

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 8734
Order No. R-8132

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR POOL RECLASSIFICATION,
POOL EXTENSION, AND SPECIAL POOL
RULES, SAN JUAN COUNTY, NEW
MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on October 23, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 22nd day of January, 1986, 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) The applicant, Amoco Production Company, is the owner of certain oil and gas interests in Sections 7, 17, 18, 19, 20, 29, 30, and 31, Township 29 North, Range 16 West, NMPM, and Sections 12, 13, 14, 24, and 25, Township 29 North, Range 17 West, NMPM, all in San Juan County, New Mexico.

(3) By Division Order No. R-468, dated May 25, 1954, the Division created, defined, and classified the Hogback-Pennsylvanian (Gas) Pool to include the following described lands in San Juan county, New Mexico:

TOWNSHIP 29 NORTH, RANGE 16 WEST, NMPM

Section 17: SW/4

Section 18: S/2

Section 19: All

Section 20: W/2

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(4) Said pool was reclassified as an oil pool and redesignated the Hogback-Pennsylvanian Oil Pool by Division Order No. R-542, dated November 17, 1954.

(5) By Division Order No. R-684, dated September 15, 1955, said pool was again reclassified to a gas pool and redesignated the Hogback-Pennsylvanian (Gas) Pool.

(6) The original designation and subsequent reclassifications of the subject pool, as described above, resulted from the varying performance of the individual zones perforated within the Pennsylvanian formation by the first two wells completed in this pool which were the U.S.G. Section "19" Wells Nos. 13 and 17, both located in Section 19, Township 29 North, Range 16 West, NMPM, San Juan County, New Mexico, both being subsequently plugged and abandoned in the late 1960's.

(7) The applicant seeks an order reclassifying said Hogback-Pennsylvanian (Gas) Pool to an oil pool and the extension of the horizontal limits of the proposed Hogback-Pennsylvanian Oil Pool to include the following described lands in San Juan County, New Mexico:

TOWNSHIP 29 NORTH, RANGE 16 WEST, NMPM

Section 7: S/2
Section 18: N/2
Section 29: NW/4
Section 30: N/2

TOWNSHIP 29 NORTH, RANGE 17 WEST, NMPM

Section 12: SE/4
Section 13: E/2
Section 24: E/2

(8) Applicant further seeks the promulgation of special pool rules for the proposed Hogback-Pennsylvanian Oil Pool including provisions for 160-acre spacing and proration units, designated well locations, exemption from a gas-oil ratio limitation factor, exception to Division General Rule 306 to permit the venting of casinghead gas, and the assignment of a special depth bracket allowable for each spacing and proration unit within the pool.

(9) During 1985 the applicant has drilled two additional wells through the Pennsylvanian formation, these being the:

U.S.G. Section 18 Well No. 43 located 1500 feet from the North line and 1760 feet from the West line of Section 18, Township 29 North, Range 16 West, NMPM, San Juan County, New Mexico; and the

U.S.G. Section 18 Well No. 38 located 990 feet from the North line and 1650 feet from the East line of Section 30, Township 29 North, Range 16 West, NMPM, San Juan County, New Mexico.

(10) All references to "gas" hereafter in this order include any and all fluids, combustible or non-combustible, which are produced in a natural state from the Pennsylvanian formation which maintain a gaseous or rarified state at standard conditions.

(11) The geological evidence presented at the time of the hearing indicates that there are several distinct highly fractured members capable of producing hydrocarbons and non-flammable gases within the Pennsylvanian formation in the area.

(12) Production data from said wells indicate they should be classified as oil wells.

(13) Said wells currently produce with gas-oil ratios of approximately 8,000 cubic feet of gas per barrel of oil.

(14) Additional production data from these two wells and the production history on the two original wells in the pool indicate that the gas-oil ratio decreases in time and that this pool should therefore be reclassified as an oil pool.

(15) Production data from the four wells described in Finding Paragraphs Nos. (6) and (9), above, indicate that one well is capable of effectively and efficiently draining 160 acres and that the proposed pool should continue to be developed on 160-acre spacing and proration units.

(16) In order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 160-acre spacing units comprising a single governmental quarter section, being a legal subdivision of the United States Public Lands Survey should be promulgated for the proposed Hogback-Pennsylvanian Oil Pool.

(17) At the time of the hearing the applicant requested that wells drilled or recompleted on every standard or non-standard spacing unit in the pool should be located not closer than 660 feet to any outer boundary of such nor closer

than 10 feet to any quarter-quarter section line or subdivision inner boundary to assure orderly development of the pool and to protect correlative rights.

(18) The geological control in the area is insufficient to support the horizontal extension of the proposed pool as described in Finding Paragraph No. (7) above; however, the evidence supports an extension of the pool to include the NW/4 of Section 18 and the NE/4 of Section 30, both in Township 29 North, Range 16 West, NMPM, San Juan County, New Mexico.

(19) The evidence presented was insufficient at this time to make a determination that waste would not occur if the wells in this pool were allowed to produce without a gas-oil ratio limitation factor.

(20) The evidence does indicate, however, that the pool can be efficiently and effectively developed and produced with a gas-oil ratio limitation factor of 8,000 to one.

(21) Analysis of the gas from the Pennsylvanian formation in the area shows the gas to contain approximately 47 percent nitrogen and other non-flammables with a heating value of approximately 600 B.T.U., making this gas unmarketable and non-commercial at this time.

(22) The applicant's request for an exception to Division General Rule 306 allowing this gas, which will be considered casinghead gas, to be vented until such time as it becomes economically marketable should be approved.

(23) The evidence presented indicates this pool is chiefly a water drive reservoir with characteristics such that waste would not occur if applicant's requested special depth bracket allowable of 573 barrels of oil per day is approved.

(24) At the time of the hearing the applicant requested that any order promulgated in this case be retroactive to the effective date of the completion for said U.S.G. Section "18" Well No. 43, being September 16, 1985.

(25) The applicant offered no information or other evidence to support this request and it should therefore not be granted.

(26) An order based on the above findings is in the best interest of conservation, should prevent waste and protect correlative rights, and should therefore be entered in this case.

IT IS THEREFORE ORDERED THAT:

(1) Effective February 1, 1986, the Hogback-Pennsylvanian (Gas) Pool in San Juan County, New Mexico, is hereby reclassified as an oil pool and redesignated the Hogback-Pennsylvanian Oil Pool.

(2) Said Hogback-Pennsylvanian Oil Pool, as heretofore classified, defined and described, is hereby extended to include therein the following described area:

TOWNSHIP 29 NORTH, RANGE 16 WEST, NMPM
Section 18: NW/4
Section 30: NE/4

(3) Special Rules and Regulations for the Hogback-Pennsylvanian Oil Pool, San Juan County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
HOGBACK-PENNSYLVANIAN OIL POOL

Rule 1. Each well completed or recompleted in the Hogback-Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian Oil Pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

Rule 2. Each 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 Lands Survey.

Rule 3. The Division Director may grant an exception to the requirements of Rule 2 without hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

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Rule 4. Each well shall be located no nearer than 660 feet to the outer boundary of the proration unit nor closer than 10 feet to any governmental quarter-quarter section line or subdivision inner boundary.

Rule 5. The Division Director may grant an exception to the requirements of Rule 4 without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail at the time of filing, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

Rule 6. A special depth bracket allowable for a standard 160-acre proration unit (158 through 162 acres) of 573 barrels per day is hereby established for said pool. In the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proration.

The allowable assigned to a non-standard unit shall be the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

Rule 7. The limiting gas-oil ratio for the Hogback-Pennsylvanian Oil Pool shall be 8,000 cubic feet of gas per barrel of oil per day.

IT IS FURTHER ORDERED THAT:

(5) The application of Amoco Production Company for an unlimited gas-oil ratio for the Hogback-Pennsylvanian Oil pool is hereby denied.

(6) The applicant's request for exception to Division General Rule 306 to permit the flaring or venting of gas from wells in said pool until such gas becomes marketable or otherwise useable is hereby approved.

(7) The locations of all wells presently drilling to or completed in the Hogback-Pennsylvanian Oil Pool or in the Pennsylvanian formation within one mile thereof are hereby approved; the operator of any well having an unorthodox location shall notify the Aztec District Office of the Division

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in writing of the name and location of the well on or before June 1, 1986.

(8) Pursuant to Paragraph A. of Section 70-2-18 NMSA (1978), existing wells in the Hogback-Pennsylvanian Oil Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable.

(9) 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



R. L. STAMETS
Director

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