

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**John Bemis**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey**  
Division Director  
Oil Conservation Division



September 13, 2012

**Administrative Order WFX-902**  
Application Reference No. pKVR1222955765

Quantum Resources Management  
Attn: Mr. David Catanach

**ADMINISTRATIVE WATERFLOOD EXPANSION ORDER**

Under the provisions of Division Order R-3837, issued on September 12, 1969, Quantum Resources Management, LLC (OGRID No. 243874) ("Applicant") has made application to the Division for permission to add an injection well to its Northeast Pearl Queen Unit Waterflood Project located within the Queen formation, Pearl; Queen Pool (49780), in Lea County, New Mexico. Applicant proposes to convert its existing Northeast Pearl Queen Unit Well No. 24 (API No. 30-025-33463) from production to injection.

**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 19.15.26.8.C(2) NMAC. The proposed injection well is eligible for conversion to injection under the terms of Rule 19.15.26.8 NMAC. The operator is in compliance with Rule 19.15.5.9 NMAC.

The proposed extension of the above-referenced waterflood project, will prevent waste, is in the best interests of conservation, will not impair correlative rights, and should be approved.

**IT IS THEREFORE ORDERED THAT:**

Applicant is hereby authorized to inject water into the unitized interval, through plastic-lined tubing set in a packer located within 100 feet of the top of the injection intervals in the following-described well for purposes of secondary recovery:

WELL_NAME	API	N-S	E-W	Unit	Sec	Tsp	Rge	Perfs	Surf Pres
Northeast Pearl Queen Unit Well No. 24	30-025-33463	.2310 FNL	1500 FWL	F	23	19S	35E	4945-5045	989 psi

This authorization is subject to all conditions contained in this order remaining the same and there having been no additional wells drilled or plugged in the area of review.

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 commencement of injection into this well, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

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 wells shall pass a mechanical integrity test ("MIT") prior to initially commencement of injection, and prior to resumption of injection each time the packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11.A. NMAC.

The injection well shall be equipped with a pressure limiting device which will limit the wellhead pressure to 0.2 psi/ft. to the uppermost injection perforations, as shown above.

The Division Director may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not cause migration of the injected fluid from the permitted injection interval or harmful formation fracturing. Such proper showing shall consist of a valid step-rate test run in accordance with applicable Division rules and acceptable to the Hobbs District Office.

The operator shall notify the supervisor of the Hobbs District Office 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 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-3837, and Rules 19.15.26.9 through 19.15.26.13 NMAC not inconsistent herewith.

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) in a manner consistent with the requirements in this Order, whereupon the Division may, after notice and hearing, or otherwise in event of emergency as authorized by the New Mexico Oil and Gas Act and Division Rules, 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 received prior to the one year deadline, may grant an extension thereof for good cause shown.

This order does not relieve operator of responsibility should its operations cause any actual damage or threat of damage to protectable fresh water, human health or the environment; nor does it relieve the operator of responsibility for complying with applicable Division rules or other state, federal or local laws or regulations.

Sincerely,

A handwritten signature in black ink, appearing to read "Jami Bailey", written over a horizontal line.

JAMI BAILEY  
Director

JB/db

cc: New Mexico Oil Conservation Division - Hobbs  
New Mexico State Land Office