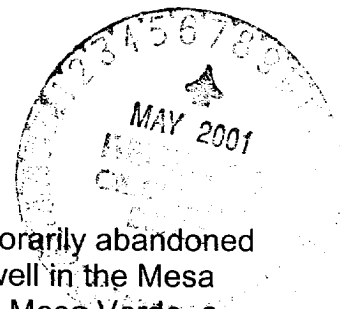


Mesa

Convert to Salt Water Disposal Procedure
Jicarilla 30-5



Objective: To convert the well from its current state of temporarily abandoned Gallup/Dakota producer to a saltwater disposal well in the Mesa Verde. The well will need to be perforated in the Mesa Verde, a step rate test completed, stimulated if necessary, and tubing and packer installed.

Well Information:

Production Casing: 4 1/2" 10.5 lb/ft set at 7525'
Capacity - .01594 bbls/ft or .6698 gals/ft
Drift diameter 3.927"

Current Perfs: Gallup 6399' – 6439'
Dakota 7211' – 7413'

Proposed Tubing: 2 3/8" to 4550'
Capacity - .00387 bbls/ft or .1626 gals/ft

Proposed Perfs: Mesa Verde
Cliffhouse Member: 4672'-78', 4680'-96',
Menefee Member: 4752'-58', 4772'-82' 4816'-
26' 4846'-64', 4894'-4904', 4912'-16', 4930'-
40', 4996'-5000', 5008'-28', 5176'-82',
Point Lookout Member: 5204'-24', 5234'-44',
5278'-98', 5306'-26'

Procedure:

1. Rig up pulling unit.
2. Install BOP
3. Pressure test casing to 1500 psi.
4. RIH with 2 3/8" tubing to 5400' and circulate hole clean. Note: all fluid used in this procedure should be clean produced water.
5. Pull tubing up to 3000' and swab fluid level to that point. POOH.
6. Rig up perforating company with lubricator.
7. Perforate Point Lookout Interval of the Mesa Verde and the lowest section of the Menefee (5176') with 4 shots per foot.
8. Rig up a pump truck and begin pumping clean produced water into the perforations at 1/4 BPM, continue increasing injection rate in 1/8 BPM increments (with each step being at least 5 minutes in duration or longer if necessary to get a stabilized rate and pressure) until a clear change in slope of the pressure rate curve occurs. Take at least two step beyond the break point before concluding the test. Record the pressure and rate