



BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

IN THE MATTER OF THE PROMULGATION AND ) CAUSE NO. 421  
ESTABLISHMENT OF FIELD RULES TO GOVERN )  
OPERATIONS IN THE HEREFORD FIELD, WELD ) ORDER NO. 421-4  
COUNTY, COLORADO )

REPORT OF THE COMMISSION

This cause was heard by the Commission on January 13, 2011, in Suite 801, The Chancery Building, 1120 Lincoln Street, Denver, Colorado, for an order to: 1) vacate the approximate 640-acre drilling and spacing units established under Order No. 421-1 for Sections 9, 10, 14, 15, and 16, Township 11 North, Range 63 West, 6th P.M.; 2) establish three exploratory approximate 1,280-acre laydown drilling and spacing units; and 3) approve of up to two horizontal wells within each unit, for those same lands with overlapping units in Section 15.

FINDINGS

The Commission finds as follows:

1. EOG Resources, Inc. ("EOG" or "Applicant"), as applicant herein, is an interested party in the subject matter of the above-referenced hearing.
2. Due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
3. The Commission has jurisdiction over the subject matter embraced in said Notice, and of the parties interested therein, and jurisdiction to promulgate the hereinafter prescribed order pursuant to the Oil and Gas Conservation Act.
4. On February 22, 2010, the Commission issued Order No. 421-1, which among other things, established approximate 640-acre drilling and spacing units for certain lands including Sections 9, 10, 14, 15, and 16, Township 11 North, Range 63 West, 6<sup>th</sup> P.M., for the production of oil, gas and associated hydrocarbons from the Niobrara Formation, with no more than one horizontal well to be drilled in each unit.
5. On October 8, 2010, EOG, by its attorneys, filed with the Commission a verified application ("Application") for an order to: 1) vacate the approximate 640-acre drilling and spacing units established under Order No. 421-1 for Sections 9, 10, 14, 15, and 16, Township 11 North, Range 63 West, 6<sup>th</sup> P.M., ("Application Lands") for the production of oil, gas and associated hydrocarbons from the Niobrara Formation; 2) establish three exploratory approximate 1,280-acre laydown drilling and spacing units for the Application Lands as described below; and 3) approve of up to two horizontal wells within each drilling and spacing unit, for the production of oil, gas and associated hydrocarbons from the Niobrara Formation:

*Drilling and Spacing Unit #1*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 9 and 10: All

*Drilling and Spacing Unit #2*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 14 and 15: All

*Drilling and Spacing Unit #3*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 15 and 16: All

The surface location for any horizontal well permitted under this Application should be located anywhere upon the drilling and spacing unit, provided that the initial perforation, lateral and terminus of the horizontal leg into the Niobrara Formation should not be closer than 600 feet to the outside boundary of the drilling and spacing unit, and the interior section line shall be ignored, unless an exception is granted by the Director of the Commission. Further, the lateral of the horizontal leg into the Niobrara Formation should be located no closer than 600 feet from any other wellbore on the Application Lands which has been perforated the Niobrara Formation. Due to the overlapping of

Drilling and Spacing Units #2 and #3 in Section 15, portions of up to three horizontal legs drilled into the Niobrara Formation may underlie Section 15.

6. On January 3, 2011, EOG, by its attorney, filed with the Commission a written request to approve the Application based on the merits of the verified Application and the supporting exhibits. Sworn written testimony and exhibits were submitted in support of the Application.

7. Land testimony and exhibits submitted in support of the Application showed that EOG holds 100% leasehold ownership interest in the Application Lands. The land testimony also confirmed that EOG requested "up to two additional horizontal wells" in each proposed 1,280-acre drilling and spacing unit only because there are overlapping 1,280-acre drilling and spacing units in Section 15, and there will be portions of up to three wellbores that will underlie Section 15. EOG will allocate the production for the individual additional horizontal wells according to their respective "rolling" laydown 1,280-acre drilling and spacing unit.

8. Geological testimony submitted in support of the Application showed that: 1) the Niobrara Formation underlying the Application Lands has a total thickness ranging from 265 feet to 283 feet; 2) the Niobrara Formation within the Application Lands consists of two members, the Smoky Hill Chalk and the Ft. Hayes Limestone; and 3) the Niobrara Formation underlies all of the Application Lands.

9. Engineering testimony and exhibits submitted in support of the Application showed that: 1) EOG has drilled approximately 28 wells in the Hereford Field, which includes the Application Lands, with reported production in horizontal wells reported between 348 BOPD and 1,100 BOPD; 2) production from vertical wells in the area is highly variable, and significantly less than that achieved through horizontal wells; 3) Estimated Ultimate Recovery (EUR) in EOG wells in the Hereford Field vary between 130,000 to 285,000; 4) Estimated original oil in place is between 2,600,000 and 5,700,000 BBL; 5) estimated drainage from EOG wells in the area ranges between 92 acres and 202 acres; and 6) the drainage area ranges presented in the testimony support the additional horizontal infill wells.

10. The verified Application states that: 1) based on its early experience in drilling horizontal wells in the Niobrara Formation in Colorado, EOG believes that the Niobrara Formation underlying the Application Lands is an ideal candidate for the drilling and testing of up to two exploratory horizontal wells with lengthy laterals in 1,280 acre drilling and spacing units; 2) the Niobrara Formation may produce economic volumes of oil when drilled and completed within horizontal wells having longer laterals than are currently authorized by Order No. 421-1; 3) the appropriate setbacks for the drilling of up to two exploratory horizontal wells within each 1,280-acre unit for the Niobrara Formation of the Application Lands should be as follows: (a) the initial perforation, lateral and terminus of the horizontal wells within the Niobrara Formation should be located no closer than 600 feet from the boundary of the established drilling and spacing unit and the interior section line shall be extinguished; and (b) the lateral within the Niobrara Formation should be located no closer than 600 feet from any other wellbore on the Application Lands which has perforated the Niobrara Formation.

11. Testimony and exhibits submitted in support of the Application showed that production for the existing wellbores on the previously established 640-acre drilling and spacing units should remain in place, while production for horizontal wells drilled within the proposed "rolling" laydown 1,280-acre drilling and spacing units shall be allocated on a 1280-acre basis.

12. The above-referenced testimony and exhibits show that the granting of the Application will allow more efficient reservoir drainage, will prevent waste, will assure a greater ultimate recovery of oil/gas, and will not violate correlative rights.

13. EOG agreed to be bound by oral order of the Commission.

14. Based on the facts stated in the verified Application, having received no protests, and based on the Hearing Officer review of the Application under Rule 511., the Commission should enter an order to: 1) vacate the approximate 640-acre drilling and spacing units established under Order No. 421-1 for Sections 9, 10, 14, 15, and 16, Township 11 North, Range 63 West, 6th P.M.; 2) establish three exploratory approximate 1,280-acre laydown drilling and spacing units; and 3) approve of up to two horizontal wells within each unit within the Application Lands, with three horizontal well bores permitted in Section 15, due to units 2 and 3 overlapping in Section 15.

#### ORDER

NOW, THEREFORE IT IS ORDERED, that the below-listed approximate 640-acre drilling and spacing units established in Order No. 421-1, are hereby vacated.

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 9, 10, 14 through 16: All

IT IS FURTHER ORDERED, that three approximate exploratory 1,280-acre laydown drilling and spacing units, are hereby established, consisting of the below-listed lands:

*Drilling and Spacing Unit #1*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 9 and 10: All

*Drilling and Spacing Unit #2*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 14 and 15: All

*Drilling and Spacing Unit #3*

Township 11 North, Range 63 West, 6<sup>th</sup> P.M.  
Sections 15 and 16: All

IT IS FURTHER ORDERED, that setbacks for the drilling of up to two exploratory horizontal wells within each 1,280-acre unit for the Niobrara Formation of the Application Lands shall be as follows: (a) the initial perforation, lateral and terminus of the horizontal wells within the Niobrara Formation shall be located no closer than 600 feet from the boundary of the established drilling and spacing unit and the interior section line shall be extinguished; and (b) that the lateral within the Niobrara Formation shall be located no closer than 600 feet from any other wellbore on the Application Lands which has perforated the Niobrara Formation.

IT IS FURTHER ORDERED that each Drilling and Spacing Unit defined above shall be permitted to have one additional exploratory horizontal well, for a total of two exploratory horizontal wellbores per unit. Since *Drilling and Spacing Unit #2* and *Drilling and Spacing Unit #3* overlap in Section 15, Township 11 North, Range 63 West, 6<sup>th</sup> P.M., Section 15 may have a total of three exploratory horizontal wellbores.

IT IS FURTHER ORDERED, that while Order No. 421-1 is modified to vacate the existing 640-acre drilling and spacing units on the Application Lands, production allocation for the existing horizontal wells drilled within the pre-existing, five 640-acre drilling and spacing units, shall remain unaffected by this Order.

IT IS FURTHER ORDERED, that the provisions contained in the above order shall become effective immediately.

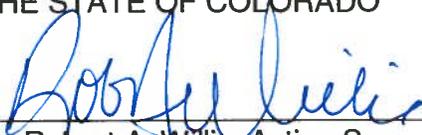
IT IS FURTHER ORDERED, that the Commission expressly reserves its right, after notice and hearing, to alter, amend or repeal any and/or all of the above orders.

IT IS FURTHER ORDERED, that under the State Administrative Procedure Act the Commission considers this Order to be final agency action for purposes of judicial review within thirty (30) days after the date this order is mailed by the Commission.

IT IS FURTHER ORDERED, that an application for reconsideration by the Commission of this order is not required prior to the filing for judicial review.

ENTERED this 2<sup>nd</sup> day of February 2011, as of January 13, 2011.

OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

By   
Robert A. Willis, Acting Secretary

Dated at Suite 801  
1120 Lincoln Street  
Denver, Colorado 80203  
February 2, 2011