IGS Technical Note

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Geotechnical Services
CPT & Piezocone
Dilatometer
Seismic Dilatometer
Vane Shear
Tee-Bar
Push-Sampling
Piezometer Installation
In Situ Permeability

Field Fleet ("the girls")

Esme – 10-20t all-terrain

Beryl – 15t 4 wheel drive

Eunice – 20t 6x4 bogey

Baby Jayne – 15t portable

IGS's New Vertek Piston Sampler

As mentioned in our last newsletter, we purchased a Vertek piston sampler system while attending the CPT'10 Conference in USA a few weeks ago.

How it works:

(a) A sampling depth is chosen.

(b) The sampler is pushed to sampling depth; the system sealed by the internally-latched piston.

(c) The latch is released, the sampler is pushed, and the whole is extracted. Sample is retained by piston suction.

(d) Samples can be taken in seamless stainless tubes or in "splits".

Why we chose the Vertek System:

– The Vertek piston sampler is much less complicated to use than other types available. It is also much more robust and can be pushed into stronger soil – it is not just a soft soil sampler. Consumables cost less.

– Sample size is 35mm. The outside diameter of the sampler is 50mm. While no-one would claim this is a great "area ratio" it is very much better than other 35mm push-samplers that have 63mm OD. Thus, from this viewpoint, samples may be less disturbed.

– The 50mm OD allows the sampler to be pushed more easily than a fatter device. Allowing us to sample where we would not otherwise be able to.

– All parts that come in contact with the soil sample are 316 stainless steel. The sampler can be decontaminated when this is important to a client..

NOTE: We still offer Eziprobe Sampling

For quite some time we have offered shallow sampling by means of a push-in system – the Eziprobe Sampler.

This system allows us to take continuous samples of cohesive soils that are disturbed but uncontaminated and suitable for index testing, chemical testing, etc.

We continue to offer Eziprobe sampling. It is well-suited to such requirements as acid sulfate sampling. It is only suitable for shallow depths.

reducing geotechnical uncertainty