



SOURCE CONTROL – BORROW

1. SCOPE

- 1.1 All sources of borrow must be approved prior to use. To assist contractors in finding suitable borrow for State projects, the Materials and Research section will provide sampling and testing services to evaluate borrow sources.
- 1.2 Personnel involved with sampling and / or testing locations submitted as borrow sources shall be guided by the following procedures.
- 1.3 Guidelines are also provided for maintenance of borrow pit records and distribution of test reports.

2. REFERENCED DOCUMENTS

- 2.1 AASHTO Standards
 - T88, Particle Size Analysis of Soils
 - T89, Determining the Liquid Limit of Soils
 - T90, Determining the Plastic Limit and Plasticity Index of Soils
 - T99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5 lb) Rammer and a 305-mm (12-in) Drop.
- 2.2 DOH Standards
 - 2, Method of Determination of Moisture Content
 - 4, Borrow Pit Sampling for Source Approval
- 2.3 Standard Forms
 - LB-40

3. PROCEDURE

- 3.1 A location submitted as a borrow source is sampled in accordance with the Standard Procedure for Borrow Pit Sampling for Source Approval (DOH 4). Materials and Research personnel and equipment are provided to sample the locations; the Contractor performs the manual labor.
- 3.2 Samples are tested at the Central Laboratory for physical and chemical properties.
 - 3.2.1 Particle Size Analysis of Soils – AASHTO T88M
 - 3.2.2 Determining the Liquid Limit of Soils – AASHTO T89M

- 3.2.3 Determining the Plastic Limit and the Plasticity Index of Soils – AASHTO T90M
- 3.2.4 Moisture- Density Relations of Soils Using 5.5 lb Rammer and 12 in. Drop – AASHTO T99M (*When Conditions Warrant*)
- 3.2.5 Moisture Content of Soils – DOH 2 (*When Conditions Warrant*)

- 3.3 Test results and pertinent information are summarized and reported on a computer printout.

- 3.4 The results of laboratory tests are analyzed, verified for conformance to specifications, and evaluated based on the behavior of similar soils observed during previous construction projects. A map is prepared to locate the tested property, reference the boring locations, indicate depth of approval, and outline the approved area.
 - 3.4.1 Generally the boundaries of the approved area extend 25 feet (7.5 m) beyond the outermost approved borings.
 - 3.4.2 Form LB-40, referred to as the “pit letter” is used to communicate approval of a borrow source.

- 3.5 It should be noted that approval of a borrow source can be revoked if the soil fails to perform satisfactorily on the project or if samples taken during use fail to meet specifications.