

REMEDIAL PROCEDURE

*****SAFETY*****

1. Insure all personnel have the proper personal safety equipment. Safety shoes, safety glasses or goggles, hardhat, gloves, and ear protection.
2. Notify all personnel of fire extinguisher, first aid equipment, and shower station locations.
3. Make everyone aware of escape routes from the work area.
4. Keep anyone not needed for the specific operations out of "harm's way"
5. Review operation or any modifications to drilling operations with personnel on location.
6. Inform personnel that ANYONE has the right to stop the job.
7. Review procedure on daily basis intervals to insure everyone is aware of the operations.
8. Perform a Post-job safety meeting and include the notes in the Post treatment report.
9. Fill out the "Quality Improvement" Job Evaluation form with Engineer/Project lead, BJ rep input.
10. Use the STOP program to improve/compliment safety practice

PROCEDURE

NOTE: Collect Drinkard oil sample on WU 122 (9 BO/1BW) from the test separator for emulsion testing. Provide sample to BJ and Pool for acid systems.

1. MIRU workover rig. Kill well with 8.6 ppg brine. Pull rods and lay down. NU tree and NU BOP's to the 7-1/16" ANSI 900 flange. Pull 1 stand of 2-3/8" tubing. Makeup test packer assembly to production string, RIH and test BOP's following SOP. POOH with test packer assembly and rack back 2-3/8" tubing.
2. RIH w/6-1/4" burning shoe/7" packer picker/4-3/4" Bowen jars/DC's/2-7/8", 6.4# workstring and burn over the Model "D" packer at 6240'. Attempt to establish circulation using oyster shells. If unsuccessful pump 8.6 ppg brine periodically down the backside to dissipate heat generated while milling. Retrieve packer once burnt over. POOH.
3. RIH with 6-1/8" bit/DC's/2-7/8" workstring and DO cement from 6692-6806' (CIBP at 6806'). Tally workstring to verify depth. **PBTD must be at 6806' as a minimum.** POOH.
4. RIH w/7", 29# casing scraper to PBTD. PU off bottom. RU Pool and pickle the workstring by pumping 500 gallons inhibited 15% HCL to the end of tubing @ 3-4 BPM and reverse circulate until returns are clean. Test lines to 3000 psig. Perform a pre-job safety meeting discussing hazards of acid. TFF, CO if necessary. PU off bottom and pump 8 bbls of 15% NEFE HCL with additives. RD Pool. POOH.
5. NU frac valve to BOP's. RU E-line lubricator and test to 500 psig. Correlate to 3-2-50 GR/CCL/NL; (collars noted on 1950 log: 6792,6761,6698,6668,6635,6604). RIH w/CCL/4" HSC casing guns with 22 gram charges @ 1 JSPF, 120° phasing; (0.44" Diam., 24" penetration) and perf the Drinkard at the selected intervals:

6608-6625; 6643-6660'; 6714-34; 6744-64; 6774-94 (99 holes)

PERF FROM TOP DOWN

6. RIH w/2-7/8" workstring/10,000 psi CS1 packer/on-off tool/"H" equalizing valve/Baker Loc-set packer (8,000 psi). Tag CIBP @ 6806', PU 2' and Set Loc-set packer. PU to ± 6690' and set CS1 packer. **Do not use pipe dope on this trip.** RU pipe testers and test workstring to 6000 psi while RIH. Set slips and RU Frac valve.

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7. RU BJ services. Test treating lines to 1000 psi over MATP, N2 pop off 800 psi over MATP, and the air actuated trips 600 psi over MATP. Monitor backside while pumping. Treat the **lower** Drinkard with the attached BJ crosslink acid frac procedure.
8. Release CS1 and RIH. Equalize "H" valve, release Loc-set and PU to $\pm 6680'$ and set loc-set. PU and set CS1 at $\pm 6600'$. Retest surface lines using the guidelines noted in step 7. Treat the **upper** Drinkard per BJ's attached procedure. Retest all lines using the guidelines noted in step 7.
9. Release CS1 and RIH. Equalize "H" valve, release Loc-set and PU to $\pm 6325'$ and set CS1. Swab well and attempt to unload up the workstring into a 200 bbl open top tank. Attempt to recover load (600 bbls) prior to killing well and rigging down. Use 2% KCL to kill well. TFF, CO to PBTD.
10. POOH laying down workstring. RIH w/the following production equipment. Dump 5 gallons R-129 corrosion inhibitor down the casing prior to running tubing and 5 gallons down the tubing prior to running the rods. Notify Teddy Latham (505-361-1503) that you need to add the well to the treating schedule with a 30 minute SI once the gas rate exceeds 150 MCFPD. Provide fluid level to Teddy so that proper chemical treatment is performed.
 - 1) SOPMA (set top slot at 6696'); Use the one pulled from well.
 - 2) 2-3/8" S/N (6766')
 - 3) Tubing to surface. ND BOP's, NU wellhead.
 - 4) 20-125-12-3-0 RHBC; PA plunger Type "B" pump with a 1" x 8' dip tube.
 - 5) Spiral rod guide
 - 6) 2- 1-1/2" x 25' K-bars with 27"x7/8" x 3/4" pin plastic coated sinker bar subs with two Robbins & Meyer "NEW ERA" rod guides between them.
 - 7) 2-Grade "C" 3/4" rods with three Robbins & Meyers "NEW ERA" rod guides
 - 8) Grade "C" 3/4" rods to surface and necessary pups for space out.

RDMO

11. Put well in test and report daily well tests until fluid level is stabilized with little or no fluid pound at the end of each 15 minute pump cycle.

Tim Schneider

Attachments:

BJ stimulation recommendation
Log section
Pre-startup review
PJSA for Stimulation
Beam pump design
Wellbore schematic
Star Tool Daily costs - DO Model "D"