

**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:**

**APPLICATION OF CIMAREX ENERGY CO.  
FOR COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO**

**CASE NO. 14698  
CASE NO. 14703  
CASE NO. 14704  
CASE NO. 14705**

**APPLICATION OF COG OPERATING LLC FOR A NON-STANDARD  
SPACING AND PRORATION UNIT, NON-STANDARD  
LOCATION AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO.**

**CASE NO. 14725  
CASE NO. 14726  
ORDER NO. R-13490**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

These competing applications were consolidated by the Division and initially came on for hearing on September 1, 2011, in Santa Fe, New Mexico, before Examiner Terry Warnell whereupon evidence was taken. On September 29, 2011, these matters were called again before Examiner William V. Jones to address certain notice issues.

NOW, on this 14<sup>th</sup> day of December, 2011, the Division Director, having considered the testimony, the record and the recommendations of the Examiner on these competing applications,

**FINDS THAT:**

- (1) Due public notice has been given, and the Division has jurisdiction of these cases and of the subject matter.
- (2) Case Nos. 14698, 14703, 14704, 14705, 14725, and 14726 were consolidated at the time of hearing for the purposes of testimony.
- (3) By its applications in Case Nos. 14698, 14703, 14704, and 14705, Cimarex Energy Co. ("Cimarex"), seeks orders pooling all uncommitted mineral interests from the

surface to the base of the Yeso formation underlying, respectively, (i) the SE/4 SE/4, (ii) the NW/4 SE/4, (iii) the NE/4 SE/4, and (iv) the SW/4 SE/4, of Section 6, Township 19 South, Range 26 East, NMPM, Eddy County, New Mexico, to form standard 40-acre oil spacing and proration units for all pools or formations developed on 40-acre spacing within that vertical extent. The units will be dedicated initially to four vertical wells.

(4) By its competing applications in Case Nos. 14725 and 14726, COG Operating LLC ("COG"), seeks orders pooling all uncommitted mineral interests in the Yeso formation underlying, respectively, (i) the W/2 E/2, and (ii) the E/2 E/2, of Section 6, Township 19 South, Range 26 East, NMPM, Eddy County, New Mexico, to form non-standard 160-acre oil spacing and proration units for all pools or formations developed on 40-acre spacing within that vertical extent. The units will be dedicated initially to two horizontal wells.

(5) Due to the factual relationship between the competing cases, one order should be entered as to all cases.

(6) All parties appeared at the hearing and presented testimony and supporting evidence. Cimarex presented evidence supporting its applications and opposing COG's applications. COG presented evidence supporting its applications and opposing Cimarex's applications.

(7) Neither Cimarex nor COG dispute wells costs, well locations, or geology (a contiguous heterogeneous carbonate) in the proposed spacing units.

(8) Both Cimarex and COG want to develop and operate the subject acreage in their well units in Section 6, targeting the Paddock producing member of the Yeso formation at a depth of around 3000 feet.

(9) Both COG and Cimarex have the right to drill within the proposed spacing units, and both seek to be named operator of their respective proposed wells and spacing units.

Evidence:

(10) Cimarex presented the following evidence:

(a) The E/2 of Section 6 (surface and minerals) is all private fee land.

(b) Cimarex owns or controls 55% of the working interest in the N/2 SE/4 and SW/4 SE/4 (Colorado lease) of Section 6, while COG owns or controls 45% of the working interest. The SE/4 SE/4 (Kansas lease) is owned 50% by Cimarex and 50% by COG.

(c) Cimarex began evaluating the prospect in late summer of 2010, and sent well proposals to the then working interest owners in April 2011.

Cimarex never received any responses from the other working interest owners to its well proposals.

(d) Cimarex has obtained a surface use agreement from the surface owners of the SE/4 of Section 6.

(e) Cimarex has Division-approved APDs for its proposed wells.

(f) A comparison of drilling and completion methods in the Yeso trend shows that:

i Both Cimarex's and COG's vertical wells have higher recovery factors than the parties' horizontal wells; and

ii Due to different fracing techniques, Cimarex's vertical and horizontal Yeso wells have obtained substantially higher recovery factors and EURs than COG's wells.

(g) After drilling one or two horizontal wells on its leases, COG reverted to drilling vertical wells.

(h) Cimarex's vertical well recoveries across the Yeso trend are approximately 150 MBOE/well. (COG used 30-40 year old Yeso wells in the area to contend that vertical wells would recover only 12.5 MBOE/well.)

(i) Under a full plan of development for the E/2 of Section 6, the following reserves would be produced:

i Thirty-two (32) vertical wells will recover 4,800 MBOE, at a recovery cost of \$9.18/BOE; and

ii Four (4) horizontal wells will recover 1,308 MBOE/well, at a recovery cost of \$8.70/BOE.

(j) Cimarex is currently completing several vertical wells in the Yeso trend approximately 1-1/2 miles north-northeast of Section 6, in Section 32, Township 18 South, Range 26 East, NMPM. The completion reports on some of these wells will soon be filed with the Division.

(11) COG presented the following evidence:

(a) COG, Cimarex, Yates Petroleum Corporation, MYCO Industries, Inc., Abo Petroleum Corporation, DHA, LLC, and Oxy Y-1 Company hold leasehold interests in the SE/4 of Section 6.

(b) COG believes that their horizontal well proposal provides a more efficient and effective means of recovering the reserves in the Yeso formation underlying the E/2 of Section 6, including those reserves in the SE/4 of Section 6.

(c) COG has discussed the proposed full-section horizontal development plans with all of the working interest owners in the SE/4 of Section 6.

(d) COG has no surface use agreement with the surface owner in the SE/4 of Section 6.

(e) COG derives its interest in the lands involved in Case Nos. 14703-14705 under a Development Agreement with Yates Petroleum Corporation ("Yates") executed in June 2011.

(f) COG expects to recover 327 MBOE/horizontal well, though it could not identify any horizontal well in the Yeso trend that it has drilled which has recovered this amount of reserves.

(g) COG relied on horizontal wells drilled in the southern tier of Township 19 South, Range 25 East, NMPM to support its calculated horizontal well EURs. However, the nearest horizontal wells to Section 6, in Section 30, Township 19 South, Range 26 East, NMPM (the Coffin State and Crypt State wells) are uneconomic.

(h) COG presented a letter from DHA, LLC, supporting COG's full-section horizontal wells and likewise expressing the opinion that COG's proposed horizontal wells provide a more efficient and effective means of recovering the reserves in the Glorieta-Yeso formation underlying the SE/4 of Section 6.

(i) COG's Landman testified the company has discussed its proposed full-section horizontal wells with Oxy Y-1 and that it favors COG's proposed horizontal development plan over the vertical development plan proposed by Cimarex.

(j) There have been five vertical wells drilled in the Yeso formation in the nine sections surrounding Section 6.

(k) Shortly before the hearing, COG initiated a meeting with Cimarex but the companies were unable to resolve their competing development plans.

Conclusions:

(12) The Division concludes as follows:

(a) Both Cimarex and COG are targeting the Paddock producing member of the Yeso formation at a depth of around 3000 feet. The Paddock in this area is 500-600 feet thick.

(b) Both parties generally agree on the Yeso geology in the subject area and both parties are capable operators in the Yeso trend. However, the parties strongly disagree about how to drill and complete the proposed wells.

(c) Neither Cimarex nor COG dispute well costs, well locations, or unit geology.

(d) There appear to be no faults or other geologic impediments to full-section development in the subject area.

(e) Using proven vertical drilling methods as proposed by Cimarex will minimize well costs and operating costs.

(f) There is no debate that COG's proposed horizontal well development plan will result in less surface disturbance than Cimarex's proposed vertical well development plan.

(13) There is no cut and dried method of developing this reservoir. Historically, it has been developed vertically; however horizontal completions are becoming more common. The evidence suggests that both horizontal and vertical wells may be needed to effectively recover the reserves in the Glorieta-Yeso formation underlying the E/2 of Section 6.

(14) Traditionally, the Division has established spacing units comprising separate and distinct areas, without overlap. However, the advent of horizontal wells has necessitated departures from that pattern. Hence the fact that the units established by this Order will overlap should not preclude their approval. No statute or rule forbids overlapping spacing units.

(15) To protect correlative rights, prevent waste, and afford to the owner of each interest in the Units the opportunity to recover or receive without unnecessary expense its just and fair share of hydrocarbons, both Cimarex's and COG's applications should be approved by pooling all uncommitted interests, whatever they may be, in the oil and gas within the well units.

(16) Two or more separately owned tracts are embraced within the Units, and/or there are royalty interests and/or undivided interests in oil and gas minerals in one or more tracts included in the units that are separately owned.

(17) There are interest owners in the proposed units who have not agreed to pool their interests.

(18) Any pooled working interest owner who does not pay its share of estimated well costs should have withheld from production its share of reasonable well costs plus an additional 200% thereof as a reasonable charge for the risk involved in drilling the wells.

**IT IS THEREFORE ORDERED THAT:**

(1) Pursuant to the applications of Cimarex Energy Co., all uncommitted mineral interests in all formations from the surface to the base of the Yeso formation are hereby pooled to form the following units ("the Units"):

Case No. 14698: The SE/4 SE/4 of Section 6, Township 19 South, Range 26 East, NMPM, to form a standard 40-acre oil spacing and proration unit for any and all formations or pools developed on 40-acre spacing within that vertical extent. The unit will be dedicated to the Kansas 6 Fee Well No. 1 (API No. 30-015-39255).

Case No. 14703: The NW/4 SE/4 of Section 6, Township 19 South, Range 26 East, NMPM, to form a standard 40-acre oil spacing and proration unit for any and all formations or pools developed on 40-acre spacing within that vertical extent. The unit will be dedicated to the Colorado 6 Fee Well No. 1 (API No. 30-015-39346).

Case No. 14704: The NE/4 SE/4 of Section 6, Township 19 South, Range 26 East, NMPM, to form a standard 40-acre oil spacing and proration unit for any and all formations or pools developed on 40-acre spacing within that vertical extent. The unit will be dedicated to the Colorado 6 Fee Well No. 2 (API No. 30-015-39256).

Case No. 14705: The SW/4 SE/4 of Section 6, Township 19 South, Range 26 East, NMPM, to form a standard 40-acre oil spacing and proration unit for any and all formations or pools developed on 40-acre spacing within that vertical extent. The unit will be dedicated to the Colorado 6 Fee Well No. 5 (API No. 30-015-39257).

(2) Pursuant to the application of COG Operating LLC, all uncommitted mineral interests in all formations from the surface to the base of the Yeso formation are hereby pooled to form the following non-standard 160-acre units ("the Units"):

Case No. 14725: The W/2 E/2 of Section 6, Township 19 South, Range 26 East, NMPM, all uncommitted interests in the Glorieta-Yeso formation underlying the W/2 E/2 of Section 6, Township 19 South, Range 26 East, NMPM, to form a non-standard 160-acre spacing and proration unit for any and all formations or pools developed on 160-acre spacing within that vertical extent. The unit will be dedicated to the Arabian "6" Fee Well No. 7H.

Case No. 14726: The E/2 E/2 of Section 6, Township 19 South, Range 26 East, NMPM, all uncommitted interests in the Glorieta-Yeso formation underlying the E/2 E/2 of Section 6, Township 19 South, Range 26 East, NMPM, to form a non-standard 160-acre spacing and proration unit for any and all formations or pools developed on 160-acre spacing within that vertical extent. The unit will be dedicated to the Arabian "6" Fee Well No. 8H.

(3) Cimarex Energy Co. and COG are hereby each designated operators (or "operators") of the subject wells and of the Units.

(4) The operators of the Units shall commence drilling their respectively proposed wells on or before December 15, 2012 and shall thereafter continue drilling the wells with due diligence to test the Glorieta-Yeso formation.

(5) In the event the operator does not commence drilling any proposed well on or before December 15, 2012, Ordering Paragraph (1) shall be of no effect as to such well and the unit dedicated thereto unless the operator obtains a time extension from the Division Director for good cause.

(6) Should any proposed well not be drilled and completed within 120 days after commencement thereof, Ordering Paragraph (1) shall be of no further effect and the applicable Unit created by this Order shall terminate, unless the operator appears before the Division Director and obtains an extension of time to complete the well for good cause demonstrated by satisfactory evidence.

(7) Upon final plugging and abandonment of any of the proposed wells and any other wells drilled on the Unit herein dedicated to such well pursuant to NMAC 15.19.13 Sections 9-11, such pooled Unit created by this Order shall terminate, unless this order has been amended to authorize further operations as to such Unit.

(8) After pooling, uncommitted working interest owners are referred to as pooled working interest owners. ("Pooled working interest owners" are owners of working interests in the Units, including unleased mineral interests, who are not parties to an operating agreement governing the Units established by this Order.) Pooled working interest owners in each 40-acre Unit shall share production and well costs in each vertical well to which such Unit is dedicated in proportion to their respective interests in such 40-acre Unit. Pooled working interest owners in each 160-acre Unit shall share production and well costs in each horizontal well to which such Unit is dedicated in proportion to their respective interests in such 160-acre Unit.

(9) After the effective date of this Order, the operator of each Unit shall furnish the Division and each known pooled working interest owner in such Unit an itemized schedule of estimated costs of drilling, completing and equipping the subject well to which such Unit will be dedicated ("well costs").

(10) Within 30 days from the date the schedule of estimated well costs is furnished, any pooled working interest owner in the applicable Unit shall have the right to pay its share of estimated well costs to the operator in lieu of paying its share of reasonable well costs out of production as hereinafter provided, and any such owner who pays its share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges. Pooled working interest owners who elect not to pay their share of estimated well costs as provided in this paragraph shall thereafter be referred to as "non-consenting working interest owners."

(11) The operator of each well shall furnish the Division and each known pooled working interest owner (including non-consenting working interest owners) an itemized schedule of actual well costs within 90 days following completion of such well. If no objection to the actual well costs is received by the Division, and the Division has not objected within 45 days following receipt of the schedule, the actual well costs shall be deemed to be the reasonable well costs. If there is an objection to actual well costs within the 45-day period, the Division will determine reasonable well costs after public notice and hearing.

(12) Within 60 days following determination of reasonable well costs, any pooled working interest owner who has paid its share of estimated costs in advance as provided above shall pay to the operator its share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator the amount, if any, that the estimated well costs it has paid exceed its share of reasonable well costs.

(13) The operator of each well is hereby authorized to withhold the following costs and charges from production from such well:

- a. the proportionate share of reasonable well costs attributable to each non-consenting working interest owner; and
- b. 200% of the above costs as a charge for the risk involved in drilling the wells.

(14) The operator of each well shall distribute the costs and charges withheld from production, proportionately, to the parties who advanced the well costs.

(15) Reasonable charges for supervision (combined fixed rates) are hereby fixed at:

- a. \$4500.00 per month while drilling vertical wells and \$450.00 per month while producing (Cimarex); and
- b. \$6000.00 per month while drilling horizontal wells and \$600.00 per month while producing (COG).

Provided that these rates shall be adjusted annually pursuant to Section III.1.A.3. of the COPAS form titled "*Accounting Procedure-Joint Operations*." The operator of each well is authorized to withhold from production from such well the proportionate share of both the supervision charges and the actual expenditures required for operating such well, not in excess of what are reasonable, attributable to pooled working interest owners.

(16) Any unleased mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under this order. Any well costs or charges that are to be paid out of production shall be withheld only from the working interests' share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(17) Should all the parties to this compulsory pooling order reach voluntary agreement subsequent to entry of this order, this order shall thereafter be of no further effect.

(18) The operator of each well and Unit shall notify the Division in writing of the subsequent voluntary agreement of all parties subject to the forced pooling provisions of this order with respect to such Unit.

(19) 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

JAMI BAILEY  
Director