

Table II - Specimen Length and Orientation

All specimens were approximately 5/8" in diameter

Crystal	Length	Direction Cosines of Echo Surface Normal		
100	2.1824cm	0.9999	0.0128	0.0098
110	1.8970cm	0.7276	0.6860	0.0099
111	1.1862cm	0.5779	0.5777	0.5764

The 10 megacycle quartz transducers were attached to the echo surfaces with phenyl salicylate (Salol) for the elastic constant measurements and with polyethylene for the pressure derivative measurements. Phenyl salicylate was preferred because of its ease of handling and superior transmission characteristics; however it dissolves in the high pressure fluid, Octoil-S, and so polyethylene was used for the pressure work. The method of application for either type of seal is: 1) heat the specimen and the transducer to a temperature just above the melting point of the seal, 2) place a small drop of the seal in liquid state on the echo surface, 3) place transducer in position and work in with rubbing motion to squeeze out excess seal material and air gaps, 4) place small weight on transducer and let cool. With phenyl salicylate it was necessary to initiate crystallization by seeding as the