

THE APPLICATION OF LAREDO PETROLEUM, INC. TO ADOPT TEMPORARY FIELD RULES FOR THE PATTEN (MISSISSIPPIAN) FIELD, HANSFORD COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner

DATE OF HEARING: February 5, 2010

APPEARANCES:

REPRESENTING:

APPLICANT:

Mickey R. Olmstead
Thomas H. Richter

Laredo Petroleum, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Laredo Petroleum, Inc. ("Laredo") requests that temporary Field Rules be adopted for the Patten (Mississippian) Field. The proposed rules are summarized as follows:

1. Designation of the field as the correlative interval from 6,948 feet to 7,040 feet as shown on the log of the Jones Energy, Ltd. - Patten 178 Lease, Well No. 5 (API No. 42-195-31599);
2. 467'-1,200' well spacing;
3. 160 acre units with a 10% tolerance;
4. Allocation based on 95% deliverability and 5% acres.

There were no protests to this application and the examiner recommends approval of the temporary Field Rules, as requested by Laredo, subject to review in 18 months.

DISCUSSION OF EVIDENCE

The Patten (Mississippian) Field was discovered in May 2009 at an average depth of 7,000 feet. The field is classified as non-associated and operates under Statewide Rules. There are no producing wells carried on the proration schedule, but Laredo has completed three wells in the field. Cumulative production from the field through December 2009 is 178.7 MMCFG.

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Laredo requests that the field be defined as the correlative interval from 6,948 feet to 7,040 feet as shown on the log of the Jones Energy, Ltd. - Patten 178 Lease, Well No. 5 (API No. 42-195-31599), Section 178, Block 45, H&TC RR Co. Survey, Hansford County, Texas. This interval contains the productive portions of the Upper Mississippian formation. The Mississippian reservoir is a structural trap caused by faulting and a depletion drive is the primary drive mechanism.

The discovery well, the Patten 178 Lease, Well No. 5, was a re-completion from the deeper Kinderhook formation at 7,800 feet. Laredo plugged the well back, perforated and acidized the Mississippian formation from 6,968 feet to 7,010 feet. The well had an initial potential flowing of 775 MCFGPD and 2 BCPD. The original bottomhole pressure was 2,272 psi.

Laredo performed a volumetric calculation beneath 160 acres in the field and found the recoverable gas reserves to be 1.1 BCFG. The calculations are based on the following reservoir properties: 9% average porosity, 66% average water saturation, 29 feet of net pay and a 70% estimated recovery factor. A decline curve analysis for the discovery well indicated an estimated ultimate recovery of 956.6 MMCFG, validating the volumetric calculation. In addition, three close Mississippian fields, the Hansford, Lips and Pshigoda Fields, have had well recoveries that range from 0.6 BCFG up to 3.1 BCFG.

Laredo requests well spacing of 467'-1,200'. The well spacing is necessary to provide flexibility in locating infill wells and re-completing existing wells in the field at optimum structural locations. The requested 160 acre density is justified by the preliminary reserve calculations shown above.

Laredo requests that the allocation formula be based on 95% deliverability and 5% acres to meet statutory requirements and that the allocation formula be suspended, as there is a market for 100% of the gas produced. Laredo also requests that any overproduction on any well in the field be canceled.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. The Patten (Mississippian) Field was discovered in May 2009 at an average depth of 7,000 feet. The field is classified as non-associated and operates under Statewide Rules.
3. There are no producing wells carried on the proration schedule, but Laredo has completed three wells in the field.
4. The Patten (Mississippian) Field should be defined as the correlative interval from 6,948 feet to 7,040 feet as shown on the log of the Jones Energy, Ltd. -

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Patten 178 Lease, Well No. 5 (API No. 42-195-31599). This interval contains the productive portions of the Upper Mississippian formation. The Mississippian reservoir is a structural trap caused by faulting and a depletion drive is the primary drive mechanism.

5. Laredo performed a volumetric calculation beneath 160 acres in the field and found the recoverable gas reserves to be 1.1 BCFG. A decline curve analysis for the discovery well indicated an estimated ultimate recovery of 956.6 MMCFG, validating the volumetric calculation.
6. Laredo requests well spacing of 467'-1,200'. The well spacing is necessary to provide flexibility in locating infill wells and re-completing existing wells in the field at optimum structural locations.
7. The requested 160 acre density is justified by the preliminary reserve calculations shown above in findings of fact No. 5.
8. Allocation based on 95% deliverability and 5% acres is a reasonable formula which will protect correlative rights and meet statutory requirements. Suspending the allocation formula is appropriate, as there is a 100% market for all the gas produced.

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. Adoption of the proposed temporary Field Rules for the Patten (Mississippian) Field and cancellation of any overproduction will prevent waste, protect correlative rights and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiner recommends adoption of temporary Field Rules and cancellation of overproduction for the Patten (Mississippian) Field, as requested by Laredo, subject to review in 18 months.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner