

June 10, 1977

Operations Plan
Barker Creek Dome Gas Storage Project
WI #24

I. Location: 2015'N, 2459'E, Section 15, T-32-N, R-14-W, San Juan County, NM

Field: Barker Creek Dakota

Elevation: 6936'GL

II. Geology:

A. Formation Tops:	Mesa Verde	surface	Greenhorn	2848'
	Menefee	83'	Graneros	2908'
	Point Lookout	733'	Dakota	2978'
	Mancos	1093'	Total Depth	3078'

B. Logging Program: GR-I, FDC, SNP at 7" casing seat
GR-I, FDC, SNP, GR-N at TD.

C. Coring Program: none

D. Natural Gauges: gauge well every connection past 2938' and at TD.
Record all gauges in daily drilling report and on morning report.

III. Drilling:

A. Mud Program: mud on surface hole. Air from surface casing depth to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg. Size</u>	<u>Wt. & Grade</u>
	12 1/4"	1133'	9 5/8"	32.3# H-40
	8 3/4"	2980'	7"	20.0# K-55
	6 1/4"	2980-3078'		

B. Float Equipment: 9 5/8" surface casing - notched collar for guide shoe.
7" intermediate casing - cement guide shoe and self-fill insert float valve. Run float two joints above shoe.

C. Tubing: 3063' of 2 3/8", 4.7#, J-55 8rd EUE tubing.

D. Wellhead Equipment: 10" - 2000 psi x 9 5/8" Type R Brewster casing head. 10" - 2000 psi x 6" 2000 psi Type 2-082-77 Brewster xmas tree assembly.

V. Cementing:

9 5/8" surface casing - use 602 sks. of Class "B" cement with 3% calcium chloride (710 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

7" intermediate casing - use 76 sks. of Class "B" cement with 2% calcium chloride (90 cu.ft. of slurry, 50% excess to fill 400' above the casing shoe). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.