

### Short Procedure: Fee 47 - UIC Failure

**Background:** Well is down due to failed MIT test, dropping 200 psi in 15 mins. Pull and evaluate. Repair as needed and return to injection. Wellhead requires full upgrade due to 2K rating casing head having Gray cone.

1. MIRU workover rig and equipment. Check pressure on all casing strings (including bradenhead). Record tubing and casing pressures every day on the WellView report.

2. Circulate out packer fluid with 10.0 ppg fluid or less. Pressure test casing to 1200 psi for 15 mins. Bleed off and flow check well for 15 minutes (**WSEA 10A**) to verify that plug was set in 1.875" on/off tool. N/D tree. N/U 7-1/16" 5K BOP with 3K Washington head, 3K annular and 2-7/8" pipe rams on top of blind rams (**WSEA 8A**). Test BOP to 250 psi low/1400 psi high.

**NOTE:** May have to circulate KWF prior to N/D of tree. Do not circulate higher than 10.0 ppg without confirming WellSafe Design Plan Certification.

**NOTE:** If BPV cannot be set, the well must be monitored for flow for 15 minutes or longer before installing BOP.

3. Caliper elevators and document in WellView. Release 7" PS-1X packer at 5,748' from on/off tool at 5,798'. TOOH laying down 2-7/8" FL tubing and packer. Inspect for holes and corrosion. Send completed UIC Failure Report to Jordan Etten.
4. PU 6-1/8" wash shoe, cleanout assembly kept at Prime on workstring and TIH to liner top at 5,809'. Test casing from packer to surface to 1200 psi for 15 min (ensure that wellbore is circulated clean before P/T). TOOH laying down BHA. **Notify WOE of test results.**
5. MIRU E-line. N/U lubricator and test to 500 psi for 5 minutes. Run CIL & CBL from on/off to surface. Give two copies to Diane for COGCC and BLM.
6. If necessary, P/U 7" packer on 2-7/8" workstring. TIH to  $\pm$  5,790' and set. Test LOK-set packer/ plug to 1200 psi for 15 minutes. Document volume or strokes to catch pressure to verify test (**WSEA 10B if it tests**). Test casing to 1200 psi for 15 minutes. Move packer to begin isolating leaks. **Once leak interval is confirmed contact WOE.**

7. Once nature of the leak is determined, communicate with WOE and Superintendent to determine plan forward for repairing the leak. If it is necessary, a written procedure will be developed to cover the steps for repairing the UIC failure.

**NOTE: ENSURE ALL STEPS ARE BEING TAKEN TO FOLLOW ALL REGULATORY AND RULES AND REGULATIONS. REFER TO RANGELY REGULATORY/PERMITTING DOCUMENT FOR REQUIREMENTS. IF UNSURE CONSULT WITH WORKOVER ENGINEER OR DIANE PETERSON FOR GUIDANCE.**

Work with workover engineer on plan to have two tested barriers in place for wellhead work. Each barrier will need to be tested to 1200 psi for 15 minutes. Document volume pumped to catch pressure to verify barrier being tested (**WSEA 10B if packer does not test in step 6 and WSEA 10C**).

N/D BOP. Upgrade wellhead per GE recommendations. See Wellhead & Tree tab for information. Test void between casing head and tubing head to 2400 psi for 15 minutes (**WSEA 10D**). N/U BOP with annular and 2-7/8" pipe rams on top of blind rams. Test break to 250 psi low/2100 psi high. TIH retrieve barriers.

NOTE: Make sure that tension (50-60K lbs, if possible) is pulled into 7" prior to setting slips in the new casing head.

8. P/U on/off skirt, 1 full joint of 2-7/8" FGW TK-15, 7" PS-1X packer on refurbished 2-7/8" FL tubing, if available. Space out, pump packer fluid. Engage on/off tool and set 7" PS-1X packer. Land the tubing in compression. Pressure test casing/packer to 1200 psi for 15 mins (preliminary pressure test).

NOTE: If required, work with Diane Peterson on variance for packer setting depth if packer needs to be higher.

9. Set BPV (**WSEA 10E**). N/D BOP. Pull BPV. N/U tree and test void to 5000 psi for 15 minutes (**WSEA 10F**).

NOTE: If BPV cannot be set, the well must be monitored for flow for 15 minutes or longer before installing injection tree.

10. Test casing/hanger/packer to 1200 psi for 30 minutes. (**WSEA 6A and 10G**). Test tubing to 2500 psi for 30 minutes (**WSEA 6B**).

11. Notify Diane well is ready for regulatory witnessed MIT. Complete Ownership Transfer Document from D&C to Operations. Notify production personal in field office and contact pumper that well is ready for injection. RDMO workover rig and equipment. **Ensure Location is Clean.**