



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0304806

THE APPLICATION OF CROSSING ROCKS ENERGY, LLC TO AMEND THE FIELD RULES FOR THE RHODA WALKER (CANYON 5900) FIELD, WARD COUNTY, TEXAS

HEARD BY: Karl Caldwell — Technical Examiner
Ryan Lammert — Administrative Law Judge

HEARING DATE: June 14, 2017
RECORD CLOSED: July 24, 2017
CONFERENCE DATE: August 1, 2017

APPEARANCES:

APPLICANT:

H. Philip Whitworth
Rick Johnston, P.E.
Stephanie Kover
Bruce Selkirk
Preston Windham
Kevin Duncan
Kerensa Naghshbandi
Andy Nelson

REPRESENTING:

Crossing Rocks Energy, LLC

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Crossing Rocks Energy, LLC ("Crossing Rocks") requests to amend the field rules for the Rhoda Walker (Canyon 5900) Field in Ward County, Texas as follows:

1. Designation of the entire correlative interval from 5,052 feet (TVD) to 8,235 feet (TVD), as seen in the Dual Lateralog of the Monsanto Co. Thornton No. 2 Well (API No. 42-475-32521), Section 108, Block 34, H&TC RR Co. Survey, Ward County, Texas as the Rhoda Walker (Canyon 5900) Field.

2. 330-foot lease line spacing and 0-foot between well spacing.
3. Oil well allowable based on 75% acreage and 25% per well.

Crossing Rocks filed its application to amend the field rules on May 5, 2017. Hearing was set for June 14, 2017 and notice of hearing for the amended field rules was given to all operators in the subject field on May 10, 2017. On July 14, 2017 notice of amendment to rescinded current field rule (Rule No. 3) regarding surface casing requirements was provided to all operators. The removal of the surface casing rule ensures that all casing adheres to Commission Statewide Rules.

The application is unopposed. The Administrative Law Judge and Technical Examiner (collectively, "Examiners") recommend that the field rules for the Rhoda Walker (Canyon 5900) Field be amended as requested.

DISCUSSION OF THE EVIDENCE

The Rhoda Walker (Canyon 5900) Field ("Field") was discovered on August 19, 1967, by the completion of the Sinclair Oil & Gas Rhoda Walker Unit Well No. 1. This discovery well had perforations only from 6,012 feet to 6,192 feet, within the Cherry Canyon Formation. This discovery well had a 24-hour potential of 205 BOPD, 8 BWPD, and a gas-oil ratio of 878 cubic feet per barrel.

Cumulative production from the Field through March 2017 is approximately 19.6 million barrels of oil and 76.8 billion cubic feet of gas. Crossing Rocks proposes developing the field with the drilling and completion of vertical wells targeting the Bell Canyon, Cherry Canyon, Brushy Canyon, and Leonard Shale Formations. Crossing Rocks proposes a field interval between the depths of 5,052 feet (TVD) to 8,235 feet (TVD), as shown on the Dual Lateralog of the Monsanto Co. Thornton No. 2 Well (API No. 42-475-32521), Section 108, Block 34, H&TC RR Co. Survey, Ward County, Texas.

In 1968, the Railroad Commission approved temporary field rules for the Field that included 660-foot lease line spacing, 1,320-foot between well spacing, 80-acre units with a 40-acre tolerance for the last well on the same lease or unit, and a surface casing rule. These rules were made permanent in 1969, along with an allocation formula based on 100% acreage and a multiple 49(b) rule, with a maximum acreage of 320 acres with 10% tolerance for gas wells and a maximum diagonal of 6,500 feet.

In 1974, the Railroad Commission amended the field rules to reduce the lease line spacing rule to 467 feet and the between well spacing rule to 1,200 feet. The amendment also added a 40-acre optional unit rule and adopted a net gas oil ratio rule with a gas limit of 1,200 MCFD.

In 1985, the Railroad Commission again amended the field rules to reduce the lease line spacing rule to 330 feet, the between well spacing rule to 660 feet, and to

provide optional units of 20 acres. At that time, there had already been 196 producing wells in the Field.

Despite the Field's 50-year existence and the drilling of numerous vertical wells, the reserves in the Bell Canyon and Brushy Canyon formations remain essentially undeveloped. Most of the existing wells in the Field only produced from the Cherry Canyon. Few wells in the Field even extend into the Brushy Canyon formation.

Recently, Crossing Rocks began to develop the Field by drilling vertical infill wells that are perforated in the Bell Canyon and Cherry Canyon Formations, as well as the Brushy Canyon and Leonard Shale Formations. Other than the Crossing Rocks well in this Field, no currently producing well in any field that includes the Leonard Shale is perforated in the Leonard Shale within a 2.5-mile radius of the Field.

In October 2016, Crossing Rocks completed the Bunin CRE 36 No. 2 Well (API No. 42-475-37102) at a plug back depth of 8,462 feet (TVD). The lower portion of this well was completed in the Leonard Formation with a producing interval from 5,100 feet to 8,395 feet. Since initial completion, the lower portion of the completion interval was sealed off such that the current completion interval is from 5,100 feet to 8,336 feet. Since the Bunin CRE 36 No. 2 Well was completed below the Field's current interval, Crossing Rocks' Form W-2 completion for this well has yet to be approved by the Commission's engineering staff, pending the outcome of the subject application. Crossing Rocks accordingly shut in this well pending the subject hearing.

Crossing Rocks plans to develop the proposed field interval with new vertical wells that will be completed in the Bell Canyon, Cherry Canyon, Brushy Canyon, and Leonard Shale Formations. Changing the between well spacing to zero will avoid the need for Rule 37 exceptions for the proposed vertical infill wells and allow operators in the field flexibility in drilling new vertical wells amongst the existing vertical wells in the field.

The deep rights from the top of the Bone Spring Lime/base of the Leonard Shale on the Crossing Rocks Energy acreage are owned by another company. The proposed field interval will allow Crossing Rocks to develop the Leonard Shale, which would be otherwise stranded on the Crossing Rocks acreage. If the proposed field interval is not adopted, the reserves in the Leonard Shale will not be developed on the Crossing Rocks acreage. To target only the Leonard Shale formation with either vertical or horizontal wells would be uneconomical.

Rescinding the surface casing rule adopted in final Order No. 8-59,010, effective January 22, 1968 ensures that all surface casing adheres to Commission Statewide Rules.

FINDINGS OF FACT

1. Notice of this hearing was given to all parties entitled to notice at least ten (10) days prior to the date of the hearing.
2. The Rhoda Walker (Canyon 5900) Field was discovered on August 19, 1967, with perforations between 6,012 to 6,192 feet.
3. Cumulative oil and gas production from the Rhoda Walker (Canyon 5900) Field is 19.7 million barrels of oil and 76.8 billion cubic feet of gas through March 2017.
4. As of 1985, over 196 producing wells have been drilled in the Rhoda Walker (Canyon 5900) Field.
 - a. Most wells were only perforated in the Field's upper formations, The Bell Canyon and Cherry Canyon.
 - b. Few of these wells were perforated in the Brushy Canyon.
 - c. None of these wells were perforated in the Leonard Shale.
 - d. No well in the Field was perforated in the Leonard Shale until Crossing Rocks completed its Bunin CRE 36 No. 2 Well in October 2016.
5. Approximately 90 producing vertical wells are currently assigned to the Rhoda Walker (Canyon 5900) Field.
 - a. Almost all of these wells are perforated in the Cherry Canyon formation.
 - b. Few of these wells extend into the Brushy Canyon.
 - c. None of these wells were perforated in the Leonard Shale.
6. The proposed Field interval would include the Bell Canyon, Cherry Canyon, Brushy Canyon and the Leonard Shale formations, and would be defined as 5,052 feet (TVD) to 8,235 feet (TVD), as seen in the Dual Lateralog of the Monsanto Co. Thornton No. 2 Well (API No. 42-475-32521), Section 108, Block 34, H&TC RR Co. Survey, Ward County, Texas.
7. Adding the Leonard Shale formation to the field interval will prevent stranding and waste of reserves in the Leonard Shale formation.
 - a. To target only the Leonard Shale formation with either vertical or horizontal wells would be uneconomical.

- b. No currently producing well in any field that includes the Leonard Shale is perforated in the Leonard Shale within a 2.5-mile radius of the Field.
 - c. For a large productive area of the Field, the rights to the Leonard Shale are held by operators who are different than the operators who hold the right to develop the depths below the Leonard Shale.
 - d. If the Leonard Shale formation is not included in this Field, the Leonard Shale reserves cannot be produced from the lands with different mineral ownership and will result in the waste of these recoverable hydrocarbons
8. Field rules providing for 330-foot lease line spacing and 0-foot between well spacing will provide operators flexibility in drilling new vertical wells between existing wells that were not drilled deep enough to penetrate and produce the proposed new field interval.
 9. An allocation formula of 75% acreage and 25% per well is needed because the proposed field interval contains separate accumulations of hydrocarbons not in natural communication with each other.
 10. Rescinding the surface casing rule adopted in final Order No. 8-59,010, effective January 22, 1968 ensures that all surface casing adheres to Commission Statewide Rules.
 11. Crossing Rocks agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be effective on the date a Master Order relating to this Final Order is signed.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051
2. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.45
3. The proposed allocation formula of not less than two factors is appropriate as the field interval contains multiple accumulations of hydrocarbons.
4. Adoption of the proposed field rules will prevent waste, protect correlative rights, and promote the orderly development of the field.
5. Pursuant to §2001.144(a)(4)(A), of the Texas Government Code, and the agreement of the applicant, this Final Order is effective when a Master Order relating to this Final Order is signed on August 1, 2017.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission enter an order granting the application of Crossing Rocks Energy, LLC to amend the field rules for the Rhoda Walker (Canyon 5900) Field in Ward County, Texas.

Respectfully submitted,



Karl Caldwell
Technical Examiner



Ryan Lammert
Administrative Law Judge