

OIL AND GAS DOCKET NO. 03-0232124

THE APPLICATION OF MILESTONE OPERATING, INC. FOR FIELD RULES IN THE LOVELLS LAKE (FRIO HACKBERRY 9000) FIELD, JEFFERSON COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: August 2, 2002
Hearing held: August 28, 2002

Appearances

	Representing
Robert E. Dreyling	Milestone Operating
David LeBlanc	

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Milestone Operating is seeking the following field rules:

1. Designated interval between 8970' as shown on the log of the Humble Oil & Refining Co. Jefferson Land Co. Lease Well No. 45 and 9352' as shown on the log of the Humble Oil & Refining Co. Jefferson Land Co. Lease Well No. 40;
2. 467-933 foot well spacing;
3. 320 acre gas proration units with 10% tolerance and a maximum diagonal of 6500'; and
4. allocation based on acreage.

DISCUSSION OF THE EVIDENCE

Six wells were completed in the Lovells Lake (Frio Hackberry 9000) Field between 1948 and 1967. Their cumulative production was 62.5 BCF and 1,500,000 BC, and the field has been inactive since 1967.

The Jefferson Land Company Well No. 45 was originally completed in the subject field in 1956, with perforations between 9004' and 9026'. Its daily test rate during 1957 was 9080 MCF, 289 BC and 51 BW. By 1964, Well No. 45 had watered out in the subject field, after producing 9.2 BCF and 193,000 BC. The well was plugged back to a shallower field.

Milestone recompleted its Well No. 45 and tested it on August 4, 2002, at a daily rate of 2104 MCF (with 47 BC and no water) with only 60 psi of pressure drawdown. The current producing interval is shallower than the original perforations. The wellbore was side-tracked and is now open hole between 8971' and 8978'. The current interval is separated from the original perforations in Well No. 45 by a

20' shaly interval. This current producing sandstone open in Well No. 45 is also present on the log of the discovery well, the Jefferson Land Co. A/C No. 1 Lease Well No. 40, but appears to be wet.

The reservoir is in coarse-grained sandstones interbedded with shale. The trap is stratigraphic but associated with an anticline. There are numerous fields on this structure, almost all with the requested spacing of 467-933'. The average porosity is 30%, the water saturation is 40% and the permeability is 217 md. The discovery well had 37' of net pay and produced 40.6 BCF and 975,000 BC before being abandoned in 1966. Volumetric calculations indicate there were 41.4 BCF underneath 320 acres around the discovery well.

When the field was discovered, the reservoir had a strong water drive and was overpressured at 8040 psi. Well No. 45 was drilled 2400' from the nearest well at the time, nine years after the field was discovered. The bottomhole pressure of Well No. 45 showed some pressure depletion as it was measured at 6912 psi in 1956. When Well No. 45 was again returned to the Lovells Lake (Frio Hackberry 9000) Field in 2002, the bottomhole pressure in the new interval was still 6962 psi, indicating partial depletion of this sandstone. The production from the new interval completed in Well No. 45 is waterfree, indicating to Milestone that there are still reserves in some of the sandstones of the subject field. The applicant intends to drill more wells.

The top of the proposed designated interval is at 8970' in Well No. 45, but this well was not drilled all the way through the Frio Hackberry. Milestone proposes using the log of the discovery well to show that the base of the Hackberry is at 9352'.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the Lovells Lake (Frio Hackberry 9000) Field and to all offset operators to the discovery tract on August 6, 2002.
2. The Lovells Lake (Frio Hackberry 9000) Field began producing in 1948 and produced 62.5 BCF and 1,500,000 BC before being abandoned in 1967.
3. Well No. 45 was first completed in the subject field in 1956, with perforations between 9004' and 9026' that watered out in 1964.
4. Well No. 45 was recompleted back to the subject field, though in a slightly shallower sandstone. It was tested August 4, 2002, at a daily rate of 2104 MCF (with 47 BC and no water) with only 60 psi of pressure drawdown.
5. The current producing interval in Well No. 45 is open hole, in a side-track between 8971' and 8978'.
6. Proration units of 320 acres are appropriate for permanent field rules.
 - a. The discovery well, the Jefferson Land Co. A/C No. 1 Lease Well No. 40, produced 40.6 BCF and 975,000 BC before being abandoned in 1966. Its original pressure was 8040 psi.
 - b. Volumetric calculations indicate there were 41.4 BCF underneath 320 acres around the discovery well.

- c. Well No. 45 began producing 9 years after the discovery well, 2400' from the nearest producing well.
 - d. When Well No. 45 was first completed, its bottomhole pressure was somewhat depleted at 6912 psi.
 - e. The bottomhole pressure in Well No. 45 in 2002, was still 6962 psi.
- 7. Well spacing of 467-933' is common to the many other wells on this structure and will facilitate well recompletions between fields.
 - 8. Allocation based on acreage will protect correlative rights.
 - 9. The top of the producing Hackberry interval is shown at 8970' in Well No. 45, and the base is shown at 9352' in the log of the discovery well.

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 field rules for the Lovells Lake (Frio Hackberry 9000) Field be approved, as per the attached order.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: September 20, 2002