

## GASTON: OREGON STATE 32-26 WELL PROCEDURE

- 1) Move in rig and rig up
- 2) Mix gel/water spud mud
- 3) Commence drilling 12 1/4" hole
- 4) Drill 12 1/4" hole to 350'. Wipe and condition hole
- 6) Rig up and run 8 5/8", 32# casing
- 7) Cement casing with 250 sx (100% excess) class "G" cement mixed with 2% CaCl
- 8) WOC
- 9) Cut off casing 4 feet below grade. Weld on 10" 3M wellhead
- 10) Nipple up BOPE (double gate, annular preventer w/ remote choke manifold) and test with state representative witnessing
- 11) Treat mud and drill out cement, float, and shoe
- 12) Drilling 7 7/8" hole to T.D. (approximately 2000') Wipe hole every 500' or 8-12 hours or as needed
- 13) Circulate, condition and wipe hole for logs
- 14) Run wire line logs [(dual induction, sonic, dipmeter, and neutron density (if necessary))]
- 15a) If well not potential producer, see #27
- 15b) Rig up and run 4 1/2", 10.5#, K-55 casing to total depth.
- 16) Cement casing as follows:
  - 400 sx class "G" mixed with 3% KCl, 1% friction reducer, .1% densifier, 1% CaCl
  - Displace with fresh water
- 17) Land casing and WOC
- 18) Cut off casing, nipple up and test production tree to 2000 psi.
- 19) Rig up and cement bond log
- 20) If bond 400 sx class "G" mixed with 3% KCl, 1% friction reducer, .1%
- 21) If bond densifier, 1% CaCl. Displace with fresh water
- 22) Swab fluid level to 500' above potential gas zone
- 23) Rig up and perforate with 1 9/16 SSBII through tubing gun
- 24) Open well to atmosphere and flow until clean
- 25) Rig up testing equipment and perform 3 hour flow test
- 26) Rig down drilling rig, move out, and reclaim portion of location that will not be used for production purposes.
- 27) If gas not found in commercial quantities, prepare for abandonment
- 28) RIH with drill pipe to approximately 50' below surface casing shoe and set class "G" cement plug at least 50' into the surface casing.
- 29) WOC
- 30) RIH and tag plug. If not found at correct depth, set additional plug. If cement plug found proceed.
- 31) Cut of casing 4' (or deeper, if landowner requests) and weld plate on 8 5/8" stub.
- 32) Rig down drilling rig, move out, and reclaim per landowners request.