

Methods of testing rocks for engineering purposes

Method 5: Sampling of rock core

1 SCOPE

This Standard sets out the method for the collection of rock samples using rock core drilling.

2 APPARATUS

2.1 General

The following apparatus are regarded as desirable, (other suitable items may be substituted where necessary):

- (a) Drilling rig and ancillary equipment capable of obtaining core of at least 45 mm diameter and drilling to the required depth.
- (b) Survey levelling equipment.
- (c) Compass and clinometer or geological compass.
- (d) Measuring tape.
- (e) Camera.
- (f) Survey stakes or flags.
- (g) Core tray and core marker blocks, suitable for the size of core to be sampled.
- (h) Labels, marking pens, etc.
- (i) Field note book.
- (j) Bore log sheets.

2.2 Drilling equipment

To obtain continuous samples of rock from an unexposed rock mass, a rotary drilling rig shall be used.

For the recovery of core suitable for the determination of the quality of source rock, the following precautions and drilling techniques shall be used:

- (a) Drilling rigs with hydraulic feed, rather than screw feed.
- (b) A coring barrel that utilises a stationary, split inner tube, with a core that shall not be less than 45 mm in diameter.
- (c) Drilling fluid, which shall be water only. Additives such as bentonite or soap shall not be used because of possible contamination of the core. Lubricating oil shall not be used on the inner tube where it may come into contact with the core.

NOTE: A water-soluble oil may be used at the discretion of the supervising officer.