

**OIL AND GAS DOCKET NO. 10-0253878**

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**THE APPLICATION OF CIMAREX ENERGY CO. OF COLORADO TO AMEND THE FIELD RULES FOR THE MENDOTA, NW. (GRANITE WASH) FIELD, HEMPHILL AND ROBERTS COUNTIES, TEXAS**

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**Heard by:** Donna K. Chandler, Technical Examiner  
Marshall F. Enquist, Hearings Examiner

**Hearing Date:** December 7, 2007

**Appearances:**

**Representing:**

Flip Whitworth  
John Hicks  
Kerry Pollard  
Tony Cristelli  
Chris Carson  
Kevin Smith  
Mike Fouke

Cimarex Energy Co.

Sandra Buch

Devon Energy Production Company

Bill Spencer

Chesapeake Operating, Inc.

Glenn Johnson  
David Triana

Samson Lone Star LLC

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field rules for the Mendota, NW. (Granite Wash) Field were originally adopted on January 29, 1979 in Docket No. 10-71,103. The rules currently in effect for the field are summarized as follows:

1. Designation of the field as the correlative interval from 9,360 feet to 10,814 feet as shown on the log of the Flowers Trust "A" No. 2;

2. 467'-1,200' well spacing;
3. 160 acre oil and gas units; optional 80 acre units;
4. Allocation based on 75% deliverability/potential and 25% per well with AOF status;
5. Net gas-oil ratio authority with a daily gas limit of 1,200 MCF per well.

It is requested that the field rules be amended as follows:

1. No change;
2. 467' spacing to lease lines for horizontal and vertical wells; 467' spacing between vertical wells and vertical and horizontal wells; no minimum between-well spacing requirement between horizontal wells;
3. 160 acre/optional 80 acre density, with special provisions for Rule 38 exceptions after notice; special provision for spacing of stacked lateral wells;
4. No change;
5. No change.

These proposed rules are slightly different from the rules originally proposed by Cimarex. After negotiations between the parties and additional notice to all operators, the rules set out above were requested.

This application was unopposed and the examiner recommends that the field rules for the Mendota, NW. (Granite Wash) Field be amended as proposed.

### **DISCUSSION OF EVIDENCE**

The Mendota, NW. (Granite Wash) Field was discovered in 1965 and there are currently 164 wells producing from the field. Average production is about 1.4 BCF per month. Cumulative production from the field is about 73 BCF of gas. The field is classified as associated prorated with AOF status. There are approximately 20 oil wells carried in the field.

The Lard Ranch (Granite Wash -C-) Field is located approximately 10 miles to the northwest of the Mendota, NW. (Granite Wash) Field. Operators have been drilling horizontal wells in the Lard Ranch (Granite Wash -C-) Field since about 2005. Prior to 2005, there were only 3 producing wells in the field. Currently, there are 30 producing wells in the field. Production from that field has increased from 40 MMCF per year in 2005 to over 4,500 MMCF in 2006.

Cimarex believes that horizontal drilling in the Mendota, NW. (Granite Wash) Field will have comparable results to the Lard Ranch (Granite Wash -C-) Field. However, the Granite Wash formation in the Mendota, NW. (Granite Wash) Field is thicker than the Lard Ranch field and several horizontal laterals may be necessary in some wells.

Cimarex believes that some areas of the subject field must be developed to a density greater than 80 acres per well. As an example, Cimarex's 640 acre Flowers 61 lease is already developed to 40 acres per well. Cimarex has obtained many Rule 38 exceptions on this lease. When the Flowers 61 No. 16 was recently permitted, Cimarex provided evidence that remaining recoverable reserves on the lease at the current pressure were 23 BCF of gas. Even with the numerous Rule 38 exceptions granted for the lease, there would still be 10 BCF of gas unrecovered by existing wells. However, Cimarex acknowledges that there are areas of the field which do not need to be developed as densely. It is therefore requested that the 160/optional 80 acre density rule remain in effect, but that special provisions be adopted for the field which will allow the administrative approval of Rule 38 exceptions after notice to all operators and unleased mineral owners of tracts within 660 feet of any point on a horizontal well within the correlative interval. In no written protest is received after 21 days of Commission issued notice of an application, or if waivers are received, the application will be approved administratively without the filing of evidence to support the exception. If a written protest is received, the application will be set for hearing. This same procedure has been in place in the Spraberry (Trend Area) Field for many years.

Cimarex requests that the spacing rules for the field be amended to accommodate drilling of horizontal wells. Cimarex requests that the minimum lease line spacing of 467 feet be maintained for all wells and that spacing between vertical and horizontal wells be maintained at a minimum of 467 feet. However, it is requested that a between-well spacing limitation be eliminated between horizontal wells on the same lease. This will allow operators to complete laterals in different Granite Wash intervals in separate wellbores, without the need to obtain a Rule 37 exception.

Cimarex believes that the Granite Wash formation in the subject field will require development using no more than 2 horizontal laterals per vertical wellbore, and as many as five separate laterals will be necessary in some areas. This approach to development has been successful in the Newark, East (Barnett Shale) Field which is governed by rules for "stacked lateral" wells. Cimarex requests a rule for Mendota, NW. which mirrors the Newark rules. Such rule would allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes. It is proposed that stacked lateral be defined to be multiple horizontal drainholes which are drilled (1) from different surface locations on the same lease unit no more than 200 feet from each other at the surface and (2) no more than 300 feet from each other in a horizontal plane within the correlative interval. At the depth of the Granite Wash and the expected high pressures and temperatures, it would not be economically feasible to complete all horizontal laterals in a single vertical well.

In relation to the stacked lateral proposed rule, Samson requests that production from each lateral assigned to a stacked lateral wellbore be reported separately. This separate production report will be a supplement to the PR report for the stack lateral well. The Commission's compliance section has designed a form for use in conjunction with this reporting.

#### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. Field rules for the Mendota, NW. (Granite Wash) Field provide for designated interval, 467'-1,200' well spacing, 160/optional 80 acre density and allocation based on 75% deliverability/potential and 25% per well.
3. The Mendota, NW. (Granite Wash) Field was discovered in 1965 and there are currently 164 gas wells producing from the field.
4. Horizontal drilling in the field is expected to increase reserves.
  - a. The Lard Ranch (Granite Wash -C-) Field is located approximately 1025 miles to the northwest of the Mendota, NW. (Granite Wash) Field.
  - b. Horizontal drilling in the Lard Ranch (Granite Wash -C-) Field has resulted in increased production from 40 MMCF per year in 2005 to over 4,500 MMCF in 2006.
  - c. The Granite Wash formation in the Mendota, NW. (Granite Wash) Field is much thicker than the Lard Ranch field and several horizontal laterals may be necessary in some wells.
5. Some areas of the Mendota, NW. (Granite Wash) Field must be developed to a density greater than 80 acres per well to maximize reserves.
  - a. The 640 acre Flowers 61 lease is already developed to less than 40 acres per well.
  - b. Recent calculations indicate that remaining recoverable reserves on the Flowers 61 lease at the current pressure are 23 BCF of gas.

- c. With the current development on the lease, there will still be 10 BCF of gas unrecovered by existing wells.
6. The proposed notice provision for administrative approval of Rule 38 exceptions for this field will allow development of areas which require denser development.
7. The proposed minimum lease line spacing of 467 feet for all wells, minimum spacing of 467 feet between vertical and horizontal wells, and elimination of a minimum spacing requirement between horizontal wells on the same lease will provide flexibility in developing the field with horizontal laterals.
8. The proposed "stacked lateral" rule for the Mendota, NW. (Granite Wash) Field will allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes.

#### **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 the field rules for the Mendota, NW. (Granite Wash) Field as proposed by Cimarex Energy Co. is necessary to prevent waste and protect correlative rights.

#### **RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends that the field rules for the Mendota, NW. (Granite Wash) Field be amended as proposed by Cimarex.

Respectfully submitted,

Donna K. Chandler  
Technical Examiner

Marshall F. Enquist  
Hearings Examiner