In this study, densities, porosities, ratios of pore and seismic ultrasonic velocities of the limestone, sandstone and siltstone samples obtained from mechanical soundings which is performed in Zonguldak city and its vicinity were measured. Relationships between seismic ultrasonic velocities and the physical properties of the rocks were obtained and the determinability of physical properties of the rocks using the seismic ultrasonic velocities was investigated.