STATE OF NEW MEXICO 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. 10771 Order No. R-

APPLICATION OF OXY USA INC. TO AUTHORIZE THE EXPANSION OF A PORTION OF ITS SKELLY PENROSE "B" UNIT WATERFLOOD PROJECT AND TO QUALIFY SAID EXPANSION FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO

BY THE DIVISION:

This cause came on for hearing at 8:15 A.M. on July 15, 1993, at Santa Fe, New mexico, before Examiner David R. Catanach.

NOW, on this ____of August, 1993, 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 case and the subject matter thereof.

- (2) Oxy USA Inc. ("OXY") is the current operator of the Skelly Penrose "B" Unit Waterflood Project ("The Unit") which was approved by Division Order R-2915 issued effective June 1, 1965.
- (3) At the time of unitization on July 1, 1965, the Unit comprised 63 wells encompassing 2612 acres. Waterflood operations were initiated during mid-1966 on 80-acre five-spot injection patterns.
- (4) The Unit have remained unchanged and is currently producing at 80 BOPD and 959 BWPD from 20 active producers. Only 7 injectors are currently active. Approximately 75 MBBL of reserves remain under the current 80-acre five-spot mode of operations.
- (5) OXY seeks authority to expand the waterflood operations in a portion of its Skelly Penrose "B" Unit Waterflood Project ("EOR Project") and authorization to make the necessary changes to convert the EOR Project from 80-acre five spot patterns to 20-acre infill with 40-acre 5-spot patterns.
- (6) In order to expand the EOR Project and to recover oil that otherwise will not be recovered, it is necessary to convert nine producers to injection wells. as shown on Exhibit "A" attached hereto.
- (7) OXY has submitted satisfactory evidence on Division Form C-108 in compliance with Division Rule 701.
- (8) The injection of water into each of the injection wells shown on Exhibit "A" should be accomplished under the terms and conditions of Division Rule 701.
- (9) In addition, OXY seeks an order of the Division pursuant to the New Mexico " Enhanced Oil Recovery Act" and to Division Rule 701(G) to expand a portion of its Skelly Penrose "B" Unit Waterflood Project and for the recovered oil tax rate for enhanced oil recovery for the expanded use of enhanced oil recovery technology in a portion of said waterflood project, an existing EOR project.

(10) The proposed "Expanded Use Area" contains 760 acres, more or less, and is specifically described as follows:

Township 23 South, Range 37 East, NMPM

Section 4: W/2NW/4

Section 5: E/2; SW/4; S/2NW/4 Section 8: NW/4NE/4; N/2NW/4

- (11) To date, ultimate primary oil recovery from the entire Unit has been 1775 MBBL. As of April 1, 1993, total oil production from the Unit was 3,441,632 barrels. Under the current 80-acre five-spot patterns, ultimate secondary oil recovery is estimated at 1742 MBBL.
- (12) OXY seeks to expand a portion of this Unit (the EOR Project") by means of a significant change in the process used for the displacement of crude oil and by increasing the size of the geologic area representing a unique area of activity to be accomplished by a 20-acre infill drilling, reworking, establishment of water injection and initiation of 40-acre, 5-spot patterns.
- (13) The estimated amount of recoverable oil attributable to a Positive Production Response from the Expanded Use of enhanced oil recovery technology for this EOR Project is 971,780 barrels of additional oil from the Queen (Penrose) formation of the Langlie Mattix Seven Rivers Queen Grayburg Pool.
- (14) The geologic evidence presented by the applicant including structure maps and net pay isopach map supports the conclusion that while the various pay sections in the Queen (Penrose) formation of the pool are generally present, the reservoir is generally heterogeneous resulting in lateral discontinuity of pay and great variations in thickness,

uniformity, porosity and permeability. The result is that the original method of 80-acre five spot injection patterns has left unrecovered substantial volumes of oil.

- (15) Applicant's engineering evidence concludes that changing or modifying the injection patterns by drilling additional producers and converting existing producing wells to injection should result in an estimated additional 971,780 barrels of oil to be recovered, with a current undiscounted value of \$16 million dollars.
- (16) While new producers are to be drilled in the EOR Project as infill wells, none of those producers will be recovering enough primary oil to pay for their costs. Instead, these producers are an integral part of the EOR project being necessary in order to close the injection patterns and improve sweep efficiency for the secondary recovery project.
- (17) The costs of the required additional facilities is estimated to be \$2,055,000 and the total project costs is estimated to be \$2,055,000.
- (18) Oxy's Exhibit 8 is an accurate and reliable engineering projection of the performance of the existing producing wells within the Expanded Use Area and should be used by the Division for certification of a positive production response for the Expanded Use Area.
- (19) The geologic evidence presented by Oxy demonstrated that the Queen reservoir in the Expanded Use Area contains distinct stringers each vertically isolated from the others with permeability and porosity being highly variable over this entire portion of the unit resulting in the existing 80-acre waterflood pattern being too large to overcome the areal discontinuities found in the Queen sands.

- (20) The reduction in the waterflood pattern from 80-acre to 40-acre pattern will improve the sweep efficiency by increasing in size the geologic area being affected by this new activity and increasing ultimate recovery from the Expanded Use Area of the pool.
 - (21) Based on the testimony presented in this case:
 - (a) the reduction in the waterflood injection well pattern in the Expanded Use Area should result in a substantial increase in the amount of crude oil ultimately recovered therefrom;
 - (b) the Expanded Use Area has been so depleted that it is prudent to implement a waterflood injection well pattern reduction to maximize the ultimate recovery of crude oil from the project area; and,
 - (c) the proposed enhanced oil recovery project is economically and technically feasible and has not been prematurely filed.
- (22) The subject Expanded Use Area within the Skelly Penrose "B" Unit Waterflood Project should be qualified an "Enhanced Oil Recovery Project" (EOR) pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (23) To be eligible for the EOR credit, the operator should advise the Division when the water injection into each additional injection wells commences and at such time, request the Division certify the project to the New Mexico Taxation and Revenue Department.
 - (24) The "enhanced oil recovery project area" should initially

comprise the region to be affected by injection on 40-acre patterns which includes the following area:

Township 23 South, Range 37 East, NMPM

Section 4: W/2NW/4

Section 5: E/2; SW/4; S/2NW/4 Section 8: NW/4NE/4; N/2NW/4

(25) The application should be approved and the EOR Project should be governed by the provision of the "Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects" and "Certification for Recovered Oil Tax Rate" as promulgated by Division Order No. R-9708.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant, OXY USA Inc. is hereby authorized to expand its Skelly Penrose "B" Unit Waterflood Project and to institute waterflood injection into the Queen (Penrose) formation at approximately 3505 feet to approximately 3744 feet through 2-3/8 inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery as shown on Exhibit "A" attached hereto.
- (2) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface,
- (3) Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.
- (4) The Casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing.

- (5) The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than 0.2 psi/ft of depth to the uppermost injection perforations.
- (6) The Division Director may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Queen (Penrose) formation. Such proper showing shall consists of a valid step-rate test run in accordance with and acceptable to this office.
- (7) The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.
- (8) The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (9) The subject wells shall be governed by all provision of Division Rule 702-706.

IT IS FURTHER ORDERED THAT:

- (10) The application of OXY USA INC. to qualify its Expanded Use Area within a portion of its Skelly Penrose "B" Unit Waterflood Project, which was the subject of Division Order No. R-2915, as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5), is hereby approved.
 - (12) The subject "enhanced oil recovery project area" shall

initially comprise the following described areas in Lea County, New Mexico:

Township 23 South, Range 37 East, NMPM

Section 4: W/2NW/4

Section 5: E/2; SW/4; S/2NW/4 Section 8: NW/4NE/4; N/2NW/4

- (13) The operator shall advise the Division when the additional water injection phase of the project commences into any of the new injection wells.
- (14) Said EOR project shall be governed by the provisions of the "Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects" and "Certification for Recovered Oil Tax Rate" as promulgated by Division Order No. R-9708.
- (15) That Oxy's Hearing Exhibit 8 shall be used by the Division as the "baseline" data from which to determine a positive production response.
- (16) 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

WILLIAM J. LEMAY Director

SEAL

ord719.009

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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR AN ORDER ADOPTING RULES TO IMPLEMENT THE ENHANCED OIL RECOVERY ACT.

> CASE NO. 10492 Order No. R-9708

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on June 18, 1992, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 27th day of August, 1992, 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) The 1992 Legislature of the State of New Mexico approved the "Enhanced Oil Recovery Act" (laws 1992, Chapter 38, Sections 1 through 5).
- (3) The Legislature directed the Oil Conservation Division to adopt rules for administering the Enhanced Oil Recovery Act.
- (4) The approval of a project referenced in the Act is the approval required under the Oil and Gas Act, Section 70-2-1 et. seq. NMSA and the Rules and Regulations of the Division before such projects are to be commenced.
- (5) It is necessary to adopt additional rules to meet the specific requirements under the Act for qualification of an enhanced oil recovery project for the tax credit.

Case No. 10492 Order No. R-9708 Page 2

IT IS THEREFORE ORDERED THAT:

- (1) The Rules and Procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate contained in Exhibit λ attached hereto are adopted and made a part of this order.
- (2) Jurisdiction is hereby retained for the entry of such further orders as the Commission may deem necessary.

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

OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

GARY CARLSON, Member

Bill Weiss

WILLIAM W. WEISS, Member

WILLIAM J. LEMAY, Chairman

SEAL

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Exhibit "A"
Case No. 10492
Order No. R-9708

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
SANTA FE, NEW MEXICO 87504

RULES AND PROCEDURES
FOR QUALIFICATIONS OF
ENHANCED OIL RECOVERY
PROJECTS AND CERTIFICATION FOR
THE RECOVERED OIL TAX RATE

A. General

Applications for qualification of enhanced oil recovery projects or expansions of existing enhanced oil recovery projects for the recovered oil tax rate pursuant to the New Mexico "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5) shall be accepted by the Oil Conservation Division after Merch 6, 1992.

B. Applicability

These rules apply to:

- 1. enhanced oil recovery (EOR) projects;
- expansions of existing EOR projects;
- the expanded use of enhanced oil recovery technology in existing EOR projects; and
 - 4. the change from a secondary recovery project to a tertiary recovery project.

C. Definitions

- 1. "Crude oil" means oil and other liquid hydrocarbons removed from natural gas at or near the wellhead.
- 2. "Division" means the Oil Conservation Division of the Energy, Minerals and Natural Resources Department.
- 3. "Enhanced Oil Recovery (EOR) Project" means the use or the expanded use of any process for the displacement of crude oil from

an oil well or pool classified by the Division other than a primary recovery process, including but not limited to the use of a pressure maintenance process, a waterflooding process, an immiscible, miscible, chemical, thermal or biological process or any other related process.

- 4. "Expansion or Expanded Use" means a significant change or modification as determined by the Oil Conservation Division in (a) the technology or process used for the displacement of crude oil from an oil well or pool classified by the Division; or (b) the expansion, extension or increase in size of the geologic area or adjacent geologic area that could reasonably be determined to represent a new or unique area of activity.
- 5. "Operator" means the person responsible for the actual physical operation of an enhanced recovery project."
- 6. "Positive Production Response" means that the rate of oil production from the wells or pools affected by an enhanced recovery project is greater than the rate that would have occurred without the project.
- 7. "Primary Recovery" means the displacement of crude oil from an oil well or pool classified by the Division into the well bore by means of the natural pressure of the oil well or pool, including but not limited to artificial lift.
- 8. "Recovered Oil Tax Rate" means the tax rate, as set forth in Paragraph (3) of Subsection A of Section 7-29-4 NMSA 1978, on crude oil produced from an enhanced recovery project.
- 9. "Secondary Recovery Project" means an enhanced recovery project that: (a) occurs subsequent to the completion of primary recovery and is not a tertiary recovery project; (b) involves the application, in accordance with sound engineering principles of carbon dioxide miscible fluid displacement, pressure maintenance, waterflooding or any other secondary recovery method accepted and approved by the Division that can reasonably be expected to result in an increase, determined in light of all facts and circumstances, in the amount of crude oil that may ultimately be recovered; and (c) encompasses a pool or portion of a pool the boundaries of which can be adequately defined and controlled.
- 10. "Termination" means the discontinuance of an enhanced recovery project by the operator.
 - 11. "Tertiary Recovery Project" means an enhanced recovery project that: (a) occurs subsequent to the completion of a secondary recovery project; (b) involves the application, in accordance with sound engineering principles, of carbon dioxide miscible fluid displacement, pressure maintenance, water flooding or any other tertiary recovery method accepted and approved by the Division

that can reasonably be expected to result in an increase, determined in light of all facts and circumstances, in the amount of crude oil that may ultimately be recovered; and (c) encompasses a pool or portion of a pool the boundaries of which can be adequately defined and controlled.

D. Procedure

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- 1. The Division's general rules of procedure shall apply to applications for qualifications of EOR projects unless altered or amended by these rules.
- 2. To be eligible for the recovered oil tax rate the operator must apply for and be granted Division approval of a new EOR project or the expansion of an existing EOR project pursuant to the applicable rules and regulations of the Division. No project or expansion approved by the Division prior to March 6, 1992 shall qualify for the recovered tax rate.
- 3. All applications for approval of EOR projects or the expansion of EOR projects shall be filed in triplicate with the Division at its Santa Fe office. One copy of the application and all attachments shall also be filed with the appropriate Division district office.
- 4. All applications shall be executed and certified by the operator or its authorized representative having knowledge of the facts therein and shall contain:
 - a. Operators name and address;
 - b. Description of the project area including:
 - (1) a plat outlining the project area;
 - (2) description of the project area by section, township and range;
 - (3) total acres; and
 - (4) name of the subject pool and formation.
 - c. Status of operations in the project area:
 - (1) if unitized, the name of the unit and the date and number of the Division Order approving the unit plan of operation;
 - (2) if an application for approval of a unit plan has been made, the date the application was filed with the

Division; and

- (3) if not unitized, identify each lease in the project area by lessor, lessee and legal description.
- d. Method of recovery to be used:
 - (1) identify fluids to be injected;
 - (2) if the Division has approved the project, provide the date and number of the Division Order; and
 - (3) if the project has not been approved by the Division, provide the date the application for approval was filed with the Division on Form C-108.
- e. Description of the project:
 - (1) A list of producing wells;
 - (2) A list of injection wells;
 - (3) capital cost of additional facilities;
 - (4) total project cost;
 - (5) the estimated total value of the additional production that will be recovered as a result of this project;
 - (6) anticipated date for commencement of injection;
 - (7) the type of fluid to be injected and the anticipated volumes; and
 - (8) if application is made for an expansion of an existing project, explain what changes in technology will be used or what additional geographic area will be added to the project area.
- f. Production data: Provide graphs, charts and other supporting data to show the production history and production forecast of oil, gas, casinghead gas and water from the project area.

E. Approval - Certification

1. <u>Project Approval</u>: An EOR project will be approved and the project area designated for the recovered oil tax rate when the operator proves that:

- a. the application of the proposed enhanced recovery techniques to the reservoir should result in an increase in the amount of crude oil that may be ultimately recovered therefrom;
- b. the project area has been so depleted that it is prudent to apply enhanced recovery techniques to maximize the ultimate recovery of crude oil; and
- c. the application is economically and technically reasonable and has not been prematurely filed.

2. Positive Production Response Certification:

- a. For the recovered oil tax rate to apply, to oil produced from an approved qualified EOR project, the operator must demonstrate a positive production response to the Division. Applications for certification of a positive production response shall be filed with the Division at its Santa Fe office and shall include:
 - (1) a copy of the Division's approval of the enhanced recovery project or expansion;
 - (2) a plat of the affected area showing all injection and producing wells with completion dates;
 - (3) production graphs and supporting data demonstrating a positive production response and showing the volumes of water or other substances that have been injected on the lease or unit since initiation of the enhanced recovery project.
- b. The Division Director shall have authority to administratively approve an application and certify a positive production response, or at his discretion or at the request of the applicant, may set the application for hearing.
- c. The Division shall certify that a positive production response has occurred and notify the Secretary of the Taxation and Revenue Department. This certification and notice shall set forth the date the certification was made and the date the positive production response occurred provided however:
 - (1) for a secondary recovery project, the application for certification of a positive production response must occur not later than five (5) years from the date the Division issued the certification of approval of the enhanced oil recovery project or expansion; and

(2) for a tertiary recovery project, the application for certification of a positive production response must occur not later than seven (7) years from the date the Division issues the certification of approval for the enhanced recovery project or expansion.

F. Reporting Requirements

- 1. The operator of an approved EOR project shall report annually on the status of the project and confirm that the project is still a viable EOR project as approved. The report will be for the year ending May 31 and shall be filed with the Division at its Santa Fe office. The report shall contain:
 - a. The date and number of the Division's certification order for the project.
 - b. Production graphs showing oil, gas and water production.
 - c. A graph showing the volumes of fluid injected and the average injection pressures.
 - d. Any additional data the Director deems necessary for continued approval.
- 2. The Director may set any such confirmation for hearing would it appear necessary.

G. Termination

1. When active operation of an approved enhanced recovery project or expansion is terminated, the operator shall notify the Division and the Secretary of Taxation and Revenue in writing not later than the thirtieth (30th) day after the termination of the enhanced recovery project or expansion.

STATE OF NEW MEXICO 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. 10570 Order No. R-9789

APPLICATION OF MARATHON OIL COMPANY TO QUALIFY A PORTION OF THE SOUTH EUNICE SEVEN RIVERS QUEEN UNIT WATERFLOOD PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 15, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 23rd day of November, 1992, 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) By Order No. R-4217 issued in Case No. 4616 on November 4, 1971, the Division authorized Marathon Oil Company to institute a waterflood project in its South Eunice Seven Rivers Queen Unit Area located in all or portions of Sections 23 through 26 and Sections 35 and 36, all in Township 22 South, Range 36 East, NMPM, South Eunice-Seven Rivers Queen Pool, Lea County, New Mexico, by the injection of water into the Seven Rivers and Queen formations.

- (3) The applicant, Marathon Oil Company, seeks an order pursuant to the Rules and Procedures for Qualifications of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate, as promulgated by Division Order No. R-9708, qualifying a portion of its South Eunice Seven Rivers Queen Unit Waterflood Project in portions of Sections 35 and 36. Township 22 South, Range 36 East, NMPM, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) The proposed "expanded use area" specifically comprises the following described lands:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM

Section 35: S/2 NE/4, N/2 SE/4

Section 36: SW/4, S/2 NW/4, W/2 SE/4

- (5) The subject waterflood project was initially drilled and developed utilizing an 80-acre five spot injection pattern.
- (6) In 1984, the applicant infill drilled six producing wells within the "expanded use area".
- (7) By Division Order No. WFX-629 dated April 9, 1992, the Division authorized Marathon to convert five producing wells to injection within the "expanded use area", these being the South Eunice Seven Rivers Queen Unit (SESRQ) Well Nos. 406, 407, 409, 412 and 415.
- (8) In addition, the applicant is in the process of obtaining administrative approval to convert its SESRQ Unit Well No. 416 from a producing well to an injection well.
- (9) As of the date of the hearing, the applicant has not commenced injection into the wells described in Finding Nos. (7) and (8) above.
- (10) The "expanded use area", as proposed by the applicant, presently or will include twelve injection wells, these being the SESRQ Unit Well Nos. 404, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415 and 416 and six producing wells, these being the SESRQ Unit Well Nos. 435, 436, 437, 438, 439 and 440.
- (11) Marathon requests certification of the "expanded use area" on the contention that it has or will expand the use of enhanced oil recovery technology by reducing the waterflood pattern from 80 acres to 40 acres.

- (12) The geologic evidence presented by the applicant indicates that the Queen reservoir in the "expanded use area" contains five distinct producing stringers each vertically isolated from the others.
- (13) The applicant contends that the producing stringers within the Queen reservoir are non-continuous over the entire southern portion of the unit. The result is that the existing 80-acre waterflood pattern is too large to overcome the areal discontinuities found in the Queen sand.
- (14) Although the applicant contends that the stringers within the Queen reservoir are non-continuous over the southern portion of the unit, the applicant's geologic evidence generally indicates that while the sands vary in thickness, they are generally present and continuous within the "expanded use area".
- (15) The engineering evidence indicates that the reduction in the waterflood pattern from 80 acres to 40 acres should improve the sweep efficiency and should increase the ultimate oil recovery from the proposed "expanded use area".
- (16) Applicant's engineering evidence indicates that the reduction in waterflood pattern within the "expanded use area" may increase ultimate recovery by an average of approximately 8.7 percent of the original oil in place, or a total of 366,230 barrels of oil.
- (17) "Expansion or Expanded Use" as contained within Division Order No. R-9708 is defined as follows:
 - "a significant change or modification as determined by the Oil Conservation Division in (a) the technology or process used for the displacement of crude oil from an oil well or pool classified by the Division; or (b) the expansion, extension, or increase in size of the geologic area or adjacent geologic area that could reasonably be determined to represent a new or unique area of activity".
- (18) The initial or preliminary action to reduce the spacing and waterflood injection pattern within the "expanded use area" was undertaken by the applicant in 1984.
- (19) The action currently proposed by the applicant to convert certain producing wells to injection within the "expanded use area" represents a logical continuation of the process initiated in 1984.

- (20) Although the definition of "Expansion or Expanded Use" as contained within Division Order No. R-9708 is somewhat subject to interpretation, it is the opinion of the Division at the current time that the proposed action by the applicant does not represent a significant change or modification in the technology or process used for the displacement of crude oil.
- (21) The application of Marathon Oil Company to qualify a portion of the South Eunice Seven Rivers Queen Unit Waterflood Project for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5) should be denied.

IT IS THEREFORE ORDERED THAT:

- (1) The application of Marathon Oil Company to qualify a portion of its South Eunice Seven Rivers Queen Unit Waterflood Project in portions of Sections 35 and 36. Township 22 South, Range 36 East, NMPM, Lea County, New Mexico, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5), is hereby denied.
- (2) Jurisdiction is hereby 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

WILLIAM J. LEMAY

Director