Proposal For 2000 psi Surface Injection Pressure

1) While testing injectivity of Bone Spring in the Federal E #11 and Government K #2, a very heavy (.51 psi/ft.) water was injected as a source. While keeping the surface pressure @ a maximum of 1650 psi per Order R-9737, a gradient of .70 was achieved.

$$\text{Gradient} = \frac{1650 + 8500' * .51}{8500'} = .70$$

2) All injection was contained to the 1st Bone Spring Sand during these tests as evidenced by injection profile logs run in both wells.

3) The average frac gradient for the Querecho Plains Bone Spring is equal to .74 as determined by the ISIP of 17 fracture stimulation jobs which Mewbourne pumped at the field.

4) A significantly less heavy (.45 psi/ft.) water is proposed for injection water during full flood operations.

5) As a result of the less heavy water, a 2000 psi surface pressure will generate a gradient of .69 and should result in all injection staying contained to the unitized formation.

$$\text{Gradient} = \frac{2000 + 8500' * .45}{8500'} = .69$$

NEW MEXICO
OIL CONSERVATION DIVISION
EXHIBIT 26
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