QUICK FACTS: SB 101 DRAFT

TEX-142-E

Laboratory Classification of Soils for Engineering Purposes

Why

·The purpose of a soil classification system is to group soils with similar properties. For engineering, important geotechnical properties include permeability, shear strength, and compressibility. The first step in soil classification is identifying it.

When

Classifications of soils are tested before the project.

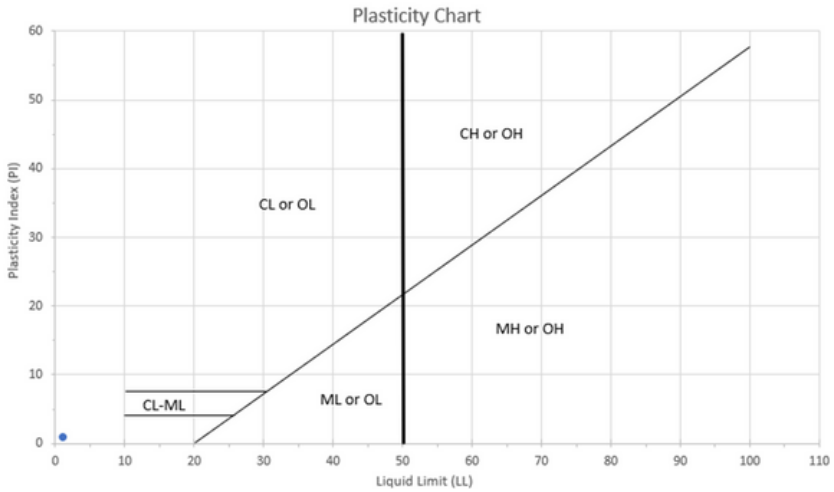
How

Preparing Sample

- Prior to classifying a sample, determine the particle size distribution of materials passing through the 3-inch sieve and the No. 4 sieve. Using the following test procedure:
  - Tex-110-E

Procedure

- Determine the liquid limit (LL), plastic limit (PL), and plasticity index (PI) of the sample in accordance with:
  - Tex-104-E
  - Tex-105-E
  - Tex-106-E
- Use Tex-103-E to determine the moisture content.
- Use Tex-110-E for fine-grained soils or Tex-401-A for coarse-grained soils to determine the amount of material passing the No.200 sieve.



- Use Tex-406-A part I to determine the particle size distribution of material retained on the No.200 sieve.
- Use the chart, LL, PI, percent material passing the No. 200 sieve, and classify the soil with group name and description with group symbol.