

III. GEOLOGICAL INFORMATION:

A. Ground Elevation: 4047' (ungraded)

B. Formation Tops: Rustler Anhydrite	1,700'
San Andres	4,650'
Abo	8,200'
Wolfcamp	9,800'
Strawn	11,800'
Atoka	12,000'
Atoka Pay	12,500'
PTD	12,700'

IV. CEMENT PROGRAM:

Slurry designs included here are subject to change as hole and coverage conditions dictate.

A. Surface Casing: 13-3/8", 48#, H-40 set @ 400' in 17½" hole.

Procedure: Run guide shoe, 1 Jt, insert float, and sufficient 13-3/8" csg to land shoe at or below 400' strap weld shoe and first collar. Run a centralizer at shoe and at top of 2nd and 4th Jts.

Cementing: Cement w/425 sxs of Class "C" w/ 2% CaCl₂ + 56% water. Record the following information for New Mexico Oil Conservation Division report; (see page C-11, NM Rules & Regulations).

- 1) Volume of cement (in ft³), Brand name and additives, percent additives used, and sequence of placement if more than one slurry is used.
- 2) Temperature of cement when mixed.
- 3) Estimated minimum formation temperature in zone of interest.
- 4) Estimate of cement strength at time of drill out or test.
- 5) Actual time cement in place at time of test or drillout.

Drill Out & Testing: WOC 12 hrs minimum, drill out to ± 10' of shoe. PU drillstring ± 10', and close annular and test casing to 600 psig.

B. Intermediate Casing: 9-5/8", 40#, J-55 & N-80 set @ 4,600' in 12¼" hole.

(Run log to gauge hole volume to determine actual cement volumes to be pumped).

Procedure: Run guide shoe, 1 jt N-80, float collar and approx. ± 960' of N-80. Then run sufficient J-55 to land shoe at or below 4600'. Strap weld shoe and first collar. run a centralizer at shoe and every other collar using a total of 14 centralizers.

Cementing: Cement w/1350 sxs of Pacesetter Lite (C) + 6% gel + 5% salt + 0.25 lb/sk cello-seal + 109.7% water followed w/450 sxs Class "C" + 56% water. Record 5 parameters as above.