

OIL AND GAS DOCKET NO. 03-0231131

THE APPLICATION OF SMITH ENERGY 1986A PARTNERSHIP FOR INCREASED GAS-OIL RATIO AUTHORITY FOR ITS STEWART MACO /A/ LEASE, WELL NO. 4, GILLOCK (BIG GAS) FIELD, GALVESTON COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: April 10, 2002

Hearing held: June 24, 2002

Proposal for Decision issued: December 11, 2002

Appearances

J.M. Cutler	Representing Smith Energy 1986A Partnership
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EXAMINER'S REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Smith Energy 1986A Partnership ("Smith") wants to produce its Stewart Maco /A/ Lease Well No. 4, Gillock (Big Gas) Field, Galveston County, Texas, under increased gas-oil ratio authority, with a daily gas limit of 350 MCF. Smith also requests that the overproduction for this well be canceled. The examiner recommends the application be denied.

DISCUSSION OF THE EVIDENCE

The Gillock (Big Gas) Field is a largely depleted oil field. Most of the wells have been plugged due to high water production. The oil proration schedule for June 2002 shows four operators and five leases. Only three of the operators have active wells. KCS Resources has one well with a potential of 2 BOPD. Tri-Union Development Corp. has four active wells that have been producing 3000 barrels of oil and 2000 MCF per month. This lease has recently had gas lift installed, which increased the oil production from 1500 BO/month.

Smith has two leases, each with one well still on production. There are eight inactive wells on the Stewart Maco /A/ Lease, in addition to Well No. 4. Well No. 4 has a potential of 6.2 BOPD at a gas/oil ratio of 46,935 cubic feet per barrel. Smith's well on the other lease has a potential of 5 BOPD and a gas/oil ratio of 1098 cubic feet per barrel.

The top allowable for wells in this field is 60 BOPD and 240 MCF/D. Well No. 4's oil allowable is penalized to 5 BOPD due to its high gas/oil ratio. The subject well's perforations are from 8226' to 8252'. At the time of the hearing, the well had 179 barrels and 5880 MCF of overproduction.

The well was step-rate tested between May 2 and June 1, 2002. On the smallest choke of

24/64th inches, daily production averaged 6 barrels oil and 234 MCF, for a gas/oil ratio of 38,208 cubic feet per barrel. On larger choke sizes, the producing rates were erratic and did not show consistent trends. The highest average gas/oil ratio was 52,222 cubic feet per barrel, which occurred when the well was produced on a 34/64th inch choke. The producing rates on this size choke were the closest to the requested daily gas limit of 350 MCF, averaging 5.6 barrels of oil and 329 MCF per day. The results of the daily tests are shown below:

24/64th inch	6.0 BO	89% water cut	234 MCF/D	38,208 cu.ft/bbl
30/64th inch	5.9	92%	246	41,484
32/64	6.2	92%	252	40,645
34/64	5.6	92%	329	52,222
40/64	6.5	93%	252	38,829

On July 8, 2002, the examiner informed Smith that its application would not be recommended for approval based on the evidence submitted. No response has been received from the applicant. Commission records show that a severance was issued for this lease on July 23, 2002, due to overproduction. If Smith had shut Well No. 4 in at the time the lease was severed, this well would have already made up the overproduction.

However, during August, 2002, the well produced 7300 MCF and 168 BO, and during September production was 7320 MCF and 204 BO. During the severance, the well's natural production decline has absorbed most of the gas overproduction though the oil overproduction has increased somewhat. As on October 1, the subject well has overproduction of 264 barrels and 184 MCF.

EXAMINER'S OPINION

The examiner believes that the step rate test clearly shows that reservoir energy will be wasted by producing the Maco Stewart "A" Lease Well No. 4 at an average rate of 350 MCF per day. The Tex. Nat. Res. Code §86.012(a) defines the term "waste" to include, *inter alia*, the operation "of an oil well or wells with an inefficient gas-oil ratio." The gas-oil ratio during the step-rate test for the subject well showed that the most efficient rate was about the same as the allowable of 240 MCF/D. The least efficient rate (highest gas/oil ratio at 52,222 MCF per barrel of oil) occurred near the requested daily gas rate of 350 MCF. This gas/oil ratio is 37% greater than the lowest tested gas/oil ratio. The examiner believes that Smith's request would cause waste and should therefore be denied.

Statewide Rule 52(b) states in part:

Production and runs from a lease during the monthly allowable period shall not exceed 105% of the monthly allowable for the well or wells on the lease. However, the volume of oil that is produced and removed from the producing property as tolerance production shall be treated as overproduction and overruns shall be made up during the next succeeding month.

The Stewart Maco /A/ Lease Well No. 4, the only well on the lease, has had oil overproduction for the

last 15 months. The proration schedule shows that all produced oil has been removed from the lease each month by pipeline. Each of the last nine months, the lease has produced more than 105% of the monthly allowable. Not only were overruns not made up during any next succeeding month, the amount of oil overproduction has increased each month for the last 9 months.

Statewide Rule 52(b)(f)(6) states that:

In the event that the monthly gas production of the lease or unit exceeds the permissible monthly lease gas limit, the volume of gas in excess of the lease gas limit shall be considered over-production and must be made up by underproduction of the lease gas limit. Whenever the overproduced amount equals the next month's lease gas limit the over-produced amount shall immediately be reduced to zero by shutting in the lease or by other means acceptable to the Commission.

The overproduction of the Stewart Maco /A/ Lease Well No. 4 has not exceeded the next month's gas limit. The applicant is required to make up overproduction but there appears to be no time limit. Well No. 4 has had gas overproduction for the last 13 months.

The amounts of overproduction for this lease are quite small, however violations for this length of time should be corrected to encourage general compliance with the rules.

FINDINGS OF FACT

1. Notice of this hearing was issued to the operators of record in the Gillock (Big Gas) Field on April 19, 2002.
2. The Gillock (Big Gas) Field was discovered in 1951, and is a largely depleted oil field.
3. The oil proration schedule for November, 2002, shows three operators with active wells and five leases.
4. The Smith Energy 1986A Partnership ("Smith") Well No. 4 was completed in 1968, and is the only active well on the Stewart Maco /A/ Lease.
5. The subject well has a potential of 6.2 BOPD, at a gas/oil ratio of 46,935 cubic feet per barrel.
6. The top allowable for wells in this field is 60 BOPD and 240 MCF/D, and the subject well's oil allowable is penalized to 5 BOPD due to the high gas/oil ratio.
7. As of June 1, 2002, Well No. 4 had 179 barrels and 5880 MCF of overproduction.
8. Smith's Well No. 4 was step-rate tested between May 2 and June 1, 2002, and the test results show that the well produces more efficiently at the allowable rate than at the requested increased daily gas rate.

- a. The most efficient production occurred when the well was produced on the smallest choke. On a choke of 24/64th inches, daily production averaged 6 barrels oil and 234 MCF, for a gas/oil ratio of 38,208 cubic feet per barrel.
 - b. The least efficient production occurred when the well was produced closest to the requested daily gas rate of 350 MCF/D. On a 34/64th inch choke, the well averaged 5.6 barrels of oil and 329 MCF per day, for a gas/oil ratio of 52,222 cubic feet per barrel.
9. Commission records indicate a severance was issued for the Stewart Maco /A/ Lease on July 23, 2002, due to overproduction.
 10. Well No. 4 produced 7300 MCF and 168 BO during August and 7320 MCF and 204 BO during September, 2002.
 11. As of October 1, 2002, overproduction indicated for Smith's Stewart Maco /A/ Lease Well No. 4 is 264 barrels of oil and 184 MCF of gas.

CONCLUSIONS OF LAW

1. Proper notice was given to all necessary parties as required by Statewide Rule 46(c) [Tex. R.R. Comm'n, 16 TEX. ADMIN. CODE § 3.46(c)] and other applicable statutory and regulatory provisions.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. Allowing the Smith Energy 1986A Partnership Stewart Maco /A/ Lease Well No. 4 to produce at a daily gas rate of 350 MCF will cause waste.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the request of Smith Energy 1986A Partnership to produce its Stewart Maco /A/ Lease Well No. 4 in the Gillock (Big Gas) Field at a daily gas rate of 350 MCF be denied.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action _____

30/64th inch	5.93 BO	92% WC	246 MCF/D	41,484 cu.ft/BO
24/64	6.0	89%	234	38,208
40/64	6.5	93%	252	38,829
32/64	6.2	92%	252	40,645
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