

GEOLOGICAL HISTORY

Period 1: Late Precambrian

Occurred some 600 million years ago. Sand and mud were deposited. Subsequent accumulations over these deposits resulted in a sufficient combination of heat and pressure to form both shale and sandstone. Although part of these formations were altered by both intrusion and erosion, the rocks of this period are the oldest in the area.

Period 2: Appalachian Uplift

Occurred some 120 million years ago. This period saw the creation of sedimentation in both estuaries and bays along the coastal region.

Period 3: Cretaceous (Sea encroachment)

Occurred between 100 million and 120 million years ago. The sea encroached upon and actually covered, much of New Jersey. This resulted in depositing of such marine sediment as sand and clay, especially along the coastal plain of the state, resulting in the creation of the continental shelf.

Period 4: Tertiary Period

Occurred some 60 million years ago. Marked by another advancement of the sea; and resulted in the depositing of additional sand, gravel and clay.

Period 5: Pleistocene Age

Occurred one million years ago. Was essentially an interglacial period, marked by great fluctuations in the sea level. During lower periods, deep cuts took place into soil sediments and were followed by subsequent redepositing during high water periods. The last glacier was some ten thousand years ago. From the time of its disappearance, erosion has altered the area.

Significance

Since there have been so many periods within the deposit/erosion cycle, formation can vary greatly from one area to another. Consequently, these variations must be considered when digging a well.