

Koch LS #1
Payadd Procedure
T30N-R10W-Sec3
API #: 30-045-09915

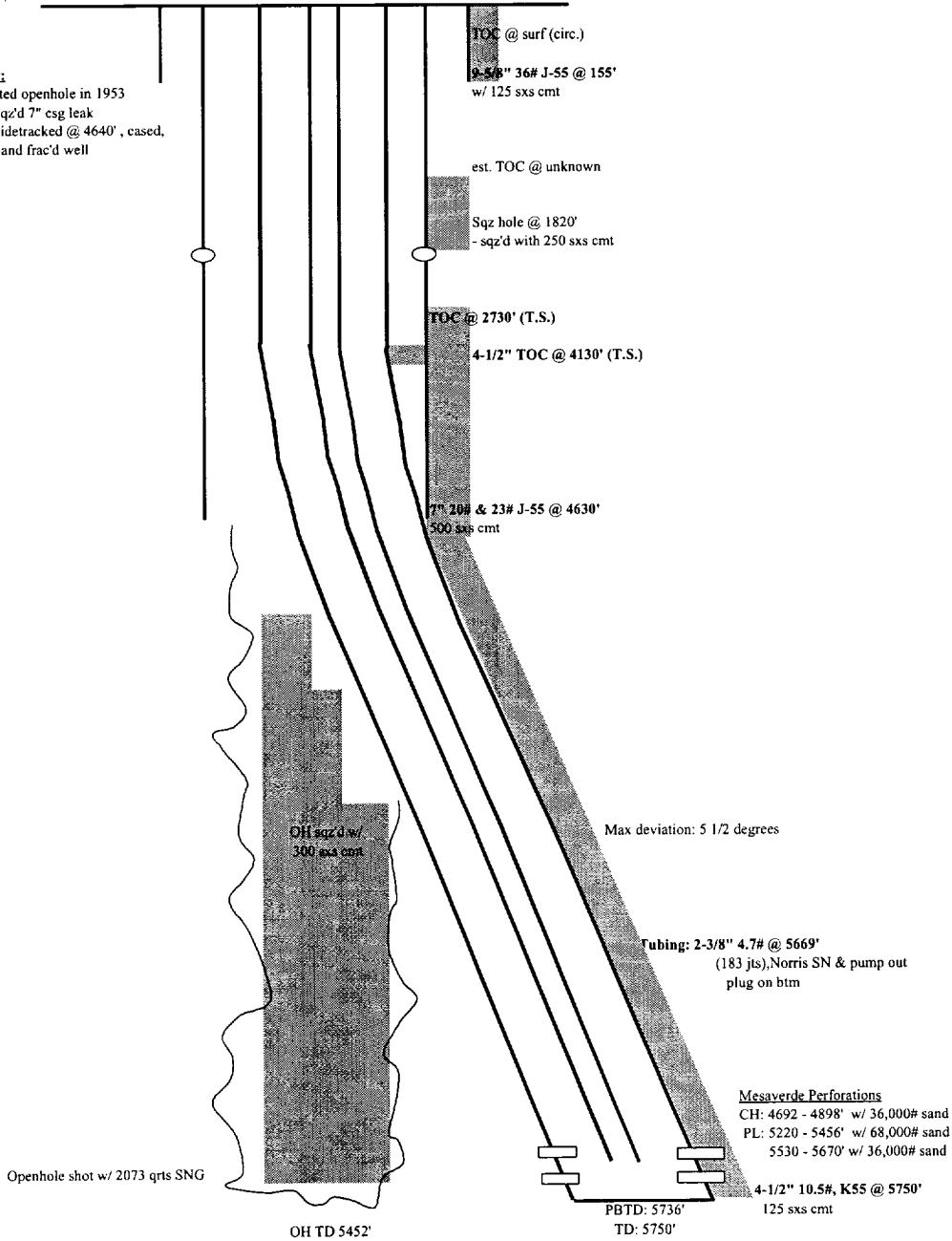
1. Check anchors. MIRU workover rig.
2. Blow down well. Kill with 2% KCL water if necessary. Nipple down WH. NU BOPs.
3. Tag for fill and tally OH with 2-3/8" production tubing. Visually inspect tbg while POOH.
4. TIH with bit and scraper for 4-1/2" casing to 5164'.
5. RIH with 4-1/2" CIBP. Set CIBP at 5164'.
6. RIH with 3-1/8" casing guns with Schlumberger's Prospector, select-fire charge. Perforate Menefee formation (correlate to GR log).
7. RIH with 2-3/8" frac string and 4-1/2" packer. Set packer at 4952'.
8. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule.
9. Flowback frac immediately.
10. Release packer and TOH with frac string and packer. LD frac string.
11. RIH with 4-1/2" CIBP. Set CIBP at 4622'. Load hole with 2% KCL.
12. Run GR log over Lewis Shale interval.
13. Pressure test casing to 1500 psi
14. RIH with 3-1/8" casing guns with Schlumberger's Prospector, select-fire charge. Perforate Lewis Shale formation (correlate to GR log).
15. RU frac equipment and install wellhead isolation tool. Use 2% KCL-N2 foam in fracture stimulation.
16. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule.
17. Flowback frac immediately.
18. TIH with tubing and bit. Cleanout fill and drill bridge plugs set at 4622' and 5164'. Cleanout fill to PBTB at 5736'. Blow well dry at PBTB.
19. Remove seven joints of tubing and reland 2-3/8" production tubing at 5459'.
20. Swab water in tubing with sandline.
21. ND BOP's. NU WH. Test well for air. Return well to production.

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GL: 6357'

History:

Completed openhole in 1953
 1972 - sqz'd 7" csg leak
 - sidetracked @ 4640', cased,
 and frac'd well



Openhole shot w/ 2073 qrts SNG

OH TD 5452'

PBTD: 5736'
 TD: 5750'

Updated 5/20/02 MNP

Note: Procedure in wellfile to perf 2 3/8" TBG, but I do not think it took place, no BLM follow up
 Cliffhouse Perfs: 4692 - 4704', 4800 - 12', 4826 - 38', 4872 - 82', 4892 - 98', w/ 16 SPZ, 36,000# sand
 P.L. Perfs: 5220 - 28', 5250 - 58', 5272 - 84', 5322 - 34', 5350 - 62', 5374 - 80', 5390 - 96', 5408 - 20', 5448 - 56', w/ 16 SPZ, 68,000# sand
 P.L. Perfs: 5530 - 38', 5554 - 62', 5590 - 98', 5612 - 20', 5662 - 70', w/ 16 SPZ, 36,000#