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-319 April 8, 2009

Masters Consulting, LLC 7500 Rialto Blvd.; Ste, 180 Austin, TX 78735

Attention: Keith Masters

RE: <u>Injection Pressure Increase Request</u>

Cato San Andres Unit Waterflood Project (Case No 14128, Order No R-9029-A)

CSAU Well No. 16
CSAU Well No. 19
CSAU Well No. 20
CSAU Well No. 20
API No. 30-005-20067, Unit A, Sec 9
API No. 30-005-20013, Unit A, Sec 10
API No. 30-005-10504, Unit D, Sec 11
API No. 30-005-10484, Unit I, Sec 10
CSAU Well No. 49
API No. 30-005-10455, Unit L, Sec 11
CSAU Well No. 94
API No. 30-005-20677, Unit G, Sec 16

Township 8 South, Range 30 East, NMPM, Chavez County, New Mexico Cato-San Andres Pool (10540)

Reference is made to your request on behalf of Cano Petro of New Mexico, Inc. (OGRID 248802) received March 23, 2009, to increase the surface injection pressure limit on the six above named wells in the in the north portion of the Cato-San Andres Unit Waterflood Project.

Hearing Order No. R-9029-A approved on September 3, 2008, permitted Cano Petro of New Mexico, Inc. to inject water into the San Andres formations (Cato-San Andres Pool) strikes northeast to southwest and is approximately 3300 feet to the top. Injection pressures were originally set a 650 psi for all wells in this Unit.

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 February 2009. You measured both surface and bottomhole pressures during this test. The results of the step rate tests data show that an increase in the surface injection pressure for these wells is justified and will not result in the fracturing of the injection formation and confining strata.



You are hereby authorized to utilize up to the following maximum surface injection pressures on these wells provided the tubing, size, type, and setting depth does not change. However, you are prohibited from injecting at pressures that would induce fracturing in individual wells.

<u>Well</u>		<u>Perforations</u>	Max Pressure
CSAU Well No. 16	API No. 30-005-20067	3238-3344	1570
CSAU Well No. 19	API No. 30-005-20013	3308-3530	1615
CSAU Well No. 20	API No. 30-005-10504	3342-3550	1540
CSAU Well No. 48	API No. 30-005-10484	3380-3598	1530
CSAU Well No. 49	API No. 30-005-10455	3414-3539	1010
CSAU Well No. 94	API No. 30-005-20677	3292-3476	1450

This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 5.9.

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 - Hobbs

R-9029-A