



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Mark E. Fesmire, P.E.**  
Director  
Oil Conservation Division

May 19, 2005

Southwestern Energy Production Company  
2350 N. Sam Houston Parkway East - Suite 300  
Houston, Texas 77032

Telefax No. (281) 618-4757

Attention: W. Kurt Butler

*Administrative Order NSL-5205*

Dear Mr. Butler:

Reference is made to the following: (i) your initial application that was submitted to the New Mexico Oil Conservation Division ("Division") in Santa Fe, New Mexico on March 28, 2005 (*administrative application reference No. pMES-509137579*); (ii) your telephone conversation with Mr. Michael E. Stogner, Engineer with the Division in Santa Fe on Tuesday morning, April 12, 2005; (iii) your reply on May 18, 2005 with an amended application and the necessary data to support the your application; and (iv) the Division's records in Santa Fe, including the file in Division Case No. 13185: all concerning Southwestern Energy Production Company's ("SwEPCo") request to drill its No Bluff State Well No. 6 as an initial well within a standard 40-acre oil spacing and proration unit in the Northeast Red Lake-Glorieta-Yeso Pool (96836) comprising the NW/4 NW/4 (Unit D) of Section 36, Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico, at an unorthodox oil well location 1125 feet from the North line and 330 feet from the West line of Section 35.

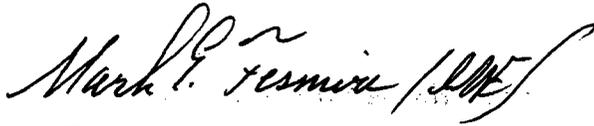
This application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999.

It is the Division's understanding that the area comprising the W/2 NW/4 of Section 36 comprises a single state lease issued by the New Mexico State Land Office (*State Lease No. V-5512*) in which SwEPCo is the leasehold operator and all mineral interest is common.

It is further understood that SwEPCo's plan of development for the Glorieta/Yeso in this general area is with three or four wells per 40-acre unit and that this location exception is being sought for engineering, geological, and topographical reasons. The proposed well location will enable SwEPCo to develop and deplete the Glorieta/Yeso reserves within this state lease that might not otherwise be recovered.

By the authority granted me under the provision of Division Rule 104.F (2), as revised, the above-described unorthodox oil well location for SwEPCo's proposed No Bluff State Well No. 6 within the Northeast Red Lake-Glorieta-Yeso Pool is hereby approved.

Sincerely,



Mark E. Fesmire, P. E.  
Director

MEF/ms

cc: New Mexico Oil Conservation Division - Artesia  
New Mexico State Land Office - Santa Fe  
File: Case No. 13185

**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. 13185  
ORDER NO. R-12199**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR  
SPECIAL POOL RULES AND REGULATIONS FOR THE NORTHEAST RED  
LAKE-GLORIETA-YESO POOL, AND CANCELLATION OF OVER-  
PRODUCTION, EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on February 5, and again on June 10, 2004, at Santa Fe, New Mexico before Examiner William V. Jones.

NOW, on this 30<sup>th</sup> day of August, 2004, 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 its subject matter.

(2) This case was originally scheduled for the November 20, 2003 hearing date, but was continued by the applicant three separate times and finally heard on February 5, 2004. After the February 5, 2004 hearing, additional notice was provided and the case briefly called at the June 10, 2004 hearing.

(3) By Division Order No. R-11013, issued in Case 12019, dated July 23, 1998 and made effective August 1, 1998, the Division created and defined the Northeast Red Lake-Glorieta- Yeso Pool (Pool Code No. 96836) for the production of oil from the Glorieta and Yeso formations. The horizontal limits for this pool currently comprise the following lands in Eddy County, New Mexico:

**Township 17 South, Range 27 East, NMPM**

Section 25: S/2  
Section 26: E/2  
Section 34: NE/4, S/2  
Section 35: All  
Section 36: W/2

**Township 17 South, Range 28 East, NMPM**

Section 30: S/2  
Section 31: NW/4

**Township 18 South, Range 27 East, NMPM**

Section 1: N/2  
Section 2: W/2  
Section 3: NW/4

(4) The Northeast Red Lake-Glorieta-Yeso Pool has no special pool rules and is currently governed by Division Rule 104.B, which requires standard 40-acre spacing and proration units with wells to be located no closer than 330 feet to the outer boundary of the unit. At these depths, Division rule 505.A provides for a top proration unit depth bracket allowable of 80 barrels of oil per day while Division rule 506.A provides for a limiting gas-oil ratio of 2000 cubic feet of gas per barrel of oil.

(5) The Applicant, Devon Energy Production Company, L.P. ("Devon"), seeks to: (i) establish special pool rules for the Northeast Red Lake-Glorieta-Yeso Pool; (ii) increase the depth-bracket allowable for oil production to 300 barrels of oil per day; and (iii) increase the limiting gas-oil ratio to 4000 cubic feet of gas per barrel of oil.

(6) In addition, Devon seeks cancellation of oil and gas over-production from the spacing and proration unit consisting of the NE/4 SW/4 of Section 35, Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico.

(7) From June of 1999 until February of 2003, this 40-acre, NE/4 SW/4 of Section 35, proration unit was overproduced by approximately 141 thousand barrels of oil and 322 million cubic feet of gas. The over-production was discovered by Devon and, beginning in February, 2003, the total oil production within this proration unit was voluntarily curtailed to below the allowable of 80 barrels of oil per day.

(8) All Glorieta and Yeso operators within the Northeast Red Lake-Glorieta-Yeso Pool and within 1 mile of the pool boundaries were notified of the proposed special pool rules. Marbob Energy Corporation sent a letter supporting these pool rules. No party appeared to object and no objections were received at the February 5, 2004 hearing.

(9) Mineral interests within this area are federally owned. Working interests in most proration units surrounding the NE/4 SW/4 of Section 35 are either solely Devon or Devon and "Oxy" (Oxy USA WTP Limited Partnership), with Devon as the operator. The land witness for Devon testified that Oxy knew of the intent of this application. Prior to the June 10, 2004 hearing date, all over-riding royalty owners within the proration units surrounding the NE/4 SW/4 of Section 35 proration unit were notified of the intent of this application. No party appeared to object at the June 10, 2004 hearing.

(10) At the hearing, Devon asked that the part of the application requesting an increase in the limiting gas-oil ratio to 4000 cubic feet of gas per barrel of oil, be dropped from the application.

(11) Devon presented additional testimony from expert witnesses at the hearing as follows.

(a) Productive lenses within the Yeso formation are laterally discontinuous and difficult to trace from one well to another. The Glorieta formation rarely is produced within this pool.

(b) The amount of net pay or the structural position within the Yeso formation in these wells is not necessarily indicative of the productivity of the well or the reserves within the well. In addition, water saturation calculations from logs are not reliable. The FMI (Schlumberger trade name) logs have shown some fracturing but fracturing cannot otherwise be seen or inferred from the open hole logs.

(c) The two most productive wells in this area are the Logan 35 Federal Well No. 5 and the Logan 35 Federal Well No. 6. These wells are both located within the NE/4 SW/4 of Section 35, which is the over produced proration unit. Devon has drilled offsets to these two prolific wells on three sides without success in finding wells as capable of production.

(d) This pool is currently being developed with two wells per 40 acre spacing and proration unit. There are two nearby pools producing from the Glorieta and Yeso formations. These pools are being developed on closer spacing than one well per 20 acres. Each of these three Glorieta-Yeso oil pools show similar production characteristics, have similar decline rates, and are all solution gas drive reservoirs.

(e) Within the Northeast Red Lake-Glorieta-Yeso pool, as additional wells are added, the initial GOR and initial production from the new wells remain similar and therefore show that reservoir energy has not been significantly affected by previous production.

(f) The 300 barrels per day allowable is needed because of the high average initial production per well. The majority of the better wells in the pool have had initial production rates of 143 barrels of oil per day on the average. If two wells were drilled in the same proration unit at the same time, the average for that proration unit would be 286 barrels of oil per day. The operators have therefore been restricted to drilling one well on each spacing unit, then delaying drilling the second well until the first well declines.

(g) The over-production in this NE/4 SW/4 of Section 35 happened after both of the wells came in better than expected, failed to decline as other wells had done, and this was not noticed by Devon personnel. Devon requested that the over-production be cancelled because Devon does not believe the reservoir has been harmed.

(12) Devon has shown that an increase in the depth bracket allowable to 300 barrels of oil per day per proration unit will not result in damage to the reservoir and will be necessary for continued, rapid development within Division rules of this pool on 20-acre or smaller well spacing. This 20-acre or smaller well spacing is necessary in order to contact all compartmentalized lenses and fractures and prevent waste of oil reserves that would not otherwise be produced.

(13) Devon was negligent in overproducing 141,000 barrels of oil from the proration unit consisting of the NE/4 SW/4 of Section 35, over a total period of 3.5 years. After discovery of this violation, Devon was responsible in curtailing the wells within that proration unit and in scientifically determining if damage had been done.

(14) A review of Division production records indicates that production within the NE/4 SW/4 of Section 35 was averaging approximately 120 barrels of oil per day prior to the curtailment during February of 2003, with an annual decline rate of approximately 8 percent.

(15) Making the increased allowable for the pool effective September 1, 2004, and allowing Devon two years to resolve the cumulative over-production on the NE/4 SW/4 of Section 35, would resolve this issue and would avoid the otherwise unnecessary economic loss incurred from temporarily shutting-in the wells to make up the over-production.

(16) Increasing the depth-bracket allowable for the Northeast Red Lake-Glorieta-Yeso Pool will enable the operators in the pool to efficiently produce the hydrocarbons within this reservoir, will not result in the excessive waste of reservoir energy, should not reduce the ultimate recovery of oil from this reservoir, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Devon Energy Production Company, L.P. ("Devon") to increase the depth-bracket allowable for the Northeast Red Lake-Glorieta-Yeso Pool from its current 80 barrels of oil per day limit to 300 barrels of oil per day is hereby approved.

(2) The portion of the application of Devon to increase the limiting gas-oil ratio for the Northeast Red Lake-Glorieta-Yeso Pool to 4000 cubic feet of gas per barrel of oil is dismissed.

(3) The application of Devon for cancellation of cumulative over-production of oil and gas from the proration unit consisting of the NE/4 SW/4 of Section 35, Township 17 South, Range 27 East, NMPM in Eddy County, New Mexico is denied. Devon personnel shall coordinate with the Artesia district office of the Division to make up all past cumulative over-production of oil and gas from this proration unit and in no case shall the proration unit have remaining cumulative over-production of oil after September 1, 2006.

(4) Special pool rules for the Northeast Red Lake-Glorieta-Yeso Pool are hereby established as follows:

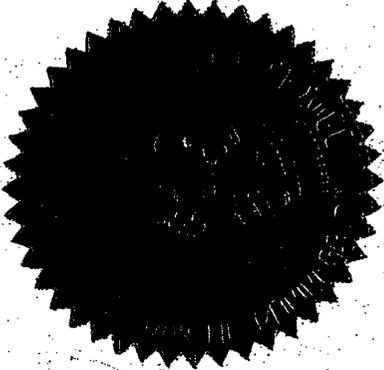
**SPECIAL RULES AND REGULATIONS  
FOR THE  
NORTHEAST RED LAKE-GLORIETA-YESO POOL**

**RULE 1.** The allowable for a standard 40-acre oil spacing and proration unit shall be based on a special depth bracket allowable of 300 barrels of oil per day. In the event there is more than one well on a unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

(5) These special pool rules shall be made effective September 1, 2004.

(6) 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.



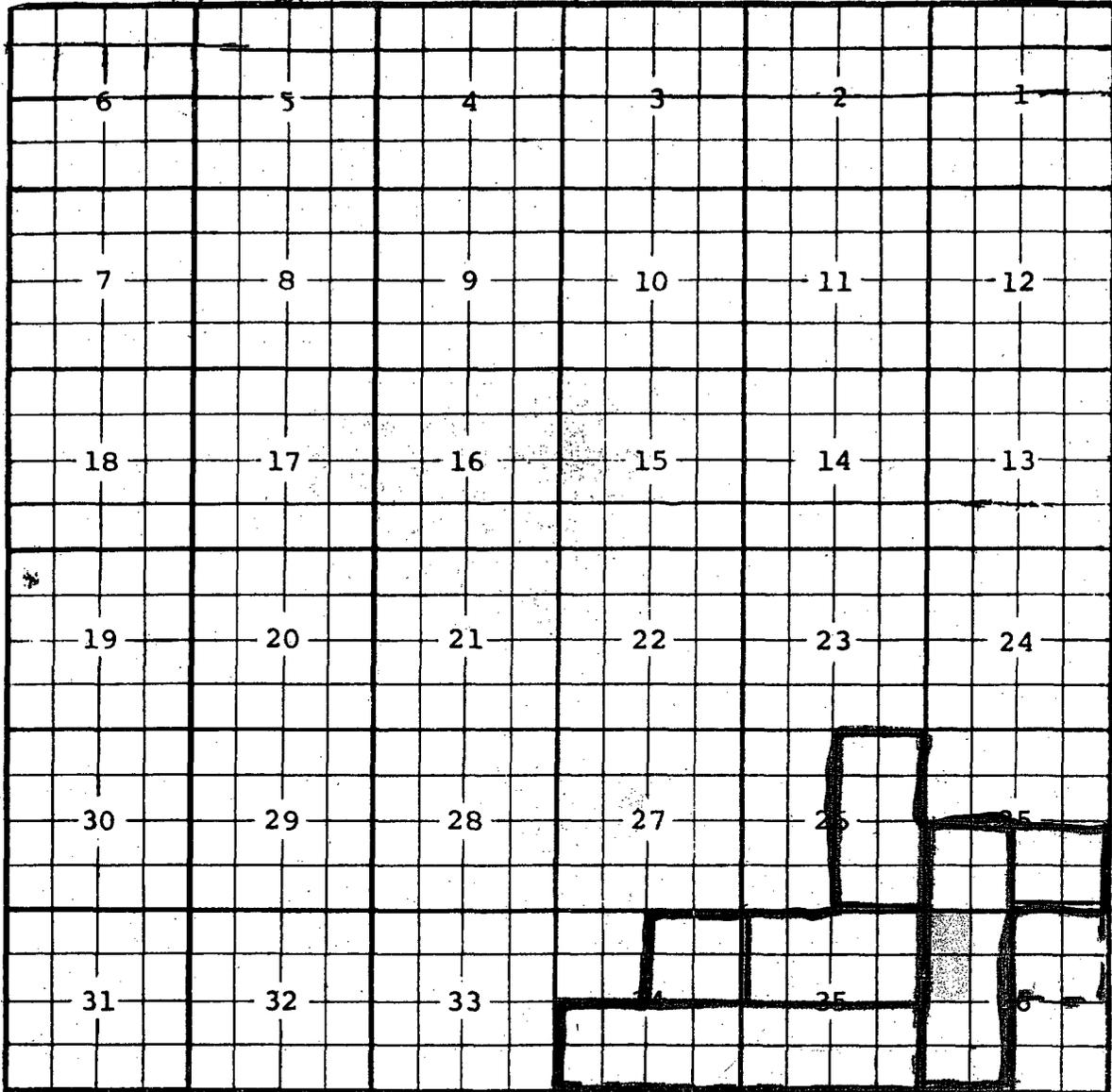
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STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.  
Director

County Eddy Pool Northeast Red Lake-Glorieta-Yeso

TOWNSHIP 17 South Range 27 East NMPM



Ext:  $\frac{S}{2}$  Sec. 34,  $\frac{S}{2}$  Sec. 35 (R-11170, 4-7-99) Ext:  $\frac{SW}{4}$  Sec. 25,  $\frac{W}{2}$  Sec. 36 (R-11359, 4-12-00)

Ext:  $\frac{E}{2}$  Sec. 26 (R-11470, 10-11-00) Ext:  $\frac{SE}{4}$  Sec. 25 (R-11544, 3-13-00)

Ext:  $\frac{N}{2}$  Sec. 35 (R-12088, 1-14-01) Ext:  $\frac{NE}{4}$  Sec. 34 (R-12162, 2-2-04)