



BORROW PIT SAMPLING FOR SOURCE APPROVAL

1. SCOPE

1.1 This method covers procedures for recovering soil samples for the purpose of evaluating the soil for use as borrow.

2. DEFINITIONS

2.1 *Pit Number* – Number assigned to a borrow pit for filing purposes.

2.2 *Pit Name* – Name assigned to a borrow pit, generally the name of the property owner. This name is used for all references to the pit.

2.3 *Site* – The area sampled and tested. Sites are numbered if the pit is tested more than once and / or if two or more areas on the same property are tested.

2.4 *Location* – The point where a sample or samples are taken. Locations are numbered in consecutive order.

3. APPARATUS

3.1 *Posthole auger with handle extensions* – Hand operated posthole augers 2 to 12 inches (50 – 300 mm) in diameter capable of being extended by adding sections to handle.

3.2 *Machine-driven helical augers* – Power driven auger 6 to 18 inches (152 to 456 mm) in diameter.

3.3 *Accessory Equipment* – Sample tags, sample bags, scoop, shovel, 100-ft. (30.5 m) tape, stakes, marker (permanent waterproof ink type), and other necessary tools and supplies.

4. PROCEDURE

4.1 Stake out area to be tested using a grid pattern. Stakes driven at each grid point shall be labeled with the Site Number and the Location Number.

4.1.1 100 foot (30.5 m) intervals for small areas and in areas where soils may vary unpredictably

4.1.2 200 foot (61 m) intervals for large areas and where soils are reasonably uniform

4.1.3 300 foot intervals (91.5 m) or more for preliminary testing programs

4.2 Make the auger boring by turning the auger the desired distance into the soil, withdrawing the auger and removing the soil for sampling. Insert the auger into the hole and repeat the process. The soil auger can be used both for boring the hole and for bringing up samples of the soil encountered. Samples of each soil type, except topsoil, are taken. If more than one type of soil is picked up in the auger, they are separated.

4.2.1 Stockpiles can be sampled during the stockpiling operation by obtaining representative samples using a shovel or scoop and / or augered and sampled as specified after the stockpile is complete.

4.3 Place the sample in the bag and complete the identification tag for the sample.

4.3.1 Tag Information - When there is no chance of confusion, information on tags may be abbreviated.

4.3.1.1 Contract number

4.3.1.2 Type of borrow

4.3.1.3 Pit name, site number

4.3.1.4 Location number

4.3.1.5 Depth, to the nearest half a foot, of the top and bottom of the soil strata from which the sample was taken.

4.3.1.6 The tags for the first and final samples removed from a boring should be noted with Start and End respectively.

4.3.1.7 The tag for the final sample from a boring should note depth to water table if encountered.

4.3.1.8 The reason for ending the boring such as: contractor's request, cave-in, limit of equipment, rock, etc.

4.4 After sampling is complete the stake bearing the site and location number is reset to mark the location.

4.5 A map is drawn referencing each location of the site presently being tested to landmarks. The map also locates the pit with the reference to the State Highway system. The legend of the map should include the name and number of the pit, district, name of the contractor, type of borrow, contract number, date sampled, names of the sampling crew, and the scale used to draw the map.

4.6 Bagged samples are returned to the laboratory for testing.