



CERTIFIED MILL TEST REPORT-Results of tests on typical samples-Type I/II

Date of Shipment **From** Humboldt Plant
Consigned to Car or Trailer

Destination

PHYSICAL TESTS

Percent passing 325 Sieve	95	Air Content	8.3
Blaine Surface Area	3670	Autoclave Expansion	-0.012

	Setting Time		Compressive Strength		
	Gillmore		1:2.75 Graded Sand		
Initial	2:45	Hrs./Min.	24 Hrs.	3 Days	7 Days
Final	4:15	Hrs./Min.	1892	3208	4000

CHEMICAL ANALYSIS

Silicon dioxide	21.94	Loss on ignition	1.30
Ferric oxide	3.35	Insoluble residue	0.14
Aluminum oxide	4.24	Free lime	1.04
Calcium oxide	63.69	Sodium oxide	0.12
Magnesium oxide	1.63	Potassium oxide	0.53
Sulphur trioxide	2.66	Alkalies (equiv.)	0.47

POTENTIAL CALCULATED COMPOUNDS

Tricalcium silicate	51.7	Tricalcium aluminate	5.6
Dicalcium silicate	23.9	Tetracalcium aluminoferrite	10.2

The cement in this shipment meets standard requirements in the current specifications of the Federal Government and the American Society for Testing and Materials for Type I and for Type II Portland Cement. All tests conform to ASTM Test Methods: Chemical C-114, Blaine C-204, C150, Soundness C-151, Gillmore C-266, Compressive Strength C-109, and Air Content C-185.

Date: 5/1/2008

Calvin D. Parker
Quality Control Supervisor