

THE APPLICATION OF MEXTEX OPERATING COMPANY TO AMEND FIELD RULES FOR THE FORT TERRETT RANCH (CANYON 2800) FIELD, SUTTON COUNTY, TEXAS

Heard by: Andres J. Trevino, P.E., Technical Examiner

Hearing Date: October 27, 2011

Appearances:

Renn Rothrock
Greg Wiggins

Representing:

Mextex Operating Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

This is the unprotested application of Mextex Operating Company to amend the field rules as adopted in Oil and Gas Docket No. 7C-58,175, issued effective March 7, 1968, for the Fort Terrett Ranch (Canyon 2800) Field that currently provide for the following:

1. 660'-1,320' well spacing;
2. 80 acre oil units with 40 acre tolerance, maximum diagonal of 3,250 feet;
3. Allocation based on 100% per acreage MER allowable of 135 BOPD per well.
4. Surface casing set at 350 feet or 20 feet below the Cretaceous, whichever is deeper and longstring cemented at least 600 feet above the shoe.

Mextex Operating Company requests that field rules be adopted as follows :

1. Designation of the field as the correlative interval from 2,365 feet to 2,704 feet as shown on the log of the FTR Unit No. 212B;
2. 330'-660' well spacing;
3. 40 acre density, optional 20 acre units with 10 acre tolerance;
4. Allocation based on 100% per acreage MER allowable of 135 BOPD per well.

This application was unopposed and the examiner recommends that the field rules for the Fort Terrett Ranch (Canyon 2800) Field be amended as requested.

DISCUSSION OF EVIDENCE

The Fort Terrett Ranch (Canyon 2800) Field was discovered in 1966 at a depth of approximately 2,816 feet. Cumulative production from the field is approximately 3,352,528 BO. Currently there are 15 active oil wells and 5 shut-in wells and one water injection well in the field. Mextex Operating is the only operator in the field.

The Fort Terrett Ranch (Canyon 2800) Field is a fractured limestone generally dipping from the southeast to the northwest with a gas oil contact on the east side and an oil water contact to the west side. A total of 29 wells were completed in the oil zone and 2 wells were completed in the gas zone. The original bottom hole pressure was 940 psi. The reservoir is supported by a moderate waterdrive. The wells were originally drilled on 80 acre density.

The recent drilling of six infill wells generated updated reservoir data that expanded the recoverable oil in place in the field from 6.75 MMBO to 7.7 MMBO. The new data increased productive acreage from 2,400 to 2,544 acres and the weighted average pay thickness was increased from 20 to 21.5 feet. The six infill wells drilled also encountered near virgin bottom hole pressures of 900 to 920 psi and initial potential production similar to earlier wells. The wells had initial potentials between 30 to 70 BOPD. Mextex Operating believes the high potentials and the near virgin pressures encountered indicate that the existing wells are not draining 80 acres. Mextex Operating calculated that a well draining 80 acres should recover 350,000 BO. The estimated ultimate recoveries from all wells will average about 145,000 BO, indicating the average drainage of 33 acres.

Mextex Operating requests a 40 acre density with optional 20 acre units and 330/660' well spacing for the Fort Terrett Ranch (Canyon 2800) Field so that it can place wells in optimum locations within the thicker portions of the reservoir to efficiently sweep and produce the remaining hydrocarbons. Mextex Operating believes an estimated 2.1 to 3.1 MMBO remain in place in the field that could be recovered if Mextex Operating drills an additional 19 oil wells.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. Special field rules for the Fort Terrett Ranch (Canyon 2800) Field were adopted in Oil and Gas Docket No. 7C-58,175, issued effective March 7, 1968, provide for 660'-1,320' well spacing, 80 acre oil units and allocation based on 100% acreage.

3. The Fort Terrett Ranch (Canyon 2800) Field was discovered in 1966 and cumulative production from the field is approximately 3,352,528 BO as of September, 2011.
4. The Fort Terrett Ranch (Canyon 2800) Field produces from a fractured limestone generally dipping from the southeast to the northwest with a gas oil contact on the east side and an oil water contact to the west side.
5. A total of 29 wells were completed in the oil zone and 2 wells were completed in the gas zone. The original bottom hole pressure was 940 psi. The reservoir is supported by a moderate waterdrive.
6. Six recently drilled wells with the high potentials and the near virgin pressures encountered indicate that the existing wells are not draining 80 acres.
7. Mextex Operating calculated that a well should recover 350,000 BO if it was draining 80 acres. The estimated ultimate recoveries from all wells will average about 145,000 BO, indicating the average drainage of 33 acres.
8. Development of the field on 40 acre units with optional 20 acre density will allow the flexible placement of well locations within the thicker portions of the reservoir to enhance sweep efficiency to maximize recovery from the field.
9. The proposed 330'/660' well spacing will accommodate development on 20 acres.
10. Mextex Operating believes an estimated 2.1 to 3.1 MMBO remain in place in the field that could be recovered if Mextex Operating drills an additional 19 oil wells.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Adopting field rules for the Fort Terrett Ranch (Canyon 2800) Field is necessary to prevent waste and protect correlative rights.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends that field rules for the Fort Terrett Ranch (Canyon 2800) Field be amended to provide for a correlative interval, 40 acre units with optional 20 acre density and 660'/330 well spacing.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner