we think this is a very big advance

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

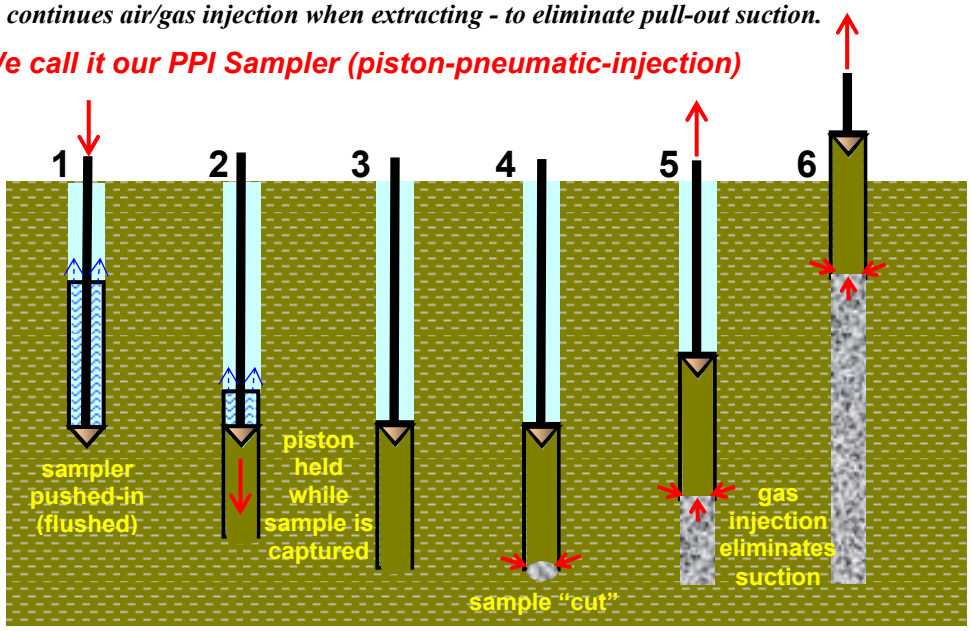
IGS lifts push-sample quality to a new level

We have developed, built and trialled our own new 63mm soft-soil direct-push-sampler that we are confident rivals or exceeds sample quality from other undisturbed sampler methods, including piston samples taken from boreholes.

This sampler:

- ***has excellent "area ratio" - similar to a Shelby Tube of the same 63mm size;***
- ***has a closed & sealed piston when pushing- to keep dirt out;***
- ***is clean-water flushed during insertion- to maintain internal cleanliness;***
- ***holds a stationary piston when capturing the sample - to eliminate initial suction;***
- ***involves high pressure air/gas injection at the cutting face- to "cut" the sample off;***
- ***continues air/gas injection when extracting - to eliminate pull-out suction.***

We call it our PPI Sampler (piston-pneumatic-injection)



63mm 316 stainless sampler with 1.6mm wall thickness. An 800mm long sample is taken using the "stationary piston" technique. Sample quality is enhanced markedly by direct air injection at the cutting face to cut the sample free and then injection is continued to eliminate suction during extraction.

Note that, as always, IGS does not hold itself out to be a consultant. It is up to our clients to decide on the applicability of this sampler for their purposes. But we think IGS can now take soft soil samples suitable for high quality laboratory strength and compressibility testing. Very efficiently.

reducing geotechnical uncertainty