

Con't Procedure
Mid-American State, No.3

3. MIRU WESTERN CO. SPOT 2 BBLS 20% NEFEHCL W/ADDITIVES* ACROSS BONE SPRING SET I 10484-518 FROM 10520-10430. RAISE PKR TO ± 10350 . SET PKR W/22 PTS COMPRESSION. TRAP 500 PSI CP. ACIDIZE BONE SPRING SET I 10484-518 W/5000 GALS 20% NEFEHCL W/ADDITIVES* AT ± 5 BPM. EST WHTP 4000 PSI. MAX ALLOWABLE TREATING PRESS 5800 PSI (DOWNGRADE AS NECESSARY IF UNABLE TO HOLD 500 PSI CP). DIVERT ACID USING 53 1.1 SP GR, 7/8" RCNBS. DROP BALLS IN CLUSTERS OF 5 W/CLUSTERS SPACED EVENLY THRU-OUT ACID. FLUSH TO BTM PERF W/64 BBLS 2% NE KCL FSH WTR. RECORD ISIP, 5, 10 & 15 MIN SIP.

4. FLOW BACK L&AW AS NECESSARY. RLSE PKR, LOWER & LATCH RBP @ ± 10540 & RAISE TO ± 10260 . SET RBP. RAISE PKR TO ± 10220 . WESTERN SPOT 2 BBLS 20% NEFEHCL W/ADDITIVES* ACROSS BONE SPRING SET II 10184-10218 FROM 10220-10130. RAISE PKR TO ± 10050 . SET PKR W/22 PTS COMPRESSION. TRAP 500 PSI CP. ACIDIZE BONE SPRING SET II 10184-218 W/5000 GALS 20% NEFEHCL W/ADDITIVES* AT ± 5 BPM. EST WHTP 4000 PSI. MAX ALLOWABLE TREATING PRESS 5800 PSI (DOWNGRADE AS NECESSARY IF UNABLE TO HOLD 500 PSI CP). DIVERT ACID USING 53 1.1 SP GR, 7/8" RCNBS. DROP BALLS IN CLUSTERS OF 5 W/CLUSTERS SPACED EVENLY THRU-OUT ACID. FLUSH TO BTM PERF W/62 BBLS 2% NE KCL FRSH WTR. RECORD ISIP, 5, 10 & 15 MIN SIP.

5. FLOW/SWAB BACK L&AW. EVALUATE FLUID ENTRY RATE AND CONTENT. RLSE PKR, LOWER & LATCH RBP. RAISE PKR TO ± 10050 . SET PKR. SWAB BACK L&AW. EVALUATE PRODUCTION FROM BONE SPRING SETS I & II COMBINE. POH W/2-7/8" TBG, PKR & RBP.

6. IF WELL CAPABLE OF FLOWING, RIH W/5-1/2" x 2-7/8" OTIS PERMA-LACH BIG BORE PKR (17#) W/ON-OFF TOOL & 2.313" 'N' PROFILE & 2.205" NO-GO ON 2-7/8", 6.5#, J-55 & L-80 PROD TBG TO ± 10050 (TOP 2500' OF TBG STRING IS L-80 GRADE, PKR IS AVAILABLE AT OTIS IN HOBBS - CONTACT LARRY BELEW @ 392-7581). LOAD HOLE W/2% KCL-FSH WTR (W/10 GAL/100 BBLS TRETOLITE KW-79 AND 1 GPT NE-AGENT). SET PKR W/18 PTS COMPRESSION. NO BOP. NU WH. SWAB WELL IN AND TEST TO FRAC TANK.

IF WELL PROVES PRODUCTIVE BUT REQUIRES ARTIFICIAL LIFT CONTINUE AS FOLLOWS. RIH W/BP MA, PERF SUB, SN, 13 JTS 2-7/8", J-55 TBG & TAC ON 2-7/8", 6.5#, J-55 & L-80 PRODUCTION TBG (TOP 2500' OF STRING TO BE L-80). TS ± 10570 , MA ± 10538 , PS ± 10534 , SN ± 10533 , TAC ± 10120 . RIH W/2-1/2 x 1-1/4 x 24' RHBC ROD PUMP ON 86 TAPER "KD" ROD STRING (211 - 3/4", 110 - 7/8", 101 - 1"). SPACE OUT AS NECESSARY. CHECK PUMP ACTION. RLSE RIG.

CONTACT PRODUCTION DEPT TO SET MK II-320-305-120 PUMPING UNIT W/AJAX E-42 (8-1/2" x 10") GAS ENGINE.

ADDITIVES FOR 20% NEFEHCL

2 GPT NINE-40 (NON-EMULSIFYING SURFACTANT)
1 GPT I-17 (CORROSION INHIBITOR)
2 GPT ACIGEL (FRICTION REDUCTION/FINES SUSPENSION)
10 GPT ACETIC ACID (IRON CONTROL)
10 GPT CITRIC ACID (IRON CONTROL)