



# 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 SWD-806-B

## **APPLICATION OF COLEMAN OIL & GAS, INC. FOR PRODUCED WATER DISPOSAL, SAN JUAN COUNTY, NEW MEXICO.**

### **ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION**

During a meeting between Coleman Oil & Gas, Inc. ("Coleman" or "operator") and the Division on December 15, 2005 in Santa Fe, Coleman requested its injection permit SWD-806-A for the Juniper SWD Well No. 1 (API No. 30-045-29732) located 880 feet from the North line and 730 feet from the West line (Unit D) of Section 16, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico, be amended to exclude potential sources of drinking water within the Cliff House and the upper Menefee members of the Mesaverde from injection of produced water.

#### **THE DIVISION DIRECTOR FINDS THAT:**

- (1) The existing administrative permit (SWD-806-A) was approved May 20, 2002 and includes permission for Coleman to inject into the Cliff House, Menefee, and Point Lookout members of the Mesaverde formation from depths of 2176 to 3974 feet.
- (2) The well was first perforated in the Point Lookout member of the Mesaverde formation from 3036 to 3974 feet and hydraulically fractured.
- (3) The well was then perforated in the upper Menefee and the Cliff House members of the Mesaverde formation from 2176 to 2758 feet and hydraulically fractured.
- (4) It has been determined through analysis of electric logs that the interval from 2170 to 2758 may contain in-situ waters with characteristics determined to be protectable under Oil Conservation Division Rules and under the federal Safe Drinking Water Act.
- (5) This injection permit should be amended to exclude this fractured interval from direct or indirect injection of oil field produced water.

(6) Coleman should be allowed to either (i) squeeze off the upper perforations and ensure the squeeze will hold up to a pressure test or (ii) place a surface readout and downhole pressure sensor directly above the injection packer after placing the packer below the upper perforated interval.

(7) Within a ½ mile radius from this well are two wellbores drilled to at least the depth of the Point Lookout. Both of these wells have been plugged.

(a) The Monument Well No. 1 (API No. 30-045-21912) is located 1650 feet from the North line and 990 feet from the East line of Section 17, Township 24 North, Range 10 West or approximately 1884 feet southwest of the Juniper Well No. 1. This well was drilled in 1975 to 6100 feet and plugged without setting production casing. The cement plugs were set above and below the Mesaverde, with an open interval from 1900 feet to 3900 feet. This well should be re-entered and re-plugged by filling the hole from 1900 to 3900 feet with cement (or as otherwise ordered by the Aztec district) in order to isolate the injection interval and to isolate and protect the potential fresh water interval.

(b) The Monument Well No. 2 (API No. 30-045-21463) is located 800 feet from the North line and 800 feet from the West line of Section 16, Township 24 North, Range 10 West or approximately 106 feet southwest of the Juniper Well No. 1. This well was drilled in 1974 to 6190 feet and cased with 5-1/2 inch casing cemented in two stages. The depth where the DV tool was set is not available in the Division's well file but can be assumed to be at the bottom of the Mesaverde. The well was plugged in 1976. Logs were run on this well but are also not available in the Division's well file. The operator should be required to supply these logs to the Aztec district office along with any information pertaining to the 5-1/2 inch DV tool.

IT IS THEREFORE ORDERED THAT:

Administrative permit SWD-806-A is hereby amended. Coleman is authorized to utilize its Juniper SWD Well No. 1 (API No. 30-045-29732) located 880 feet from the North line and 730 feet from the West line (Unit D) of Section 16, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the Point Lookout member of the Mesaverde formation from 3036 feet to 3974 feet through plastic-lined tubing set in a packer located within 100 feet above the top of the injection interval.

IT IS FURTHER ORDERED THAT:

The operator shall, under direction of the Aztec district office, re-enter and re-plug the Monument Well No. 1 (API No. 30-045-21912) located 1650 feet from the North line and 990 feet from the East line of Section 17, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico. The goal of this procedure shall be to place cement across all former and future intervals of injection within the Mesaverde in the Juniper Well No. 1 and to cover and

isolate with cement any potential fresh water intervals. The work to re-enter this well must be commenced prior to January 1, 2007 or the permit to inject into the Juniper Well No. 1 will expire.

The operator shall send to the Aztec district office, all available casing information and copies of electric logs for the Monument Well No. 2 (API No. 30-045-21463) located 800 feet from the North line and 800 feet from the West line of Section 16, Township 24 North, Range 10 West, NMPM, San Juan County, New Mexico.

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.

The casing-tubing annulus shall be monitored to ensure leakage does not occur in the casing, tubing, or packer either by (i) squeezing off the upper perforated interval then filling the annulus with inert fluid to the surface and pressure testing or (ii) by placing a pressure sensor directly above the newly set injection packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead tubing pressure on the injection well to **no more than 607 psi**.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the gross injection interval. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

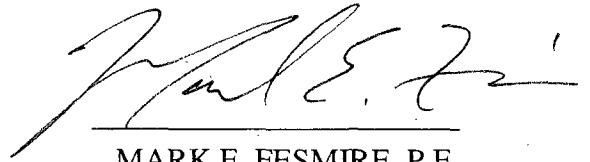
The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage. In addition, if a downhole sensor is installed, the operator shall provide the Aztec district office with periodic pressure reports.

The operator shall submit monthly reports of the disposal operations on Division Form C-120-A, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

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.

Approved at Santa Fe, New Mexico, on May 18, 2006.



MARK E. FESMIRE, P.E.  
Director

MEF/wvjj

cc: Oil Conservation Division – Aztec  
Bureau of Land Management-Farmington  
Holland & Hart – William F. Carr, Esq.