NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

August 29, 2002

Mewbourne Oil Company
P.O. Box 7698
Tyler, Texas 75711

Attn: Mr. K. M. Calvert

RE: Injection Pressure Increase - 186
Querecho Plains BS Sand Unit No. 2
(API No. 30-025-29679)
Lea County, New Mexico

Dear Mr. Calvert:

Reference is made to your request received in our office on July 26, 2002, to increase the surface injection pressure on the above referenced well. This request is based on a step rate test conducted on the well. We have reviewed the test results and feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

Well and Location	*Maximum Surface Injection Pressure*
Querecho Plains BS Sand Unit Well No. 2	2250 PSIG
Located in Unit N of Section 23, Township 18 South, Range 32 East, Lea County, New Mexico.	

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

Sincerely,

Lori Wrotenbery (wvj)

Lori Wrotenbery
Director

LW/wvj

cc: Oil Conservation Division - Hobbs
Files: WFX-776, PSI-X-2002

22102 9382 IPI NA

MEWBOURNE OIL COMPANY
P. O. BOX 7698
TYLER, TEXAS 75711
(903) 561-2900
FAX (903) 561-1870

July 23, 2002

New Mexico Oil Conservation Commission
1220 S. St. Francis
Santa Fe, New Mexico 87505

Att: Mr. David Catanach

3/11 FBG 8450 Tbg Pkr

Re: ***Application for Increased Surface Pressure***
QPBSSU 13-2 (30-025-29679)
Lea County, NM

Dear Mr. Catanach:

Mewbourne Oil Company requests administrative approval to increase surface injection pressure for the above referenced well to 2300 psig. Administrative approval is requested as interpreted in Division Order R-10151 and Division Rule 704.C. The attached step-rate test demonstrates that the subject well can inject at the requested surface pressure without propagating the existing fracture stimulation out of the Bone Spring formation. The step-rate test has water gravity, friction factors and depth to top perforation incorporated into the calculations. Stabilization times between test were held constant.

Water injection into the Bone Spring formation is beyond fill-up. As a result of continued pore volume pressure increasing the fracture pressure and difficulty in maintaining injectivity is increasing. The fracture pressure is directly proportional to the pore volume pressure plus other rock matrix stress relationships. Fracture pressure is a continually moving target. Since recent time of gathering the attached data, and by the time that approval is obtained, fracture pressures will have progressed above the current request. The running of step-rate tests is an ongoing activity of the field. For this reason, I respectfully request the approval of the requested pressure. If you have any questions, please contract me at the above number. Thank you for your consideration of this matter.

UPPER QUERECHO PLAINS – BONE SPRING

QUERECHO PLAINS BS Sand UNIT #002

Yours truly,

K. M. Calvert

K. M. Calvert
Engineering Manager
Secondary Recovery

2002 WI = 1644 / 151 Days = 108/DAY

Federal

N/23/18S/32E

WFX-776

7605/2310W/

9100' TVD

KMC/sh
Attachment: Step-Rate Graph

C:\OFFICE\WPWIN\Qpbssu\NMOCD\QPBSSU 13 2 steprate.wpd

CONV TO WIW 11/2/01

QPBSSU 13-2
Step Rate Test

2250 avg

24 hours Points