

August 24, 1995

OIL AND GAS DOCKET NO. 04-0209449

THE APPLICATION OF W.C. MILLER OPERATING COMPANY TO CONSIDER PERMANENT FIELD RULES FOR THE NEELY, EAST (600-A-); NEELY, EAST (600-B-); NEELY, EAST (700); NEELY, EAST (1130); AND NEELY, EAST (1150) FIELDS, DUVAL COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural History

Application filed: July 19, 1995

Hearing held: August 18, 1995

Appearances

Gene Day

Representing

W.C. Miller Operating Co.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

W.C. Miller, the only operator in the subject fields, is seeking field rules to allow infill drilling. The proposed rules for all five fields are as follows:

1. Designated interval as appropriate to each productive sand;
2. 233-330' well spacing;
3. 5 acre oil units with 2½ acre tolerance;
4. allocation based on acreage.

DISCUSSION OF THE EVIDENCE

All of these fields were discovered in the 1960's and are operated by one operator on one 155 acre lease. There are 13 existing wells and the operator plans to drill four additional wells. All of the productive sands are narrow channel sands and the operator plans to put new wells close to existing wells. The wells will be permitted for the most likely undrained sand but the operator wants

the flexibility to recomplete the wells to whatever sand is most productive at a time. At the hearing the applicant requested smaller spacing than the standard 233-330' spacing for 5 acre units.

The D.C.R.C. Well No. 3 log shows the three upper productive sands, with the 600-B- Sand between 544 and 554', the 600-B- sand between 560 and 568', and the 700' sand between 649 and 690'. The log of the Duval County Ranch Co. Well No. 13 shows the two deeper sands between 1114 and 1130' and between 1145 and 1161'.

The properties of the productive sands are also very similar with the average porosity of the upper three sands being 32% and of the lower two sands being 33%. The water saturation is 32% and the ultimate recovery is estimated to be 43% because of the strong water drives. The net pay in the various sands varies from 8 to 17' and the average recovery per well varies between 32,000 and 37,000 BO per well in the upper four sands. The lowest sand has an estimated ultimate recovery of 76,700 BO per well because this is the thickest sand. Each sand has had three producing wells and the wells have produced about 80% of their expected cumulative recoveries. It is not possible to see much decline in individual well performance because of the water drive but a decline curve of all wells in each sand plotted together shows a general decline as wells water out over time.

The ultimate drainage areas for the five sands are based on volumetric calculations for each sand. The average drainage areas for the three wells in each sand are 3, 4, 2, 2, and 4.5 acres respectively. The oil is 21° API and current production is 2 to 7 BO per day per well with water cuts that range from 5% to 90%.

FINDINGS OF FACT

1. Notice of this hearing was given on July 31, 1995, to the only operator in all five fields.
2. These five fields were discovered in the 1960's and are about 80% depleted.
3. Infill wells must be targeted for one or two narrow channel sands and recompleted to other productive sands if the original target is depleted or missed.
4. Wells spacing of 100' between wells and to the lease lines will allow maximum flexibility in these fields which are all located on one lease.
5. Each field has three active completions in a total of 13 wellbores, and an additional four wellbores are planned.
6. The 600-A- sand is between 544 and 554' in the type log of the D.C.R.C. No. 3 and is expected to ultimately produce an average of 32,000 BO per well and to drain 2 acres per well.
7. The 600-B- sand is between 560 and 568' in the type log of the D.C.R.C. No. 3 and

is expected to ultimately produce an average of 33,300 BO per well and to drain 4 acres per well.

8. The 700 sand is between 649 and 690' in the type log of the D.C.R.C. No. 3 and is expected to ultimately produce an average of 36,700 BO per well and to drain 2 acres per well.
9. The 1130 sand is between 1114 and 1130' in the type log of the Duval County Ranch Co. No. 13 and is expected to ultimately produce 34,300 BO per well and to drain 2 acres per well.
10. The 1150 sand is between 12145 and 1161' in the type log of the Duval County Ranch Co. No. 13 and is expected to ultimately produce an average of 76,700 BO per well and to drain 4.5 acres per well.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Granting the requested permanent field rules will prevent waste, protect correlative rights and promote an orderly development of the five reservoirs.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested field rules be granted with the smaller well spacing of 100' between wells and 100' to lease lines.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action _____