Conoco Inc. Stevens B #20

Surface casing:

7-8/5" @ 336' cmt'd w/ 150 sx, circulated

Production casing:

4½" 9.5# csg @ 3,752' cmt'd w/ 200 sx, TOC 2,300' (temperature survey)

 $4\frac{1}{2}$ " 9.5# = 10.960 ft/ft³ $4\frac{1}{2}$ x $6\frac{3}{4}$ " annulus = 7.243 ft/ft³

Open Perforations:

Penrose 3,621 – 3,717'

Current Operations:

Backer Loc-set as RBP set Dec 1990 @ 3,542'. Circulated w/ packer fluid. Passed MIT December, 1996. Failed recent MIT due to hole in casing.

During P&A operations, SI casings nightly, installing gauges. Check & record all pressures on morning report.

MIRU plugging equipment. NU BOP and RIH w/ workstring tubing to RBP @ 3,542'.

- 2. RU cementer, load hole w/ 45 bbls 9.5 ppg plugging mud. Pump 25 sx C cement 3,542 3,180'. *Penrose perforations*
- 3. POOH w/ tbg to 3,100'. Load hole w/ mud and pump 25 sx C cmt 3,100 2,738'. **Yates**
- 4. POOH w/ tbg.
- 5. RU wireline and perforate 4½" casing w/ four 1-11/16" link-jet charges, 4 jspf, 90⁰ phasing @ 1,300'. POOH w/ wireline. *Rustler* @ *1,175'*
- 6. RIH w/ 4½" AD-1 packer to 1,000'. Load hole and set packer, test casing above packer and establish rate into squeeze perforations:
 - a) If Yates gas flow evident at surface, establish rate thru perforations and POOH w/ packer. If unable to establish rate @ 1,500 psi or less, acidize perforations w/ 250 gal 15% NeFe in order to establish circulation in 4½ x 6¾" annulus. RIH w/ cement retainer on tubing to 1,200' and squeeze 150 sx C cmt 1,300' to surface. Sting out of retainer and pump 10 sx of C cmt on retainer 1,200 1,060'. POOH w/ tubing to 386' and circulate 30 sx C cmt to surface. Proceed to #10.
 - b) If no gas flow evident, and rate is established @ 1,500 psi or less, squeeze 50 sx C cmt 1,200 1,300' under packer. WOC as needed and POOH w/ tubing. Proceed to #7.
 - c) If no gas flow evident, and unable to establish rate @ 1,500 psi or less, POOH w/ packer and RIH with tubing, pump 25 sx C cmt balanced plug 1,350 990'.
- 7. Assuming cement was not circulated in #6, RU wireline and perforate 4½" casing w/ four 1-11/16" link-jet charges, 4 jspf, 90° phasing @ 386'. POOH w/ wireline. **surface casing shoe** @ **336**'
- 8. RIH w/ 4½" AD-1 packer to 200'. Load hole and set packer, SI BOP and establish rate into squeeze perforations with circulation to surface in 4½ x 6¾" annulus. Squeeze 75 sx C cmt 386' to surface.
- 9. POOH w/ packer and ND BOP. Pump 10 sx C cmt 50' to surface as needed.
- 10. Cut off wellhead and anchors, install dry hole marker. Cut off anchors and close working pit.