

October 3, 2007

OIL AND GAS DOCKET NO. 10-0253238

APPLICATION OF FOREST OIL CORPORATION FOR A NEW FIELD TO BE KNOWN AS THE FRYE RANCH (CONSOLIDATED) FIELD AND ADOPT FIELD RULES FOR THE FRYE RANCH (CONSOLIDATED) FIELD, WHEELER COUNTY, TEXAS

HEARD BY: Thomas H. Richter, P.E.

DATE OF HEARING: September 13, 2007

APPEARANCES:

Doug Dashiell, attorney

Mimi Winetroub

Sandra Bolz Buch, attorney

REPRESENTING:

Forest Oil Corporation

Linn Operating

EXAMINER'S REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

This is the unopposed application of Forest Oil to rename the Frye Ranch (Granite Wash "A") Field because of expanding the current designated interval for that field. Because the expanded interval will in effect combine numerous intervals, the proposed field name will be more representative of what the field consists of. It is also proposed that the following special field rules be adopted:

1. The entire combined correlative interval from 11,754' to 15,431' as shown on the log of the Union Texas Petroleum (now Dominion Oklahoma Texas E&P), Ona Black Lease Well No. 1 (API No. 42-483-30780), Wheeler County, Texas, should be designated as the Frye Ranch (Consolidated) Field.
2. Minimum well spacing of 467'/933' (leaseline/between well);
3. 320 acre density and a maximum diagonal 6000' and optional 40 acre density and a maximum diagonal of 2100'; and
4. An allocation formula based on 95% deliverability and 5% per well and suspension of the allocation formula.

Through negotiations with Linn Operating prior to the hearing, Forest Oil requested that the correlative interval as published in the Notice of Hearing be amended from 11,383' - 15,431' to a smaller interval from 11,754' - 15,431'. Forest Oil also proposed that the field be designated as a permanent gas field i.e. any current well or completed in the future is/will be designated as a gas well. The examiner recommends approval of the application except for the permanent gas field designation.

DISCUSSION OF THE EVIDENCE

The Frye Ranch (Granite Wash -A-) Field was discovered May 16, 1986 at 12,018' subsurface depth. The first gas completion (setting up a gas field) was February 11, 1989. Special field rules were adopted by Order 10-93,078, effective May 22, 1989, and amended by Order 10-95,085, effective February 11, 1991 which provide for a designated interval from 11,942' to 12,044'; 933'/1867' minimum well spacing, proration unit density of 320 optional 160 acres and an allocation formula based on 100% acreage.

It is proposed that the entire combined correlative interval from 11,754' to 15,431' as shown on the log of the Union Texas Petroleum (now Dominion Oklahoma Texas E&P), Ona Black Lease Well No. 1 (API No. 42-483-30780), Wheeler County, Texas, should be designated as the Frye Ranch (Consolidated) Field. Expansion of the correlative interval is appropriate for completion purposes. The interval will encompass the Des Moines, Britt and Granite Wash Formations. The Granite Wash is the primary pay interval and is divided into six main zones. The trapping mechanism for all the reservoirs are stratigraphic and the productive capabilities is preserved porosity. The Des Moines and Britt intervals are not stand alone reservoirs. Well completions in the consolidated section will allow for timely completions in those zones where sands are present which in effect lowers the economic producing limit for all the zones and will increase the ultimate recovery from each member. Many of the existing wells have been perforated from as high as $\pm 12,000'$ to $\pm 15,600'$.

Proration unit density of 320 acres and optional 40 acres is necessary for the efficient and effective depletions of the reservoirs. Cumulative production for the Frye Ranch (Granite Wash -A) Field is 5.4 BCF of gas and 225.4 MBO. Currently, there are 27 producing wells in the field with an average daily rate of 300 MCFD and 4.6 BOPD per well. Volumetric and production decline analysis was performed on 12 wells. Estimated ultimate recoveries ranged from 480 MMCF to 2 BCF. Drainage areas ranged from 6 to 16 acres.

Minimum well spacing of 467'/933' (leaseline/between well) will provide uniform flexibility in locating wells in the subject field.

A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula for gas wells based on 95% deliverability and 5% acreage satisfies the requirement. The allocation formula should be suspended as there is 100% market for all the gas from the respective field.

Forest proposes that the subject field be classified as gas only. Forest believes that the subject field is a retrograde gas condensate reservoir. Fifteen of its wells that have been drilled since 2006 were initially classified as oil wells but were subsequently re-classified as gas wells. Using the Frye Lease Well No. 14-12, a production log was run on each of the five perforated intervals in the well. Using the equation of state, the mathematical phase behavior of the composition was

calculated for original reservoir conditions using the ideal gas law. The PVT behavior of the gas at surface conditions can be converted to reservoir conditions using published correlations. Gas analysis was taken from Frye Well No. 3-12 on February 12, 2007. Performing the above and converting to reservoir conditions, the resulting formation volume factor is 0.0036 reservoir cubic feet per standard cubic feet. The calculation shows that the z-factor for the gas at reservoir conditions is 1.03 which is close to behaving like an ideal gas and is therefore also a gas at reservoir conditions.

The examiner took official notice of the Examiner's Report and Recommendation for Docket No. 10-95,085, hearing held December 14, 1990 and the Commission Oil Proration Schedule for the month of September 2007.

Subsequent to the hearing, Forest Oil withdrew its request for permanent gas field designation. It was requested that the field be designated as Associated-Prorated and the allocation formula be suspended.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The Frye Ranch (Granite Wash -A-) Field was discovered May 16, 1986 at 12,018' subsurface depth.
 - a. The first gas completion (setting up a gas field) was February 11, 1989.
 - b. Special field rules were adopted by Order 10-93,078, effective May 22, 1989, and amended by Order 10-95,085, effective February 11, 1991 which provide for a designated interval from 11,942' to 12,044'; 933'/1867' minimum well spacing, density of 320 optional 160 acres and an allocation formula based on 100% acreage.
4. The entire combined correlative interval from 11,754' to 15,431' as shown on the log of the Union Texas Petroleum (now Dominion Oklahoma Texas E&P), Ona Black Lease Well No. 1 (API No. 42-483-30780), Wheeler County, Texas, should be designated as the Frye Ranch (Consolidated) Field.
 - a. Expansion of the correlative interval is appropriate for completion purposes and encompass the Des Moines, Britt and Granite Wash Formations (the Granite Wash is the primary pay interval and is divided into six main zones).
 - b. The trapping mechanism for all the reservoirs are stratigraphic and the productive

capabilities is preserved porosity (the Des Moines and Britt intervals are not stand alone reservoirs).

- c. Well completions in the consolidated section will allow for timely completions in those zones where sands are present which in effect lowers the economic producing limit for all the zones and will increase the ultimate recovery from each member. Many of the existing wells have been perforated from as high as $\pm 12,000'$ to $\pm 15,600'$.
5. Proration unit density of 320 acres and optional 40 acres is necessary for the efficient and effective depletions of the reservoirs.
 - a. Cumulative production for the Frye Ranch (Granite Wash -A) Field is 5.4 BCF of gas and 225.4 MBO.
 - b. Currently there are 27 producing wells in the field with an average daily rate of 300 MCFD and 4.6 BOPD per well.
 - c. Volumetric and production decline analysis was performed on 12 wells.
 - d. Estimated ultimate recoveries ranged from 480 MMCF to 2 BCF and drainage areas ranged from 6 to 16 acres.
 6. Minimum well spacing of 467'/933' (lease/line/between well) will provide uniform flexibility in locating wells in the subject field.
 7. A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula for gas wells based on 95% deliverability and 5% acreage satisfies this requirement.
 8. The allocation formula should be suspended as there is 100% market for all the gas from the respective field.
 9. The field should be designated as Associated-Prorated for reservoir designation purposes.

CONCLUSIONS OF LAW

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this

matter.

3. Consideration for consolidation of the intervals and field rules and appropriate actions is a matter within the Commission jurisdiction.
4. Adoption of the proposed field and adoption of the proposed field rules will prevent waste, foster conservation and protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed field and field rules for the Frye Ranch (Consolidated) Field.

Respectfully submitted,

Thomas H. Richter, P.E.
Technical Examiner
Office of General Counsel