

September 9, 2005

**OIL AND GAS DOCKET NO. 03-0243743**

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**APPLICATION OF FAMCOR OIL, INC. TO CONSOLIDATE VARIOUS FOSTER FIELDS INTO THE PROPOSED FOSTER (WILCOX CONS.) FIELD AND ADOPT FIELD RULES FOR THE FOSTER (WILCOX CONS.) FIELD, MONTGOMERY COUNTY, TEXAS**

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

**DATE OF HEARING:** August 31, 2005

**APPEARANCES:**

Tim George, Lawyer  
Scott Crump

**REPRESENTING:**

Famcor Oil, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**  
**STATEMENT OF THE CASE**

This is the unprotested application of Famcor Oil, Inc. for the Commission to consider consolidating the Foster (Wilcox, Lower 11350), Foster (Wilcox C), Foster (Wilcox D), Foster South (Wilcox "C"), Foster (Wilcox 8983), Foster (Wilcox D, South) and Wildcat Fields into a new field designation to be known as the Foster (Wilcox Cons.) Field. It is proposed that the following special field rules be adopted:

1. The entire combined correlative interval from 7,610' to 11,850' as shown on the Dual Induction log of the Shield Resources, Inc., Foster Lease Well No. 5 (API No. 42-339-30734), Jose M. De La Garza Survey, A-15, Montgomery County, Texas, should be designated as the Foster (Wilcox Cons.) Field.
2. Minimum well spacing of 467'/0' (leaseline/between well);
3. 40 acre proration unit density with 10% tolerance and maximum diagonal of 2100';
4. An allocation formula based on 95% deliverability and 5% per well. It is further requested that the allocation formula be suspended.

The examiner recommends approval of the application.

### DISCUSSION OF THE EVIDENCE

The Foster (Wilcox, Lower 11350) was discovered in 1984 at 11,350' subsurface depth. The field is governed by Statewide Rules<sup>1</sup> and designated as Non-Associated. There are no wells in the field.

The Foster (Wilcox C) was discovered in 1985 at 9,930' subsurface depth. The field is governed by special field rules (Order No. 3-86,474 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated. There are no wells in the field. Cumulative field production is 929 MMCF of gas.

The Foster (Wilcox D) was discovered in 1985 at 10,127' subsurface depth. The field is governed by special field rules (Order No. 3-86,477 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated. There is one well in the field operated by Fancor Oil. Cumulative field production is 1.038 BCF of gas.

The Foster, South (Wilcox "C") was discovered in 1985 at 10,272' subsurface depth. The field is governed by special field rules (Order No. 3-86,477 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated. There are no wells in the field. Cumulative field production is 301 MMCF of gas.

The Foster (Wilcox 8983) was discovered in 1986 at 8,983' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated. There are no wells in the field. Cumulative field production is 1.064 BCF of gas.

The Foster (Wilcox D, South) was discovered in 1985 at 10,776' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated. There are no wells in the field. Cumulative field production is 29 MMCF of gas.

Consolidation of the subject fields into the proposed Foster (Wilcox Cons.) Field will provide for the recovery of reserves that otherwise would go unrecovered. The subject Wilcox reservoirs overlie one another. These are relatively mature fields that are in the latter stages of pressure depletion. The sands are no longer 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. Basic reservoir parameters are: average porosity of 24%, average water saturation of 65%, average permeability of 40 millidarcies, average gas gravity of .66 and condensate gravity of 52 degrees API. The entire combined correlative interval from 7,610' to

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<sup>1</sup> Special Field Rules rescinded by Order 3-86,477 effective December 1, 1985.

11,850' as shown on the Dual Induction log of the Shield Resources, Inc., Foster Lease Well No. 5 (API No. 42-339-30734), Jose M. De La Garza Survey, A-15, Montgomery County, Texas, should be designated as the Foster (Wilcox Cons.) Field.

Gas well proration units of 40 acres is necessary to provide for the effective and efficient depletion of the reservoir. Volumetric/production decline analysis were performed on three wells which calculated the following: Foster Est No. 5 [Foster (Wilcox C)] with estimated ultimate recovery (EUR) of 118 MMCF of gas and a drainage area of 16 acres. Foster Est No. 4 [Foster (Wilcox D)] with an EUR of 92.3 MMCF of gas and a drainage area of 21 acres. Foster Est No. 3 [Foster South (Wilcox "C")] with an EUR of 205.7 MMCF of gas and a drainage area of 72 acres.

Minimum well spacing of 467'0' (leaseline/between well) will provide uniform flexibility in locating wells in the subject consolidated field. No between well spacing is warranted because many of the wells as originally permitted were in different zones and may now be re-completed in all the zones.

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. Because the allocation formula is currently suspended in the respective fields (except the one field with no producing wells) it is proposed that the allocation formula be suspended in the consolidated field as there is a 100% market for all the produced gas.

### **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 Foster (Wilcox, Lower 11350) was discovered in 1984 at 11,350' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated.
4. The Foster (Wilcox C) was discovered in 1985 at 9,930' subsurface depth. The field is governed by special field rules (Order No. 3-86,474 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated.
5. The Foster (Wilcox D) was discovered in 1985 at 10,127' subsurface depth. The field is governed by special field rules (Order No. 3-86,477 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated.

6. The Foster, South (Wilcox "C") was discovered in 1985 at 10,272' subsurface depth. The field is governed by special field rules (Order No. 3-86,477 effective December 11, 1985) that provide for minimum wells spacing of 1320'/2640' (leaseline/between well), 640 acre density, an allocation formula based on 95% acreage and 5% deliverability and designated as Non-Associated.
7. The Foster (Wilcox 8983) was discovered in 1986 at 8,983' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated.
8. The Foster (Wilcox D, South) was discovered in 1985 at 10,776' subsurface depth. The field is governed by Statewide Rules and designated as Non-Associated.
9. Consolidation of the subject fields into the proposed Foster (Wilcox Cons.) Field will provide for the recovery of reserves that otherwise would go unrecovered.
  - a. These are relatively mature fields that are in the latter stages of pressure depletion and the sands are no longer stand alone reservoirs.
  - b. 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.
9. The entire combined correlative interval from 7,610' to 11,850' as shown on the Dual Induction log of the Shield Resources, Inc., Foster Lease Well No. 5 (API No. 42-339-30734), Jose M. De La Garza Survey, A-15, Montgomery County, Texas, should be designated as the Foster (Wilcox Cons.) Field.
9. Minimum well spacing of 467'/0' (leaseline/between well) will provide uniform flexibility in locating wells in the subject consolidated field. No between well spacing is warranted because many of the wells as originally permitted were in different zones and may now be re-completed in all the zones.
10. A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes.
  - a. The proposed two-factor allocation formula for gas wells based on 95% deliverability and 5% acreage satisfies this requirement.
  - b. Because the allocation formula is currently suspended in the respective fields (except the one field with no producing wells) it is proposed that the allocation formula be suspended in the consolidated field as there is a 100% market for all the produced gas.

**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 fields and field rules, a determination of the effectiveness of the rules and appropriate actions is a matter within the Commission jurisdiction.
4. Adoption of the proposed consolidation of fields 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 consolidation and field rules for the Foster (Wilcox Cons.) Field.

Respectfully submitted,

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