

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



Administrative Order WFX-844
November 18, 2008
CORRECTED: March 12, 2010

Apache Corporation
6120 S. Yale Ave., Suite 1500
Tulsa, OK 74136

RE: North Monument G/SA Unit Waterflood Project
Waterflood Expansion – 2 additional injection wells
Section 19, Township 19 South, Range 37 East, Lea County, New Mexico

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 2 wells for purposes of secondary recovery:



North Monument G/SA Unit Well No. 11 (API No. 30-025-05650)

1980' FSL, 1980' FWL, Unit K, Sec 19, T19S, R37E, NMPM

Permitted Vertical Injection Interval (Perforated and Open Hole): 3797 - 3899

Maximum Surface Injection Pressure: 750 PSIG

North Monument G/SA Unit Well No. 15 (API No. 30-025-05648)

660' FSL, 1980' FEL, Unit O, Sec 19, T19S, R37E, NMPM

Permitted Vertical Injection Interval (Open Hole): 3784 - 3919

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 system shall be equipped with pressure limiting devices which will limit the wellhead pressure to the maximum surface injection pressure 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 permitted injection interval. 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 all mechanical integrity tests so that the same may be inspected and witnessed.

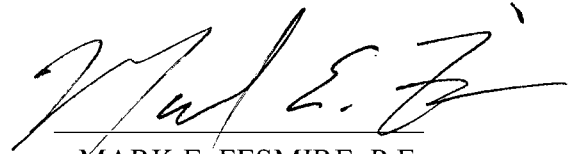
The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-9596, as amended, and Rules 26.9 through 26.13 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 at least one of the subject wells, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.



MARK E. FESMIRE, P.E.
Acting Division Director

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cc: Oil Conservation Division – Hobbs
Case File: 10253