

7. **ABNORMAL CONDITIONS - PRESSURE - TEMPERATURE - POTENTIAL HAZARDS:**

a. 17-1/2" Surface Hole to 700':

Normal pressures (fresh water gradient or less) and temperatures (70 F. to 75 F.) are anticipated for this hole segment.

A COMPLETE LOSS OF RETURNS IS POSSIBLE FROM 40' TO T.D.

b. 12-1/4" Intermediate Hole from 700' to 2,360':

Fresh water gradient (8.34 ppg.: 0.433 psi./ft.) to saturated brine gradient (saturated salt water gradient @ 10.4 ppg.:

0.54 psi./ft.) pressures and normal temperatures (75 F. to 95 F.) are anticipated for this hole segment.

No H₂S is anticipated in this hole interval.

A COMPLETE LOSS OF RETURNS IS POSSIBLE FROM 1000' TO T.D.

c. 8-3/4" Production Hole from 2,360' to 11,745' MD:

i. Well/Pressure Control Considerations:

EXPECT TO DRILL OVERPRESSURED AND PARTIALLY DEPLETED PAYS:

FORMATION TARGET:	DEPTH:	EST. BHP:	GRADIENT:	RATING:
	Feet:	PSIG	PSI/FT	
Cherry Canyon Fm.:	2472'	1500	0.608	Abnormal
Brushy Canyon Fm.:	3752'	1700	0.453	Normal
Bone Springs Ls. Fm.:	4542'	1750	0.385	Subnormal
3rd Bone Springs Fm.:	8152'	2500	0.307	Subnormal
Wolfcamp Fm.:	8532'	3800	0.445	Normal
Cisco Fm.:	9528'	3900	0.409	Normal
Canyon Fm.:	9658'	4100	0.425	Normal
Strawn Fm.: U. Sand #2:	9880'	1500	0.152	Subnormal
Carb. Bank:	9950'	5200	0.523	Abnormal
Atoka Fm.:	10068'	5100	0.507	Abnormal
Morrow Fm.: 'B' Sands:	10793'	4700	0.436	Normal
Morrow Fm.: 'C' Sands:	11008'	3000	0.273	Subnormal

KICKS AND WELL CONTROL HAZARDS ARE COMMON IN THIS AREA:

AN ADEQUATE SUPPLY OF BRINE WATER, SALTS, FRESH & SALT-WATER GEL, AND/OR BARITE WILL BE MAINTAINED ON LOCATION AT ALL TIMES, THROUGHOUT DRILLING OPERATIONS BELOW THE SURFACE CASING SHOE @ 700', TO RAISE THE MUD WEIGHT OF THE HOLE & STEEL PIT CIRCULATING SYSTEM A MINIMUM OF 2 PPG. A PVT system with a gas buster and rotating head will be installed immediately after the 9-5/8" intermediate casing is set & cemented @ 2360'. This equipment will permit the safe handling of gas at the surface and the monitoring of well flow/trip volumes during drilling operations.

ii. Normal temperatures (95 F. to 185 F.) are anticipated for this hole segment.