ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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

> CASE NO. 9331 Order No. R-8644

APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR A NON-STANDARD GAS PRORATION UNIT AND UNORTHODOX GAS WELL LOCATION, LEA COUNTY, NEW MEXICO.

See Alar Omlar No. R-8644-A

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 16 and April 13, 1988, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>27th</u> day of April, 1988, 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, Phillips Petroleum Company (Phillips), seeks approval for an unorthodox gas well location for its proposed State "22" Well No. 1 to be located 660 feet from the North and West lines (Unit D) of Section 22, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, to test the South Shoe Bar-Atoka Gas Pool and the Morrow formation, said well to be dedicated either to a 160-acre non-standard gas proration and spacing unit consisting of the N/2 SW/4 and W/2 NW/4 of said Section 22, or in the alternative, to an 80-acre non-standard gas proration and spacing unit consisting of the W/2 NW/4 of said Section 22. Order No. R-8644 Page -2-

(3) The applicant is the leasehold owner of the W/i NW/4 of said Section 22, and at the time of the hearing, the applicant testified that Phillips had reached a verbal agreement with Amerada Hess to obtain by farmout its acreage consisting of the N/2 SW/4 of said Section 22 contingent upon approval of the subject application by the Division.

(4) At the time of the hearing, the applicant requested that the portion of the case requesting approval of an 80-acre non-standard spacing and proration unit to be dedicated to subject well be <u>dismissed</u>.

(5) Arco Oil & Gas Company (Arco), the leasehold owner of the S/2 SW/4 of said Section 22, appeared at the hearing in opposition to the application.

(6) The evidence in this case indicates that by Administrative Order No. NSP-1470, the Division approved a 240-acre non-standard gas spacing and proration unit consisting of the NE/4 and the E/2 NW/4 of said Section 22, said acreage dedicated to the T. H. McElvain Oil and Gas Properties New Mexico "AC" State Well No. 1 located at an unorthodox gas well location 1980 feet from the North line and 660 feet from the East line (Unit H) of said Section 22, which was completed in the South Shoe Bar-Atoka Gas Pool in January, 1986.

(7) The evidence further indicates that Sun Exploration and Production Company currently operates the South Shoe Bar State Com Well No. 1 located 660 feet from the South line and 2030 feet from the West line of Section 15, Township 17 South, Range 35 East, NMPM, which was completed in the South Shoe Bar-Atoka Gas Pool in December, 1987.

(8) Phillips presented as evidence initial bottomhole pressure data from the two aforementioned wells which indicates that, prior to its completion, the South Shoe Bar State Com Well No. 1 likely experienced drainage from the New Mexico "AC" State Well No. 1 which is located a distance of approximately 3698 feet away. Order No. R-8644 Page -3-

(9) At the time of the hearing it was determined that Arco has proposed and is willing to contribute its acreage in the SW/4 SW/4 of said Section 22 to the proposed non-standard proration unit.

(10) Arco further proposed that its acreage in the SE/4 SW/4 of said Section 22 could be included in a possible non-standard proration unit consisting of the SE/4 SW/4 and the SE/4 of said Section 22, which could be dedicated to a well drilled in the S/2 of Section 22.

(11) At the time of the hearing, Arco requested that the Division impose a production penalty factor on the subject well, said penalty factor to equal the proportion that the non-standard proration unit bears to a standard proration unit within the pool (160/320) or 0.50.

(12) The evidence supports the applicability of the general rules in that a well in this reservoir will drain at least 320 acres.

(13) Applicant's request will result in waste from the drilling of unnecessary wells.

(14) Applicant failed to address how correlative rights will be protected in an unprorated gas pool with the proposed unorthodox location and non-standard proration unit.

(15) In the absence of evidence on the record demonstrating the need for an exception, the Division should administer a program of uniform well density and well spacing in performing its statutory duty of protecting correlative rights.

(16) The application should be denied.

IT IS THERFORE ORDERED THAT:

(1) The granting of this application would tend to cause waste and would impair correlative rights and is therefore <u>denied</u>.

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(2) 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.

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STATE OF NEW MEXICO OIL CONSERVATION DIVISION ()WILLIAM J. LEMAY Director

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

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

> CASES NOS. 9331 (DE NOVO) and 9429 Order No. R-8644-A

> > See Also Orales No. 2-8644

APPLICATION OF PHILLIPS PETROLEUM CO. FOR NON-STANDARD UNIT AND NON-STANDARD LOCATION OR, IN THE ALTERNATIVE, FOR COMPULSORY POOLING TO FORM A NEW STANDARD UNIT IN SECTION 22, TOWNSHIP 17 SOUTH, RANGE 35 EAST, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on July 14, 1988, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this <u>19th</u> day of September, 1988, the Commission, a quorum being present, having considered the testimony presented and the 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) At the time of hearing Cases 9331, 9429 and 9430, involving the same land and subject matter, were consolidated for purposes of hearing.

(3) Applicant Phillips Petroleum Company (Phillips), in Case 9331 sought, and was denied by Order R-8644, approval of non-standard location 660 feet from the North and West lines of Section 22, Township 17 South, Range 35 East for a well to be drilled to the South Shoe Bar-Atoka Gas Pool and to assign to said well a non-standard proration unit of either 80 acres or 160 acres. Said case was presented at this hearing, de novo.

(4) Applicant Phillips in Case 9429 seeks to force-pool either the N/2 or W/2 of Section 22 to form a standard 320-acre

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gas spacing and proration unit and to reform administrative order NSP-1470-(L) covering the NE/4 and E/2 NW/4, which is dedicated to an existing well, the T. H. McElvain New Mexico "AC" State Well No. 1 located 1980 feet from the North and 660 feet from the East line (Unit H) of said Section 22; whereby Phillips would either participate in McElvain's well if the N/2 is force-pooled or would drill a second well in the section if the W/2 is force-pooled.

(5) Applicant Mobil Producing Texas and New Mexico Inc. (Mobil), in Case 9430, seeks the force-pooling of the E/2 of Section 22, or alternatively to force pool the S/2 of said section, so as to allow their lease in the SE/4 of said section to participate in a standard gas spacing unit, or to approve a non-standard gas spacing and proration unit comprised of SE/4 and S/2 SW/4 of said section.

(6) T. H. McElvain protests any action of the Commission which would change the size of his present proration unit, penalize his production or force pool interests into his producing well.

(7) All parties agreed that wells completed in the Atoka Sand Reservoir would drain in excess of 320 acres.

(8) Sun Exploration and Production (Sun), owner and operator of the Shoe Bar State Well No. 1 located at a standard location in the SE/4 SW/4 (Unit N) of Section 15, Township 17 South, Range 35 East protests the excess drainage that would occur on their acreage in Section 15 from two additional wells drilled and completed from the Atoka Sand Reservoir in Section 22 caused by the Commission approving unorthodox spacing units without penalizing production rates.

(9) Testimony introduced by all of the parties confirmed the attempts to reach voluntary agreements which have failed.

(10) Unprorated gas pools have rules which establish standard proration unit size and shape with minimum distances a well may be drilled from the boundary of the unit assigned to it. Such rules prevent waste from drilling unnecessary wells and protect correlative rights by limiting encroachment and equalizing the amount of acreage dedicated to a proration unit.

(11) The McElvain well was a re-entry of the Humble State "AC" No. 1 which was located at a standard location for oil production but a non-standard location for Atoka gas. Approval of a 240-acre non-standard unit was granted by Administrative Order NSP-1470(L) after notice was given to both Phillips and Mobil, as offset operators, and neither party objected. .

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(12) Since McElvain secured approval of his unit and the well location as required by the rules, and has drilled and completed his well, the Commission is reluctant to redistribute equity in that producing gas proration unit; however, the Commission must address the well density issue in Section 22 by applying appropriate penalties to non-standard units and locations in order to protect the correlative rights of all parties.

(13) No party has requested proration be instituted in these pools.

(14) Phillips' reservoir engineer requested a 160-acre non-standard unit with a 50% penalty factor (160/320) assessed against ratable take determinations by the gas purchaser. This is not possible in today's gas marketing environment where there may be purchasers outside the jurisdiction of the Oil Conservation Division and there may not be a common purchaser to implement ratable take penalties.

(15) Under cross examination of the Phillips' reservoir engineer, it was suggested that the penalty be assessed against deliverability. Since operators in non-prorated gas pools have the opportunity to sell maximum deliverability from their gas wells, a penalty assessed against deliverability will protect the correlative rights of all gas producers in the pool.

(16) There was no direct correlation between deliverability and data presented at the hearing. In the absence of such, deliverability must be defined as the maximum recorded flow rate.

(17) During 1986 and 1987 maximum flow rates for the wells on which data was presented at the hearing were approximately 6000 Mcf/day and this is hereby found to be the maximum flow rate for wells subject to being penalized by this order.

(18) Data presented at the hearing did not address declining deliverability but 10% per year decline is considered reasonable and represents average performance in this type of reservoir.

(19) The McElvain well location was not objected to and should not be penalized, however; the spacing unit is non-standard and should be allowed 240/320 or 75% of the maximum flow rate described in Finding No. (18) hereinabove.

(20) Phillips, if unable to negotiate for a standard unit should be permitted a non-standard unit comprised of the W/2

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NW/4 and N/2 SW/4 and, if the well is located not less than 660 feet to the outer boundary of the unit should be limited to one-half (160/320) the maximum flow rate as described in Finding No. (18) hereinabove. Further encroachment toward the outer boundary will be cause for an additional penalty which would be the subject of a new hearing.

IT IS THEREFORE ORDERED THAT:

(1) T. H. McElvain's New Mexico "AC" State Well No. 1 located 1980 feet from the North and 660 feet from the East, lines of Section 22, Township 17 South, Range 35 East, Lea County, New Mexico is hereby restricted in its daily producing rate to 4,500,000 cubic feet of gas from the South Shoe Bar-Atoka Gas Pool.

(2) Phillips Petroleum Co.'s application for a non-standard gas provation unit in the South Shoe Bar-Atoka Gas Pool consisting of the W/2 NW/4 and N/2 SW/4 of said Section 22 is hereby approved.

PROVIDED, HOWEVER, that said well shall be restricted in its daily producing rate to 3,000,000 cubic feet of gas on condition the well is located no nearer than 660 feet to the outer boundary of the unit. If encroachment toward the outer boundary of the unit is greater, the Commission will impose an additional penalty after notice and hearing.

IT IS FURTHER ORDERED THAT:

(3) In regard to the restrictions imposed in decretory Paragraphs (1) and (2) above, production during any month at a rate less than the limitation described shall not be carried forward as underproduction into succeeding months, but overproduction of such limitation during any month shall be made up in the next succeeding month or months by shut-in or reduced rate as required by the District Supervisor of the Division.

(4) Beginning January 1, 1990, the maximum flow rate for wells subject to being penalized by this order shall be reduced 10% annually on January 1 of each successive year.

(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

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WILLIAM R. HUMPHRIES, Member

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ERLING K. BROSTUEN Member

00 WILLIAM J. LEMAY, Chairman and Secretary

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CASES NOS. 9331 (DE NOVO) and 9429 Order No. R-8644-B

APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR NON-STANDARD UNIT AND NON-STANDARD LOCATION OR, IN THE ALTERNATIVE, FOR COMPULSORY POOLING TO FORM A NEW STANDARD UNIT IN SECTION 22, TOWNSHIP 17 SOUTH, RANGE 35 EAST, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Oil Conservation Commission of New Mexico (Commission) that the order issued in Case No. 8331 <u>De</u> Novo dated September 19, 1988 does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED THAT:

(1) Finding Paragraph No. (3) contained in Order No. R-8644-A should be amended to read in its entirety as follows:

"(3) Applicant Phillips Petroleum Company (Phillips), in Case 9331 sought, and was denied by Order No. R-8644, approval of a non-standard location 660 feet from the North and West lines of Section 22, Township 17 South, Range 35 East for a well to be drilled to test the Morrow formation and the South Shoe Bar-Atoka Gas Pool and to assign to said well a non-standard proration unit of either 80 acres or 160 acres. Said case was presented at this hearing, <u>de</u> <u>novo</u>."

(2) Decretory paragraph No. (2) in said Order No. R-8644-A should be amended to read in its entirety as follows:

"(2) Phillips Petroleum Company's application for a well to be drilled to the Morrow formation and a non-standard gas proration unit in the South Shoe Bar-Atoka Gas Pool consisting of the W/2 NW/4 and N/2 SW/4 of said Section 22 is hereby approved. -2-CASES NOS. 9331 (DE NOVO) and 9429 Order No. R-8644-B

> <u>PROVIDED HOWEVER</u>, that said well shall be restricted in its daily producing rate to 3,000,000 cubic feet of gas on condition the well is located no nearer than 660 feet to the outer boundary of the unit. If encroachment toward the outer boundary of the unit is greater, the Commission will impose an additional penalty after notice and hearing."

(3) The corrections set forth in this order be entered nunc pro tunc as of September 19, 1988.

DONE at Santa Fe, New Mexico, on this _____ day of October, 1988.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

WILLIAM R. HUMPHRIES, Member

Intern. ERLING & BROSTUEN, Member

WILLIAM J. LEMAY, Chairman and Secretary

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