Entered October 27, 1972

# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 4820 Order No. R-4411

NOMENCLATURE

APPLICATION OF ANADARKO PRODUCTION COMPANY FOR THE CREATION OF AN ASSOCIATED POOL, SPECIAL RULES THEREFOR, DOWNHOLE AND SURFACE COMMINGLING, EDDY COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

## BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 13, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>27th</u> October, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Anadarko Production Company, seeks the creation of a new associated pool for the production of oil and gas from the Yates and Seven Rivers formations for its Loco Hills Federal "B" Wells Nos. 1 and 8, located, respectively, in Units P and K of Section 9, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, and the promulgation of Special Rules and Regulations therefor including provisions for the classification of oil and gas wells, oil and gas well spacing, and an unlimited gas-oil ratio.
- (3) That the applicant further seeks authority to commingle on the surface the Yates-Seven Rivers production from said Well No. 8 with Grayburg-Jackson production from the same lease after separately metering the Yates-Seven Rivers production.
- (4) That the applicant further seeks authority to dually complete said Well No. 1 in such a manner as to produce the Yates-Seven Rivers production from the newly created pool

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through the casing-tubing annulus and the Grayburg-Jackson Pool through tubing, with separation of zones by a packer set at approximately 2200 feet and to commingle on the surface the Yates-Sevens River gas production with Grayburg-Jackson casinghead gas production after separately metering the Yates-Seven Rivers production.

- (5) That the above-described Well No. 1, having its top perforations in the Seven Rivers formation at 1,744 feet and the above-described Well No. 8, having its top perforations in the Yates formation at 1,501 feet have discovered a separate common source of supply which should be designated the North Fren Yates-Seven Rivers Associated Pool; that the vertical limits of said pool should be the Yates-Seven Rivers formation and that the horizontal limits of said pool should comprise the SE/4 and E/2 SW/4 of said Section 9.
- (6) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on 160-acre spacing, and that the oil area can be efficiently and economically drained and developed on 40-acre spacing.
- (7) That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 100,000 or more cubic feet of gas per barrel of liquid hydrocarbons.
- (8) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 2000 cubic feet of gas per barrel of liquid hydrocarbons rather than an unrestricted gas-oil ratio limitation as requested.
- (9) That special rules and regulations providing for 160-acre gas well spacing and 40-acre oil well spacing should be promulgated for the subject pool in order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and otherwise prevent waste and protect correlative rights.
- (10) That the special rules and regulations should provide for the classification of a gas well as a well producing with a gas-liquid ratio of 100,000 or more cubic feet of gas per barrel of liquid hydrocarbons and should provide for a gas-liquid ratio of 2,000 cubic feet of gas per barrel of liquid hydrocarbons in order to afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil or gas, or both, and for this purpose to use his just and equitable share of the reservoir energy.

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- (11) That the special rules and regulations should establish proration rules for gas wells in order to prevent waste and protect correlative rights.
- (12) That the mechanics of the proposed dual completion and the proposed surface commingling are feasible and in accord with good conservation practices.
- (13) That the proposed dual completion and surface commingling will neither cause waste nor violate correlative rights and should be approved.

#### IT IS THEREFORE ORDERED:

- (1) That, effective November 1, 1972, a new pool in Eddy County, New Mexico, classified as an associated pool for the production of oil and gas, is hereby created and designated the North Fren Yates-Seven Rivers Associated Pool, with vertical limits comprising the Yates-Seven Rivers formation and horizontal limits comprising the SE/4 and E/2 SW/4 of Section 9, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico.
- (2) That, effective November 1, 1972, Special Rules and Regulations for the North Fren Yates-Seven Rivers Associated Pool, Eddy County, New Mexico, are hereby promulgated as follows:

## SPECIAL RULES AND REGULATIONS FOR THE NORTH FREN YATES-SEVEN RIVERS ASSOCIATED POOL

- RULE 1. Each well completed or recompleted in the Associated Pool or in the Yates-Seven Rivers formation within one mile thereof, and not nearer to or within the limits of another designated Yates-Seven Rivers pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. (a) Each gas well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.
- (b) Each oil well shall be located on a standard unit containing 40 acres, more or less, consisting of a governmental quarter-quarter section.
- RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2(a) without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

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- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental quarter section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the quarter section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.
- RULE 4. Each well, oil or gas, shall be located no nearer than  $\overline{330}$  feet to any quarter-quarter section line, except that any well drilled in a known gas production area shall be located within 150 feet of the center of a quarter-quarter section.
- RULE 5. A well shall be classified as a gas well if it has a gas-liquid ratio of 100,000 or more cubic feet of gas per barrel of liquid hydrocarbons. A well shall be classified as an oil well if it has a gas-liquid ratio of less than 100,000 cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to an oil well and a gas well is prohibited.
- RULE 6. That the limiting gas-oil ratio shall be 2,000 cubic feet of gas for each barrel of oil produced.
- RULE 7. An oil well which has 40 acres dedicated to it shall be permitted to produce only that amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool. In the event there is more than one oil well on a 40-acre oil proration unit, the operator may produce the allowable assigned to the 40-acre unit from the wells on the unit in any proportion.

A gas well shall be permitted to produce that amount of gas obtained by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool and by a fraction, the numerator of which is the number of acres dedicated to the particular gas well and the denominator of which is 40. In the event there is more than one gas well on a 160-acre gas proration unit, the operator may produce the amount of gas assigned to the unit from the wells on the unit in any proportion.

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RULE 8. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all load oil from the well, provided however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 11. Any well which is shut in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is 100,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, the operator shall not produce the well until beneficial use can be made of the gas.

RULE 9. Gas-liquid ratio test shall be taken on all wells during the month of November of each year. The initial gas-liquid ratio test shall suffice as the first annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate district office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators. The supervisor of the Artesia district office of the Commission may grant an exception to the above test requirements where it is demonstrated that the well produces no liquids.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 10. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

RULE 11. Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Commission district office of Commission Forms C-104 and C-116, properly executed. The District Supervisor of the Commission's district office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by the limiting gas-liquid ratio for the pool.

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- RULE 12. That the initial gas proration period shall be from  $\overline{7:00}$  a.m. November 1, 1972, to 7:00 a.m. January 1, 1974. Subsequently, the date 7:00 a.m. January 1 of each year shall be known as the balancing date, and the twelve months following this date shall be known as the gas proration period.
- RULE 13. Any gas well which has an underproduced status as of the end of a gas proration period shall be allowed to carry such underproduction forward into the next gas proration period and may produce such underproduction in addition to the allowable assigned during such succeeding period. Any allowable carried forward into a gas proration period and remaining unproduced at the end of such gas proration period shall be cancelled.
- RULE 14. Production during any one month of a gas proration period in excess of the allowable assigned to a well for such month shall be applied against the underproduction carried into such period in determining the amount of allowable, if any, to be cancelled.
- RULE 15. Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be compensated for during such succeeding period. Any well which has not compensated for the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is compensated for. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.
- RULE 16. The allowable assigned to a well during any one month of a gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.
- RULE 17. The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.
- RULE 18. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

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- RULE 19. Each purchaser or taker of gas shall submit a report to the Commission so as to reach the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.
- RULE 20. Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Secretary-Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.
- RULE 21. All transporters or users of gas shall file gas well-connection notices with the Commission as soon as possible after the date of connection.
- RULE 22. Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

### IT IS FURTHER ORDERED:

- (1) That the locations of all wells presently drilling to or completed in the North Fren Yates-Seven Rivers Associated Pool or in the Yates-Seven Rivers formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the appropriate district office of the Commission in writing of the name and location of the well on or before November 15, 1972.
- (2) That all operators shall, prior to November 15, 1972, file with the Commission Form C-102 for each well showing the acreage dedicated to the well.
- (3) That the applicant is hereby authorized to commingle the Yates-Seven Rivers production from its Well No. 8 located in Unit K of Section 9, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, with Grayburg-Jackson production from the same lease in a central tank battery after separately metering the production from said Well No. 8.

PROVIDED HOWEVER, that said installation shall be operated in accordance with the provisions of the Commission's "Manual for the Installation and Operation of Commingling Facilities."

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(4) That the applicant is hereby authorized to complete its Well No. 1 located in Unit P of Section 9, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, as a dual completion in such a manner as to produce gas from the North Fren Yates-Seven Rivers Pool through the casing-tubing annulus and oil from the Grayburg-Jackson Pool through tubing with separation of zones by a packer set at approximately 2200 feet, commingling on the surface the Yates-Seven Rivers gas production with the Grayburg-Jackson casinghead gas production after separately metering the Yates-Seven Rivers production.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Shut-In Pressure Test Period for the North Fren Yates-Seven Rivers Pool.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

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