

FEATURES OF “ECO-PROBE” DRILL

1. General

“ECO-PROBE” drill utilizes both functions of rotary and vibratory motions for sampling procedure.

Sampling by ordinary rotary drilling machine is carried out by flushing circulation water. Meanwhile, sampling by “ECO-PROBE” drill is principally carried out by only vibratory motion of drill head without rotation or circulation fluid. (In case that the strata are too sticky or difficult to sample, slight rotation is given.)

This sampling procedure by vibratory motion assures to get non-disturbed samples with high quality required for precise laboratory analysis.

Furthermore, high frequency (4000 cycle per minute) vibratory motion liquidizes borehole wall and can suppress heat generation at a minimum so that the diffusion of volatile organic compounds (VOC) into the adjacent zone in the ground by heating can be avoided.

Also 4” casing can be connected at drill head over drill rods. After sampling with 86 mm percussion sampler, 4” casing can follow by over-cutting up to target depth, then 2” PVC casings and screens are installed through inside 4” casing to complete as monitoring well.

This procedure can allow the process of sampling and construction of monitoring well simultaneously.

2. Sampling Depth

Normal sampling depth for soil is 10 - 20 meters with 86 mm percussion sampler. Our client in Japan has experienced to sample up to 40 meters,

3. As aforementioned, “ECO-PROBE” drill is exclusive drill for environmental investigation purpose. In Japan, for example, any large vacant lot where semi-conductor factory, gas station or laundry factory used to be is required to conduct environmental investigation before selling out due to strict requirement under Soil Pollution Prevention Law enforced on April, 2003.