

## OIL CONSERVATION DIVISION

***CORRECTED ADMINISTRATIVE ORDER DHC-1166***

Meridian Oil Company  
P.O. Box 4289  
Farmington, New Mexico 87499-4289

Attention: Sean C. Woolverton

*Sharp Well No.5  
Unit N , Section 18, Township 28 North, Range 8 West, NMPM,  
San Juan County, New Mexico.  
Basin Fruitland Coal (Gas) and Aztec Pictured Cliffs (Gas) Pools*

Dear Mr. Woolverton:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 20 barrels per day, and total water production shall not exceed 40 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

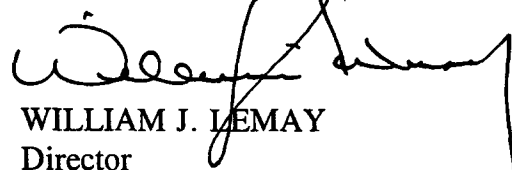
The allocation of production from the subject pools shall be determined by the formula contained in Exhibit "A" attached hereto.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 17th day of October, 1995.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec  
Bureau of Land Management - Farmington

## EXHIBIT "A"

### SHARP #5 MONTHLY GAS PRODUCTION ALLOCATION FORMULA

#### GENERAL EQUATION

$$Q_t = Q_{ftc} + Q_{pc}$$

WHERE:  $Q_t$  = TOTAL MONTHLY PRODUCTION (MCF/MONTH)  
 $Q_{ftc}$  = FRUITLAND COAL (ftc) MONTHLY PRODUCTION  
 $Q_{pc}$  = PICTURED CLIFFS (pc) MONTHLY PRODUCTION (MCF/MONTH)

REARRANGING THE EQUATION TO SOLVE FOR  $Q_{ftc}$ :

$$Q_{ftc} = Q_t - Q_{pc}$$

ANY PRODUCTION RATE OVER WHAT IS CALCULATED FOR THE PICTURED CLIFFS (PC) USING THE APPLIED FORMULA IS FRUITLAND COAL (FTC) PRODUCTION.

ICTURED CLIFFS (PC) FORMATION PRODUCTION FORMULA IS:

$$Q_{pc} = Q_{pci} \times e^{-\{D_{pc} \times (t)\}}$$

WHERE:  $Q_{pci}$  = INITIAL PC MONTHLY FLOW RATE (OBTAINED FROM SHARP #5 PRODUCTION HISTORY)

$D_{pc}$  = PICTURED CLIFFS MONTHLY DECLINE RATE CALCULATED FROM:  
 $D_{pc} = (Q_{pci} - Q_{pcabd}) / N_{p(pc)}$   
See Determination of  $Q_{pci}$  and PC Estimated Ultimate Recovery ( $N_{p(pc)}$ )  
 $Q_{pci} = 4075$  MCF/M;  $Q_{pcabd} = 300$  MCF/M;  $N_{p(pc)} = 1336$  MMCF

WHERE:  $N_{p(pc)}$  = PICTURED CLIFFS ESTIMATED REMAINING RESERVES (EUR)  
 $N_{p(pc)}$  = DETERMINED FROM PRODUCTION PERFORMANCE (DECLINE CURVE ANALYSIS) (REMAINING RESERVES = 1336 MMCF).

FRUITLAND COAL (FTC) FORMATION PRODUCTION FORMULA IS:

$$Q_{ftc} = Q_t - Q_{pci} \times e^{-\{D_{pc} \times (t)\}}$$

WHERE: (t) IS IN MONTHS

REFERENCE: Thompson, R. S., and Wright, J. D., "Oil Property Evaluation", pages 5-2, 5-3, 5-4.