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January 23, 1996

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PLEASE REPLY TO SANTA FE

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Re: NMOCDC Case Nos. 11280 and 11447 (Consolidated); Application of Enserch Exploration, Inc. to Amend Special Pool Rules, South Black River Delaware Pool, Eddy County, New Mexico

Dear Mr. Stogner:

As requested, enclosed is a draft Order for the above consolidated cases which were heard on January 11, 1996. The draft Order is also copied onto the enclosed disc for your convenience.

If I may be of further assistance in this matter, please do not hesitate to call.

Very truly yours,

MILLER, STRATVERT, TORGERSON  
& SCHLENKER, P.A.



J. Scott Hall

JSH/ag  
Enclosures  
cc: Frank Pope, Esq. (w/o enclosures)

**BEFORE THE**  
**OIL CONSERVATION DIVISION**  
**NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS**

**SOUTH BLACK RIVER-DELAWARE  
POOL (GAS-OIL RATIO AND SPECIAL  
DEPTH BRACKET ALLOWABLE) EDDY COUNTY,  
NEW MEXICO**

**ORDER NO. R-10389-B, ADOPTING A  
PERMANENT GAS-OIL RATIO RULE AND  
SPECIAL DEPTH BRACKET ALLOWABLE FOR  
THE SOUTH BLACK RIVER-DELAWARE POOL,  
EDDY COUNTY, NEW MEXICO,**

**IN THE MATTER OF THE APPLICATION OF  
ENSERCH EXPLORATION, INC. TO AMEND  
SPECIAL POOL RULES EDDY COUNTY,  
NEW MEXICO**

**CASE NO. 11280 (Reopened)  
and  
CASE NO. 11447 (Consolidated)  
Order No. R-10389-B**

**ORDER OF THE DIVISION**

**BY THE DIVISION:** This cause came on for hearing at 8:15 a.m. on January 11, 1996 at Santa Fe, New Mexico, before Examiner Michael Stogner.

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1996, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1.) Due public notice having been given as required by the law, the Division has jurisdiction of this cause and the subject matter thereof.

(2.) By Order No. R-10389 entered on June 8, 1995 in Case No. 11280, the Division created the South Black River-Delaware Pool and established Temporary Special Rules and Regulations providing for a special depth bracket allowable of 250 barrels of oil per day and a limiting gas-oil ration of 10,000 cubic feet of gas per barrel of oil produced. Order No. R-10389 further provided that Case No. 11280 should be reopened in January of 1996 to allow operators in the pool to present geologic and engineering evidence relative to the establishment of permanent pool rules.

(3.) This matter was consolidated for hearing with Case No. 11447 in which Enserch Exploration, Inc. seeks to amend the special pool rules for the South Black River-Delaware pool to increase the limiting gas-oil ratio to 20,000 cubic feet of gas per barrel of oil. Enserch Exploration, Inc. operates the Murchison State 2 No. 1 well located in Unit H in Section 2, Township 25 South, Range 26 East, NMPM.

(4.) At the hearing, Chevron USA Production Company, entered its appearance as a party affected by this case.

(5.) The horizontal limits of the South Black River-Delaware Pool are comprised of the SE/4 NE/4 Section 2, Township 25 South, Range 26 East, NMPM, Eddy County, New Mexico. The vertical limits of the pool comprise the entire Delaware formation.

(6.) In this area, the Brushy Canyon portion of the lower Delaware includes several hundred feet of shale and sand stringers, and, based upon currently available information, a productive gas sand is overlaid by two productive oil sands.

(7.) Currently there is no evidence available to demonstrate that a single gas cap was originally present in this reservoir or what ultimate effect this single gas productive stringer may have on ultimate recovery from the reservoir.

(8.) The fracture stimulation of the oil bearing sands by the operator of the Murchison State 2 No. 1 well has resulted in a fracturing through to the lower gas sand resulting in production at a high gas oil ratio. The evidence further established that it is neither practicable nor economical to produce the two oil sands separately from the underlying gas sand.

(9.) Applicant's Murchison State 2 No. 1 well located in Unit H of said Section 2 is producing from the Delaware formation but production is being curtailed under the current gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.

(10.) If applicant's well in this pool is produced under the statewide gas-oil ratio limitation of 2,000 to 1, liquids cannot be efficiently produced from the reservoir and substantial volumes of liquids may remain trapped as the reservoir energy is depleted by gas production.

(11.) Gas produced by applicant's well in this pool is comprised of solution gas from oversaturated crude oil and gas from a separate gas zone. The engineering and geologic evidence further demonstrates that the establishment of a gas-oil ratio limitation of 20,000 cubic feet of gas per barrel of oil and an oil allowable of 250 barrels per day should not result in excessive dissipation of reservoir energy, thereby causing waste, should allow the operators in the pool the opportunity to economically recover the oil and gas

reserves from the various producing intervals of the pool, and will otherwise protect correlative rights.

(12.) Additional evidence presented at the hearing demonstrates the existence of another potentially productive oil sand at approximately 4,800' which the applicant proposes to complete and produce in conjunction with the lower oil sands and gas sand. The evidence further established that production of the 4,800' sand separate from the lower Brushy Canyon sands would be uneconomical. Production under the special depth bracket allowable of 250 barrels of oil per day will enable applicant to produce reserves from the 4,800' sand which it would otherwise be unable to recover without economic waste.

(13.) The lower gas producing sand in the Brushy Canyon interval in the applicant's Murchison State 2 No. 1 well is not prevalent in the offsetting Chevron No. 7 Marquardt Federal well located in Unit L, of Section 1 T-25-S, R-26-E, NMPM. The evidence tends to establish that the lower gas producing interval is lenticular in nature and is discontinuous throughout the area. Correspondingly, further development of the field on 40-acre spacing is necessary to adequately develop and produce reserves.

(14.) The higher GOR limitation will enable operators to adequately drain and develop the oil and gas intervals within the entire Delaware unit in a sound and prudent manner. Further, making the temporary pool rules currently in effect for the South Black River-Delaware Pool permanent is in the best interest of conservation, will prevent waste and promote further development in and around the current pool boundaries.

(15.) No operators, operators within the pool, or interested parties objected to the continuation of the special pool rules or to the 20,000 to 1 GOR limit. Chevron USA

Production Company supported Enserch Exploration's application and further supported making the Temporary Pool Rules permanent.

**IT IS THEREFORE ORDERED THAT:**

(1.) The Special Rules and Regulations for the South Black River-Delaware Pool, Eddy County, New Mexico, as promulgated by Division Order No. R-10389, as amended, including a gas-oil ratio limitation of 20,000 cubic feet of gas per barrel of oil, are hereby continued in effect until further order of the Division.

(2.) Permanent Special Pool Rules for the South Black River-Delaware Pool are hereby promulgated as follows:

**SPECIAL RULES AND REGULATIONS FOR THE  
SOUTH BLACK RIVER-DELAWARE POOL**

Rule 1: The limiting gas-oil ratio for said South Black River-Delaware Pool shall be 20,000 cubic feet of gas per barrel of oil produced.

Rule 2: A special depth bracket allowable for the South Black River-Delaware Pool is established at 250 barrels of oil per day.

**IT IS FURTHER ORDERED THAT:**

(3.) The Special Rules and Regulations for the South Black River-Delaware Pool shall be made permanent effective \_\_\_\_\_, 1996.

(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**

**WILLIAM J. LEMAY  
Director**

**S E A L**