THE APPLICATION OF NFR ENERGY, LLC TO AMEND FIELD RULES FOR THE OAK HILL (COTTON VALLEY) FIELD, GREGG, HARRISON, PANOLA, AND RUSK COUNTIES, TEXAS

HEARD BY: Brian K. Fancher - Technical Examiner

Richard D. Atkins, P.E. - Technical Examiner

HEARING DATE: August 17, 2011

APPEARANCES: REPRESENTING:

APPLICANT:

Flip Whitworth NFR Energy, LLC

Dale E. Miller

OBSERVER:

Michael McElroy Forest Oil Corporation William T. Duncan, Jr. Exxon Mobil Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Oak Hill (Cotton Valley) Field were adopted in Final Order No. 6-67,176, effective May 31, 1977. Subsequently, multiple field rule amendments have been proffered and approved. The current Field Rules in effect for the field are summarized as follows:

- Designation of the field as the correlative interval from 8,670 feet to 10,469 feet, as shown on the type log of the McCormick Oil & Gas Corp., G. W. Bird Estate Lease, Well No. 1 (API No. 42-401-30325), James McLain Survey, Rusk County, Texas.
- 2. 467'-467' well spacing, no minimum between well spacing between vertical and horizontal wells with special provisions for "take points".

- 3. 160 acre gas units with 10 % tolerance and optional 40 acre density.
- 4. Allocation based on 95% acres and 5% deliverability for gas wells and 100% per well for oil wells. The field is currently classified as 100% AOF.

NFR Energy, LLC ("NFR") requests that Field Rule No. 2 be amended to provide for an "off-lease" penetration point for horizontal drainhole wells. The application was unprotested and the examiner recommends that Field Rules for the Oak Hill (Cotton Valley) Field be adopted, as proposed by NFR.

DISCUSSION OF THE EVIDENCE

The Oak Hill (Cotton Valley) Field was discovered in November 1976 at an average depth of 10,200 feet. The field is classified as associated and operates under special field rules. There are 2,021 producing gas wells, four producing oil wells, and numerous operators carried on the July 2011 proration schedules. The top oil allowable is the 1965 Yardstick Allowable of 172 barrels of oil per day. Cumulative production from the field through July 2011 is 1.7 TCFG, 5.3 MMBC, and 48.4 MBO.

NFR is proposing to further the development of the subject field by drilling horizontal wells in the future and requests Field Rules to allow for an "off-lease" penetration point for horizontal drainhole wells. In certain instances, it is beneficial to penetrate the reservoir off lease while still having "take points" no closer to lease lines than allowed under specific field rules. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be located on the associated lease. NFR indicated a well completed in the subject field generally requires approximately 500-600 feet of horizontal displacement to build a ninety (90) degree angle from vertical to horizontal in the subject field. The proposed rule will allow operators to drill horizontal wells with the penetration point, as defined by Rule 86, off of the lease, as long as no take-point is closer than 467' to the lease line. The applicant testified the proposed field rule will allow for the increased recovery of hydrocarbons in the field by maximizing the lateral portion of horizontal wells completed in the subject field. NFR proposes that an offsite penetration point be allowed after notice to the mineral owners of the off-lease tract is administered and if no protest is received. The applicant's submitted language to amend the Field Rules to allow for an "off lease" penetration point annotates an applicant of such a drilling permit administer notice to affected parties by regular mail. The examiner determined such notice to be inconsistent with field rules approved for similar fields. The applicant did not consider the examiner's opinion as adverse in this instance.

To satisfy state statutes, NFR requests the allocation formula remain unchanged. Further, the applicant also requests the allocation formula remain suspended, as there is a 100% market demand for all of the gas produced from the field.

FINDINGS OF FACT

- 1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
- 2. The Oak Hill (Cotton Valley) Field was discovered in November 1976 at an average depth of 10,200 feet.
 - a. The field is classified as associated and operates under special field rules.
 - b. There are 2,021 producing gas wells, four producing oil wells, and numerous operators carried on the July 2011 proration schedules
 - c. The top oil allowable is the 1965 Yardstick Allowable of 172 barrels of oil per day.
- 3. The field is designated as the entire correlative interval from 8,670 feet to 10,469 feet, as shown on the type log of the McCormick Oil & Gas Corp., G. W. Bird Estate Lease, Well No. 1 (API No. 42-401-30325), James McLain Survey, Rusk County, Texas
- 4. Allowing an off-lease penetration point will result in maximizing the drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. The proposed rule will allow approximately an additional 400 feet of producing drainhole. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners and operators of offsite surface locations.
- 5. Similar horizontal drainhole well rules have already been adopted in the shallower Oak Hill (Travis Peak) and deeper Carthage (Haynesville Shale) Fields.
- 6. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all the gas produced from the field.

CONCLUSIONS OF LAW

- 1. Proper notice of this hearing was issued.
- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.

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3. Amending Field Rules for the Oak Hill (Cotton Valley) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiner recommends the Commission amend Field Rules for the Oak Hill (Cotton Valley) Field, as requested by NFR Energy, Inc.

Respectfully submitted,

Brian K. Fancher Technical Examiner