RYAN SITTON, COMMISSIONER

WAYNE CHRISTIAN, COMMISSIONER



RAILROAD COMMISSION OF TEXAS HEARINGS DIVISION

OIL AND GAS DOCKET NO. 03-0305775

THE APPLICATION OF FOUNDATION ENERGY MANAGEMENT LLC FOR ADOPTION OF PERMANENT FIELD RULES IN THE NEWTON, N. (KURTH SAND) FIELD, NEWTON COUNTY, TEXAS

HEARD BY: Richard Eyster - Technical Hearings Examiner

Jennifer N. Cook - Administrative Law Judge

HEARING DATE: August 30, 2017

APPEARANCES:

REPRESENTING:

Dale E. Miller

Foundation Energy Management LLC

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Foundation Energy Management LLC ("Foundation") requests the Commission adopt permanent field rules for the Newton, N. (Kurth Sand) Field, as shown below:

- 1. Designated Correlative Interval from 7,254 to 7.304' as shown on the log of the Foundation Energy Management LLC, Kurth J.H. Jr -A- Well #7A, 1394.24' FNL & 1,653' FWL of the Sudduth, HW Survey A-381, Newton County, Texas.
- 2. 467'-660' Well Spacing.
- 3. 80 acre base proration units with optional 40 acre proration units.,
- 4. The oil field allocation formula based on Two Factor Allocation Formula of 5% Acres and 95% Per Well.
- 5. Filing of Form P-16 to designate the number of acres to be assigned to individual wells with a plat of the entire lease, no requirement to file individual well proration unit plats and no maximum diagonal limitation, provided however that an operator

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may file individual proration plats if they so desire. No Maximum Diagonal Rule in effect for the Field.

The application is unprotested and the examiners recommend that Permanent Field Rules be adopted for the Newton, N. (Kurth Sand) Field, as proposed by Foundation.

DISCUSSION OF THE EVIDENCE

The Newton, N. (Kurth Sand) Field was discovered in January 1957 and Field Rules were adopted in Oil & Gas Docket No. 3-38,692, issued effective August 25, 1958, as follows:

- 1. 660'-1,320' spacing
- 2. 80 acre proration unit with no tolerance, maximum diagonal of 4,000'
- 3. Allocation formula of 75% acreage and 25% per well, MER allowable of 161 BOPD
- 4. Surface and Production Casing and Cementing Rules
- 5. Oil Surface Commingling Rules

Currently the field has been developed with a total of eight wells with three oil leases. The initial potential of the wells ranged from a high of 505 BOPD to a low of 140 BOPD. The most recently drilled well was completed in June 2016. There are four wells on the August 2017 Oil Proration Schedule, one is producing, two have 14B2 Extensions and one is an injection well.

The cumulative production from the field through May 2017 is 2,772,332 BO and 975,500 MCF of casinghead gas. The actual Gas production is known to be greater than this value due to the difficult nature of securing the individual monthly production of casinghead gas prior to 1967. The rules are being amended as Foundation intends to do more infill drilling and hence, is requesting reduced spacing rules of 467'/660' with no maximum diagonal limitation. The smaller spacing rule will provide the flexibility for the field development and will promote the efficient and effective development of the remaining hydrocarbons.

Foundation estimated an average porosity of 31.7%, an average water saturation of 28%, an average net pay thickness of 24 feet, a formation volume factor of 1.495 RBL/STB and a recovery factor of 40% for the entire field. The reservoir primary drive mechanism is a very strong water drive. The calculated recoverable oil in place for an 80 acre proration unit is 909,623 STB and for a 40 acre proration unit is 454,812 STB.

Foundation provided drainage area calculations for six wells from the field and the drainage area varies from a high of 79 acres to a low of 22 acres. Based upon the drainage area calculations, Foundation has proven that the requested Field Rules are appropriate for the orderly drilling, completion and operation of wells in the field and that they will prevent waste and protect correlative rights.

Foundation also requests that the allocation for the field be amended and based on the Allocation Formula of 5% Acres and 95% Per Well.

Foundation believes that infill drilling will allow for them to produce the remaining recoverable reserves that have not been efficiently drained with the current field rules in effect for the field.

FINDINGS OF FACT

- 1. Notice of this hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing and no protests were received.
- 2. The Newton, N. (Kurth Sand) Field was discovered in January 1957
 - a. There are eight wells have historically been completed in the field.
 - b. The field is active with three oil wells of which one is producing and two are shut-in as shown on August 2017 Proration Schedule.
- 3. The proposed designated correlative interval is from 7,254 to 7,304' as shown on the log of the Foundation Energy Management LLC, Kurth J.H. Jr -A- Well #7A, 1394.24' FNL & 1,653' FWL of the Sudduth, HW Survey A-381, Newton County, Texas.
- 4. Field Rules for the Newton, N. (Kurth Sand) Field that provide for 467'-660' well spacing and 80 acre base proration units with optional 40 acre proration units are appropriate for the field.
 - a. Drilling infill wells will provide for the efficient and effective development of the remaining hydrocarbons in the field.
 - b. From log analysis, the field has an estimated average porosity of 31.7%, an average water saturation of 28%, an average net pay thickness of 24 feet and a formation volume factor of 1.495 RBL/STB.
 - c. A recovery factor of 40% for the field was used, which is typical for strong water drive reservoir.
 - d. Foundation provided drainage area calculations for six wells from the field and the drainage area varies from a high of 79 acres to a low of 22 acres.
- 5. Assignment of acreage with a Form P-16 and Plat of the entire lease is appropriate for the field without requiring individual proration unit plats to assign acreage. However, an operator can at his option still file individual proration plats if they so desire.

- 6. Oil allocation based on a formula of 5% Acres and 95% Per Well is a reasonable formula which will satisfy state statutes and protect the correlative rights of mineral owners in the field.
- 7. Adoption of the proposed density and spacing rules is appropriate to prevent waste and protect correlative rights.
- 8. Foundation agreed on the record at the hearing for this case that the effective date of this Final Order is to be the date the Master Order related to this Final Order is signed

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.
- 3. Adopting Amended Permanent Field Rules for the Newton, N. (Kurth Sand) Field is necessary to prevent waste, protect correlative rights, promote conservation and provide for the orderly development of the field.
- 4. Pursuant to § 2001.144(a)(4)(A) of the Texas Government Code and by agreement of Foundation on the record, <u>Foundation has waived the right to file a motion for rehearing and this Final Order can be effective on the date the Master Order relating to the Final Order is signed.</u>

EXAMINER'S RECOMMENDATION

Based on the above findings of facts and conclusions of law, the Examiners recommend that the Commission adopt the amended Permanent Field Rules for the Newton, N. (Kurth Sand) Field, as proposed by Foundation Energy Management, LLC.

Respectfully submitted,

Richard Eyster, P. G. Technical Examiner

Jenafer N. Cook
Administrative Law Judge