near depleted wells but their bottom-hole pressures were only partially depleted. The new wells show that there are still reserves left in the field and Kaler believes that infill drilling can significantly increase the recovery from this field.

Cumulative production from the field is 27 BCF and 88,000 barrels of condensate and individual wells have produced as much as 8.3 BCF. Field wide, the water cut is now about 71% of production. The original reservoir pressure was 5771 psig and the reservoir permeability is 1.05 md. The average porosity is 19%, water saturation equals 45% and the gas recovery factor is assumed to be 70%. The recoverable gas in place is estimated to be 1281 MCF per acre-foot, and the recoverable gas underneath 80 acres is therefor 2.87 BCF.

The calculated AOF rate from Kaler's first well, the E.E. Guerra "A" Well No. 1, was 8863 MCF per day and the bottom-hole pressure was 5698 psi. This well produced 255 MMCF between April and August, 2000. Kaler's E.E. Guerra Well No. 1C reported an AOF of 3363 MCF/D and its bottom-hole pressure was 3711 psi. This well produced 11 MMCF during its first three months on production. Kaler's third well, the Guerra No. 3, is not yet on production but its AOF was 2513 MCF/D and bottom-hole pressure was 4913 psi.

The drainage areas of the depleted wells range from 5 to 99 acres, and the projected drainage areas of the two active Shell wells are 237 and 234 acres respectively. Production from the older wells declined about 24% annually. Using this decline rate, the ultimate drainage areas of Kaler's first two wells are calculated to be 59 and 5 acres.

The field rules are old enough that no designated interval has been adopted. Kaler proposed that the interval from 8240 feet to 8800 feet in the Shell Oil/Atlantic Refining Co. J.M. Schmidt Lease Well No. 1 be used as the correlative interval for the field. The J.M. Schmidt Lease Well No. 1 was the discovery well for the field in 1962, and its perforations were from 8722 to 8730 feet. Well spacing of 467 feet from lease lines and 1200 feet between wells will facilitate drilling infill wells between the existing wells. The surface casing rule is no longer in effect. Allocation based on acreage will protect correlative rights and the allocation rule does not need to be amended.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the Schmidt (Frio Vicksburg) Field on October 18, 2000.
2. The Schmidt (Frio Vicksburg) Field was discovered in 1962, and has produced 27 BCF and 88,000 barrels of condensate to date.
3. The field has two active Shell wells, three shut-in wells and three new wells drilled by Kaler.
4. The original reservoir pressure was 5771 psi.

5. Kaler's first well encountered reservoir pressure of 5698 psi, and its two subsequent wells encountered bottom-hole pressures of 3711 and 4913 psi, respectively.
6. The AOF values determined for these three new wells were 8863 MCF, 3363 MCF and 2513 MCF per day respectively.
7. The interval between 8240 and 8800 feet on the log of the discovery well, the Shell Oil & Atlantic Richfield J.M. Schmidt Well No. 1, contains all of the productive sands in the Schmidt (Frio Vicksburg) Field.
8. Infill wells, drilled on optional 80-acre gas proration units, will be necessary to completely drain the reserves from this field.
 - a. The estimated ultimate drainage areas of Shell's active wells are 237 and 234 acres.
 - b. The estimated ultimate drainage areas of Kaler's two producing wells are calculated to be 5 and 59 acres.
 - c. The depleted wells drained between 5 and 99 acres.
9. Well-spacing of 467-1200 feet will allow infill wells to be drilled or recompleted between the existing wells.

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 amendments to the field rules for the Schmidt (Frio Vicksburg) Field will prevent waste, protect correlative rights within the field, and provide for orderly development of the field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the existing rules for the Schmidt (Frio Vicksburg) Field be amended as requested.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission action: December 5, 2000.

Exhibits

1. Location map
2. Gas proration schedule
3. Prior orders
4. Well completion tabulation
5. Production history by well
6. Decline curves
7. Monthly production from Kaler wells
8. Graph of monthly production
9. Log
10. Volumetric calculations
11. Drainage areas
12. Reservoir data sheet
13. Waiver from Shell