

Terra Core Sampling Kit for Methanol Preservation



BS 10176 is intended to improve the reliability of soil sampling by introducing procedures which if followed correctly minimise the loss of volatile organic compounds (VOCs) to atmosphere during and after sample collection. The Terra Core kit is provided and allows 5 g of soil to be collected and immediately extruded into a pre-weighed, pre-preserved 40 ml VOC vials containing 10 ml of methanol. Methanol performs two main functions - it stops microbial degradation and VOCs are soluble in it.

Terra Core sample equipment and containers

- » 1 x Terra Core sampler
- » 2 x pre-filled methanol vials
- » 1 x 60g jar for the determination of moisture content

Collecting a soil sample

Step 1

With the plunger seated in the handle, push the Terra Core sampler into exposed soil until the sample chamber is filled. A filled chamber will deliver 5 grams of soil.

Step 2

Wipe all soil from the outside of the Terra Core sampler. The soil plug should be flush with the mouth of the sampler. Remove any excess soil that extends beyond the mouth of the sampler.

Step 3

Rotate the plunger that is seated in the handle top 90° until it is aligned with the slot in the body. Place the mouth of the sampler into the 40 ml vial and extrude the sample by pushing the plunger down again. Quickly place the cap on the 40 ml vial.

Important note: Do not splash the methanol when extruding the sample. Try not to smear the sample on the inside of the vial. When capping the 40 ml vial, be sure to remove any soil or debris from the top and/or threads of the vial.

Step 4

Repeat the procedure above for the second vial.

Step 5

Collect a sample for moisture content determination using a bulk sampling technique.

Step 6

Please the vials in the foam inserts provided.







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Terra Core Sampling Kit for Methanol Preservation



Special labelling instructions

Each vial is pre-weighed and pre-labelled and is it important that the weight is legible upon receipt at the laboratory. Do not place an additional label on the vials as this will alter the tared weight. Make a note of the unique reference provided.

Quality Control (QC) requirements

The frequency of QC samples should be determined on a site specific basis and in accordance with BS 10176. Trip blanks are prepared by transporting 40 ml vials to the field and these are returned to the laboratory without being opened on site. Trip blanks are used to assess sample contamination originating from sample handling and transport or site conditions.

Field blanks should consist of prepared vials transported to the field, prepared in the field by opening the vial for the same time period as it takes to collect the actual soil samples. Field blanks are used to assess contamination arising from field sampling conditions.

Duplicate samples can be formed by taking two independent samples from as close together as practical.

References

BS 10175:2011+A2:2017 Investigation of potentially contaminated sites - Code of Practice BS 10176:2020 Taking soil samples for determination of volatile organic compounds (VOCs) - Specification BS ISO 18400-106 Soil Quality - Sampling - Part 106: Quality control and quality assurance BS ISO 18512 Soil Quality - Guidance on long and short term storage of soil samples

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Easy Draw Syringe Sampling Kit for Methanol Preservation



BS 10176 is intended to improve the reliability of soil sampling by introducingprocedures which if followed correctly minimise the loss of volatile organic compounds (VOCs) to atmosphere during and after sample collection. The Easy Draw Syringe (EDS) sampling kit is provided and allows 5 g of soil to be collected and immediately extruded into a pre-weighed, pre-preserved 40 ml VOC vials containing 10 ml of methanol. Methanol performs two main functions - it stops microbial degradation and VOCs are soluble in it.

EDS sample equipment and containers

- » 1 x EDS sampler
- » 2 x pre-filled methanol vials
- » 1 x 60g jar for the determination of moisture content
- » Note the Powerstop Handle is not supplied by the laboratory

Collecting a soil sample

Step 1

Insert the syringe into the 5 g position. Use the heavy position for dense clay, the light position for sandy soil and the medium position for all other soil types.

Step 2

Push the EDS into freshly exposed soil. Continue pushing until the soil inside the syringe has forced the plunger to the stopping point. Wipe all debris from the outside of the EDS. The intact core of soil should be flush with the mouth of the sampler. Remove any excess soil that extends beyond the mouth of the sampler.

Step 3

Remove the syringe from the Powerstop Handle. Insert the syringe into the open end of a pretared, pre-filled methanol vial. Extrude the sample into the vial by pushing the syringe plunger. Important note: Do not splash the methanol when extruding the sample. Try not to smear the sample on the inside of the vial. When capping the 40 ml vial, be sure to remove any soil or debris from the top and/or threads of the vial.

Step 4

Repeat the procedure above for the second vial.

Step 5

Collect a sample for moisture content determination using a bulk sampling technique.

Step 6

Place the vials in the foam inserts provided.









Easy Draw Syringe Sampling Kit for Methanol Preservation



Special labelling instructions:

Each vial is pre-weighed and pre-labelled and is it important that the weight is legible upon receipt at the laboratory. Do not place an additional label on the vials as this will alter the tared weight. Make a note of the unique reference provided.

Quality Control (QC) requirements

The frequency of QC samples should be determined on a site specific basis and in accordance with BS 10176. Trip blanks are prepared by transporting 40 ml vials to the field and these are returned to the laboratory without being opened on site. Trip blanks are used to assess sample contamination originating from sample handling and transport or site conditions. Field blanks should consist of prepared vials transported to the field,

prepared in the field by opening the vial for the same time period as it takes to collect the actual soil samples. Field blanks are used to assess contamination arising from field sampling conditions. Duplicate samples can be formed by taking two independent samples from as close together as practical.

References

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En Core Sampling Kit for Collecting an Intact Core



BS 10176 is intended to improve the reliability of soil sampling by introducing procedures which if followed correctly minimise the loss of volatile organic compounds (VOCs) to atmosphere during and after sample collection. The En Core sampling kit is provided and allows 25 g of soil to be collected and retained as an intact core. Using the En Core sampler allows the soil sample to retain its original structure and therefore reduces loss of VOCs.

En Core sample equipment and containers

- » 1 x En Core sampler
- » 1 x 60g jar for the determination of moisture content
- » Note the En Core T-handle is not supplied by the laboratory

Collecting a soil sample

Step 1

Tear open the envelope. Hold the coring body and push the plunger rod down until the small o-ring rests against the tabs.

Step 2

Depress locking level on the En Core T-handle. Place coring body, plunger end first, into the open end of the T-handle. Twist the coring body clockwise to lock the pins in slots. Check to ensure En Core sampler is locked in place. The sampler is now ready for use.

Step 3

Turn the T-handle with T-up and coring body down. This positions the plunger bottom flush with the bottom of the coring body. Using the T-handle, push the sampler into the soil until the coring body is completely full. When full, the small o-ring will be centred in the T-handle viewing hole. Remove the sampler from the soil. Wipe excess soil from the exterior of the coring body.

Step 4

Cap the coring body while it is still on the T-handle. Push the cap over the flat area of the ridge and twist to lock the cap in place. The cap must be seated to seal the sampler.







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En Core Sampling Kit for Collecting an Intact Core



Step 5

Remove the capped sampler by depressing the locking lever on the T-handle while twisting and pulling the sampler from the T-handle.

Step 6

Lock the plunger by rotating the extended plunger rod fully counter-clockwise until the wings rest firmly against the tabs.

Step 7

Return full En Core sampler to the zipper bag, seal and store this in a cool box.

Step 8

Collect a sample for moisture content determination using a bulk sampling technique.

Special labelling instructions

Complete the details on the sample envelope including sample identity, depth and date.

Quality Control (QC) requirements

The frequency of QC samples should be determined on a site specific basis and in accordance with BS 10176. Trip blanks are prepared by transporting 40 ml vials to the field and these are returned to the laboratory without being opened on site. Trip blanks are used to assess sample contamination originating from sample handling and transport or site conditions. Field blanks should consist of prepared vials transported to the field, prepared in the field by opening the vial for the same time period as it takes to collect the actual soil samples. Field blanks are used to assess contamination arising from field sampling conditions. Duplicate samples can be formed by taking two independent samples from as close together as practical.

References

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