

**THE APPLICATION OF PETRO-HUNT L.L.C. FOR PERMANENT FIELD RULES FOR THE STILES RANCH, SOUTH (MORROW, LO) FIELD, WHEELER COUNTY, TEXAS**

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**Heard by:** Margaret Allen, Technical Hearings Examiner

**Procedural history**

Application received: July 24, 2005

Hearing held: August 8, 2006

**Appearances**

Michael McElroy  
Steven C. Swanson  
Edwin Wallace

Representing  
Petro-Hunt L.L.C.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Petro-Hunt is proposing the following permanent rules for the Stiles Ranch, South (Morrow, Lo) Field:

1. 1867'-3735' well spacing;
2. 640 acre gas proration units with 10% tolerance; and
3. allocation based on acreage.

The examiner recommends a designated interval from 17,700' to 17,812' as shown on the log of the Hunt Energy G.C. Davis No. 1-61.

**DISCUSSION OF THE EVIDENCE**

The Stiles Ranch, South (Morrow, Lo) Field was discovered by the completion of the Hunt Energy (now Petro-Hunt) G.C. Davis Lease Well No. 1-61, in February of 1981. This well was perforated from 17,722' to 17,782' and tested at a maximum rate of 11,010 MCFD. The original reservoir pressure was 12,032 psi.

The G.C. Davis No. 1-61 is surrounded by wells that produce from the upper Morrow rather than the lower Morrow. The G.C. Davis No. 1-61 was originally placed in the Stiles Ranch (Morrow) Field. In 1996, the well was worked over and fracture stimulated. Production increased from 600 MCFD to 6 MMCFD. It was performing so well in comparison to the surrounding wells that it was

given a new field designation. It is still the only well ever completed in the subject field. The lower Morrow is tight in the sections to the east and west. Updip to the north, the lower Morrow sandstone gets thinner, while to the south the sandstone gets thicker but is wet.

In the G.C. Davis No. 1-61, the lower Morrow is a blocky sandstone with 7% porosity. Petro-Hunt planimetered a map of hydrocarbon-pore volume and determined that there are 27.3 BCF of gas underneath 640 acres. The reservoir has a volumetric depletion drive and material balance calculations show the reservoir originally contained about 24 BCF. Cumulative production has been 17 BCF; 51,000 BC; and 37,000 BW. Current daily production is 1.3 MMCF, with 2-3 BC and 3-4 BW, and this well will eventually drain the remaining recoverable reserves in the reservoir.

The lower Morrow occurs between 17,700' and 17,812' as shown on the log of the Hunt Energy G.C. Davis No. 1-61. Well spacing of 1867'-3735' is standard for 640 acre density. Allocation based on acreage will protect correlative rights.

### **FINDINGS OF FACT**

1. Notice of this hearing was mailed to Petro-Hunt L.L.C., the only operator in the Stiles Ranch, South (Morrow, Lo) Field on July 28, 2006.
2. The Stiles Ranch, South (Morrow, Lo) Field was discovered by the completion of the Hunt Energy (now Petro-Hunt) G.C. Davis Lease Well No. 1-61, in February of 1981.
3. The discovery well was perforated from 17,722' to 17,782' and tested at a maximum rate of 11,010 MCFD.
4. The discovery well is surrounded by wells that are non-productive in the lower Morrow and it is the only well necessary to drain this field.
5. Proration units of 640 acres are appropriate for permanent field rules.
  - a. Volumetric analysis shows there are 27.3 BCF of gas underneath 640 acres.
  - b. Material balance calculations show the reservoir originally contained about 24 BCF.
  - c. Cumulative production has been 17 BCF; 51,000 BC; and 37,000 BW.
  - d. Current daily production is 1.3 MMCF, with 2-3 BC and 3-4 BW, and the discovery well will eventually drain the remaining recoverable reserves in the reservoir.
6. Well spacing of 1867'-3735' is standard for 640 acre proration units.
7. Allocation based on acreage will protect correlative rights.
8. A designated interval extending from 17,700' to 17,812' as shown on the log of the Hunt Energy

(now Petro-Hunt L.L.C.) G.C. Davis Lease, Well No. 1-61, includes the productive lower Morrow in the Stiles Ranch, South (Morrow, Lo) Field.

**CONCLUSIONS OF LAW**

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested field rules for the Stiles Ranch, South (Morrow, Lo) Field rules will prevent waste, protect correlative rights and promote orderly development of the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends approval of the requested field rules, as per the attached order.

Respectfully submitted,

Margaret Allen  
Technical Hearings Examiner