

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 9954 De Novo
Order No. R-9050-C

APPLICATION OF MARATHON OIL COMPANY
FOR AN ADDENDUM TO DIVISION ORDER
NO. R-9050-A, TO INCLUDE A PROVISION
FOR DUAL COMPLETION AND AN UNORTHODOX
GAS WELL LOCATION IN THE UNDESIGNATED
INDIAN BASIN-MORROW GAS POOL, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on October 25, 1990, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 31st day of December, 1990, the Commission, a quorum being present, having considered the testimony presented and exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) By Order No. R-9050-A, issued in De Novo Case No. 9802 on January 18, 1990, the Division authorized Marathon Oil Company to drill its North Indian Basin Unit Well No. 8, subject to a production penalty, at an unorthodox gas well location 330 feet from the South line and 1650 feet from the West line (Unit N) of Section 9, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico, to test the Indian Basin-Upper Pennsylvanian Gas Pool.

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(3) In Case No. 9954 the applicant, Marathon Oil Company, seeks an addendum to said Order No. R-9050-A, to include authorization for an unorthodox gas well location for said North Indian Basin Unit Well No. 8 within the Undesignated Indian Basin-Morrow Gas Pool. In addition, the applicant seeks authority to dually complete said well in such a manner as to permit production of gas from the Undesignated Indian Basin-Morrow Gas Pool through a string of 2 7/8-inch tubing and the production of gas from the Indian Basin-Upper Pennsylvanian Gas Pool through the 5 1/2-inch casing-tubing annulus.

(4) The matter of said Case No. 9954 came on for hearing at 8:15 a.m. on May 30, 1990, at Santa Fe, New Mexico before Examiner David R. Catanach and pursuant to this hearing, Order No. R-9050-B was issued on August 15, 1990 which granted Marathon's application but imposed a 27.9% penalty factor, or an allowable equal to 72.1% of the assigned monthly allowable to said unit for Morrow gas production, to offset the advantage gained over the diagonal offset operators as a result of the unorthodox location.

(5) All of said Section 9 is to be dedicated to the Morrow production from said well to form a standard 640-acre gas spacing and proration unit as provided by the Special Rules and Regulations governing the Indian Basin-Morrow Gas Pool.

(6) The evidence and record in said Case 9954 indicates that the subject well, which was spudded on April 4, 1990 subsequent to the issuance of said Order No. R-9050-A, has been drilled to a depth sufficient to test the Morrow formation and has encountered commercial gas production from the Basal "A" Sand within the Indian Basin-Morrow Gas Pool as well as the Indian Basin-Upper Pennsylvanian Gas Pool.

(7) Oryx Energy Company (Oryx), the owner of the affected diagonal offset acreage in Section 17, Township 21 South, Range 23 East, NMPM, appeared at the hearing in opposition to the unorthodox Morrow location and in support of a production penalty to be assessed against the subject well within the Indian Basin-Morrow Gas Pool.

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(8) By agreement the record of the Examiner hearing in Case No. 9954 is incorporated and made part of the record of this case.

(9) There is substantial geological disagreement as to the depositional environment of the Morrow Basal "A" Sand, the productive acreage in the Morrow underlying Section 17, and the potential for commercial gas production from the Morrow under Section 17.

(10) The only definitive engineering data presented was a P/z plot of the Morrow in Marathon's well which showed slightly less than 1 billion cubic feet of recoverable gas reserves.

(11) According to evidence and testimony, Oryx is currently evaluating the possibility of drilling a Morrow well in Section 17.

(12) In order to secure the protection of its correlative rights, Oryx has proposed that the subject well be allowed to drain only that area of Section 17 which would normally be drained by a well located at a standard location in Section 9.

(13) Any penalty imposed on the subject well by the Commission will be ultimately ineffective if Oryx chooses not to drill a well to recover its gas reserves in Section 17.

(14) A production penalty based upon the distance the subject well encroaches toward the corner point of Sections 8, 9, 16 and 17 is reasonable and equitable and should be utilized in this case.

(15) The calculated distance from the above-described corner point to a standard well location in Section 9 is 2,333 feet. The calculated distance from the above-described corner point to the actual well location is 1,683 feet.

(16) In order to protect correlative rights a penalty should be assigned to the applicant's GPU which will reflect the proportionate distance the proposed location is moved toward the aforementioned corner point.

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(17) Ratio penalties have historically been assigned to wells which crowd objecting parties whose acreage directly offsets the crowding well.

(18) When ratio penalties are applied because of objections from parties owning diagonal offsetting acreage, penalty adjustments must be made to account for lesser acreage being effected by drainage from the crowding well.

(19) Mathematical computations show that approximately two times as much direct offset acreage is affected by drainage as diagonal offset acreage assuming theoretical circular drainage and equal radii.

(20) Correlative rights should be protected by assigning a penalty to the allowable of the proposed location based upon the formula: $(0.5) (1-1683/2333)$ or 14% penalty.

(21) Approval of the subject application with a 14% penalty will afford the applicant the opportunity to produce its just and equitable share of the gas in the affected pool, 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 THAT:

(1) The application of Marathon Oil Company for an addendum to Division Order No. R-9050-A to include authorization for an unorthodox gas well location for its North Indian Basin Unit Well No. 8, located 330 feet from the South line and 1650 feet from the West line (Unit N) of Section 9, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico, within the Indian Basin-Morrow Gas Pool is hereby approved.

(2) The applicant is further authorized to dually complete said well in such a manner as to permit production of gas from the Undesignated Indian Basin-Morrow Gas Pool through a string of 2 7/8-inch tubing and the production of gas from the Indian Basin-Upper Pennsylvanian Gas Pool through the 5 1/2-inch casing-tubing annulus.

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(3) All of said Section 9 is to be dedicated to the Undesignated Indian Basin-Morrow Gas Pool production from said well to form a standard 640-acre gas spacing and proration unit.

(4) The above described proposed location and gas proration unit shall be assigned a 14% penalty, or an allowable equal to 86% (0.86) of the normal monthly allowable assigned to a standard gas proration unit in the Indian Basin-Morrow Gas Pool.

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

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

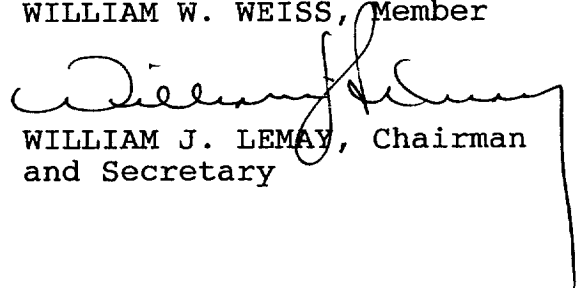
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



WILLIAM R. HUMPHRIES, Member



WILLIAM W. WEISS, Member



WILLIAM J. LEMAY, Chairman
and Secretary

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