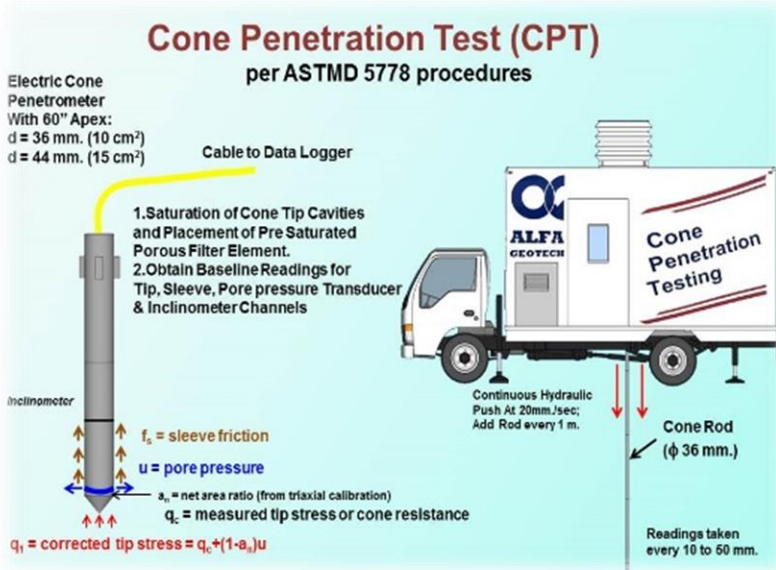


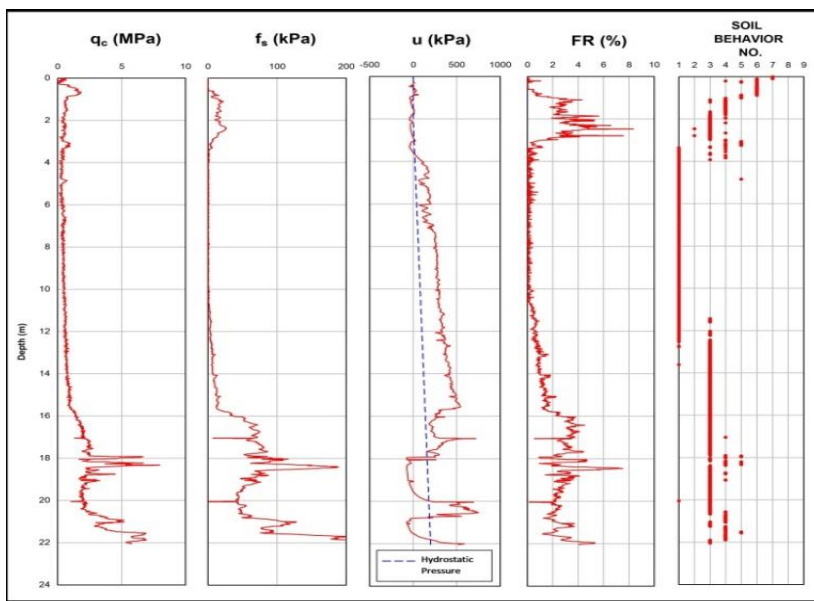
CPT Equipment



Field Tests



Results



The Cone Penetration Test (CPT) is an in-situ test developed in early 1920s. This test is mainly used for sites where there are deep deposits of transported soil such as in flood plains, river deltas, and along coastlines. The CPT test is fast to perform, economical, and it provides continuous record of cone resistance, sleeve friction and pore water pressure against depth.

The CPT is conducted in accordance with ASTM D5778 to estimate the engineering properties of soil and the subsurface stratigraphy, using the electrical cones. The main components of the electric cone comprise of 60-degree cone with base area of 10 cm², load cells for measuring cone resistance and sleeve friction, pore water pressure unit and depthmeter.

The CPT test is carried out by continuously pushing the cone into the ground at a rate of 20mm/sec by hydraulic system and a new rod is added every 1m. The load cells measures cone resistance and sleeve friction which are connected to computer through electric cables at interval of 10-50 mm of penetration.

From the cone resistance, sleeve friction and pore water pressure, the site stratigraphy, homogeneity and depth to firm layers, voids or cavities, and other discontinuities, soil classification and correlations with engineering properties of soils can be determined.

Alfa Geotech has an 8 ton CPT truck as reaction, and all the necessary equipment are mounted on the truck including generator, power supply, data logging etc.