

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. 8498
Order No. R-7951

APPLICATION OF PENNZOIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION,
LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on February 27, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 13th day of June, 1985, 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, Pennzoil Company, seeks approval of an unorthodox gas well location 990 feet from the South line and 660 feet from the East line of Section 35, Township 16 South, Range 34 East, NMPM, to test all formations from the top of the Wolfcamp formation to the base of the Pennsylvanian formation, Lea County, New Mexico.
- (3) The E/2 of said Section 35 is to be dedicated to the well.
- (4) At the time of the hearing, Division Case No. 8499 was consolidated with this case for the purpose of testimony.
- (5) Exxon Corporation, an offset operator to the southeast, appeared at the hearing and objected to the proposed unorthodox gas well location in the Atoka formation only.

(6) A well at said unorthodox location will better enable the applicant to produce the gas underlying the proration unit, but an allowable penalty for Atoka production only, should be imposed on the subject well to protect the correlative rights of other operators in the area.

(7) The most southeasterly well site in the E/2 of said Section 35 which would constitute a legal gas well location would be 1980 feet from the South line and 660 feet from the East line of said Section 35.

(8) The subject well is 990 feet (50 percent) closer to the South line of said Section 35 and is within the required distance from the East line as permitted under Rule 104 of the New Mexico Oil Conservation Division General Rules and Regulations.

(9) Assuming 320-acre radial drainage in the Atoka formation the subject well would have a calculated theoretical drainage area of approximately 37 acres outside of its proration unit more than would a well located at the most southeasterly standard gas well location as described in Finding Paragraph No. (7) above.

(10) Based upon the said calculations, the subject well having approximately 37 acres increased drainage outside of its proration unit in the Atoka formation than permitted, the subject well has approximately 283 acres or 88 percent of its theoretical drainage within the area permitted.

(11) The penalty imposed for the Atoka production upon the subject well should be based upon the footage variation of the unorthodox location from a standard Atoka location as described in Finding Paragraph No. (7) above, and on the theoretical drainage encroachment described in Finding Paragraph No. (10) above.

(12) The allowable factor for Atoka production should be calculated as being equal to: $(1.00 \text{ East footage factor} + 0.50 \text{ South footage factor} + 0.88 \text{ acreage encroachment factor}, \text{ divided by } 3) \text{ times } 100, \text{ or } 79 \text{ percent}.$

(13) An allowable factor for Atoka production of 0.79 for the subject well (a penalty of 21 percent) will prevent waste and protect the correlative rights of the applicant as well as other operators in the Atoka formation, and should be approved.

(14) In the absence of any special rules and regulations for the prorationing of production from the Atoka formation in which the subject well is or will be completed, the aforesaid

production limitation factor should be applied against said well's ability to produce into the pipeline as determined by periodic well tests.

(15) The minimum calculated allowable for the subject well should be reasonable, and 500,000 cubic feet of gas per day is a reasonable figure for such minimum allowable.

(16) Approval of the subject application subject to the above provisions and limitations will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject Atoka reservoir, will 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, and will otherwise prevent waste and protect correlative rights.

(17) If gas production should be encountered in the Wolfcamp, Cisco, Canyon, Strawn, or Morrow formations in subject well, said production should be produced with no penalty or limitation imposed.

IT IS THEREFORE ORDERED THAT:

(1) The application of Pennzoil Company for an unorthodox gas well location for all formations from the top of the Wolfcamp formation to the base of the Pennsylvanian formation is hereby approved for a well to be located at a point 990 feet from the South line and 660 feet from the East line of Section 35 , Township 16 South, Range 34 East, NMPM, Lea County, New Mexico.

(2) The E/2 of said Section 35 being a standard 320-acre Wolfcamp and Pennsylvanian gas spacing and proration unit shall be dedicated to the above-described well.

IT IS FURTHER ORDERED HOWEVER THAT:

(3) Said well is hereby assigned a Production Limitation Factor of 0.79 in the Atoka formation only.

(4) In the absence of any special rules and regulations prorating gas production in the Atoka formation, the special rules hereinafter promulgated shall apply.

(5) The following special rules and regulations for a non-prorated gas well at an unorthodox location shall apply to Atoka production from the subject well:

SPECIAL RULES AND REGULATIONS
FOR THE
APPLICATION OF A "PRODUCTION LIMITATION FACTOR"
TO A NON-PRORATED GAS WELL

APPLICATION OF RULES:

RULE 1: These rules shall apply to the Pennzoil Company Atoka formation gas well to be located 990 feet from the South line and 660 feet from the East line of Section 35, Township 16 South, Range 34 East, NMPM, Lea County, New Mexico, which well's Production Limitation Factor of 0.79 shall be applied to the well's Atoka deliverability (as determined by the hereinafter set forth procedure) to determine its maximum allowable rate of production.

ALLOWABLE PERIOD:

RULE 2: The allowable period for the subject well shall be six months.

RULE 3: The year shall be divided into two allowable periods commencing at 7:00 O'clock a.m. on January 1 and July 1.

DETERMINATION OF DELIVERY CAPACITY:

RULE 4: Immediately upon connection of Atoka production only, the operator shall determine the open flow capacity of the well in accordance with the Division "Manual for Back-Pressure Testing of Natural Gas Wells" then current, and the well's initial deliverability shall be calculated against average pipeline pressure in the manner described in the last paragraph on Page I-6 of said test manual.

RULE 5: The well's "subsequent deliverability" shall be determined twice a year, and shall be equal to its highest single day's production during the months of April and May or October and November, whichever is applicable. Said subsequent deliverability, certified by the pipeline, shall be submitted to the appropriate District Office of the Division not later than June 15 and December 15 of each year.

RULE 6: The Division Director may authorize special deliverability tests to be conducted upon a showing that the well has been worked over or that the subsequent

deliverability determined under Rule 5 above is erroneous. Any such special test shall be conducted in accordance with Rule 4 above.

RULE 7: The operator shall notify the appropriate district office of the Division and all offset operators of the date and time of initial or special deliverability tests in order that the Division or any such operator may at their option witness such tests.

CALCULATION AND ASSIGNMENT OF ALLOWABLES:

RULE 8: The well's Atoka allowable shall commence upon the date of connection to a pipeline and when the operator has complied with all appropriate filing requirements of the Rules and Regulations and any special rules and regulations.

RULE 9: The well's Atoka allowable during its first allowable period shall be determined by multiplying its initial deliverability by its production limitation factor.

RULE 10: The well's Atoka allowable during all ensuing allowable periods shall be determined by multiplying its latest subsequent deliverability, as determined under provisions of Rule 5, by its production limitation factor. If the well shall not have been producing for at least 60 days prior to the end of its first allowable period, the allowable for the second allowable period shall be determined in accordance with RULE 9.

RULE 11: Revision of allowable based upon special well tests shall become effective upon the date of such test provided the results of such test are filed with the Division's district office within 30 days after the date of the test; otherwise the date shall be the date the test report is received in said office.

RULE 12: Revised Atoka allowables based on special well tests shall remain effective until the beginning of the next allowable period.

RULE 13: In no event shall the well receive an allowable of less than 500,000 cubic feet of gas per day.

BALANCING OF PRODUCTION:

RULE 14: January 1 and July 1 of each year shall be known as the balancing dates.

RULE 15: If the well has an underproduced status at the end of a six-month allowable period, it shall be allowed to carry such underproduction forward into the next period and may produce such underproduction in addition to its regularly assigned allowable. Any underproduction carried forward into any allowable period which remains unproduced at the end of the period shall be cancelled.

RULE 16: Atoka production during any one month of an allowable period in excess of the monthly allowable assigned to the well shall be applied against the underproduction carried into the period in determining the amount of allowable, if any, to be cancelled.

RULE 17: If the well has an overproduced status at the end of a six-month allowable period, it shall be shut-in until such overproduction is made up.

RULE 18: If, during any month, it is discovered that the well is overproduced in an amount exceeding three times its average monthly allowable, it shall be shut-in during that month and during each succeeding month until it is overproduced in an amount three times or less its monthly allowable, as determined hereinabove.

RULE 19: The Director of the Division shall have authority to permit the well, if it is subject to shut-in pursuant to Rules 17 and 18 above, to produce up to 500 MCF of gas per month upon proper showing to the Director that complete shut-in would cause undue hardship, provided however, such permission shall be rescinded for the well if it has produced in excess of the monthly rate authorized by the Director.

RULE 20: The Division may allow overproduction to be made up at a lesser rate than permitted under Rules 17, 18, or 19 above upon a showing at public hearing that the same is necessary to avoid material damage to the well.

GENERAL:

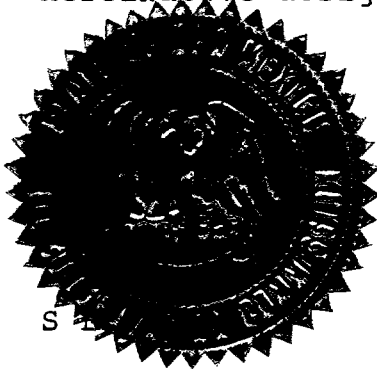
RULE 21: Failure to comply with the provisions of this order of the rules contained herein or the Rules and Regulations of the Division shall result in the cancellation of Atoka allowable assigned to the well. No further allowable shall be assigned to the Atoka production from

the well until all rules and regulations are complied with. The Division shall notify the operator of the well and the purchaser, in writing, of the date of allowable cancellation and the reason thereof.

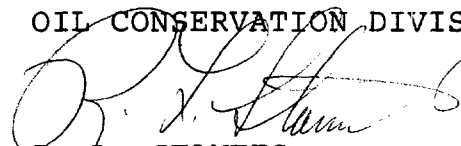
IT IS ORDERED THAT:

(6) 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