Entered June 14, 1977 DAR

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE NO. 5910 Order No. R-5460

APPLICATION OF YATES PETROLEUM CORPORATION FOR GAS POOL CREATION AND DOWNHOLE COMMINGLING, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 25, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>14th</u> day of June, 1977, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Yates Petroleum Corporation, seeks the creation of three Pennsylvanian gas pools in Townships 17 and 18 South, Ranges 24, 25, and 26 East, Eddy County, New Mexico, including the Richard Knob-Lower Pennsylvanian and East Eagle Creek-Lower Pennsylvanian Gas Pools with provisions in each for commingling Strawn, Atoka, and Morrow production in the wellbores of wells drilled therein, and the Eagle Creek Permo-Pennsylvanian Gas Pool with provision for commingling Wolfcamp, Cisco, Canyon, and Strawn production in the wellbores of wells drilled therein.

(3) That the application should be amended to provide for the creation of four gas pools to be designated the Eagle Creek Permo-Pennsylvanian Gas Pool, the Eagle Creek-Strawn Gas Pool, the East Eagle Creek Atoka-Morrow Gas Pool, and the Richard Knob Atoka-Morrow Gas Pool, to be described and defined as set out on Exhibit "A" attached to this order.

(4) That Permo-Pennsylvanian zones, Strawn zones, and Atoka-Morrow zones within the vicinity of said pools often cannot be commercially developed as single or dual completions because said zones are not highly productive or decline rapidly when placed on production. -2-Case No. 5910 Order No. R-5460

(5) That the establishment of an administrative procedure whereby production from any or all of the four pools set out in Finding No. 3 above may be commingled within the wellbore of a producing well therein should permit otherwise uneconomical wells and/or zones to be produced, thereby preventing waste.

(6) That such an administrative procedure should provide for approval by the Commission District Supervisor, safeguards to prevent crossflow between pools, prevention of placement of fluids on fluid-sensitive zones, and the protection of interest owners under each proration or spacing unit.

(7) That the Commission District Supervisor should approve any downhole commingling in said pools existing on the date of entry of this order, without formal application, if in his opinion such approval will not result in waste.

(8) That the proposed pool creations and administrative procedure will prevent waste and will not violate correlative rights.

(9) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That effective July 1, 1977, four gas pools are hereby created in Eddy County, New Mexico, said pools being designated the Eagle Creek Permo-Pennsylvanian Gas Pool, the Eagle Creek-Strawn Gas Pool, the East Eagle Creek Atoka-Morrow Gas Pool, and the Richard Knob Atoka-Morrow Gas Pool, and said pools being defined and described and having vertical limits as set out on Exhibit "A" attached to this order.

(2) That limited special rules and regulations are hereby adopted for each of said pools to provide for an administrative procedure for downhole commingling as follows:

SPECIAL RULES AND REGULATIONS FOR THE EAGLE CREEK PERMO-PENNSYLVANIAN GAS POOL, THE EAGLE CREEK-STRAWN GAS POOL, THE EAST EAGLE CREEK ATOKA-MORROW GAS POOL AND THE RICHARD KNOB ATOKA-MORROW GAS POOL

RULE 1. The District Supervisor of the Commission's district office at Artesia shall have the authority to approve the commingling within the wellbore of gas produced from two or more of the pools covered by these special rules where the following facts exist and the following conditions are met:

(a) That the commingling is necessary to permit a zone or zones to be produced which would not otherwise be economically producible.

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- (b) That there will be no crossflow between the zones to be commingled.
- (c) That any zone which is producing from fluidsensitive sands, which may be subject to damage from water or other produced liquids, is protected from contact from such liquids produced from other zones in the well.
- (d) The fluids from each zone are compatible with the fluids from the other(s), and combining the fluids will not result in the formation of precipitates which might damage any of the reservoirs.
- (e) That ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).

RULE 2. To obtain approval for downhole commingling, the operator of the well shall submit the following to the Supervisor of the Commission's district office at Artesia:

- (a) Name and address of the operator.
- (b) Lease name, well number, well location, and names of the pools to be commingled.
- (c) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
- (d) A mechanical log of the well.
- (e) A diagrammatic sketch of the well showing casing, tubing, cement tops, perforations, and any downhole equipment.
- (f) Pressures and production for each zone to be commingled as determined from drill stem tests or potential tests following completion.
- (g) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.
- (h) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.

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> (i) A statement that all offset operators and, in the case of a well on Federal land, the United States Geological Survey, have been notified in writing of the proposed commingling.

<u>RULE 3.</u> The District Supervisor may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures or other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Rule 2, paragraph (i).

RULE 4. Upon such approval, the well shall be operated in accordance with the provisions of the administrative order which authorized the commingling, and allocation of the commingled production from the well to each of the producing zones shall be in accordance with the allocation formula set forth in the order.

<u>RULE 5.</u> The Secretary-Director may rescind authority to commingle production in the well-bore and require both zones to be produced separately, if, in his opinion, waste or reservoir damage is resulting thereby, or if any change of conditions render the installation no longer eligible for downhole commingling under the provisions of Rule 1, paragraphs (a) through (d).

RULE 6. The District Supervisor may waive the filing requirements of Rule 2(c), (d), (e), (f), (h), and (i) above for any well completed with two or more of the subject zones commingled in the well bore if such commingling had been accomplished on or before May 25, 1977, and if an application for approval of the same is filed with the District Supervisor on or before September 1, 1977.

IT IS FURTHER ORDERED:

(1) That 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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PHIL R. LUCERO, Chairman

ann ARNOLD, Member EMERY

JOE D. RAMEY, Member & Secretary

SEAL

EXHIBIT "A"

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Eagle Creek Permo-Pennsylvanian Gas Pool

Horizontal Limits:

TOWNSHIP 17 SOUTH, RANGE 24 EAST, NMPM Section 25: All TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM Section 24: All Section 25: W/2 Sections 26 and 27: S/2 Sections 29 and 30: All Sections 32 through 35: All TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM Section 4 through 7: All Section 8: N/2

Vertical Limits: Permo-Pennsylvanian formation

Discovery well: Yates Petroleum Corporation Federal CR Lease Well No. 1 in Unit M of Section 29, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, completed in the Permo Pennsylvanian formation on September 24, 1973, through perforations from 6,999 feet to 7,174 feet.

Eagle Creek-Strawn Gas Pool

Horizontal Limits:

TOWNSHIP 17 SOUTH, RANGE 24 EAST, NMPM Section 25: All TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM Section 21: S/2 Sections 25 through 27: S/2 Sections 28 through 30: A11 Sections 32 and 33: All Sections 34 and 35: N/2 Section 36: A11 TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM Section 30: S/2 Section 31: All Section 31: TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM Section 4: A11 TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM W/2Section 6: Vertical Limits: Strawn formation

Discovery Well: Yates Petroleum Corporation State CY Lease Well No. 1 in Unit K of Section 32, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, completed in the Strawn formation on January 31, 1974, through perforations from 7782 feet to 7786 feet.

East Eagle Creek Atoka-Morrow Gas Pool

Horizontal Limits:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM Section 24 and 25: All Section 36: N/2

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM Section 30: S/2 Section 31: All

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM Section 5: W/2 Section 6: E/2

Vertical Limits: Atoka and Morrow formations

Discovery Well: Yates Petroleum Corporation ARCO EC State Lease Well No. 1 in Unit B of Section 36, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, completed in the Atoka-Morrow formation on May 1, 1975, through perforations from 8,338 feet to 8,365 feet.

Richard Knob Atoka-Morrow Gas Pool

Horizontal Limits:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM Section 29: W/2 Section 32: All TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM Section 4: S/2 Section 5: All

Section 6: S/2 Section 8: N/2

Vertical Limits: Atoka and Morrow formations

Discovery Well: Yates Petroleum Corporation Federal CR Lease Well No. 1 in Unit M of Section 29, Township 17 South, Range 25 East, NMPM, Eddy County, New Mexico, completed in the Atoka-Morrow formation on September 25, 1973, through perforations from 7,944 feet to 7,964 feet.