# 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:

DIVISION
BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

LEAR BURG EXHIBIT NO. 3

9314
CASE NO. 7522

APPLICATION OF SANTA FE EXPLORATION CO. FOR AN UNORTHODOX GAS WELL LOCATION, EDDY COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 31, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 5th day of April, 1982, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Santa Fe Exploration Co., seeks approval of an unorthodox gas well location 660 feet from the North line and 660 feet from the West line of Section 14, Township 20 South, Range 25 East, NMPM, to test the Permo-Penn, Strawn, Atoka and Morrow formations, Eddy County, New Mexico.
- (3) That the N/2 of said Section 14 is to be dedicated to the well.
- (4) That the applicant requested said unorthodox location on the grounds that it will improve its structural position with respect to the so-called "Boyd Channel," a north/south trending Morrow zone of higher than usual porosity and permeability traversing the western half of said Section 14, thereby increasing its chances of obtaining strong commercial production.
- (5) That a standard location for a well in the western half of the N/2 of Section 14 would be in either the NE/4 NW/4 or the SE/4 NW/4 of said Section 14.

-2-Case No. 7522 Order No. R-6933

- (6) That a non-commercial well has been drilled in the S/ of Section 11 immediately to the north, and applicant is seeking to move as far as possible away from said well, thereby making the NE/4 NW/4 of Section 14 undesirable as a location for the proposed well.
- (7) That a high pressure pipe line traverses Section 14, and a portion of said line passes in a northeast/southwest direction through the middle of the SE/4 NW/4 of the section.
- (8) That a standard location for the N/2 of Section 14 in the SE/4 NW/4 of the section would be in the center of said quarter-quarter section at a point 1980 feet from the North line and 1980 feet from the West line of the section.
- (9) That an unorthodox location 200 feet north and 200 feet west of the aforesaid location, or 1780 feet from the North line and 1780 feet from the West line should provide adequate clearance from the aforementioned high pressure pipe line and would, according to applicant's exhibits, be as geologically attractive as the proposed unorthodox location.
- (10) That an offset operator appeared at the hearing and opposed approval of the proposed unorthodox location without assessment of a penalty against production from the proposed well, but waived objection to the unorthodox location described above, i.e., 1780 feet from the North line and 1780 feet from the West line of Section 14.
- (11) That the applicant should be given the choice of drilling either of the aforesaid locations, the proposed unorthodox location 660 feet from the North line and 660 feet from the West line of Section 14, or 1780 feet from the North line and 1780 feet from the West line of Section 14.
- (12) That in order to protect correlative rights and to offset the advantage gained over the offsetting operators, a well drilled at the 660/660 location described above should be penalized by the imposition of a production limitation factor.
- (13) That a well at said proposed location is 100 percent of the standard distance from the north boundary of the spacing and proration unit, but is only 33 percent of the standard distance from the western boundary of the unit permitted by the Division Rules and Regulations.
- (14) That a well at said proposed location will have an area of drainage which extends 66.7 more acres outside its proration unit than a well at a standard location, being 21 percent of a 320 acre unit and leaving 79 percent of the area of

-3-Case No. 7522 Order No. R-6933

drainage within the assigned unit or the permissible drainage area outside the unit.

- (15) That the production limitation factor should be based upon the variation of the location from a standard location and the 66.7-acre encroachment described in Finding No. (14) above, and should be calculated by averaging the north/south location factor (100 percent), the east/west location factor (33 percent) and the acreage encroachment factor (79 percent), which yields a production limitation factor of 0.71.
- (16) That in the absence of any special rules and regulations for the prorationing of production from the subject well, the aforesaid production limitation factor should be applied against the well's ability to produce into the pipe line as determined by periodic tests.
- (17) That in order to avoid premature abandonment and subsequent loss of recoverable reserves, provision should be made for a reasonable minimum allowable for the subject well, and 500,000 cubic feet of gas per day is a reasonable figure for a minimum allowable.
- (18) That approval to drill the proposed well at the unorthodox location described in Finding No. (2) above, subject to the Production Limitation Factor described in Finding No. (15) above, or in the alternative, to drill at the unorthodox location described in Finding No. (9) above, will not impair but will protect correlative rights, will not cause waste, and should be given.

#### IT IS THEREFORE ORDERED:

- (1) That the applicant, Santa Fe Exploration Co., is hereby authorized to drill a well to test the Permo-Penn, Strawn, Atoka and Morrow formations at a point 660 feet from the North line and 660 feet from the West line of Section 14, Township 20 South, Range 25 East, NMPM, Eddy County, New Mexico, subject to a Production Limitation Factor of 0.71 applicable as described below, or, in the alternative, to drill said well at an unorthodox location 1780 feet from the North line and 1780 feet from the West line of said Section 14 without penalty, in either case to be dedicated to the N/2 of said Section 14.
- (2) That in the absence of any Special Rules and Regulations prorating production from the subject well, the following Special Rules and Regulations for a non-prorated gas well shall apply, if the well is drilled at the location first described in Paragraph (1) above:

# 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 Santa Fe Exploration Co. Morrow formation gas well located 660 feet from the North line and 660 feet from the West line of Section 14, Township 20 South, Range 25 East, NMPM, Eddy County, New Mexico, which well's Production Limitation Factor of 0.71 shall be applied to the well's 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 the well 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

-5-Case No. 7522 Order No. R-6933

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 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 allowable during its first allowable period shall be determined by multiplying its initial deliverability by its production limitation factor.
- RULE 10. The well's 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.
- $\underline{\text{RULE }12}.$  Revised 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. 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 or 18 above upon a showing that the same is necessary to avoid material damage to the well.

#### GENERAL

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

#### IT IS FURTHER ORDERED:

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

-7-Case No. 7522 Order No. R-6933

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

STATE OF NEW MEXICO

DIL CONSERVATION DIVISION

JOE D. RAMEY,

Director

SEAL