

December 4, 2006

**OIL AND GAS DOCKET NO. 04-0249245**

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**APPLICATION OF HINDS PETROLEUM LP TO AMEND THE FIELD RULES FOR THE HARRY (MIRANDO) FIELD, WEBB AND LASALLE COUNTIES, TEXAS**

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

**DATE OF HEARING:** December 1, 2006

**APPEARANCES:**

Rusty Hinds

**REPRESENTING:**

Hinds Petroleum LP

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

This is the unprotested application of Hinds Petroleum to amend the field rules for the Harry (Mirando) Field as adopted by Order No. 4-46,184, effective June 26, 1961, which currently provide for:

1. Minimum well spacing of 330'/660' (lease line/between well) which are minimum distances to allow flexibility in locating one well to each 10 acres.

Hinds Petroleum proposes amending the rules to provide for:

1. Minimum well spacing of 150'/300' (lease line/between well);
2. Proration units of 2.5 acres.

The issued notice of hearing stated a density of 5 acres. At the hearing the applicant proposed amending the density to 2.5 acres. The examiner recommends approval of the application with the density rounded off to 3 acres as the Commission's computer system does not recognize character fields other than whole numbers.

**DISCUSSION OF THE EVIDENCE**

The Harry (Mirando) Field was discovered in 1956 at 707' subsurface depth. Special field rules were adopted by Order No. 4-46,184, effective June 26, 1961. Top allowable for a well in the field is 18 BOPD. The Commission Proration Schedule indicates three operators in the field. Commission records show two operators are delinquent in filing Commission Form P-5 and the other operator is inactive. The Proration Schedule indicates all leases are severed and/or in violation of H-15 testing. No production has been reported from the field since February 2002. The previous leases have all expired. Hinds Petroleum LP, has standing as it has acquired a lease on 1,285 acres by Assignment of an oil, Gas and Mineral Lease executed June 19, 2006.

The subject reservoir is the Mirando Sand found at 340' to 390' subsea depth. The gross thickness of the sand is 16' and the net pay thickness is  $\pm$  8 feet. Reservoir parameters are: average porosity is 31%, average water saturation is 87% and the average permeability is 260 millidarcies. The field was operated by numerous operators since discovery on a non-unitized basis. Hind asserts there have been four previous unsuccessful secondary recovery projects that were never fully developed.

Well density of 3 acres per well will provide for the efficient and effective depletion of the reservoir. Commission records reflect that cumulative production from the field is 183,000 BO. The reservoir is approximately 550 acres.<sup>1</sup> Volumetric analysis estimates the original oil-in-place (OOIP) to be 1224 BO/AcFt. Primary recovery through solution gas drive is 97 BO/AcFt. The calculated maximum recovery through a water flood is estimated at 797 BO/AcFt. The calculated OOIP for the reservoir is 5.4 MMBO. Thus the solution gas drive recovery is 3.4% of the OOIP. The recovery for a solution gas drive should be at least 8%. The average historical primary recovery is 2040 BO/well thus effective drainage area of a well is 2.63 acres.

The proposed minimum well spacing of 150'/330' will provide for flexibility in locating wells to provide for maximum recoveries for solution gas drive recovery and possible waterflood secondary recovery operations.

### **EXAMINER'S OPINION**

Because of the maturity of the subject field, the examiner believes that the filing of proration unit plats and maximum diagonals is not appropriate. The field is basically a "salvage" project and should be treated to some extent as an entity for density.

### **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. Hinds Petroleum LP., has standing as it has acquired a lease on 1,285 acres by Assignment of an oil, Gas and Mineral Lease executed June 19, 2006.
2. There was no protest at the call of the hearing.
3. The Harry (Mirando) Field was discovered in 1956 at 707' subsurface depth.
  - a. Special field rules were adopted by Order No. 4-46,184, effective June 26, 1961 that provide for minimum well spacing of 330'/660' (lease line/between well) which are minimum distances to allow flexibility in locating one well to each 10 acres.
  - b. Top allowable for a well in the field is 18 BOPD.

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<sup>1</sup> Based on historical structure and isopach mapping.

- c. The Commission Proration Schedule indicates three operators in the field that shows two operators are delinquent in filing Commission Form P-5 and the other operator is inactive.
  - d. No production has been reported from the field since February 2002.
4. Well density of 3 acres per well will provide for the efficient and effective depletion of the reservoir.
  - a. Volumetric analysis estimates the original oil-in-place (OOIP) to be 1224 BO/AcFt. and primary recovery through solution gas drive is 97 BO/AcFt.
  - b. Commission records reflect that cumulative production from the field is 183,000 BO.
  - c. The solution gas drive recovery is 3.4% of the OOIP and the average historical primary recovery is 2040 BO/well thus effective drainage area of a well is 2.63 acres.
5. The proposed minimum well spacing of 150'/330' will provide for flexibility in locating wells to provide for maximum recoveries for solution gas drive recovery and possible waterflood secondary recovery operations.

#### **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 of 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 amended 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 amended field rules for the Harry (Mirando) Field.

Respectfully submitted,

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