Entered July 20, 1984

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. 8087 Order No. R-7592

APPLICATION OF UNION OIL COMPANY OF CALIFORNIA FOR AN UNORTHODOX GAS WELL LOCATION, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on February 29, 1984, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this $20 \, \mathrm{th}$ day of July, 1984, 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, Union Oil Company of California, seeks approval of an unorthodox Morrow gas well location for its Crawford "27" Well No. 3 to be located 2050 feet from the South line and 825 feet from the West line of Section 27, Township 24 South, Range 26 East, NMPM, White City-Pennsylvanian Gas Pool, Eddy County, New Mexico.
- (3) That said well is to be dedicated to the existing standard 640-acre gas spacing and proration unit comprising all of said Section 27 which is currently dedicated to the applicant's Crawford "27" Well No. 2 located 1980 feet from the South and East lines of said Section 27 which is also completed in the White City-Pennsylvanian Gas Pool.
- (4) That by Order No. R-2429-A, entered March 27, 1963, in Case No. 2737, the Division promulgated special pool rules for the White City-Pennsylvanian Gas Pool in Eddy County, New

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Mexico, including a provision for 640-acre well spacing and proration units and specified well locations to be no nearer than 1650 feet to the boundary of the proration unit and no nearer than 330 feet to any governmental quarter-quarter section line.

- (5) That by Order No. R-2429-B, entered April 13, 1964, the Division continued said special pool rules in full force and effect until further order of the Division.
- (6) That as a result of Case No. 7208 and by its Order No. R-2429-C entered April 7, 1981, the Division amended said special pool rules to provide for 320-acre well spacing and proration units and specified well locations.
- (7) That said amendment of the special pool rules resulted from testimony and findings in said Case that the existing wells in said pool were not effectively and efficiently draining the 640-acre proration units dedicated to them
- (8) That by Order No. R-2429-D, entered July 28, 1981, the Division rescinded said special rules that were promulgated by said Division Order No. R-2429-C, as described in Finding Paragraphs Nos. (6) and (7) above, after it was determined that the change in spacing unit size would result in the loss of some leases formerly dedicated to communitized 640-acre proration units and other disturbances of historical equities under the pre-existing proration units within said White City-Pennsylvanian Gas Pool. It was also found that the net results of these conditions would deprive owners of their correlative rights within said pool.
- (9) That for the above reasons, said Order R-2429-D amended the special pool rules for the subject pool to again provide for 640-acre standard well spacing and proration units and to also permit the infill drilling of additional wells on each standard 640-acre proration unit with the provision that there be no more than two producing wells on any one proration unit at any one time; Order No. R-2429-D also reinstated the well location requirements as previously described in Finding Paragraph No. (4) above.
- (10) That the operator of the offsetting spacing and proration unit immediately to the West of the subject spacing and proration unit, Gulf Oil Corporation, appeared at the hearing and objected to approval of an unorthodox gas well location for the aforesaid Crawford "27" Well No. 3.

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- (11) That the unorthodox location of the subject well will better enable the applicant to produce the gas underlying the proration unit, but an allowable penalty should be imposed only on the subject unorthodox well to protect the correlative rights of other operators in the pool.
- (12) That said well at the proposed location is 825 feet (50 percent of the distance) closer to the West line of said Section 27 and is within the required distance (100 percent of the distance) from the South line of said Section 27 as permitted under the special rules for the White City-Pennsylvanian Gas Pool as described in Finding Paragraph No. (4) above.
- (13) That based upon 320-acre radial drainage, a well at the proposed unorthodox location will have a calculated theoretical area of drainage in the White City-Pennsylvanian Gas Pool which extends approximately 64 net acres outside its spacing and proration unit more than a well located at the nearest standard location.
- (14) That based upon the calculations in Finding Paragraph No. (13) above, a well at the unorthodox location would be draining only 80 percent of its production from the area to be drained by a well at the nearest standard location in said Section 27.
- (15) That to offset the advantage gained over the protesting offset operator, production from the well at the proposed unorthodox location should be limited from the White City-Pennsylvanian Gas Pool.
- (16) That the penalty imposed for White City-Pennsylvanian Gas Pool production upon the subject well should be based upon the footage variation of its proposed unorthodox location from a standard White City-Pennsylvanian Gas Well location, as described in Finding Paragraph No. (12) above and on the drainage encroachment, as described in Finding Paragraph No. (14) above.
- (17) That the allowable factor for the subject well should be calculated as follows: (1.00 South footage factor + 0.50 West footage factor + 0.80 acreage encroachment factor), divided by 3, times 100, or 76.67 percent.
- (18) That an allowable factor for White City-Pennsylvanian Gas Pool production of .7667 for the subject well (a penalty of 23.33 percent) will prevent waste and protect correlative rights of the applicant as well as other operators in the pool, and should be approved.

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- (19) That in the absence of any special rules and regulations for the prorationing of production from the White City-Pennsylvanian Gas Pool 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.
- (20) That 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.
- (21) That 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 Morrow 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.

IT IS THEREFORE ORDERED:

- (1) That the application of Union Oil Company of California for an unorthodox gas well location for the Morrow formation is hereby approved for its Crawford "27" Well No. 3 to be located at a point 2050 feet from the South line and 825 feet from the West line of Section 27, Township 24 South, Range 26 East, NMPM, White City-Pennsylvanian Pool, Eddy County, New Mexico.
- (2) That a standard 640-acre spacing and proration unit consisting of said Section 27 shall be dedicated to the above described well and to the applicant's Crawford "27" Well No. 2, located 1980 feet from the South and East lines of said Section 27 which is also completed in the White City-Pennsylvanian Gas Pool.
- (3) That the applicant's Crawford "27" Well No. 3, as described in Order Paragraph No. (1) above is hereby assigned a Production Limitation Factor of 0.7667 in the White City-Pennsylvanian Gas Pool.
- (4) That in the absence of any special rules and regulations prorating gas production in said White City-Pennsylvanian Gas Pool, the special rules hereinafter promulgated shall apply.
- (5) That the following special rules and regulations for a non-prorated gas well at an unorthodox location shall apply to 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 Union Oil Company of California Crawford "27" Well No. 3, located 2,050 feet from the South line and 825 feet from the West line of Section 27, Township 24 South, Range 26 East, NMPM, White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, which well's Production Limitation Factor of 0.7667 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 o'clock a.m. on January 1 and July 1.

DETERMINATION OF DELIVERY CAPACITY

- RULE 4. Immediately upon connection of White City-Pennsylvanian Gas production 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.
- 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

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order that the Division or any such operator may at their option witness such tests.

CALCULATION OF ASSIGNMENT OF ALLOWABLES

- RULE 8. The well's White City-Pennsylvanian Gas production allowable shall commence upon the date of connection to a pipeline and when the operator has compiled 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.
- RULE 14. That the well's allowable shall be 0.7667 of the well's deliverability as set forth in Rules 4 through Rule 7 above.

BALANCING OF PRODUCTION

- RULE 15. January 1 and July 1 of each year shall be known as the balancing dates.
- RULE 16. 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

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> assigned allowable. Any underproduction carried forward into any allowable period which remains underproduced at the end of the period shall be cancelled.

- RULE 17. Production during any 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 18. 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.
- If during any month, it is discovered that the RULE 19. 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 no longer overproduced.
- $\underline{\text{RULE 20.}}$ 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.
- That 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

> > Miner

RAMEY, JOE D.

Director

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