NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

ADMINISTRATIVE ORDER NO. WFX-780

APPLICATION OF ENERGEN RESOURCES CORPORATION TO EXPAND ITS WATERFLOOD PROJECT IN THE LANGLIE-MATTIX (SEVEN RIVERS-QUEEN-GRAYBURG) POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-4417, as amended, Energen Resources Corporation has made application to the Division on April 14, 2000, for permission to expand its Continental Langlie Lynn Waterflood Project in the Langlie-Mattix (Seven Rivers-Queen-Grayburg) Pool in Lea County, New Mexico.

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 injection under the terms of Rule 701.

(5) The proposed expansion of the Continental Langlie Lynn Waterflood Project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Energen Resources Corporation, is hereby authorized to inject water into the Seven Rivers-Queen-Grayburg formation through the gross perforated interval from approximately 3,408 feet to approximately 3,682 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 to wit:

Langlie Lynn Queen Unit No. 5
API No. 30-025-09389
1980' FSL & 1980' FEL, Unit J,
Section 23, T-23 South, R-36 East, NMPM
Perforated Interval: 3,494'-3,631'
Maximum Surface Injection Pressure: 699 psi

Langlie Lynn Queen Unit No. 7
API No. 30-025-09391
660' FSL & 1980' FWL, Unit N,
Section 23, T-23 South, R-36 East, NMPM
Perforated Interval: 3,510'-3,682'
Maximum Surface Injection Pressure: 702 psi

Langlie Lynn Queen Unit No. 12
API No. 30-025-20052
660' FNL & 660' FWL, Unit D,
Section 26, T-23 South, R-36 East, NMPM
Perforated Interval: 3,446'-3,682'
Maximum Surface Injection Pressure: 689 psi

Langlie Lynn Queen Unit No. 14
API No. 30-025-20191
660' FNL & 1980' FEL, Unit B,
Section 26, T-23 South, R-36 East, NMPM
Perforated Interval: 3,408'-3,586'
Maximum Surface Injection Pressure: 682 psi

Langlie Lynn Queen Unit No. 16
API No. 30-025-21229
1980' FNL & 1980' FWL, Unit F,
Section 26, T-23 South, R-36 East, NMPM
Perforated Interval: 3,468'-3,653'
Maximum Surface Injection Pressure: 694 psi

Langlie Lynn Queen Unit No. 18
API No. 30-025-21458
1980' FSL & 660' FWL, Unit L,
Section 26, T-23 South, R-36 East, NMPM
Perforated Interval: 3,540'-3,681'
Maximum Surface Injection Pressure: 708 psi

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, the casing in each well 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 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 Seven Rivers-Queen-Grayburg 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 tests 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-4417, as amended, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Remarks: This order shall supersede Division Orders No. WFX-521, which order authorized injection into the Langlie Lynn Queen Unit No. 7, and WFX-581, which order authorized injection

into the Langlie Lynn Queen Unit No. 5.

* Injection into the Langlie Lynn Queen Unit No. 12 shall be accomplished through the 2 7/8 inch tubing that was set at a depth of 3,748 feet and cemented back to surface.

DONE at Santa Fe, New Mexico, on this 19th day of December, 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery by DR

LORI WROTENBERY
Director

S E A L

LW/DRC

cc: Oil Conservation Division - Artesia
File-WFX-521, WFX-581