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U.S. Army Corps of Engineers (USACE)

SHRINKAGE LIMIT TEST

For use of this form, see EM 1110-2-1906; the Proponent agency is CECW-EC.

Purpose: The purpose of this form is to document shrinkage limit tests.

Date: _____

Project: _____

Boring No.: _____

Sample or Specimen No.								
Shrinkage Dish No.								
Weight in Grams	Dish plus wet soil							
	Dish plus dry soil							
	Water	W_W						
	Shrinkage dish							
	Dry Soil	W_S						
	Displaced mercury + evaporating dish							
	Evaporating dish							
	Displaced mercury							
Volume in cc	Shrinkage dish (wet soil pat)	V						
	Volume of dry soil	V_S						
	$V-V_S$							
	$(V-V_S/W_S) \times 100$							
Water content = $(W_W/W_S) \times 100$		W	%	%	%	%	%	%
Shrinkage limit		SL						
Shrinkage ratio		R						

V_S = weight of displace mercury/specific gravity of mercury (13.53 g/cc)

SL = Water content of wet soil pat

Classification:

$$- \left(\frac{\text{volume of wet soil} - \text{volume of oven-dry soil pat}}{\text{wt of oven-dry soil pat}} \right)$$

$= W - ([V-V_S/W_S] \times 100)$

R = wt of oven-dry soil pat/volume of oven-dry soil pat = W_S/V_S

Remarks

Technician: _____ Computed By: _____ Checked By: _____