Table 2

PHYSICAL ENVIRONMENTAL CONDITIONS

Conditions		Engineering Applications (to depths of 9km)	Geologic-Geophysic Applications (to center of Earth)
Effective pressure	Static:	≤ 2 kb[1]	≤ 3600 kb[2]
	Dynamic (shock):	≤ 10,000 kb[3]	≤ 10,000 kb
Temperature	Static:	≤ 300°C	≤ 3000°C[2]
	Dynamic:	≤ 1500°C[4]	≤ 1500°C[4]
Strain rate	Static:	10 to 10^{-10}/sec	10 to 10^{-16}/sec
	Dynamic:	10^{10} to 10/sec	10^{10} to 10/sec
Differential stress	Static:	≤ 2 kb(?)	≤ 2 kb(?)
	Dynamic:	?	?
Boundary conditions		Rigid to non-rigid to free air	

(1) 1 kilobar (kb) = 10^9 dyne/cm^2 = 987 atm = 14,500 lb/in.^{2} = 1020 kg/cm^2

(2) Katz (1966)

(3) Brode (1964)

(4) Ahrens and Gregson (1964)