

June 29, 2005

**OIL AND GAS DOCKET NO. 05-0242836**

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**APPLICATION OF VALENCE OPERATING COMPANY TO CONSOLIDATE THE STEWARDS MILL (COTTON VALLEY LM), STEWARDS MILL (COTTON VALLEY SD), AND STEWARDS MILL (BOSSIER SD) FIELDS INTO THE PROPOSED STEWARDS MILL (CV CONSOLIDATED) FIELD AND ADOPT PERMANENT FIELD RULES FOR THE STEWARDS MILL (CV CONSOLIDATED) FIELD, FREESTONE COUNTY, TEXAS**

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

**DATE OF HEARING:** June 22, 2005

**APPEARANCES:**

David Gross, attorney  
Richard Johnston

**REPRESENTING:**

Valence Operating Company

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

This is the unprotested application of Valence Operating for the Commission to consider consolidating the Stewards Mill (Cotton Valley LM), Stewards Mill (Cotton Valley SD), and Stewards Mill (Bossier SD) Fields into a new field designation to be known as the Stewards Mill (CV Consolidated) Field. It is proposed that the following permanent special field rules be adopted:

1. The entire combined correlative interval from 9,630' to 11,850' as shown on the Welex Induction log of the Texas Oil & Gas, Stewards Mill Gas Unit 1 Lease Well No. 2, James James Survey, A-333, Freestone County, Texas, should be designated as the Stewards Mill (CV Consolidated) Field.
2. Minimum well spacing of 467'/1000' (lease line/between well),
3. 640 acre gas proration units with 10% tolerance and a maximum diagonal of 11,000'; and optional 40 acre density and a maximum diagonal of 2,100';
4. An allocation formula based on 5% per well and 95% deliverability. The allocation formula is currently suspended in the three subject field and it is proposed that the allocation formula be suspended in the proposed consolidated field.

**DISCUSSION OF THE EVIDENCE**

The Stewards Mill (Bossier SD) Field was discovered in 1981 at 11,276' subsurface depth. The field is governed by Statewide Rules and is classified as Non-Associated. The allocation formula was suspended in 2005. There are two operators in the field according to the June 2005 Commission Proration Schedule and 3 producing wells in the field with the highest producing rate of 157 MCFD. Cumulative gas production is 686.81 MMCF.

The Stewards Mill (Cotton Valley LM) Field was discovered in 1974 at 12,310' subsurface depth. The field is governed by Special field rules (Oil & Gas Docket No. 5-68,378 effective April 1, 1978) that provide for minimum well spacing of 660'/1320' (leaseline/between well), 640 acre gas proration unit density and optional 320 acre density, 100% acreage allocation formula and is classified as Non-Associated. The allocation formula was suspended in 1996. There are two operators in the field according to the June 2005 Commission Proration Schedule and 6 producing wells in the field with the highest producing rate of 330 MCFD. Cumulative gas production is 16,942.65 MMCF.

The Stewards Mill (Cotton Valley SD) Field was discovered in 1977 at 10,788' subsurface depth. The field is governed by Special field rules (Oil & Gas Docket No. 5-69,448, as amended, effective August 14, 1978) that provide for minimum well spacing of 660'/1320' (leaseline/between well), 640 acre gas proration unit density and optional 320 acre density, 100% acreage allocation formula and is classified as Non-Associated. The allocation formula was suspended in 2000. There are two operators in the field according to the June 2005 Commission Proration Schedule and 5 producing wells in the field with the highest producing rate of 693 MCFD. Cumulative gas production is 1,799.51 MMCF.

Consolidation of the subject fields for proration purposes will provide for the recovery of reserves that otherwise may go unrecovered. The producing formations are of the Cotton Valley sequence i.e. the sand, the shale and the lime. The Lime is the primary producer of the three intervals none of which are in natural communication. Many of the wells have been completed in at least two of the three fields over time. The entire combined correlative interval from 9,630' to 11,850' as shown on the Welex Induction log of the Texas Oil & Gas, Stewards Mill Gas Unit 1 Lease Well No. 2, James James Survey, A-333, Freestone County, Texas, should be designated as the Stewards Mill (CV Consolidated) Field. Basic reservoir parameters for the fields are: the Bossier Shale - porosity is 11-14%, water saturation is 20-27%, net pay 19-52'; the Lime - porosity is 4-8%, water saturation is 33-45%, net pay 9-94'; the Sand - porosity is 7%, water saturation is 35%, net pay 139'.

Proration units of 640 acres and optional 40 acre density is necessary to provide for the effective and efficient depletion of the reservoir. Drainage area calculations were performed on 13 wells that have produced or still producing from the subject zones. The drainage areas range from 28 acres to 563 acres.

Minimum well spacing of 467'/1000' (leaseline/between well) is necessary in re-completing

the existing wells as well as locating new wells. The effective drainage radius of a well is dependent on the producing formation development and thickness. Acreage is not a major factor in the reserves encountered by a wellbore.

The proposed two-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula based on 95% deliverability and 5% per well satisfies this requirement. The allocation formula is suspended in each of the subject fields. Consolidating the fields will not lessen the 100% market for the produced gas and therefore the allocation formula should 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 Stewards Mill (Bossier SD) Field was discovered in 1981 at 11,276' subsurface depth.
  - a. The field is governed by Statewide Rules and is classified as Non-Associated and the allocation formula was suspended in 2005.
  - b. There are two operators in the field according to the June 2005 Commission Proration Schedule and 3 producing wells.
4. The Stewards Mill (Cotton Valley LM) Field was discovered in 1974 at 12,310' subsurface depth.
  - a. The field is governed by Special field rules (Oil & Gas Docket No. 5-68,378 effective April 1, 1978) that provide for minimum well spacing of 660'/1320' (leaseline/between well), 640 acre gas proration unit density and optional 320 acre density, 100% acreage allocation formula and is classified as Non-Associated and the allocation formula was suspended in 1996.
  - b. There are two operators in the field according to the June 2005 Commission Proration Schedule and 6 producing wells.
5. The Stewards Mill (Cotton Valley SD) Field was discovered in 1977 at 10,788' subsurface depth.
  - a. The field is governed by Special field rules (Oil & Gas Docket No. 5-69,448, as amended, effective August 14, 1978) that provide for minimum well spacing of 660'/1320' (leaseline/between well), 640 acre gas proration unit density and optional 320 acre density, 100% acreage allocation formula and is classified as Non-

Associated and the allocation formula was suspended in 2000.

- b. There are two operators in the field according to the June 2005 Commission Proration Schedule and 5 producing wells.
6. The entire combined correlative interval from 9,630' to 11,850' as shown on the Welex Induction log of the Texas Oil & Gas, Stewards Mill Gas Unit 1 Lease Well No. 2, James James Survey, A-333, Freestone County, Texas, should be designated as the Stewards Mill (CV Consolidated) Field.
7. Consolidation of the subject fields for proration purposes will provide for the recovery of reserves that otherwise may go unrecovered.
8. Proration units of 640 acres and optional 40 acre density is necessary to provide for the effective and efficient depletion of the reservoir.
  - a. Drainage area calculations were performed on 13 wells that have produced or still producing from the subject zones.
  - b. The drainage areas range from 28 acres to 563 acres.
9. Minimum well spacing of 467'/1000' (leaseline/between well) is necessary in re-completing the existing well as wells as locating new wells. The effective drainage radius of a well is dependent on the producing formation development and thickness. Acreage is not a major factor in the reserves encountered by a wellbore.
10. The proposed two-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. The proposed two-factor allocation formula based on 95% deliverability and 5% per well satisfies this requirement.
11. The allocation formula is suspended in each of the subject fields. Consolidating the fields will not lessen the 100% market for the produced gas and therefore the allocation formula should be suspended.

#### **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 their effectiveness 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 Stewards Mill (CV Consolidated) Field.

Respectfully submitted,

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