# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 14124 (REOPENED) ORDER NO. R-13013-B

APPLICATION OF CIMAREX ENERGY CO. OF COLORADO FOR SPECIAL RULES AND REGULATIONS FOR THE APACHE RIDGE-BONE SPRING POOL, LEA COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

## BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on February 19, 2009, at Santa Fe, New Mexico, before Examiner Richard Ezeanyim.

NOW, on this 12<sup>th</sup> day of March, 2009, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

### FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and of the subject matter.
- (2) Cimarex Energy Co. of Colorado ("applicant" or "Cimarex") seeks an order establishing special rules and regulations for the Apache Ridge-Bone Spring Pool (the "Pool"), including a limiting gas-oil ratio of 5000 cubic feet of gas for each barrel of oil produced.
- (3) The Pool was created by Division Order No. R-8075, dated December 1, 1985, and currently covers the following lands:

Township 19 South, Range 33 East, NMPM

Section 36: SE/4

Township 19 South, Range 34 East, NMPM

Section 30: SE/4

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Section 31: W/2 and NE/4

Section 32: NW/4

(4) The discovery well for the Pool is the Mescalero 30 Fed. Well No. 1 (API No. 30-025-29266), located 510 feet from the South line and 990 feet from the East line of Section 30, Township 19 South, Range 34 East, NMPM. It is an oil well with perforations in the Bone Spring formation at 9,376-9,604 feet subsurface. Under Division Rules and Regulations, spacing in the Pool is 40 acres, with wells to be located no closer than 330 feet to a quarter-quarter section line. The Pool has a depth bracket allowable of 275 barrels of oil per day with a limiting gas-oil ratio of 2000 cubic feet per barrel of oil produced.

- (5) Fasken Oil and Ranch, Ltd. ("Fasken") entered an appearance in this case through legal counsel.
- (6) Case No. 14124 was originally heard on June 26, 2008. In that case, Cimarex sought an order establishing special rules and regulations for the Pool, including a depth bracket allowable of 1300 barrels of oil per day with a limiting gas-oil ratio of 3000 cubic feet of gas for each barrel of oil produced, and that the pool rules be made effective as of August 1, 2007. Fasken entered an appearance in that hearing in opposition to the relief sought by applicant. By Order No. R-13013, the Division denied the application; however, in Finding Paragraphs (11) through (14), the Division concluded the following:
  - (11) The Apache Ridge-Bone Spring reservoir is a solution gas drive reservoir. However, there is no gas cap present in this reservoir because the reservoir consists of thinly laminated sections, and does not have very good vertical permeability.
  - (12) The initial pressure in the reservoir is approximately 3,800 pounds per square inch (psi), and the bubble point pressure lies between 2,500 to 3,000 psi. At the current reservoir pressures of 1,800 to 2,000 psi, the wells are now producing below the bubble point of the reservoir, thereby leading to increases in the high gas-oil ratios found in the wells.
  - (13) From the testimony presented by both parties, the Division believes that there are four (4) producing intervals in the zone of interest, namely: (i) the First Bone Spring Sand; (ii) the Upper Airstrip; (iii) the Airstrip Dolomite; and (iv) the Basal Bone Spring Sand. Each of these intervals contributes to the overall production from each well. However, in some zones of the reservoir, all the four producing intervals may not be present.
  - (14) The most prolific producing zone is the Upper Airstrip Dolomite, but productivity varies from zone-to-zone and from well-to-well.

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- (7) Order No. R-13013 was appealed to the Commission *de novo* by Cimarex. However, Cimarex subsequently amended its application to request only an increase in the gas-oil ratio, and the matter was remanded back to the Division by Order No. R-13013-A.
  - (8) At the February 19, 2009 hearing applicant presented evidence that:
    - (a) There are now 20 wells completed in the Pool, which provide additional data on the reservoir.
    - (b) The Pool-wide gas-oil ratio has increased to approximately 5000 cubic feet of gas per barrel of oil produced.
    - (c) The conclusions set forth in Finding Paragraph (6) above are correct.
    - (d) If the gas-oil ratio is not increased, a number of wells in the Pool will have production restricted.
- (9) Fasken now supports the proposed increase in the gas-oil ratio sought by applicant.
- (10) Approval of the subject application will afford applicant and other operators the opportunity to recover their just and equitable shares of oil and gas reserves from the Apache Ridge-Bone Spring Pool, thereby preventing waste, and will not violate correlative rights.

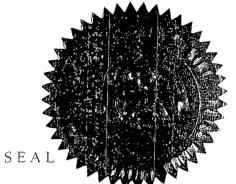
### IT IS THEREFORE ORDERED THAT:

- (1) The application of Cimarex Energy Co. of Colorado for an order establishing special rules and regulations for the Apache Ridge-Bone Spring Pool is hereby approved.
- (2) The following "Special Rules and Regulations for the Apache Ridge-Bone Spring Pool" are hereby adopted:
  - Rule 1: Each well completed or recompleted in the Apache Ridge-Bone Spring Pool, or within one mile thereof and not nearer to or within the limits of another Bone Spring pool, shall be drilled, spaced, operated, and produced in accordance with the Special Rules hereinafter set forth.
  - Rule 2: The limiting gas-oil ratio within the pool shall be 5000 cubic feet of gas per barrel of oil. The depth bracket allowable of 275 barrels of oil per day shall not be exceeded.

Rule 3: All other rules shall conform to the Division's statewide rules.

(3) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director