

THE APPLICATION OF ROCA OPERATING, INC. FOR NEW FIELD DESIGNATION AND FIELD RULES FOR THE (PROPOSED) SUSIE Q (LEONARD) FIELD, YOAKUM COUNTY, TEXAS

Heard by: Andres J. Trevino, P.E. on September 10, 2009

Appearances:

Skipper Lay
Robert G. (Bob) Shelton
Kevin L. Allen

Representing:

ROCA Operating, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

ROCA Operating, Inc. requests a new field designation called the Susie Q (Leonard) Field be approved for its Susie Q 751 No. 1. ROCA also requests that the following rules be adopted for the new field:

1. Designation of the Susie Q (Leonard) Field as the correlative interval from 9,252 feet to 9,720 feet as shown on the Schulmberger Three Detector Litho Density Compensated Neutron/Spectral Gamma Ray log of the Susie Q 751 No. 1;
2. 660' - 1200' well spacing;
3. 160 acre proration units with optional 80 acre units and a maximum diagonal of 3,250 feet;
4. Allocation based on 50% acreage and 50% W-10 potential.

During the hearing the applicant's representative requested 160 acre oil units with optional 80 acre units instead of 80 acre oil units (as drainage calculations would support 160 acre units).¹ There were no protests to this application and the examiner recommends approval of the new field designation and adoption of field rules.

¹ The Notice of Hearing listed the 80 acre units with 40 acre tolerance as well density proposed for temporary rules.

DISCUSSION OF EVIDENCE

ROCA completed its Susie Q 751 No. 1 in June 2009 with perforations in the Lower Leonard Formation between 9,676 and 9,716 feet. On initial test, the well produced at a rate of 48 BOPD and 1 BWPD. Based on the initial performance of the well, ROCA estimated the well would drain 80 acres. The well was acid stimulated one month later and the well was retested. The post-treated well's production increased to 128 BOPD and 1 BWPD.

The new field designation should be approved for the subject well. There are nine other wellbores within a 2 ½ mile radius of the Susie Q 751 No. 1 which have penetrated the Leonard Formation. All wells within the 2 ½ mile radius were drilled to deeper objectives such as the Devonian. Five of the wells were either dry holes or plugged and abandoned. The other four wells are completed in the Devonian or the shallower San Andres formations. Two wells that produced small quantities of oil from the Leonard are believed to be separate reservoirs of limited size. Three-D seismic data indicates the Leonard reservoirs are not connected and are of limited size. The wells were later recompleted into other zones. There are no wells currently producing from the Leonard Formation within a 2 ½ mile radius of the Susie Q 751 No. 1. The nearest Leonard production is 11 miles north from the Susie Q 751 No. 1 in the Tokio, E. Field.

ROCA requests that the entire correlative interval between 9,252 to 9,720 feet in the Susie Q 751 No. 1 be considered a single field. The interval begins at the base of the Third Bone Springs and ends at the top of the Dean Sand. The interval includes the Upper and Lower Leonard Formations. There are other potentially productive zones within the Leonard that may be produced in the future. Preliminary drainage calculations for the well estimates the well will drain 121 acres. Other wells completed in the Lower Leonard Formation in the Tokio, E. Field, the Martin No. 1 and the Phillips 42 No. 1, have similar drainage patterns of 109 and 121 acres. ROCA requests 160 acre oil units with optional 80 acre units and 660' - 1,200' spacing. ROCA requests a more flexible well spacing as the reservoir is of limited size of 201 acres and needs to place a second well to adequately recover the remaining oil reserves. This interval includes several separate accumulations of hydrocarbons and therefore a two factor allocation formula is required. ROCA requests that allocation for wells in the field be based on 50% acreage and 50% W-10 potential.

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. ROCA Operating, Inc. completed its Susie Q 751 No. 1 in June 2009 with perforations in the Lower Leonard between 9,676 and 9,716 feet.
3. On initial test, the well produced at a rate of 48 BOPD and 1 BWPD. The well was acid stimulated one month later. The post-treated well's production increased to 128 BOPD and 1 BWPD.
4. The Susie Q 751 No. 1 is entitled to a new field as there is no other comparable Lower Leonard production within 2 ½ miles of the Susie Q 751 No. 1.
5. The entire correlative interval between 9,252 feet to 9,720 feet as shown on the Schlumberger Three Detector Litho Density Compensated Neutron/Spectral Gamma Ray log of the Susie Q 751 No. 1 should be designated as the Susie Q (Leonard) Field.
6. Three-D seismic data indicates the Lower Leonard reservoir is of limited size of approximately 201 acres.
7. Preliminary drainage calculations estimate the Susie Q 751 No. 1 will drain 121 acres. A density of 160 acre oil units with optional 80 acre units with 660' - 1,200' well spacing is appropriate.
8. The field interval includes separate accumulations of hydrocarbons and a two factor allocation formula is necessary to consider the interval as a single field. Allocation based on 50% acreage and 50% W-10 potential meets statutory requirements.

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. Approval of the requested new field designation and adoption of field rules will prevent waste, protect correlative rights and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends approval of the new field designation and adoption of field rules for the Susie Q (Leonard) Field.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner