

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. 10412  
Order No. R-9487-B

APPLICATION OF MW PETROLEUM  
CORPORATION/APACHE CORPORATION  
TO AMEND DIVISION ORDER NO.  
R-9487-A, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 5, 1991, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of February, 1992, 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 law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) By Order No. R-9487 issued in Case No. 10272 on May 8, 1991, the Division authorized Amoco Production Company (Amoco) to recomplete and directionally drill its Smith Federal Gas Com Well No. 1 located 1613 feet from the North line and 2336 feet from the West line (Unit F) of Section 12, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, to an unorthodox bottomhole location within a target area described as a rectangle 1800 to 2000 feet from the North line and 330 to 430 feet from the West line (Unit E) of said Section 12 to test the Indian Basin-Upper Pennsylvanian Gas Pool.

(3) Due to the unorthodox bottomhole location of the aforesaid well, Amoco voluntarily requested and was given a production limitation of 49% of a standard gas allowable (51% production penalty).

(4) By Order No. R-9487-A issued in Case No. 10371 on September 6, 1991, the Division authorized Amoco, in lieu of directionally drilling the aforesaid Smith Federal Gas Com Well No. 1, to drill its Smith Federal Gas Com Well No. 2 at an unorthodox gas well location 2049 feet from the North line and 480 feet from the West line (Unit E) of said Section 12.

(5) At the time of the hearing in Case No. 10371, Amoco did not request an amendment to the previously assigned production limitation factor of 49%, and as such, said factor was imposed on the new well.

(6) The applicant, MW Petroleum Corporation/Apache Corporation, the successor operator to Amoco, seeks to amend the production limitation factor imposed on the Smith Federal Gas Com Well No. 2 by said Order No. R-9487-A.

(7) Musselman, Owen & King, Inc. (MOK), the offset operator to the north of the aforesaid Smith Federal Gas Com Well No. 2, appeared at the hearing in opposition to the application.

(8) According to Division records and evidence and testimony presented in this case, the original production limitation factor imposed on the Smith Federal Gas Com Well No. 1 was agreed to by Amoco Production Company and Musselman, Owen & King, Inc, prior to the original hearing in Case No. 10272.

(9) Division records further indicate that the production limitation factor was derived by averaging the following three factors:

a) The ratio of productive acres vs. total acres in Section 12 (352 acres/ 640 acres) or 0.55:

b) The percentage difference in acreage lying outside the 640-acre unit for a 352-acre circle with its center at the proposed location and the same size circle with its center at the nearest standard location or  $150/352 - 48/352 = .426 - .136 = .29$  ( $1 - .29 = .71$ ).

c) The percentage distance from the lease line for the proposed unorthodox location compared to a standard location or  $330 \text{ feet} / 1650 \text{ feet} = .20$ .

(8) According to evidence presented, Amoco attempted to re-enter and directionally drill its Smith Federal Gas Com Well No. 1, but subsequently abandoned said operations due to the poor mechanical condition of said wellbore.

(9) Subsequently, the applicant took over operations from Amoco and drilled the aforesaid Smith Federal Gas Com Well No. 2 which encountered commercial gas production from the Indian Basin-Upper Pennsylvanian Gas Pool.

(10) The applicant proposes to increase the production limitation factor for said well to 77.5% (22.5% production penalty) based upon additional geologic evidence obtained and based upon the proposal to eliminate the lease line encroachment factor (c) inasmuch as the subject well does not encroach upon acreage held by MOK.

(11) The applicant presented geologic and engineering evidence and testimony which indicates that there are approximately 500 acres underlying Section 12 which should be considered gas productive.

(12) MOK testified that a higher rate of gas withdrawal from the subject well as proposed by the applicant will have the adverse effect of accelerating water encroachment toward its Smith Federal Well No. 2 located 1650 feet from the South line and 330 feet from the West line (Unit L) of Section 1, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, thereby effectively reducing its ultimate gas recovery prior to "watering out".

(13) MOK did not present any geologic evidence concerning the amount of productive acreage underlying Section 12 and presented no evidence to support its contention that the rate of gas withdrawal from the subject well would have an adverse effect on its Smith Federal Well No. 2.

(14) According to applicant's evidence, the subject well is capable of producing approximately 2.9-3.5 MMCF of gas per day.

(15) Due to relatively high gas allowables within the Indian Basin-Upper Pennsylvanian Gas Pool during 1990 and 1991, the applicant's proposed production limitation factor will not have the effect of limiting the subject well's production.

(16) It is fair and reasonable that the applicant should be required to abide by the method by which the original production limitation factor was derived, provided however, the factors should be adjusted based upon the additional evidence presented, and a new production limitation factor derived based upon the adjusted factors.

(17) Based upon the adjusted factors, the subject well should be assigned a production limitation factor of 61% of a standard gas allowable (39% production penalty) within the Indian Basin-Upper Pennsylvanian Gas Pool.

(18) Assignment of the production limitation factor as described above will afford the applicant the opportunity to produce its just and equitable share of the gas underlying Section 12, will prevent waste and will not violate correlative rights.

IT IS THEREFORE ORDERED THAT:

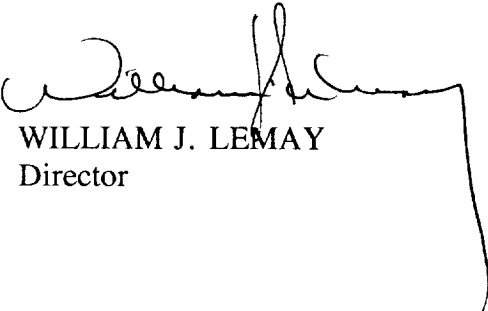
(1) The application of MW Petroleum Corporation/Apache Corporation to amend Division Order No. R-9487-A is hereby approved.

(2) The applicant's Smith Federal Gas Com Well No. 2, located at a previously approved unorthodox gas well location 2049 feet from the North line and 480 feet from the West line (Unit E) of Section 12, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, is hereby assigned, for gas allowable purposes, an acreage factor of 0.61 in the Indian Basin-Upper Pennsylvanian Gas Pool.

(3) Jurisdiction is hereby 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

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