

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

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GOVERNOR

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ADMINISTRATIVE ORDER NO. WFX-606

**APPLICATION OF PYRAMID ENERGY, INC. TO EXPAND ITS WATERFLOOD
PROJECT IN THE PEARL QUEEN POOL IN LEA COUNTY, NEW MEXICO**

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-2538, Pyramid Energy, Inc. has made application to the Division on May 18, 1991 for permission to expand its East Pearl Queen Unit Waterflood Project in the Pearl Queen Pool in Lea County, New Mexico.

NOW, on this 12th day of June, 1991, the Division Director finds that:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to water injection under the terms of Rule 701.
- (5) The proposed expansion of the above-referenced waterflood project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Pyramid Energy, Inc., be and the same is hereby authorized to inject water into the Queen formation at approximately 4646 feet to approximately 5011 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells shown on Exhibit "A" attached hereto for purposes of secondary recovery.

IT IS FURTHER ORDERED THAT:

The operator 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.

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.

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, tubing or packer.

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 perforation, as shown on Exhibit "A".

The Director of the Division 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 formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

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 test so that the same may be inspected and witnessed.

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.

The subject wells shall be governed by all provisions of Division Order No. R-2538 and Rules 701-708 of the Division Rules and Regulations not inconsistent herewith.

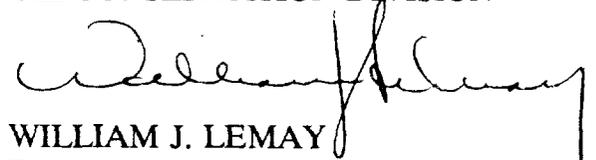
PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

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The operator shall submit monthly progress reports of the project in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 12th day of June, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

SEAL

EXHIBIT "A"
DIVISION ORDER NO. WFX-606
PYRAMID ENERGY, INC.
APPROVED INJECTION WELLS
EAST PEARL QUEEN UNIT

| <i>Well Number</i> | <i>Location</i> | <i>Unit</i> | <i>S-T-R</i> | <i>Injection Perforations</i> | <i>Packer Depth</i> | <i>Tubing Size</i> | <i>Injection Pressure</i> |
|--------------------|-----------------------|-------------|--------------|-------------------------------|---------------------|--------------------|---------------------------|
| EPQU No. 23 | 1980' FNL - 1980' FEL | G | 28-19S-35E | 4698' - 4899' | 4650' | 2 3/8" | 940 |
| EPQU No. 25 | 1980' FNL - 660' FWL | E | 27-19S-35E | 4687' - 4901' | 4650' | 2 3/8" | 937 |
| EPQU No. 32 | 1980' FSL - 1980' FWL | K | 27-19S-35E | 4707' - 4877' | 4650' | 2 3/8" | 941 |
| EPQU No. 34 | 1980' FSL - 660' FEL | I | 28-19S-35E | 4711' - 4919' | 4650' | 2 3/8" | 942 |
| EPQU No. 35 | 990' FSL - 660' FWL | M | 27-19S-35E | 4646' - 4742' | 4600' | 2 3/8" | 929 |
| EPQU No. 41 | 660' FNL - 1980' FWL | C | 34-19S-35E | 4757' - 4967' | 4700' | 2 3/8" | 951 |
| EPQU No. 43 | 1980' FNI - 660' FWL | E | 34-19S-35E | 4726' - 5011' | 4675' | 2 3/8" | 945 |