

December 3, 2007

**OIL AND GAS DOCKET NO. 10-0253961**

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**APPLICATION OF STRAND ENERGY L.C. TO CONSOLIDATE VARIOUS SMITH PERRYTON FIELDS INTO THE PROPOSED SMITH PERRYTON (MORROW-MISS.) FIELD, OCHILTREE COUNTY, TEXAS**

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

**DATE OF HEARING:** November 29, 2007

**APPEARANCES:**

Cary Brock

**REPRESENTING:**

Strand Energy L.C.

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

This is the unopposed application of Strand Energy for the Commission to consider consolidating the Smith Perryton (Mississippian), Smith Perryton (Morrow, Lower), Smith Perryton (Morrow, Middle) and Smith Perryton (Morrow, Upper) Fields into a new field, the Smith Perryton (Morrow-Miss.) Field. The following rules are proposed:

1. The entire correlative interval from 7,260' to 8,030' as shown on the Array Compensated Resistivity log of the Strand Energy, Mason Lease Well No. 1, (API No. 42-357-32660), Ochiltree County, Texas should be designated as the Perryton (Morrow-Miss.) Field.
2. Minimum well spacing of 660'/1320' (lease line/between well);
3. Gas well proration units of 640 acres and 10% tolerance and a maximum diagonal of 9,000' and oil proration units of 80 acres and 40 acre tolerance and a maximum diagonal of 3,250; and
4. A gas allocation formula based on 50% deliverability and 50% acreage. It is proposed that the allocation formula be suspended. For wells that are classified as oil, it is proposed that allocation be exempt for proration limitation (salvage).

The proposed minimum well spacing was issued as: Gas Wells - 660'/1867' and oil wells with 660'/1320'. The examiner believes that such conflicting minimum well spacing are not appropriate in a consolidated field as it would be unknown as to a well's classification until the well is completed. Strand Energy stated that it would not find the 660'/1320' minimum well spacing adverse for gas wells also. The examiner recommends approval of the field consolidation and proposed field rules.

**DISCUSSION OF THE EVIDENCE**

The Smith Perryton (Mississippian) Field was discovered in 1960 at 8,080' subsurface depth. The field is governed by Statewide Rules. The field was classified as Associated in 1985.

The Smith Perryton (Morrow, Lower) Field was discovered in 1960 at 8,030' subsurface depth. The field is governed by Special Field Rules for gas that provide for minimum well spacing of 660/1867, 640 acre gas well proration unit density and the allocation formula has been suspended since 1993. The field was classified as Associated in 1961. Oil field rules were adopted that provide for minimum well spacing of 660'/1320' and 80 acre density and 100% acreage allocation.

The Smith Perryton (Morrow, Middle) Field was discovered in 1960 at 7,970' subsurface depth. The field is governed by Special Field Rules for gas that provide for minimum well spacing of 1867/3735, and 640 acre gas well proration unit density. The field is classified as Non-Associated.

The Smith Perryton (Morrow, Upper) Field was discovered in 1960 at 7,598' subsurface depth. The field is governed by Statewide Rules. The field is classified as Non-Associated. The allocation formula was suspended in 1995.

Consolidation of the Smith Perryton (Mississippian), Smith Perryton (Morrow, Lower), Smith Perryton (Morrow, Middle) and Smith Perryton (Morrow, Upper) Fields will provide for the orderly development of the fields and the efficient and effective depletion of the reservoirs. Tight or pressure depleted reservoirs will have low deliverability and long recovery periods. Vertical consolidation of reservoirs improves drilling economics. Incremental gas reserves will be recovered per completion as the economic producing limit is effectively lowered for each zone. The estimated additional recovery is 420 MMCF per multiple zone completion (560 MMCF for a single completion versus 980 MMCF for a multiple completion).

Gas proration unit density of 640 acres and oil field density of 80 acres are appropriate at this early stage of the consolidation as two of the gas fields were developed on 640 acres and one of the associated oil fields was developed on 80 acres.

The entire correlative interval from 7,260' to 8,030' as shown on the Array Compensated Resistivity log of the Strand Energy, Mason Lease Well No. 1, (API No. 42-357-32660), Ochiltree County, Texas should be designated as the Perryton (Morrow-Miss.) Field. The vertical interval encompasses a correlative package of similar Wilcox sands sequences. The Wilcox sands are low porosity and low permeability.

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 50% deliverability and 50% acreage satisfies this requirement. There is 100% market for all the gas produced from the subject field and the allocation formula should be suspended. The "oil" field should be designated as "salvage" as there has not been any active producers in the field for several years. Though a re-completed well or a future new well may possibly be classified as oil, the allowable should not be restricted for oil production or casinghead gas limitation. The new field should be designated as "Associate-Prorated" and gas wells should never be subject to 49(b) allowable restrictions.

### **FINDINGS OF FACT**

1. Notice of this hearing was sent to all operators in the subject fields at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The Smith Perryton (Mississippian) Field was discovered in 1960 at 8,080' subsurface depth. The field is governed by Statewide Rules and was classified as Associated in 1985.
4. The Smith Perryton (Morrow, Lower) Field was discovered in 1960 at 8,030' subsurface depth.
  - a. The field is governed by Special Field Rules for gas that provide for minimum well spacing of 660/1867, 640 acre gas well proration unit density and the allocation formula has been suspended since 1993.
  - b. The field was classified as Associated in 1961.
5. The Smith Perryton (Morrow, Middle) Field was discovered in 1960 at 7,970' subsurface depth.
  - a. The field is governed by Special Field Rules for gas that provide for minimum well spacing of 1867/3735, and 640 acre gas well proration unit density.
  - b. The field is classified as Non-Associated.
6. The Smith Perryton (Morrow, Upper) Field was discovered in 1960 at 7,598' subsurface depth.
  - a. The field is governed by Statewide Rules and is classified as Non-Associated.

- b. The allocation formula was suspended in 1995.
- 7. The entire correlative interval from 7,260' to 8,030' as shown on the Array Compensated Resistivity log of the Strand Energy, Mason Lease Well No. 1, (API No. 42-357-32660), Ochiltree County, Texas should be designated as the Perryton (Morrow-Miss.) Field.
- 8. Consolidation of the Smith Perryton (Mississippian), Smith Perryton (Morrow, Lower), Smith Perryton (Morrow, Middle) and Smith Perryton (Morrow, Upper) Fields will provide for the orderly development of the fields and the efficient and effective depletion of the reservoirs.
  - a. Tight or pressure depleted reservoirs will have low deliverability and long recovery periods and vertical consolidation of reservoirs improves drilling economics.
  - b. Incremental gas reserves will be recovered per completion as the economic producing limit is effectively lowered for each zone. The estimated additional recovery is 420 MMCF per multiple zone completion.
- 9. Gas proration unit density of 640 acres and oil field density of 80 acres are appropriate at this early stage of the consolidation as two of the gas fields were developed on 640 acres and one of the associated oil fields was developed on 80 acres.
- 10. The proposed two-factor allocation formula, based on 50% deliverability and 50% acreage, is necessary for the protection of correlative rights pursuant to State Statutes and satisfies this requirement.
  - a. The "oil" field should be designated as "salvage" as there has not been any active producers in the field for several years and the allowable should not be restricted for oil production or casinghead gas limitation.
- 11. The Perryton (Morrow-Miss.) Field should be designated as "Associate-Prorated" and gas wells should not be subject to 49(b) allowable restrictions.
- 12. There is 100% market for all the gas produced from the subject field and 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 the proposed field rules are a matter within the Commission jurisdiction.
4. Adoption of the proposed consolidation of fields and field rules will prevent waste, foster conservation and protect correlative rights.
5. The subject field meets all the criteria established for suspension of the allocation formula under Statewide Rule 31(j).

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed consolidation of the Smith Perryton (Mississippian), Smith Perryton (Morrow, Lower), Smith Perryton (Morrow, Middle) and Smith Perryton (Morrow, Upper) Fields into a new field, the Smith Perryton (Morrow-Miss.) Field, and adoption of the proposed field rules.

Respectfully submitted,

Thomas H. Richter, P.E.  
Technical Examiner  
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