### OIL AND GAS DOCKET NO. 7C-0248949

APPLICATION OF HENRY PETROLEUM LP TO CONSOLIDATE THE SHEEP MOUNTAIN (WOLFCAMP) AND BLOCK 4 (PENN) FIELDS INTO THE PROPOSED SHEEP MOUNTAIN (CONSOLIDATED) FIELD AND ADOPT FIELD RULES FOR THE SHEEP MOUNTAIN (CONSOLIDATED) FIELD, CROCKETT AND UPTON COUNTIES, TEXAS

**HEARD BY**: Thomas H. Richter, P.E. **DATE OF HEARING:** November 3, 2006

APPEARANCES: REPRESENTING:

Greg Cloud Henry Petroleum LP

# EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

This is the unprotested application of Henry Petroleum for the Commission to consider consolidating the Sheep Mountain (Wolfcamp) and Block 4 (Penn) Fields into the Sheep Mountain (Consolidated) Field. It is also proposed that the following rules be adopted:

- 1. The entire combined correlative interval from 6,436' to 9,684' as shown on the Type Log of the Henry Petroleum, Univ5 BFU3 Lease Well No.7, Sect. 3, Blk 5, University Lands Survey, Upton County, Texas, should be designated as the Sheep Mountain (Consolidated) Field.
- 2. Minimum well spacing of 467'/1,320' (leaseline/between well);
- 3. 160 acre proration unit density with 80 acre tolerance and maximum diagonal of 4,500'; and
- 4. Allocation formula of 95% acreage and 5% per well.

At the hearing, Henry Petroleum submitted that since the Notice of Hearing was issued, another operator had filed a completion report in the Sheep Mountain (Wolfcamp) Field. EXL Petroleum, the new operator, was notified prior to the hearing and executed a waiver of objection to the consolidation and field rules. The examiner recommends approval of the application.

# **DISCUSSION OF THE EVIDENCE**

The Block 4 (Penn) Field was discovered in 1976 at 9,838' subsurface depth. The field is governed by Special Field Rules that provide for minimum well spacing of 660'/1320', 160 acre density, and an allocation formula based on 95% acreage and 5% per well. The top allowable for a well in the field at this depth is 471 BOPD. The designated correlative interval is from 9,573' to

9,990'. Henry Petroleum is the only operator in the field with 7 wells. The discovery well, the Samedan, University 27 Well No. 1 produced from 1976 to 1977 and was plugged. No other wells were completed until 2005 when Henry commenced drilling and completing 7 wells. Cumulative production from the field is 52,000 BO and 49.8 MMCF of gas.

The Sheep Mountain (Wolfcamp) Field was discovered in 1993 at 8,300' subsurface depth. The field is governed by Special Field Rules that provide for minimum well spacing of 467'/1320', 160 acre density, and an allocation formula based on 100% acreage. The designated correlative interval is from 8,240' to 8,612'. The top allowable for a well in the field at this depth is 380 BOPD. There are three operators in the field and four wells. Cumulative production from the field is 112,400 BO and 4.4 MMCF of gas.

Consolidation of the subject fields into the Sheep Mountain (Consolidated) will provide for the orderly development of the field. The fields are comprised of four producing formations: Spraberry, Dean, Wolfcamp and Penn. The entire combined correlative interval from 6,436' to 9,684' as shown on the Type Log of the Henry Petroleum, Univ5 BFU3 Lease Well No.7, Sect. 3, Blk 5, University Lands Survey, Upton County, Texas, should be designated as the Sheep Mountain (Consolidated) Field.

Proration unit density of 160 acres are necessary to provide for the effective and efficient depletion of the reservoir. The productive intervals of the field are identical to that of the Spraberry (Trend Area) Field (except the Pennsylvanian is not included) that is adjacent and northeast of the subject field. There are potentially productive horizons to be produced, but without the consolidation of the fields and the freedom to produce multiple reservoirs simultaneously, reserves could be left in the ground, un-recovered, as the economics may not justify individual completions. Downhole commingling the production from all reservoirs during re-completion will reduce capital expenditures. Allowing multiple reservoirs to be simultaneously produced, the economic limit is lowered for each of the individual reservoirs thereby enhancing recovery and preventing waste of recoverable reserves. It is estimated that an additional 25,000 BO may potentially be recovered per well (assuming all 4 formations are completed). Water analysis show similar chemical components and there has been no history in either the Spraberry (Trend Area) Field or the subject field that indicated compatibility problems.

Minimum well spacing of 467'/1320' (leaseline/between well) will provide uniform flexibility in locating wells in the subject consolidated field.

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% acreage and 5% per well satisfies this requirement.

## 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 Block 4 (Penn) Field was discovered in 1976 at 9,838' subsurface depth.
  - a. The field is governed by Special Field Rules that provide for minimum well spacing of 660'/1320', 160 acre density, and an allocation formula based on 95% acreage and 5% per well.
  - b. Henry Petroleum is the only operator in the field with 7 wells.
- 4. The Sheep Mountain (Wolfcamp) Field was discovered in 1993 at 8,300' subsurface depth.
  - a. The field is governed by Special Field Rules that provide for minimum well spacing of 467'/1320', 160 acre density, and an allocation formula based on 100% acreage.
  - b. There are three operators in the field and four wells.
- 5. The entire combined correlative interval from 6,436' to 9,684' as shown on the Type Log of the Henry Petroleum, Univ5 BFU3 Lease Well No.7, Sect. 3, Blk 5, University Lands Survey, Upton County, Texas, should be designated as the Sheep Mountain (Consolidated) Field.
- 6. Proration unit density of 160 acres are necessary to provide for the effective and efficient depletion of the reservoir.
  - a. The productive intervals of the field are identical to that of the Spraberry (Trend Area) Field that is adjacent and northeast of the subject field.
  - b. Downhole commingling the production from all reservoirs during re-completion will reduce capital expenditures.
  - c. Allowing multiple reservoirs to be simultaneously produced, the economic limit is lowered for each of the individual reservoirs thereby enhancing recovery and preventing waste of recoverable reserves.
  - d. An additional 25,000 BO may potentially be recovered per well (assuming all 4 formations are completed).
- 7. Minimum well spacing of 467'/1320' (leaseline/between well) will provide uniform flexibility in locating wells in the subject consolidated field.
- 8. 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 5% per well and 95% acreage satisfies this requirement.

# **CONCLUSIONS OF LAW**

- 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 Sheep Mountain (Consolidated) Field.

Respectfully submitted,

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