



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 03-0289967

THE APPLICATION OF EOG RESOURCES, INC. TO AMEND FIELD RULES IN THE MOSSY GROVE (GLEN ROSE) FIELD, WALKER AND MADISON COUNTIES, TEXAS

HEARD BY: Brian Fancher, P.G. - Technical Examiner
Michael Crnich - Legal Examiner
Laura Miles-Valdez - Legal Examiner

HEARING DATES: July 23, November 18, November 25, and December 15, 2014
RECORD CLOSED: January 14, 2015
SUBMISSION DATE: January 16, 2015
CONFERENCE DATE: January 27, 2015

APPEARANCES:	REPRESENTING:
APPLICANT:	
Flip Whitworth	EOG Resources, Inc.
Rick Johnston	

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

EOG Resources, Inc. ("EOG") requests to amend the special field rules in effect for the Mossy Gove (Glen Rose) Field, which provide the following:

1. The entire correlative interval from 11,522 feet to 13,020 feet as shown on the log of the Humble Oil & Refining - M.B. mcAdams lease, Well No. 1 (subsequently renamed the Arrow Exploration Co.'s Mossy Grove Gas Unit, No. 1) M.G. Casillas Survey, A-112), Walker County, shall be designated as a single reservoir for proration purposes and be designated as the mossy Grove (Glen Rose) Field;
2. 467' lease, property, or subdivision line spacing and 933' between well spacing for vertical wells; 100' property, lease, or subdivision line spacing for a horizontal wells penetration and terminus locations; 933' lease, property, or subdivision line spacing and 933 between well spacing for each horizontal drainhole well, and parallel/subparallel restrictions of 300';

3. 320-acre oil or gas proration units with 10% tolerance; 6,500' maximum diagonal; assignment of acreage to a horizontal well based on a formula apart from Statewide Rule 86; multiple drainhole wells (*i.e.*, stacked laterals); and, proration unit plats;
4. Allocation based on 100% acreage for gas wells and allowables for oil wells based on the applicable yardstick multiples by a fraction composed of acreages; Statewide Rule 49(b) restrictions for gas to oil ratio;

The Notice of Hearing (“NOH”) dated June 30, 2014 indicates that EOG requests the following field rules amendments

1. No change;
2. 330' lease, property, or subdivision line spacing and 0' between well spacing; 100' lease, property, or subdivision line spacing for a horizontal well's first and last take point and 330' lease, property, or subdivision line spacing for all take points between the first and last take points; 50' subsurface box rule; off-lease penetration point;
3. “Expedited Rule 38” provision; amend the definition of ‘L’ in conjunction with the formula used to assign acreage to horizontal wells; Form P-15s in lieu of proration unit plats;
4. No change;
5. Stacked laterals.

On August 6, 2014, EOG's counsel submitted a letter withdrawing its request for “Expedited Rule 38 Exceptions” in the field.

On October 28, 2014, the Examiners issued a letter to EOG seeking clarification in the subject application. At the initial hearing, representatives of EOG indicated that it was unsure whether all persons required to be notice, pursuant to Statewide Rule 43, were included on the original Service List for the June 30th NOH. In response to the Examiners' October 28th letter, EOG requested to reopen the record on November 18, 2014 to respond to the Examiners' October 28th inquiry.

On November 18, 2014, the record was reopened at EOG's request. At the reopened hearing, EOG indicated it sought the following relief in the subject application: (1) to adopt the subject field's existing temporary field rules on a permanent basis; or, (2) in the alternative, to continue the existing temporary field rules for a period of two years.

On November 24, 2014, the Examiners issued a letter to EOG stating that the existing record does support EOG's amended application requests. However, EOG was provided the opportunity

to submit additional evidence by late-filed exhibits.

On November 25, 2014, EOG submitted its third request to reopen the record in order to accomplish the following: (1) submit the names and addresses of additional parties required to be noticed, pursuant to Statewide Rule 43; and, (2) request feedback from the Examiners concerning the sufficiency of the existing evidence to support (i) the adoption of the requested field rule amendments as temporary rules, and (ii) the continuation of the existing temporary rules for the field.

On December 10, 2014, the Examiners issued a letter to EOG informing it of the following: (1) if EOG seeks to continue the existing special field rules as temporary, the Examiners would recommend it accordingly; (2) in the alternative, if EOG seeks to amend the existing temporary field rules certain additional information is necessary for a recommendation to approve the application.

By electronic correspondence dated December 11, 2014, EOG requested to reopen the record for the fourth time. In its December 11th correspondence, EOG indicated the purpose of reopening the record was to present the names and addresses of additional parties to be notified of its subject application. Further, at the reopened hearing EOG would inform the Examiners of the relief it seeks in the subject application.

On December 15, 2014, the record was reopened. EOG submitted a revised Service List along with its final set of proposed field rule amendments in the subject application which included:

1. No change;
2. 467' lease, property, or subdivision line spacing and 0' between well spacing; take points; 100' lease, property, or subdivision line spacing for a horizontal well's first and last take point and 467' lease, property, or subdivision line spacing for all take points between the first and last take points; 50' subsurface box rule; off-lease penetration point;
3. Amend the definition of 'L' in conjunction with the acreage formula used to assign acreage to horizontal wells; no maximum diagonal; eliminate the requirement to file proration unit plats;
4. No change;
5. Stacked laterals.

On December 16, 2014, the Examiners issued a letter to the December 15th revised Service List informing all persons/entities EOG's subject application. No protest was received by the Examiners thereafter.

On December 19, 2014, the Commission's Oil and Gas Staff submitted a letter in response to the Examiners' December 16th correspondence. In its December 19th letter, Commission staff expressed concern for EOG's request to outright remove the requirement to file proration unit plats because Staff believed acreage could not be assigned to wells if approved as requested.

On January 2, 2015, EOG submitted proposed language to address Staff's concerns expressed in its December 19th correspondence. However, upon review the Examiners were disinclined to incorporate EOG's proposed language. Instead, the Examiners decided to incorporate the commonly used language involving the replacement of proration unit plats with Commission Form P-15. EOG nor Commission staff considered the Examiners recommendation, in this instance, as adverse to the subject application.

The subject application is unopposed, and the Examiners recommend approval of the application, as ultimately requested by EOG.

DISCUSSION OF THE EVIDENCE

Ultimately, EOG requested to amend the existing temporary field rules for the subject field to provide for the following:

1. No change;
2. 467' lease, property, or subdivision line spacing and 0' between well spacing; take points; 100' lease, property, or subdivision line spacing for a horizontal well's first and last take point and 467' lease, property, or subdivision line spacing for all take points between the first and last take points; 50' subsurface box rule; off-lease penetration point;
3. Amend the definition of 'L' in conjunction with the acreage formula used to assign acreage to horizontal wells; no maximum diagonal; file Form P-15 in lieu of proration unit plats;
4. No change;
5. Stacked laterals.

Furthermore, EOG requests that its proposed temporary field rule amendments be in effect for a period of two years.

Mr. Rick Johnston, a consulting petroleum engineer, testified on behalf of EOG in the instant case. Mr. Johnston is an expert in petroleum engineering.¹ At the time of the hearing, EOG was

¹ Testimony at 10:00 of audio recording.

listed as the only operator in the subject field on the Commission's July 2014 Gas Proration Schedule. EOG currently operators about 10 wells in the subject field, which is classified a non-associated gas field. The existing temporary special field rules were adopted on July 1, 1997, pursuant to Oil & Gas Final Order 03-0216040.² On August 31, 1999, the Commission extended the temporary special field rules for a period of one year, or until the Commission reviewed the effectiveness of the temporary field rules.³ Mr. Johnston testified that originally, horizontal wells in the subject field were drilled and completed with the horizontal portion of the well being an open-hole completion. In other words, the productive section of the well-bore did not include casing or cement. In the immediate case, EOG seeks to amend the existing temporary special field rules to provide a set of "modern" rules that offer greater flexibility for drilling horizontal wells completed with casing and cement.

In support of its position, EOG submitted a production graph for the subject field based on annual production and well count. In short, the graph indicates that the subject field was composed of one well from its discovery until roughly the late 1990's. Beyond that, the field appeared to be on hyperbolic decline with several periods of increased production, beginning in the mid 1980's. Shortly after 1997, additional wells were drilled in the subject field, attributing to greater overall production. At the time of the July 2014 hearing, the subject field included 10 wells and cumulatively produced roughly 19.7 billion cubic feet of natural gas and 181,000 barrels of oil equivalent.

EOG submitted a two-dimensional diagram to support its request for off-lease penetration points. In summary, Mr. Johnston testified that the amount of additional take point length will be approximately 300 feet if its request to incorporate off-lease penetration points is approved. Mr. Johnston stated, "to truly take advantage of the first and last take point rule of 100 feet, the off-lease penetration point is necessary due to the length required to "bend" the horizontal well from vertical to horizontal, which on average takes about 600 feet."⁴ EOG further noted that its requested off-lease penetration point rule has been adopted many times over in similar fields to the subject field.

EOG submitted a similar diagram for its requested stacked lateral rule.⁵ In short, EOG proposed that a stacked lateral well in the subject field would consist of two or more wells at difference surface locations. Mr. Johnston testified that EOG's proposed stacked lateral well provision is appropriate in the subject field due to the field's correlative interval encompassing roughly 1,500 feet of vertical strata. Mr. Johnston indicated that there may be several target zones within the overall correlative interval, and that the proposed stacked lateral well provision offers operators in the subject field a feasible approach to drilling multiple wells on the same lease in the

² EOG Exh. No. 4.

³ Oil & Gas Final Order 03-0221727

⁴ Testimony at 30:15 of audio recording.

⁵ EOG Exh. No. 10 - Stacked Lateral Rule

same field without experiencing a violation of Statewide Rule 41.⁶ EOG noted that its requested stacked lateral provision has been adopted in similar fields to the subject field.

EOG submitted a diagram aimed at supporting its proposed 50' subsurface box rule provision. Mr. Johnston testified that the purpose of the proposed box rule is to offer wells completed in the subject field the flexibility of 50 feet on either side of its permitted well path, due to the potential minor drifting nature of drilling horizontal/directional wellbores. Mr. Johnston stated that if its proposed box rule is not granted, the result would require any well that extends outside of its permitted well path to obtain a Statewide Rule 37 exception. EOG noted that its proposed box rule has been adopted many times over in similar fields to the subject field.

In summary, Mr. Johnston testified that EOG's proposed field rule amendments will facilitate operators in the subject field to increase the overall recovery of hydrocarbons from the field. Beyond that, the proposed field rule amendments would protect correlative rights and prevent waste.⁷

FINDINGS OF FACT

1. EOG Resources, Inc. ("EOG") requests to amend the temporary special field rules in effect for the Mossy Gove (Glen Rose) Field.
2. Notice of the subject application was provided to all persons required to be noticed, pursuant to Statewide Rule 43.
3. EOG's proposed field rules amendments include:
 - a. 467' lease, property, or subdivision line spacing and 0' between well spacing; take points; 100' lease, property, or subdivision line spacing for a horizontal well's first and last take point and 467' lease, property, or subdivision line spacing for all take points between the first and last take points; 50' subsurface box rule; off-lease penetration point;
 - b. Amend the definition of 'L' in conjunction with the acreage formula used to assign acreage to horizontal wells; no maximum diagonal; file Form P-15 in lieu of proration unit plats;
 - c. Stacked laterals.
4. Adopting EOG's proposed field rule amendments is supported by the record evidence.

⁶ Compare testimony at 32:00 with remarks on EOG Exh. No. 10.

⁷ Testimony at 36:50 of audio recording.

5. Amending the existing temporary special field rules, as proposed by EOG, will result in increased recovery of hydrocarbons from the Mossy Grove (Glen Rose) Field.
6. Extending EOG's proposed field rule amendments on a temporary basis for two years is appropriate.

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. Legally sufficient notice has been provided to all affected persons.
3. Amending the temporary special field rules for the Mossy Grove (Glen Rose) Field will prevent waste and protect correlative rights.

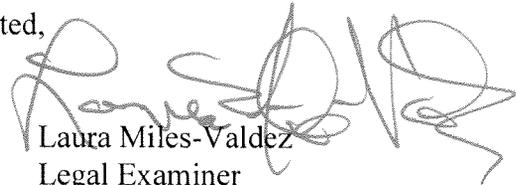
EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend the temporary special field rules for the Mossy Grove (Glen Rose) Field, as ultimately requested by EOG and modified by the Examiners.

Respectfully submitted,



Brian Fancher, P.G.
Technical Examiner



Laura Miles-Valdez
Legal Examiner