WORKOVER TO REPAIR 41/2" PARTED CASING, RECOVER TUBING FISH, & RETURN TO PRODUCTION

- 9-24-77 RU & unload 550' of 2-3/8" 4.7# N-80 tbg. GIH w/Howco RBP & set at 2519'. (Had to rotate 1/2 turn to get into casing stub at 1608'). POOH w/tbg. FL at 920' (on tbg). Filled casing w/30 bbls of FWG mud (40 visc). S.D.O.N.
- 9-25-77 FL at 400'. McCullough ran pipe recovery log from 1700' to 400'. Casing stuck 30-70% from 1415' to 1500', 20-30% stuck from 1500' 1532', 100% free from 1630' to 1700', remainder 100% stuck.
- 9-26-77 No work MI reverse equipment.
- 9-27-77 ND wellhead & removed $4\frac{1}{2}$ " casing slips. Back casing off at 283.86'. NU BOPs & start picking up 7-7/8" wash pipe. S.D.O.N.
- 9-28-77 PU 11 jts 7-3/8" OD wash pipe 340' length. RU reverse unit 342'-490'-very firm. Free 490-510'. Circ hole clean. POOH to 13-3/8" casing shoe at 355'.
- 9-29-77 Washed from 450'510' firm. Loose from 510'-565'. Firm from 565'-580'. Loose from 580'-642'. Circ hole clean. POOH. Hole tight from 475'-490'. Wait 1 hour. Wash and circ from 475'-490' for 2 hours. Hole free. PU 4 jts WP and stand in derrick.
- Depth 923', prev 642' MW 9.3 Vis 60 PV 10 YP 20 WL 4 0il 2% Solid $6\frac{1}{2}$ Sand 4 Cl 15,000 pH 7 Gel 5/10. GIH w/WP to 642'. Washed from 642'-923' as follows: Loose from 642'-800', firm from 800'-808', loose from 808-890', tight from 890'-923'. Circ and cond mud. P00H to 13-3/8" casing shoe. S.D.O.N. Will finish washover and attempt to pull $4\frac{1}{2}$ " casing today.
- 10-1-77 Depth 1110'. PTD 923'. 187' progress. MW 9.5, Vis 50 PV 10 YP 4 WL 4.8 oil 2 Cl 18,000 CA 1600 pH 7 Gel 5/10. GIH with WP. Washed from 895 to 1110' (firm) Circ during night.
- Depth 1212', PTD 1110', 102' progress. Washed from 1110' to 1185' (firm) and from 1185' to 1212' (loose). Circ hole clean. POOH & LD wash pipe. GIH with overshot and 10" OD skirt to 385'. Did not tag fish. POOH to 13-3/8" casing shoe at 355'.
- 10-3-77 No work.
- GIH w/7-5/8" OS to 298'. Engaged fish & POOH w/39 jts (1230.90') $4\frac{1}{2}$ " csg. Bottom of recovered fish had split approx 4" wide & 10" long on pin. GIH w/0S to 1212'. Wahsed to 1216'. POOH. GIH w/7-7/8" bit. Could not get into 8-5/8" csg at 1212'. POOH. S.D.O.N. Will run OS on bent joint of DP.
- 10-5-77 GIH w/7-5/8" OS on bent jt of DP. Wahsed from 1178' to 1212' (medium fill) Unable to get into 8-5/8" csg. Washed from 1212' to 1217'. Suspect OS was outside of 8-5/8" csg stub. POOH. Had score marks on outside of OS. S.D.O.N.
- 10-6-77 GIH in 1 jt 6-3/8" OD wash pipe and 10-3/4" OD shoe. Washed from 1170' to 1212'. Circ and cond hole. POOH to 13-3/8" csg shoe. Est cost

