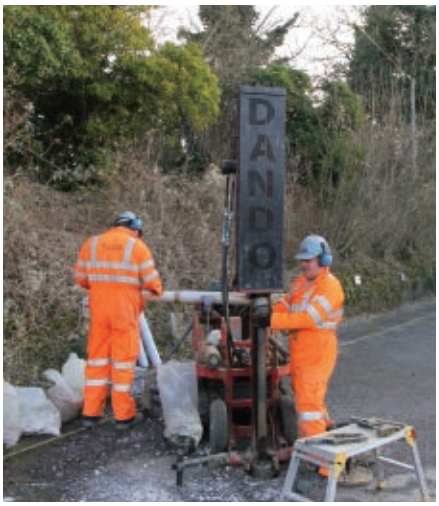
ACS

Drilling & Coring Services

ACS Group of Companies is able to offer a full range of drilling and coring services, from shallow windowless sampling to deep rotary investigations. The extensive equipment held by ACS and available through subcontractors enables investigations to be undertaken across a broad range of sites.

WINDOW / WINDOWLESS SAMPLING

Our Dando Terrier Rig has been designed as a multi-purpose drilling rig capable of rotary and percussive drilling techniques. This rig is ideal for sites where access is difficult as the rig can fit through a standard single doorway.



Window / windowless drilling allows boreholes to be sunk to 10m (dependent on ground conditions). Samples are retrieved within plastic liners which allow for detailed logging and contamination sampling. A casing system is used which allows installation of single or dual installations for gas and groundwater monitoring and for inclinometer monitoring pipework.

In situ standard penetration tests (SPT) are routinely undertaken together with undisturbed samples in cohesive materials (U100). Dynamic probing (DPH & DPSH) can also be undertaken to provide a detailed profile of material density vs depth. These tests can provide a range of geotechnical design parameters. Infiltration testing can also be carried out to provide information for soakaway design or other SUDS schemes.

The Terrier Rig rotary capabilities include soild stem augers, tricone rock bits, down-the-hole hammering and diamond core drilling.

CABLE PERCUSSION DRILLING

This drilling technique allows deeper boreholes to be sunk, typically up to 40m. The rig is larger than the Terrier Rig and requires an open site with access for a 4x4 vehicle which tows the rig and carries ancillary equipment. An area in the order of 5 x 5m is also required to enable the rig to be set up.

In situ testing comprises SPT and U100. Infiltration testing can be undertaken and installations as above. This method of drilling is required when geotechnical parameters are required for piled foundation design at depths beyond those achievable by window sampling.

CORE CUTTING

Core cutting can be undertaken from 24 to 300mm diameter using both hydraulic and electric rigs. We have hand-held or trailer rigs which are used in various situations depending upon the depth and diameter required and access restrictions.

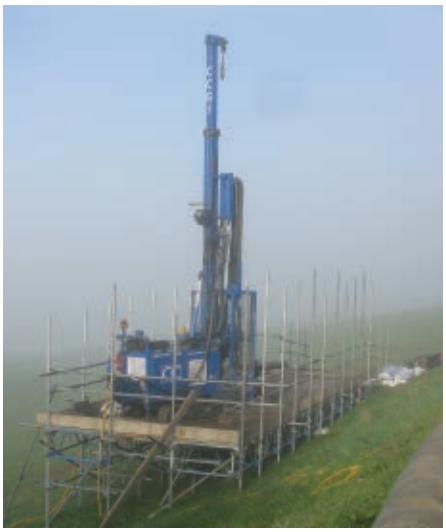
Cores are commonly taken through concrete, bituminous materials, bricks, blocks or natural stone.

Cores can be taken for specialised laboratory analysis at specific diameters or to allow further ground investigation. Horizontal cores can be taken through walls or abutments.

Core cutting can also be undertaken using an attachment to the Terrier Rig.

ROTARY DRILLING

In certain ground conditions, cable percussion drilling is not possible due to the presence of rock layers or boulders in natural or made ground. In such situations rotary drilling is used which enables cores to be taken through these materials.



Modern rotary rigs also have a dynamic sampling head and therefore the rotary rigs we use offer rotary and percussive options which enable a range of ground conditions to be sampled.

Sonic Drilling utilises a rotary technique with an added vibratory force. This enables faster progression through dense materials which may be impenetrable to some other drilling methods.

LOGGING

Engineering logs of all exploratory holes are prepared by our Geotechnical Engineers and provided in AGS format if required. We have bespoke site equipment which allows digital logging for direct transfer into logging software. Further interpretation, analysis and advice regarding laboratory testing can also be provided through our Geo-Environmental Consultancy Department.

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