

REMEDIAL CEMENT PROCEDURE
MUDGE LS 40
A

June 17, 1992

1. Record casing and BH pressures.
2. RU lubricator and run in with guage ring.
3. Tag for fill. Clean out to PBTB (2862') if necessary. Use coiled tubing and nitrogen.
4. Set an RBP at 2500'.
5. Blow down 2 7/8" casing.
6. Pressure test casing and plug to 500 psig. If test fails, report to Paul Edwards at the Denver office and do not continue with procedure.
7. Blow down bradenhead.
8. MIRUSU.
9. Remove casing slips and replace with partial slips designed by Berto Martinez to allow access to the annulus between the 2 7/8" and 8 5/8" casings.
10. Slack off 2 7/8" and install bull plug on top joint.
11. Install BOP.
12. Trip in the 2 7/8", 8 5/8" annulus with open ended 1" IJ tubing (1.05" OD). A mule shoe on the bottom of a pre-perforated joint of tubing is required.
13. Trip in to 1240' (top of cement). Rotate and/or circulate as bridges are encountered.
14. Pick up on 2 7/8" tubing.
15. Establish circulation to surface. Calculate annular volume with a dye.
16. Conduct a circulation squeeze by pumping 300% of annular volume of class B cement with 6% gel through tubing. Note returns to surface. If cement settles after shutting down, tie in to bradenhead and pump additional volumes to keep cement level at the surface.
17. TOH if possible with 1" tubing. Maintain cement level at surface.
18. Reinstall original slips and wellhead.
19. Remove bull plug and tubing plug.
20. Return well to production.