

# Chicora Foundation Mortar Analysis Data Sheet

**Name:** Michael Trinkley      **Sample No.:** 2004-10  
**Date:** 12/23/04      **Origin of Sample:** Old Charleston City Jail, Stucco, ca. 1830

**Visual Description of sample (color, texture, hardness, inclusions, etc.):**

Only slightly friable, hard, obvious quartz inclusions, pale red 10YR7/4 wash slightly soluble in tap water. Stucco is light gray 7.5YR7/1. Once powdered few obvious white inclusions, 3-5mm, probably lime.

**Mortar Analysis**

Original weight of powdered sample	16.20
Weight of filter paper	1.56
Weight of filter paper + dry fines	2.65
Weight dry fines	1.09
Weight of dry sand	9.94
% of sand	61.36
% of fines	6.73
% of dissolved binder	31.91

**Observations (dissolution of binder, color of liquid, reaction):**

**Characterization of Sand:**

**Microscopic Examination:**

rounded quartz, uid white concretions (non-reactive), small (2-4mm) coal fragments.

		wt. (gm)	%
wt. % finer than	4.75mm	0.00	0
	2.36mm	0.14	1.408451
	1.18mm	1.05	10.56338
	600µm	2.48	24.9497
	300µm	4.85	48.79276
	150µm	1.16	11.67002
	75µm	0.22	2.21328
	53µm	0.04	0.402414
	38µm	0.00	0
	Total sand weight	9.94	

**Munsell Color(s) of Sand:** light gray 7.5YR7/1; with fines pinkish gray 7.5YR6/2

