

RAILROAD COMMISSION OF TEXAS HEARINGS DIVISION

OIL & GAS DOCKET NO. 08-0305570

THE APPLICATION OF ELEVATION RESOURCES, LLC TO CONSOLIDATE THE ANDREWS, SOUTH (DEVONIAN) FIELD INTO THE EMMA (DEVONIAN) FIELD, TO ADOPT FIELD RULES FOR THE EMMA (DEVONIAN) FIELD, AND TO CANCEL OVERPRODUCTION FOR THE UNIVERSITY LEASE, WELL NO. 1541, ANDREWS, SOUTH (DEVONIAN) FIELD, ANDREWS COUNTY, TEXAS.

OIL & GAS DOCKET NO. 08-0305676

THE APPLICATION OF ELEVATION RESOURCES, LLC TO AMEND FIELD RULES FOR THE EMMA (DEVONIAN) FIELD, ANDREWS COUNTY, TEXAS.

HEARD BY:

Paul Dubois – Technical Examiner

Jennifer N. Cook - Administrative Law Judge

HEARING DATE:

August 22, 2017

CONFERENCE DATE:

November 7, 2017

APPEARANCES:

APPLICANT:

REPRESENTING:

Frank Muser, P.E. Dorsey Twidwell

Muser, P.E. Elevation Resources, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Elevation Resources, LLC ("Elevation") is seeking several changes to two existing fields in Andrews County, Texas. First, in Oil & Gas Docket No. 08-0305570 Elevation seeks to consolidate the Andrews, South (Devonian) Field into the Emma (Devonian) Field, amend the field rules for the Emma (Devonian) Field, and to cancel overproduction for one well in the field. Second, in Oil & Gas Docket No. 08-0305676 Elevation seeks to further amend the Emma (Devonian) Field rules to incorporate a gas well classification provision, and to reclassify several wells from oil to gas. Neither of

the docketed cases were protested. Elevation has provided technical evidence to support its requests in both of the docketed cases. The technical examiner and administrative law judge ("Examiners") have consolidated the two docketed cases into one Examiners Report and Recommendation and one proposed Final Order. The Examiners recommend Elevation's applications be approved.

DISCUSSION OF THE EVIDENCE

Field Consolidation

Elevation is an operator of oil and gas wells in the Andrews, South (Devonian) and Emma (Devonian) Fields. In Oil & Gas Docket No. 08-0287076, issued on April 22, 2014, the Commission consolidated the Triple-N (Devonian) Field into the Emma (Devonian) Field and amended the field rules for the Emma (Devonian) Field to include the following:

- 1. A correlative interval from 10,456 feet to 11,532 feet as shown on the log of the Greystone Oil & Gas, LLP State AQ Lease Well No. 8 (API No. 42-003-43170).
- 2. 330-foot lease line spacing, no minimum between well spacing, and 100-foot lease line spacing for the first and last take points of horizontal wells.
- 3. 40-acre standard proration units with 20-acre tolerance for the last well on a lease.
- 4. A 245-barrel per day oil allowable based on the 1947 yardstick and 100 percent acreage allocation.

Currently there are about 23 oil wells in the Emma (Devonian) Field.

In Oil & Gas Docket No. 08-0303601, issued on May 10, 2017, the Commission amended the field rules for the Andrews, South (Devonian) Field to include the following:

- 1. A correlative interval from 10,456 feet to 11,532 feet as shown on the log of the Greystone Oil & Gas, LLP State AQ Lease Well No. 8 (API No. 42-003-43170), which is the same correlative interval and type log well adopted for the Emma (Devonian) Field.
- 2. 330-foot lease line spacing, with no minimum between well spacing, and 100-foot lease line spacing for the first and last take points of horizontal wells.
- 3. 80-acre standard proration units and 40-acre tolerance for the last well on a lease.

4. Allowables based on the 1947 yardstick and allocated based on 25 percent per well and 75 percent acreage.

Currently there are about two gas wells and nine oil wells in the Andrews, South (Devonian) Field.

As indicated above, both fields are designated with the same correlative interval based on the same well and type log. The Emma (Devonian) Field is generally west of the development area of the Andrews, South (Devonian) Field. However, the development of both fields has grown together, especially in the area of historical Andrews, South (Devonian) Field development. In addition, a log cross section, isopach map of the Devonian-aged formations, and a structural cross section provided by Elevation indicated consistent stratigraphy and structure across both field areas.

Elevation contends that the current 245-barrel per day oil allowable was incorrectly assigned to the field. The 245-barrel per day allowable corresponds to the top of the correlative interval at a depth of 10,456 feet. Pursuant to Statewide Rule 45 (16 Tex. Admin. Code §3.45), the correct 1947 yardstick allowable should be 310 barrels of oil per day, which corresponds to the bottom of the correlative interval at 11,532 feet.

Elevation also testified that its University F Lease (No. 45981) in the Andrews, South (Devonian) Field has accrued overproduction. Adjusting the allowable from 245 to 310 barrels of oil per day will prevent overproduction going forward.

Gas Well Classification

Elevation seeks a field rule provision that allows wells to be classified as gas wells based on the ratio of produced gas to liquid hydrocarbons ("GLR"). To support this request, Elevation provided evidence from wells in the Emma (Devonian) Field, as well as other studies and evidence from similar Devonian fields in the area. In its original application, Elevation requested gas well classification based on a GLR of 3,000 standard cubic feet per barrel, but at the hearing amended that request to 3,200 standard cubic feet per barrel.

In Oil & Gas Docket No. 08-0252227 (August 14, 2007), the Commission approved permanent gas well classification for certain wells on the Dora Roberts Devonian Unit in the Dora Roberts (Devonian) Field in Midland County. Evidence in the Dora Roberts case included a reservoir fluid phase study that documented for a number of wells the depth of the reservoir, reservoir temperature, initial reservoir pressure, and the presence of a dew point below the initial reservoir pressure. Elevation also provided an industry study of the Headlee (Devonian) Field in Ector and Midland Counties. The Headlee (Devonian) Field is a gas condensate reservoir. The Emma (Devonian) Field exhibits reservoir characteristics (temperature, initial pressure, depth, and fluid gravity)

similar to those documented for the Dora Roberts (Devonian) and Headlee (Devonian) Fields.

Commission administrative policy provides for a well to be permanently classified as a gas well if it demonstrates a full-wellstream heptanes and heavier fraction (" C_7 +") of 11 percent or higher. The technical rationale behind that determination is such a classified is justified for C_7 + fractions as high as 12.9 percent. Further, the technical rationale correlates the C_7 + indicator with a GLR of 3,200 standard cubic feet per barrel of oil or higher.

Elevation also provided full-wellstream compositional analysis of hydrocarbon fluids from five wells in the Emma (Devonian) and Andrews, South (Devonian) Fields. The analytical data for these five wells indicated C₇+ fractions ranging from 1.412 to 11.496 percent. Three of these analyses were documented to be within the first 120 days of production, and those C₇+ fractions were 4.103, 8.648 and 11.496 percent. Further, Elevation documented producing GLR values for wells in the field through about 150 days of production. In most cases, those wells demonstrated that, upon stabilization of production, the intial producing GLR had achieved a stable or increasing rate in excess of 3,200 standard cubic feet per barrel.

Some of Elevation's wells in the field have been administratively classified as permanent gas wells based on C₇+ in accordance with Commission policy.

Elevation asserts that the evidence indicates that a 3,200 standard cubic feet per barrel GLR correlates with the C_7 + data to support permanent gas well classification in accordance with technical basis underlying current Commission policy. The Commission has adopted similar provisions in certain other fields across the state.

In addition to the adoption of a field rule for gas classification, Elevation also initially requested that 13 wells be reclassified as permanent gas wells, effective the date of initial completion, on the basis of the GLR and C₇+ data. At the hearing, Elevation withdrew three of the wells from consideration. The 13 wells are listed below:

Elevation Requesting Permanent Gas Well Classification:

University 1-10, Well No. 1H University 1-20, Well No. 3H University 1-20, Well No. 4H University 1-20, Well No. 5H University 1-26, Well No. 3H University 1-26, Well No. 4H University 1-26, Well No. 5H University 28, Well No. 1H University 1-28A, Well No. 2H University 9-35, Well No. 1H

Wells Withdrawn from Consideration by Elevation:

University 1-22, Well No. 2H University 1-25, Well No. 2H University 1-27, Well No. 2H

FINDINGS OF FACT

- 1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of the hearing. The applications were not protested.
- 2. The current field rules for the Emma (Devonian) Field were established following the consolidation of the Triple-N (Devonian) Field into the Emma (Devonian) Field in Oil & Gas Docket No. 08-0287076, issued on April 22, 2014.
- 3. The current field rules for the Andrews, South (Devonian) Field were established in Oil & Gas Docket No. 08-0303601, issued on May 10, 2017.
- 4. The interval from 10,456 feet to 11,532 feet as shown on the log of the Greystone Oil & Gas, LLP State AQ Lease Well No. 8 (API No. 42-003-43170), is the existing correlative interval for both the Andrews, South (Devonian) and Emma (Devonian) Fields.
- 5. Geologic evidence, including a log cross section, isopach map of the Devonian-aged formations, and a structural cross section, provided by Elevation indicates consistent stratigraphy and structure across both field areas.
- 6. The development areas of the Andrews, South (Devonian) and Emma (Devonian) Fields have grown together.
- 7. The correct 1947 yardstick allowable should be 310 barrels of oil per day, which corresponds to the bottom of the correlative interval at 11,532 feet.
- 8. The University F Lease (No. 45981) in the Andrews, South (Devonian) Field has accrued overproduction. Correcting the allowable from 245 to 310 barrels of oil per day will prevent overproduction going forward.
- 9. The Andrews, South (Devonian) and Emma (Devonian) Fields exhibit gas reservoir characteristics, including the depth of the reservoir, reservoir temperature, initial reservoir pressure, and the presence of a dew point below the initial reservoir pressure.
- 10. Full-wellstream compositional analysis of hydrocarbon fluids from five wells in the Emma (Devonian) and Andrews, South (Devonian) Fields indicates these wells may be classified as permanent gas wells according to current Commission policy and practice.
- 11. Stabilized production is generally achieved within about 120 days of initial production.

- 12. The producing GLR values for wells in the field through about 120 days of production are consistent with the C₇+ data. In most cases, those wells demonstrated that, upon stabilization of production, the intial producing GLR had achieved a stable or increasing rate in excess of 3,200 standard cubic feet per barrel
- 13. A stabilized production gas-liquid hydrocarbon ratio of 3,200 standard cubic feet per barrel is sufficient evidence to permanently classify a well as a gas well in the Andrews, South (Devonian) and Emma (Devonian) Fields.
- 14. Elevation has demonstrated that the following wells may be classified as permanent gas wells effective the date of initial production: University 1-10, Well No. 1H; University 1-20, Well No. 3H; University 1-20, Well No. 4H; University 1-20, Well No. 5H; University 1-26, Well No. 3H; University 1-26, Well No. 4H; University 1-26, Well No. 5H; University 28, Well No. 1H; University 1-28A, Well No. 2H; and University 9-35, Well No. 1H.
- 15. Elevation has withdrawn its request to reclassify the following oil wells as gas wells: University 1-22, Well No. 2H; University 1-25, Well No. 2H; and University 1-27, Well No. 2H.

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 §§1.42 and 1.45.
- 3. Approval of the application will prevent waste and protect correlative rights.
- 4. The following wells meet the Commission's requirements for reclassification as permanent gas wells effective the date of initial production: University 1-10, Well No. 1H; University 1-20, Well No. 3H; University 1-20, Well No. 4H; University 1-20, Well No. 5H; University 1-26, Well No. 4H; University 1-26, Well No. 5H; University 28, Well No. 1H; University 1-28A, Well No. 2H; and University 9-35, Well No. 1H.

EXAMINERS' RECOMMENDATION

The Examiners recommend approval of the application of Elevation Resources, LLC to consolidate the Andrews, South (Devonian) and Emma (Devonian) Fields, to amend the field rules for the Emma (Devonian) Field, and to cancel over production for the University F Lease (No. 45981) in the Andrews, South (Devonian) Field.

Respectfully submitted,

Paul Dubois

Technical Examiner

Jennifer N. Cook

Administrative Law Judge