



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0287074

COMMISSION CALLED HEARING TO REVIEW THE TEMPORARY FIELD RULES FOR THE WOLFBONE (TREND AREA) FIELD, PECOS, REEVES AND WARD COUNTIES, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Michael Crnich – Hearings Examiner

HEARING DATE: April 16, 2014

APPEARANCES:

REPRESENTING:

APPLICANT:

John Soule
Frank J. Muser

OXY USA Inc., OXY USA WTP LP

Ana Maria Marsland-Griffith

COG Resources

David Gross

Rosetta Resources Operating LP

George C. Neale
Ken Treaccar
Emeka Madu

Brigham Resources Operating, LLC

Kelli Kenney

Red Willow Production, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Temporary Field Rules for the Wolfbone (Trend Area) Field in Pecos, Reeves and Ward Counties were set to expire on November 30, 2013. Several operators in the field seek to amend the field rules and to make them permanent. At the hearing, OXY USA Inc. (OXY) presented its case for the permanent field rules it is seeking. OXY's case was supported by several other operators including COG Resources, Rosetta Resources Operating LP, Brigham Resources Operating, LLC, and Red Willow Production, LLC.

Apache Corporation sent a statement of support but did not appear at the hearing. All parties at the hearing were in agreement with the requested field rules. The matter is not protested. The examiners recommend that the field rules be amended as requested and made permanent.

DISCUSSION OF EVIDENCE

The Wolfbone (Trend Area) Field was created in November 2010 by the consolidation of twelve Bone Spring and Wolfcamp Fields. The depth of the field is about 13,100 feet. The April 2014 proration schedules carry 501 producing oil wells and two producing gas wells. There have been 42 operators in the field, and OXY is the operator of the largest number of wells and the largest share of production. Cumulative production for the field through January 2014 is about 14.8 million bbl oil and condensate, and 25.7 billion cf gas. The gas field is associated with 100 percent absolute open flow.

Temporary field rules were established on November 30, 2010, by Final Order No. 08-0265981. The temporary field rules have since been revised several times¹. A summary of the current field rules is presented below:

Rule 1: Correlative interval from 8,070 feet to 13,092 feet.

Rule 2: Minimum well spacing of 467 feet lease line, 933 feet between well, and 0 feet between vertical and horizontal wells; 467-foot take point spacing, no perforation zones, 50-foot box rule, and provisions for off-lease penetration points.

Rule 3a: Oil well density is 160 acre base units, 40 acre tolerance, and 40 acre optional units; additional acreage for horizontal wells based on Statewide Rule 86.

Rule 3b: Gas well density is 320 acre base units, 10 percent tolerance, and 40 acre optional units; additional acreage for horizontal wells based on Statewide Rule 86.

Rule 4a: Oil well allocation is based on 75 percent acreage and 25 percent W-10 test.

Rule 4b: Gas well allocation is based on 75 percent acreage and 25 percent G-10 test; the allocation formula is currently suspended.

Rule 5: Provides a six month exception and one six month extension to the

¹ Field Rules 1 through 4 were established in November 2010, in the original field rules application, Docket No. 08-0265981. Field Rules 5 and 6 were established in November 2011 in Docket No. 08-0272347, and revised in April 2013 in Docket No. 08-0277456.

exception to Statewide Rule 13(b)(5)(A) for setting tubing in a well when the pressure is in excess of 300 psi.

Rule 6: To allow time for well stabilization following stimulation, operators are to file a well record only W-2 within 10 days of well completion, and then may have up to 180 days to file an initial potential test.

The Wolfbone (Trend Area) Field continues to experience rapid development with horizontal wells. A total of 266 horizontal well permits have been issued, of which 183 are unique (not amended) permits. As the field has matured operators have identified changes to several field rule provisions that would facilitate the orderly development of the field, prevent waste, and protect correlative rights. In this application, OXY is requesting (with the support of other operators) the following changes:

Rule 2: (1) Current field rules require 933 feet spacing between vertical wells and the proposed rule would eliminate all between-well spacing requirements; and (2) the proposed rule would also allow first and last take points to be 200 feet from the lease lines.

Rule 3: Operators are to report assigned acreage on a table attached to Form P-15, and proration unit plats will not be required.

Rule 7 (new): Add provisions for stacked lateral wells with 300-foot spacing between laterals.

In addition, OXY and the other operators support the field rules being made permanent at this time.

Most of the Wolfbone (Trend Area) Field development is in Reeves County, but wells have also been completed in Pecos and Ward Counties. The Wolfbone (Trend Area) Field is adjacent to the Phantom (Wolfcamp) Field, which is generally to the north with development focused primarily in Ward County with some development in Reeves and Pecos Counties also. The type logs for the two fields are about 25 miles apart. The two neighboring fields do not cover the same correlative intervals. While the Wolfbone (Trend Area) Field includes all of the Bone Spring and Wolfcamp Formations from 8,070 feet to 13,092 feet, the Phantom (Wolfcamp) Field is the depth interval from 9,515 feet to 12,447 feet and includes the Wolfcamp and a small section of the Bone Spring (the third Bone Spring).

Field rules for the Phantom (Wolfcamp) Field were amended in Docket No. 08-0277363 on September 11, 2012. The field rule changes requested for the Wolfbone (Trend Area) Field in the current matter will generally result in parity to the rules for the Phantom (Wolfcamp) Field. The Phantom (Wolfcamp) Field rules currently contain the provisions being sought for the Wolfbone (Trend Area) Field.

The Wolfbone (Trend Area) Field, which was originally created by the consolidation of 12 separate Wolfcamp and Bone Spring fields, contains a 5,000 foot correlative interval and several productive horizons. The natural formation fracture orientation is northwest to southeast, and horizontal wells should be oriented perpendicular to the natural fracture orientation. Stacked horizontal laterals will enable operators to simultaneously produce from multiple productive horizons within the field.

OXY estimates that the average recoverable oil per foot of lateral length is 156.3 bbl oil per foot. The field rule provision allowing take points to be 200 feet from lease lines instead of 467 feet as in the current rules, will allow for 534 additional feet of lateral per wellbore, resulting in an additional recovery of 83,464 bbl oil per lateral. Stacked lateral wells will similarly allow for additional recovery per foot of lateral.

Brigham Resources Operating LLC supports the proposed field rule changes and stated its concern that the field rules would apply to wells completed in Pecos County, as well as those completed in Reeves and Ward Counties. The notice of hearing did not include Pecos County, in which Brigham has interests. The current proration schedules show wells in all three of the subject counties—Pecos, Reeves and Ward.

Rosetta Resources Operating LP originally requested 330-foot lease line spacing prior to the hearing. At the hearing, Rosetta stated that it is no longer pursuing such a provision.

FINDINGS OF FACT

1. Notice of the hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. The Wolfbone (Trend Area) Field was created in November 2010 by the consolidation of twelve Bone Spring and Wolfcamp Fields.
 - a. The field includes the Bone Spring and Wolfcamp Formations in the correlative interval from 8,070 feet to 13,092 feet.
 - b. There are 501 producing oil wells and two producing gas wells completed in Pecos, Reeves and Ward Counties.
 - c. Cumulative production for the field through January 2014 is about 14.8 million bbl oil and condensate, and 25.7 billion cf gas.
3. Temporary field rules were originally established on November 30, 2010, by Final Order No. 08-0265981, and have since been revised. The current field rules are:

- a. Correlative interval from 8,070 feet to 13,092 feet.
 - b. Minimum well spacing of 467 feet lease line, 933 feet between well, and 0 feet between vertical and horizontal wells; 467-foot take point spacing, no perforation zones, 50-foot box rule, and provisions for off-lease penetration points.
 - c. Oil well density is 160 acre base units, 40 acre tolerance, and 40 acre optional units; additional acreage for horizontal wells based on Statewide Rule 86.
 - d. Gas well density is 320 acre base units, 10 percent tolerance, and 40 acre optional units; additional acreage for horizontal wells based on Statewide Rule 86.
 - e. Oil well allocation is based on 75 percent acreage and 25 percent W-10 test.
 - f. Gas well allocation is based on 75 percent acreage and 25 percent G-10 test; the allocation formula is currently suspended.
 - g. Provides a six month exception and one six month extension to the exception to Statewide Rule 13(b)(5)(A) for setting tubing in a well when the pressure is in excess of 300 psi.
 - h. To allow time for well stabilization following stimulation, operators are to file a well record only W-2 within 10 days of well completion, and then may have up to 180 days to file an initial potential test.
4. OXY requests, with the support of other operators in the field, the following changes be made to the field rules:
- a. Eliminate all between-well spacing requirements.
 - b. Allow first and last take points to be 200 feet from the lease lines.
 - c. Operators are to report assigned acreage on a table attached to Form P-15, and proration unit plats will not be required.
 - d. Add provisions for stacked lateral wells with 300-foot spacing between laterals.
5. The average recoverable oil per foot of lateral length is 156.3 bbl oil per foot.

- a. The proposed field rule provision allowing take points to be 200 feet from lease lines will allow for 534 additional feet of lateral per wellbore, resulting in an additional recovery of 83,464 bbl oil per lateral.
 - b. Stacked lateral wells will similarly allow for additional recovery per foot of lateral.
6. The proposed field rule changes will prevent waste, protect correlative rights, and promote the orderly development of the field.
 7. Field development continues at an active pace and making the temporary field rules permanent will promote the orderly development of the field.

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 making permanent the temporary Field Rules for the Wolfbone (Trend Area) Field will prevent waste, protect correlative rights and promote the development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend and make permanent the field rules for the Wolfbone (Trend Area) Field, as proposed by OXY and supported by other operators in the field.



Paul Dubois
Technical Examiner

Respectfully submitted,



Michael Crnich
Hearings Examiner