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### **MC 3-3HZ CASING REMEDIATION**

Well Restoration Information: Currently, we have an overtorqued casing collar located at 27.5' MD (bottom of mandrel hanger and top of 5.5" 17 ppf pup joint below) with a minimum ID of 4.54". We plan to cut casing at 50' MD in order to unland then pull out the casing joints (overtorqued collar included). We will then back off the casing joint at 96' MD. After this is complete and the joint pulled out of hole, we will run new casing from surface to 96' MD and land casing in slips. We plan to reinstall the tubing head and primary master valve before testing the casing to 8600 psi.

1. MIRU WL to set plug at 7339' MD.
2. Pressure test casing/plug to 2000 psi.
3. RIH with dump bailer and spot 13.25' of cement 2' above plug.
4. MIRU WO Rig, RD Primary Master Valve and tubing head.
5. NU BOPs consisting of all 5K 11" equipment.
6. Test BOPs to 250 psi low and 5000 psi high.
7. RIH with Internal cutters and cut casing at 50' MD. POOH
8. PU and screw into the 5-1/2" casing hanger.
9. PU on landing joint to confirm cut, POOH casing mandrel and cut casing.
10. RIH with 5-1/2" overshot and latch onto casing fish neck.
11. MIRU WL with 5K lubricator and RIH with string shot to 96' MD.
12. Back off 5-1/2" Casing at 96' MD.
13. POOH with fish and LD.
14. PU new 5-1/2" 17 ppf HC-P110 LTC casing.
15. RIH to top of 5-1/2" casing box and work down left hand torque until jump in pipe seen.
16. Work in right hand torque counting rotations. Torque casing to Optimum Torque.
17. RU casing swedge to 5-1/2" casing and pressure test casing to 8600 psi for 30 min.
18. RD 5K 11" BOPS.
19. Land 5-1/2" casing in slips once successful pressure test confirmed.
20. Install tubing head and 7-1/16" 10K primary master valve.
21. Pressure test casing, tubing head, and primary master valve to 8600 psi for 30 min.
22. RDMO Workover rig.