

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**

Governor

**Joanna Prukop**

Cabinet Secretary

**Reese Fullerton**

Deputy Cabinet Secretary

**Mark Fesmire**

Division Director

**Oil Conservation Division**



Administrative Order IPI-299

May 21, 2008

Stephens & Johnson Operating Co

PO Box 2249

Wichita Falls, TX 76307-2249

MAY 27 2008

OCD-ARTESIA

Attention: Mike Kincaid

**RE: Injection Pressure Increase Request**

East Millman Queen Grayburg Unit Waterflood Project (Case No 6477, Order No R-3001)

Tract 7 Well No. 2     API No. 30-025-02235, Unit E, Sec 13, WFX-824

Tract 7 Well No. 4     API No. 30-025-02231, Unit L, Sec 13, WFX-824

Tract 4 Well No. 4     API No. 30-025-02239, Unit M, Sec 13, WFX-824

Tract 4 Well No. 6     API No. 30-025-10105, Unit N, Sec 13, WFX-824

Township 19 South, Range 28 East, NMPM, Lea County

Yates-Seven Rivers-Queen-Grayburg-San Andres Pool

Reference is made to your request on behalf of Stephens & Johnson Operating Co. (OGRID 19958) received April 25, 2008, to increase the surface injection pressure limit on the four above named wells in the East Millman Queen Grayburg Unit Waterflood Project.

Administrative Order No WFX-824 approved on November 11, 2006, permitted Stephens & Johnson Operating Company to inject water into the Queen and Grayburg formations (East Millman Yates-Seven Rivers-Queen-Grayburg-San Andres Pool) through the gross interval from Approximately 1,656 feet to 2,234 feet using 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:

East Millman Pool Unit Well No. 2 (API No. 30-015-02235)

1980' FNL & 660' FWL (Unit E) Section 13, Township 19 South, Range 28 East, NMPM

Perforated Interval: 1,733 feet to 2,185 feet

Maximum Surface Injection Pressure: 347 psi

East Millman Pool Unit Well No. 4 (API No. 30-015-02231)

2310' FSL & 660' FWL (Unit L) Section 13, Township 19 South, Range 28 East, NMPM

Perforated Interval: 1,734 feet to 2,200 feet

Maximum Surface Injection Pressure: 347 psi



East Millman Pool Unit Well No. 4 (API No. 30-015-02239)  
660' FSL & 660' FWL (Unit M) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,784 feet to 2,214 feet  
Maximum Surface Injection Pressure: 357 psi

East Millman Pool Unit Well No. 6 (API No. 30-015-10105)  
990' FSL & 1980' FWL (Unit N) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 2,115 feet to 2,218 feet  
Maximum Surface Injection Pressure: 423 psi

It is our understanding that these wells will not take sufficient volumes of water at these pressure limits and higher pressure limits are needed to optimize the waterflood operation within this unit.

The basis for granting your requested pressure increases is based on the injection step rate tests run on these wells in April of 2008. You measured both surface and bottomhole pressures during this test.


You are hereby authorized to utilize up to the following maximum surface injection pressures on these wells provided the tubing, size, type, and packer setting depth does not change.

| <u>Well</u>                                   | <u>Max Pressure</u> |
|---|---------------------|
| EMQGU Tract 7 Well No. 2 API No. 30-025-02235 | 683 psi             |
| EMQGU Tract 7 Well No. 4 API No. 30-025-02231 | 524 psi             |
| EMQGU Tract 4 Well No. 4 API No. 30-025-02239 | 571 psi             |
| EMQGU Tract 4 Well No. 6 API No. 30-025-10105 | 641 psi             |

This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 40.

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

  
Mark E. Fesmire, P.E.  
Director

MEF/tw

cc: Oil Conservation Division – Artesia  
WFX-824