

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary Mark E. Fesmire, P.E. Director Oil Conservation Division

Administrative Order WFX-833

## APPLICATION OF APACHE CORPORATION TO EXPAND ITS WATERFLOOD PROJECT IN THE EUNICE MONUMENT GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order R-9596, Apache Corporation (OGRID 873) has made application to the Division for permission to expand its North Monument Grayburg-San Andres Unit Waterflood Project located within the Eunice Monument Grayburg-San Andres Pool (23000) in Lea County, New Mexico.

#### THE DIVISION DIRECTOR FINDS THAT:

The application was filed in due form. No objections have been filed within the waiting period prescribed by Division Rule 701(C). The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.

The proposed expansion of the above-referenced waterflood project will not cause waste nor impair correlative rights and should be approved.

#### **IT IS THEREFORE ORDERED THAT:**

Apache Corporation is hereby authorized to inject water into the unitized interval of the North Monument Grayburg-San Andres Unit Waterflood Project, through plastic-lined tubing set in a packer located within 100 feet of the top of the injection interval in the following-described 5 wells for purposes of secondary recovery:

NMGSA Unit Unit Well No. 513 (API No. 30-025-05653) 660' FSL, 660' FWL, Unit M, Sec 19, T19S, R37E, NMPM Permitted Vertical Injection Interval (Perforated and Open Hole): 3832 - 3920

Maximum Surface Injection Pressure: 750 PSIG

#### NMGSA Unit Unit Well No. 1005 (API No. 30-025-05747) 1980' FNL, 660' FWL, Unit M, Sec 30, T19S, R37E, NMPM

Permitted Vertical Injection Interval (Perforated and Open Hole): 3800 - 3905 Maximum Surface Injection Pressure: 750 PSIG

NMGSA Unit Unit Well No. 2104 (API No. 30-025-05910) 660' FNL, 660' FWL, Unit D, Sec 5, T20S, R37E, NMPM Permitted Vertical Injection Interval (Open Hole): 3783 - 3897 Maximum Surface Injection Pressure: 750 PSIG

NMGSA Unit Unit Well No. 2001 (API No. 30-025-05927) 660' FNL, 660' FEL, Unit A, Sec 6, T20S, R37E, NMPM Permitted Vertical Injection Interval (Open Hole): 3787 - 3830 Maximum Surface Injection Pressure: 750 PSIG

## NMGSA Unit Unit Well No. 1401 (API No. 30-025-12465)

330' FNL, 330' FEL, Unit A, Sec 36, T19S, R36E, NMPM Permitted Vertical Injection Interval (Open Hole): 3809 - 3940 Maximum Surface Injection Pressure: 750 PSIG

### **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 systems shall be equipped with a pressure limiting device which will limit the wellhead pressure to the maximum surface injection pressures described above.

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 Grayburg-San Andres formations. Such proper showing shall consist of valid step-rate tests 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.

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The subject wells shall be governed by all provisions of Division Order No. R-9596, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

<u>PROVIDED FURTHER THAT</u>, 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 well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on March 10, 2008.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION MARK E. FESMIRE, P.E. Director

cc:

Oil Conservation Division - Hobbs