



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 6E-0287457

APPLICATION OF QUANTUM RESOURCES MANAGEMENT, LLC TO AMEND RULE 25 OF THE SPECIAL FIELD RULES FOR THE EAST TEXAS FIELD, GREGG, RUSK, UPSHUR, CHEROKEE, AND SMITH COUNTIES, TEXAS

HEARD BY: Paul Dubois - Technical Examiner
Terry Johnson - Legal Examiner

DATE OF HEARING: March 19, 2014

APPEARANCES:

Tim George
Robert Dreyling

REPRESENTING:

Quantum Resources Management, LLC

EXAMINER'S REPORT AND RECOMMENDATION **STATEMENT OF THE CASE**

This is the application of Quantum Resources Management, LLC to amend Rule 25 of the special field rules for the East Texas Field (adopted April 27, 1999, in Oil and Gas Docket No. 6E-0221265). Quantum requests that the Commission amend the W-10 well testing and reporting requirements to match the field's advanced stage of depletion and to reduce lease operating expenses. The requested amendment is intended to optimize ultimate oil recovery and prevent avoidable waste by lowering operating costs through reduced well testing requirements, thus extending the producing lives of wells in the field.

Quantum's application is similar to a previous request that the Commission approved for the East Texas Field in 1999 in Oil and Gas Docket No. 6E-0221265. In that prior docket, the Commission adopted Special Field Rule 25 to set the required well test period for East Texas Field wells to every other year (during March, April, or May) instead of every year as required under Statewide rules. Rule 25 also specifies that, in years when well tests are not required, operators must report the producing or shut-in status of each well on the well status report.

After 15 years of production and depletion under the bi-annual testing rule, Quantum now asks the Commission to change the test frequency from two years to four years and also asks to expand the test period from three months to six months. Specifically, Quantum requests that Rule 25 be amended to provide that:

- a. W-10 well tests shall be conducted and submitted every four years (instead of every 2 years as currently required) beginning in 2016, and during each non-test year operators shall report the producing or shut in status of each well on the oil well status report;
- b. The W-10 well test period shall be July 1 to December 31 (instead of March 1 to May 31 as currently required), with an oil well status report due date of January 1 and an effective date of February 1; and
- c. W-10 well tests currently due in 2014 shall be rescheduled for 2016, and for 2014 and 2015, operators shall report the producing or shut in status of each well on the oil well status report due by January 1 following each respective year.

Quantum has discussed these requests with the other operators in the field, and there is broad support for the rule changes among the operators. All operators were notified of the hearing, and there is no objection.

Quantum also consulted with the Commission's proration staff to determine that the requested changes would not disrupt Commission administrative processes, and the Commission staff does not object to the requested changes.

The evidence shows that the East Texas Field has now progressed to an advanced stage of depletion after more than 80 years of production. Wells completed in the field produce from a conventional Woodbine reservoir with excellent porosity (25.2%), permeability (2,078 MD), and saturations (14.1% connate Sw). The field was discovered in 1930 and was originally productive across parts of five counties (Gregg, Rusk, Upshur, Cherokee, and Smith). It covers approximately 140,000 acres and is about 45 miles long by 5 miles wide. More than 30,000 wells have been completed in the field, with peak daily production at approximately 950,000 barrels, and cumulative production at 5.364 billion barrels. Although the field, until recently, has produced under a strong water drive mechanism, the water column has now swept across the entire field, and the field is now in an advanced stage of depletion. Although the field remains very large, with approximately 4,200 currently producing wells and daily production of 9,312 BO, fewer than 50 of those wells are capable of producing at the top allowable rate of 20 BOPD, and most wells typically produce only a few barrels of oil per day with a 99% water cut.

The evidence demonstrates that the cost of W-10 well testing is a significant portion of the lease operating expense for wells in this field. At this advanced stage of depletion, a reduction in well testing costs will significantly reduce the economic limit and significantly increase ultimate recovery of oil. The proposed change to four-year testing in combination with the expanded six-month testing period will reduce the amount of equipment and personnel required for regulatory compliance, and this reduction is expected to yield an estimated incremental additional recovery of approximately 200,000 barrels for each test

cycle. For Quantum's operations, the requested changes will result in a savings of about \$500,000, which roughly equates to the cost of two new wells in the field.

The evidence further demonstrates that the proposed change to four year testing with a six-month test period will have no negative impact on any regulatory purpose or goal. As the water drive has swept across the entire field, the typical well production now exhibits a steady slow decline rate. Test results over recent years have stabilized to the point that there is expected to be no significant difference between test results from a four-year cycle in comparison to test results from a two-year cycle. The expanded six-month testing window also raises no concerns.

Under these circumstances, the evidence establishes that the requested changes will prevent waste and will not create any regulatory issues or concerns. Accordingly, the Examiners recommend that the Commission approve Quantum's application and adopt the following proposed findings of fact, conclusions of law, and recommended order:

FINDINGS OF FACT

The testimony and evidence in the record support the following findings of fact:

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the hearing.
2. The hearing was not protested.
3. The Commission adopted Rule 25 of the special field rules for the East Texas Field by final order dated April 27, 1999, in Oil and Gas Docket No. 6E-0221265. Rule 25 sets the required well test period for East Texas Field wells to every other year, during March, April, or May and specifies that operators must report the producing or shut-in status of each well on the well status report in years when well tests are not required.
4. The Applicant requests that the Commission amend Rule 25 to change the W-10 well test frequency from two years to four years and to expand the test period from three months to six months. Specifically, the Application requests that the Commission order:
 - a. that W-10 well tests shall be conducted and submitted every four years (instead of every 2 years as currently required) beginning in 2016, and during each non-test year operators shall report the producing or shut in status of each well on the oil well status report;

- b. that the W-10 well test period shall be July 1 to December 31 (instead of March 1 to May 31 as currently required), with an oil well status report due date of January 1 and an effective date of February 1; and
 - c. that W-10 well tests currently due in 2014 shall be rescheduled for 2016, and for 2014 and 2015, operators shall report the producing or shut in status of each well on the oil well status report due by January 1 following each respective year.
5. The evidence proves that the East Texas Field is in an advanced stage of depletion as a consequence of over 80 years of production:
- a. The strong water drive has now advanced to the point that the water column has swept across the entire field.
 - b. The field continues to cover a large area in five counties, with approximately 4,200 currently producing wells and daily oil production of approximately 9,300 barrels.
 - c. Most wells in the field typically produce only a few barrels of oil per day.
 - d. Most wells in the field produce with a 99% water cut.
 - e. Fewer than 50 wells in the field are currently capable of producing top allowable.
6. The evidence proves that reduction of testing costs will extend the producing life of wells in the field:
- a. The cost of W-10 well testing is a significant portion of the lease operating expense for wells in this field.
 - b. The proposed four-year testing cycle, in combination with expanding the testing period to six months, will reduce the amount of equipment and personnel required for regulatory compliance. The resulting reduction in well testing costs will significantly reduce the economic limit and significantly increase ultimate recovery of oil, resulting in an estimated incremental recovery of approximately 200,000 barrels for each test cycle.
 - c. The requested amendment will extend the producing life of wells in the field.

7. The requested amendment will optimize ultimate oil recovery and prevent avoidable physical waste of hydrocarbons

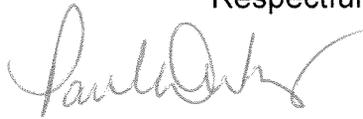
CONCLUSIONS OF LAW

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. The proposed field rules amendment will protect correlative rights, prevent waste and promote the orderly development of the field.

EXAMINERS' RECOMMENDATION

Based on the above findings and conclusions of law, the examiners recommend approval of the proposed amendment to Rule 25 of the special field rules for the East Texas Field.

Respectfully submitted,



Paul Dubois
Technical Examiner



Terry Johnson
Legal Examiner