

- c. If ball-off occurs, hold press on formation for 15 mins.  
Surge balls off and pump remainder of job.
  - d. Max surf press should be held below 4000 psi.
7. SWI for 30 min. Bleed off press and release pkr. TIH w/pkr to wipe any remaining balls off of perfs and TOH.
  8. Frac Gallup perfs f/5858-5980' down 7" casing with approx. 100,000 gal gelled fluid and 150,000 lbs of sand. Flush to top perf w/2% KCl wtr. SDON to allow gels to break.

Notes: a. Actual volumes and additives will be specified by engineering.  
b. Maximum surface pressure should be held below 4000 psi.

9. TIH w/Baker 7" Model "C" RBP on 2-3/8" tbg to & set @ ~~2000~~<sup>5000</sup>±. Press test RBP to 2000 psi & TOH. ND BOPE & tbg head. NU new tbg head as per the attached diagram. NU BOPE w/7-1/16" 3000 psi x 7-1/16" 5000 psi DSA. Press test tbghd flange & pack-off to 3000 psi w/10 w/oil. Press test csg & BOP to 2000 psi. Retrieve Model "C" RBP.
10. TIH with 2-7/8" notched collar, cross over sub & 2-3/8" SSN on 2-3/8" tbg and land tbg @ 5850'±. Swab to clean up sand.

Notes: a. Check swab samples carefully for sand production.  
b. TIH w/tbg every day or two to check sand fill.  
c. Swab well until it flows or it is apparent that no sand is entering the wellbore.

11. TIH w/hydrostatic bailer. Clean out sand to RBP @ 6200'. TIH w/BP retrieving head. POH w/RBP.

12. TIH w/Dakota production assembly as follows:

- A. 2-3/8" shear out plug
  - B. 1 jt 2-3/8" prod tbg
  - C. 1.81" "F" Nipple
  - D. ±560' 2-3/8", 4.7, J-55, 8rd tbg w/turned down & beveled couplings
  - E. Model AL-5 dual hydrostatic pkr.
  - F. ±6000' 2-3/8", 4.7#, J-55, 8rd tbg w/turned down & beveled couplings
- Set dual pkr @ ±6000'. Btm long string @ ±6600'.

13. TIH w/Gallup production assembly as follows:

- A. Model "K" parallel anchor w/straight pull release
- B. Perforated nipple
- C. 2-3/8" seating nipple
- D. ±5970' 2-3/8", 4.7#, J-55 8rd tbg w/turned down & beveled couplings.

Latch into pkr @ 6000'. Land w/15,000# tension.

14. ND BOP. NU dual tree as shown in attached diagram.

15. Kick-off Dakota. SI Gallup side for pmpg unit installation. TOPS.

*WIC 9/9/86*

*Tommy 9/6/86*

*9/10/86*

*W. J. Brown*