

ALS Sampling Guidance – BS10176

Terracore Sampling Kit



Terra Core and Methanol Field Preservation

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

ALS will provide the necessary equipment and a pre-filled methanol preservative for use on site. Each sampling point will require:

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

The laboratory will prepare a 40ml vial which is preweighed and pre-labelled. This is transported to the client alongside the necessary sampling instructions.

Collecting a Soil Sample

In the field the sampler needs to:

- Extrude sample from Terra Core into vial
- No additional labels, no writing on label
- Start chilling at location of sample collection
- Store/Transport samples upright (soil submerged)

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.

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.

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.



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Encore Sampling Kit







En Core Disposable Sampler 5gm/ 25gm

Encore sample equipment and containers

ALS will provide the necessary disposable equipment for sampling on site however a T- Handle is not provided as standard. Each sampling point will require:

- 1 x Encore sampler
- 1 x 60g jar for the determination of moisture content

Collecting a Soil Sample

In the field the sampler needs to use the T-Handle and the disposable sampler to collect and retain an intact core. Using the En Core sampler allows the soil sample to retain its original structure and therefore reduces loss of VOCs.

Step 1: Tear open the envelope. Hold the coring body, push the plunger rod down until the small o-ring rests against the tabs.

Step 2: Depress locking lever 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: Hold 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 upper T-handle viewing hole for the 25g sampler. 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.

Step 5: Cap coring body while it is still on the T-handle. Remove the capped sampler by depressing the locking lever in the T-handle while twisting and pulling the sampler from the T-handle.

Step 6: Place the plunger stem of the En Core sampler into the shaped notch in the T-handle. Lock the plunger by rotating the sampler counter-clockwise until the wings on the plunger stem rest firmly against the tabs.

Step 7: Attach the laboratory sample identification label to the outside of the zipper bag or fill in the information boxes on the side of the zipper bag, including sample ID, sampling depth and date. Place the 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.

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.