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. 11559 Order No. R-10652

APPLICATION OF AMOCO PRODUCTION COMPANY FOR QUALIFICATION OF A WELL WORKOVER PROJECT AND CERTIFICATION OF APPROVAL, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 27, 1996, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>15th</u> day of August, 1996, the Division Director, having considered 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) Case Nos. 11555, 11556, 11557, 11558, 11559 and 11560 were consolidated at the time of the hearing for the purpose of testimony.

(3) Pursuant to the directives contained within the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8), the Division, by Order No. R-10505 dated November 9, 1995, promulgated Division Rule No. 713, Qualification of Well Workover Projects and Certification for the Well Workover Incentive Tax Rate.

(4) Pursuant to Division Rule No. 713, Amoco Production Company (Amoco) filed a Division Form C-140 (Application for Qualification of Well Workover Project and Certification of Approval) with the Aztec district office of the Division on April 26, 1996, for its Armenta Gas Com "C" Well No. 1E (API No. 30-945-23856) located 435 feet from the North line and 1590 feet from the West line (Unit C) of Section 27, Township 29 North, Range 10 West, NMPM, San Juan County, New Mexico. Case No, 11559 Order No. R-10652 -2-

(5) By letter dated May 10, 1996, the supervisor of the Division's Aztec district office denied Amoco's Form C-140 on the basis that its method of determining the well's future rate of production, as required by Rule No. 713.D.(6)(b)(v), was not acceptable.

(6) The applicant, Amoco Production Company, pursuant to the appeal provisions contained within Division Rule No. 713, seeks approval of its Form C-140 and a determination by the Division that its proposed "straight line method" of determining future rate of production from the Armenta Gas Com "C" Well No. 1E, described as follows, is reasonable and should be accepted:

> Straight line method - monthly production from the well during the twelve (12) month period preceding the well workover will be averaged and this average producing rate will then be utilized as the well's future rate of production.

(7) With regards to determining future rates of production, Division Rule No. 713.D.(6)(b)(v) currently requires:

"a decline curve, or other acceptable method, specifying producing interval(s), and monthly tabulated estimate of the production rate of natural gas and oil from the well, based on at least (12) months of established production, which shows the future rate of production based on well performance prior to performing the workover."

(8) Typically, future rates of production have been based upon decline curve forecasts.

(9) The evidence and testimony presented by the applicant indicates that the benefits of utilizing the straight line method for determining future rate of production are as follows:

 a) less subjective than forecasts based upon decline curves;

b) calculations are relatively simple for the operator and are easily verified by the Division;

c) reduces the technical and administrative burden on the operator, the Division and the New Mexico Department of Taxation & Revenue; and,

d) easy to manage in dual tax rate accounting.

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(10) Further evidence and testimony indicates that in the vast majority of cases, the future rate of production as determined by the straight line method will be higher than that obtained by decline curve forecast, so that the operator, in exchange for reduced technical and administrative burden, will be relinquishing the reduced tax rate on some amount of its production.

(11) The proposed straight line method, provided it is based upon accurate and reliable production data, represents a reasonable and acceptable method of determining future rate of production pursuant to Division Rule No. 713.

(12) The applicant presented production data for the Armenta Gas Com "C" Well No. 1E for the period from approximately 1980 through 1996. This production data indicates that the well produced from the Basin-Dakota Gas Pool from 1980 through July, 1986, did not produce from July, 1986 through October, 1994, and produced from November, 1994 through July, 1995.

(13) Applicant proposes to utilize a straight line production average of 240 MCF/Month for the Armenta Gas Com "C" Well No. 1E. This average is based upon production during the period from August, 1994 through July, 1995. During this period, the well produced eight months and had four months of zero production.

(14) Applicant testified that months of zero production are generally followed by month(s) of increased "flush" production, thereby dampening the effect of zero production months. Applicant proposes to utilize this concept to justify utilizing months of zero production in its straight line production average calculations.

(15) The data presented by the applicant indicates that utilizing months in which the well actually produced as opposed to utilizing months of zero production in calculating the straight line production average will result in a more accurate and more representative average producing rate for the well.

(16) Production data for the months of July, June, May, April, February, and January during 1995, December and November during 1994, and July, June, May, and April during 1986, should be used in calculating the straight line production average.

(17) The straight line production average for the Armenta Gas Com ``C" Well No. 1E should be established at 761 MCF/Month.

(18) Applicant's Division Form C-140 for the Armenta Gas Com "C" Well No. 1E should be approved, and the well's future rate of production as determined by the straight line method should be accepted. Case No, 11559 Order No. R-10652 -4-

IT IS THEREFORE ORDERED THAT:

(1) Division Form C-140 for Amoco Production Company's Armenta Gas Com "C" Well No. 1E (API No. 30-045-23856) located 435 feet from the North line and 1590 feet from the West line (Unit C) of Section 27, Township 29 North, Range 10 West, NMPM, San Juan County, New Mexico, including applicant's method of obtaining future rate of production, is hereby approved.

(2) The straight line production average for the Armenta Gas Com $^{\circ}C''$ Well No. 1E is hereby established at 761 MCF/Month.

(3) Jurisdiction of this cause 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 Jo Do LEMAY WILLIAM J. Director

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