# THE APPLICATION OF SANDRIDGE EXPL. AND PROD., LLC TO AMEND AND RENUMBER THE FIELD RULES FOR THE SHAFTER LAKE, N. (SAN ANDRES) FIELD, ANDREWS COUNTY, TEXAS

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

DATE OF HEARING: March 25, 2011

#### APPEARANCES: REPRESENTING:

#### APPLICANT:

Bill Spencer Cary McGregor Sandridge Expl. and Prod., LLC

#### EXAMINER'S REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

Field Rules for the Shafter Lake, N. (San Andres) Field were adopted in Final Order No. 8-41,984, effective November 2, 1959. The Field Rules are summarized as follows:

- 1. 330'-933' well spacing;
- 2. 40 acre oil units;
- 3. Allocation based on 75% acreage and 25% per well;
- 4. Surface casing requirement.

Sandridge Expl. and Prod., LLC ("Sandridge") requests that the Field Rules be amended and renumbered as follows:

- 1. Designation of the field as the correlative interval from 4,330 feet to 5,050 feet as shown on the log of the EOG Resources, Inc. Shafter Lake 10 Lease, Well No. 1;
- 2. 330'-0' well spacing;
- 3. 40 acre oil units with optional 10 acre density;
- 4. Allocation based on 95% potential and 5% acres with a top allowable of the 1965 Yardstick Allowable of 93 BOPD.

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This application was unprotested and the examiner recommends that the Field Rules for the Shafter Lake, N. (San Andres) Field be amended and renumbered, as proposed by Sandridge.

## **DISCUSSION OF EVIDENCE**

The Shafter Lake, N. (San Andres) Field was discovered in October 1952 at an average depth of 4,600 feet. There are 8 producing oil wells carried on the proration schedule and Sandridge is the only operator in the field. Cumulative production from the field through December 2010 is 1.2 MMBO and 301.0 MMCFG.

There is currently no defined field interval for the field. Sandridge requests that the field be defined as the correlative interval from 4,330 feet to 5,050 feet as shown on the log of the EOG Resources, Inc. - Shafter Lake 10 Lease, Well No. 1 (API No. 42-003-38729), Section 10, Block A-36, PSL Survey, A-2291, Andrews County, Texas. This interval includes the Lower Grayburg and San Andres formations.

Sandridge is planning on drilling infill wells and requests 330'-0' well spacing and 40 acre oil units with optional 10 acre density. From the available reservoir data, Sandridge estimated an average porosity of 10%, an average water saturation of 25%, an average net pay thickness of 30 feet and a recovery factor of 17%. The primary drive mechanism is a solution gas drive. Using the ultimate recoveries from fifteen active and four inactive wells, Sandridge calculated drainage areas between 3 and 38 acres. The average drainage area was 22 acres and three wells had drainage areas of less than twenty acres.

Sandridge also requests that the allocation formula be based on 95% potential and 5% acres with a top allowable of the 1965 Yardstick Allowable of 93 BOPD.

## FINDINGS OF FACT

- 1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
- 2. The Shafter Lake, N. (San Andres) Field was discovered in October 1952 at an average depth of 4,600 feet.
- 3. There are 8 producing oil wells carried on the proration schedule and Sandridge is the only operator in the field.
- The Shafter Lake, N. (San Andres) Field should be defined as the correlative interval from 4,330 feet to 5,050 feet as shown on the log of the EOG Resources, Inc. - Shafter Lake 10 Lease, Well No. 1 (API No. 42-003-38729). This interval includes the Lower Grayburg and San Andres

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formations.

- 5. From the available reservoir data, Sandridge estimated an average porosity of 10%, an average water saturation of 25%, an average net pay thickness of 30 feet and a recovery factor of 17%. The primary drive mechanism is a solution gas drive.
- 6. Using the ultimate recoveries from fifteen active and four inactive wells, Sandridge calculated drainage areas between 3 and 38 acres. The average drainage area was 22 acres and three wells had drainage areas of less than twenty acres.
- 7. Well Spacing of 330'-0' and 40 acre oil units with optional 10 acre density is appropriate for the field.
- 8. Allocation based on 95% potential and 5% acres with a top allowable of the 1965 Yardstick Allowable of 93 BOPD is a reasonable formula which will protect correlative rights and meet 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. Amending and renumbering the Field Rules for the Shafter Lake, N. (San Andres) 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 that the Commission amend and renumber the Field Rules for the Shafter Lake, N. (San Andres) Field, as proposed by Sandridge Expl. and Prod., LLC.

Respectfully submitted,

Richard D. Atkins, P.E. Technical Examiner