

**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. 14562  
ORDER NO. R- 13339**

**APPLICATION OF CONOCOPHILLIPS  
COMPANY FOR EXCEPTIONS TO OIL  
CONSERVATION DIVISION RULE 19.15.16.9  
NMAC, CONCERNING THE SEALING OF  
STRATA, AND 19.15.16.10.A NMAC,  
CONCERNING CASING AND TUBING  
REQUIREMENTS, IN THE RECOMPLETION  
OF HORIZONTAL WELLS IN THE  
VACUUM-GLORIETA EAST UNIT,  
LEA COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on October 28, 2010, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 29<sup>th</sup> day of November, 2010, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.

(2) By this application, ConocoPhillips Company (Applicant) seeks exceptions to requirements of Division Rule 16.9 and 16.10 that wells be cased down to and across the producing formation to seal off and separate each formation in the wellbore. Applicant proposes to drill open-hole laterals from existing vertical wells, kicking off the laterals above the top of the target formation.

(3) Applicant proposes to re-complete up to 24 wells that are now completed as vertical wells in the unitized Glorieta-Paddock interval as short-radius horizontal wells in the Paddock. It proposes to kick off the laterals in the San Andres formation, above the top of the unitized interval. Because the existing vertical wells are cased with slim, 5 1/2-inch casing, Applicant seeks permission to complete the laterals as open holes from the kick-off point, a procedure which does not provide separation for the portion of the laterals that will be above the penetration points of the unitized interval (*i.e.*, the top of the Glorieta formation).

(4) Applicant appeared at the hearing through counsel and presented land, geologic and engineering testimony as follows:

(a) The wells that Applicant proposes to re-complete as horizontals are located in the Vacuum Glorieta East Unit. This Unit is comprised entirely of State of New Mexico lands. The unitized interval is from the top of the Glorieta to the base of the Paddock formation.

(b) The top of the Glorieta formation occurs at approximately 5,950 feet below the surface. The San Andres formation immediately overlies the Glorieta.

(c) In order to build an appropriate curve to place the horizontal shafts of the wells that it proposes to re-complete in the targeted, limestone portion of the upper Paddock formation, it will be necessary to kick off from the existing vertical wellbores in the lower portion of the San Andres formation, approximately 5,800 to 5,900 feet below the surface, and above the top of the unitized, Glorieta-Paddock interval.

(d) Because of the slim 5 1/2-inch casing in the existing vertical wells, it is not feasible to case the portion of the lateral shafts in the San Andres.

(e) This portion of the San Andres formation is characterized by extremely low permeability (in the range of 1.0 to 1.1 mili-Darcies), and 88% water saturation. Mud-logs and sidewall cores indicate no hydrocarbons.

(f) There is no significant pressure differential between the lower San Andres and the Glorieta-Paddock and therefore no reason to expect cross flow within the proposed open holes.

(g) The existing 5 1/2-inch casing in the vertical portions of these wells is cemented. The tops of cement are above the proposed kick-off points and will prevent movement of hydrocarbons from the open hole horizontal portions of the wells into the annulus of the vertical portions of the wells.

(h) Re-completion of these wells as horizontals in the Paddock will result in production of additional hydrocarbons from the Paddock that cannot be produced through vertical wellbores.

(i) Owners in the overlying East Vacuum Grayburg San Andres Unit have been notified of this application and have no objections.

(j) None of the proposed horizontal wells will be used for injection.

(5) No other party appeared at the hearing or otherwise communicated to the Division any opposition to this application.

The Division concludes that:

(6) Applicant's proposal to re-complete existing vertical wells in the Vacuum Glorieta East Unit as horizontals in the Paddock by kicking off in the lower San Andres at approximately 5,800 feet below the surface and drilling an uncased hole into the Paddock, where the wellbore will continue horizontally, will prevent waste, and will not impair correlative rights. Accordingly, the Application should be granted.

**IT IS THEREFORE ORDERED THAT:**

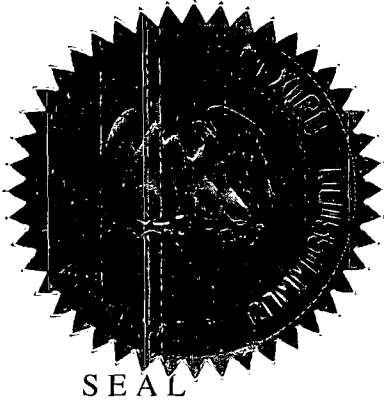
(1) An exception is hereby granted to the requirements of Division Rule 16.9 and 16.10 requiring casing to seal off all productive strata, and production casing and tubing through the producing formation, in order to allow ConocoPhillips Company to re-complete existing vertical wells in the Vacuum East Glorieta wells as horizontal, producing wells in the manner described in Finding Paragraph (6) of this Order.

(2) No injection well will be completed in this manner.

(3) Prior to approving any Application for Permit to Drill (APD) for any proposed re-completion pursuant to this Order, the Hobbs District Office of the Division shall verify that the casing and cementing in the vertical portion of the well proposed for re-completion in this manner is adequate to prevent movement of fluids from the proposed horizontal open hole into the annulus of the vertical portion of the wellbore.

(4) 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

A handwritten signature in black ink, appearing to read "Mark E. Fesmire".

MARK E. FESMIRE, P.E.  
Acting Director