

MILL TEST REPORT

Cement Type: **CSA Type GU**
Low Alkali Portland Cement

Plant: **Delta, BC**

Certificate #:	D1-373
-----------------------	---------------

Production Period:	May 01 2009 May 31 2009	Test Result	CSA A3001 Specification
SiO2 (%)	CSA A3003	20.0	-
Al2O3 (%)	CSA A3003	5.04	-
Fe2O3 (%)	CSA A3003	3.69	-
CaO (%)	CSA A3003	65.1	-
MgO (%)	CSA A3003	0.81	max. 5.0
SO3 (%)	CSA A3003	2.83	max. 3.0
Na2O (%)	CSA A3003	0.31	-
K2O (%)	CSA A3003	0.36	-
TiO2 (%)	CSA A3003	0.25	-
C3S (%)	ASTM C150	66	-
C2S (%)	ASTM C150	8	-
C3A (%)	CSA A3003	7.1	-
C4AF (%)	ASTM C150	11.2	-
Equivalent Alkalies (%)	ASTM C150	0.54	-
Loss on Ignition (%)	CSA A3003	2.4	max. 3.0
Insoluble Residue (%)	CSA A3003	0.40	max. 1.5
Free Calcium Oxide (%)	CSA A3003	0.40	-
Vicat Setting Time			
Initial (minutes)	CSA A3004-B2	99	min. 45 max. 360
Final (minutes)	CSA A3004-B2	203	-
Blaine Fineness (m2/kg)	ASTM C204	393	-
+325 mesh	CSA A3004-A3	1.8	max. 28
Air Content (%)	CSA A3004-C4	6.20	-
Autoclave Expansion (%)	CSA A3004-B5	-0.01	max. 1.0
Compressive Strength		MPa / psi	
3 Day	CSA A3004-C2	28.6 / 4153	min. 14.5
7 Day	CSA A3004-C2	35.3 / 5117	min. 20.0
28 Day (previous month)	CSA A3004-C2	43.4 / 6290	min. 26.5

This will certify that the above described cement meets the standard chemical and physical requirements of CSA Specification A3001-08 for Type GU Portland Cement.

