



**Cement**

**FLY ASH TEST REPORT**

Analysis by: Lafarge Seattle Concrete Lab  
Sample from : Centralia Power Plant  
Average Analysis: January 2022  
Test Report Number 2-22 F CSA

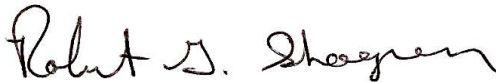
**Chemical Analysis**

		Limits
Silicon Dioxide (SiO <sub>2</sub> )	48.1 %	
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	18.4 %	
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	6.0 %	
Sulphur Trioxide (SO <sub>3</sub> )	0.8 %	
Calcium Oxide (CaO)	14.4 %	15% Max - CSA
Magnesium Oxide	4.3 %	
Moisture Content	0.12 %	
Loss on Ignition	0.32 %	
Total Alkalies as Equivalent Na <sub>2</sub> O	4.36 %	

**Physical Analysis**

Fineness Retained on 45 um (No. 325 Sieve)	12.9 %	34% Max - CSA
Strength Activity Index with Portland Cement		
% of Control at 28 Days ( <i>previous month's result</i> )	97 %	
Water Requirement, Percent of Control	93 %	
Autoclave Expansion	0.01 %	
Density	2.64 Mg/m <sup>3</sup>	

We hereby certify that the composite fly ash sample above meets the chemical and physical requirements of CAN/CSA A3001 for Type F Fly Ash.

Certified . 

Rob Shogren  
Technical Director

**WESTERN REGION**

5400 West Marginal Way SW, Seattle, Washington 98106-1517  
Office: 206.923.0098 or 800.477.0100 Fax: 206.923.0388