

CEMENT TEST REPORT

CSA A3001-18

Lafarge Exshaw

March 26, 2021

EXL Engineering

ENX Inc. Acheson Terminal 10798 HWY 60 Acheson, AB T7X 6N5 Report Date: Project Number: Revision: May 11, 2021 19-01608-002

Attention: Mr. Paul Johnson

Test Report Number: ENX GUb-20F_May2021
Year: 2021
Month of Analysis: May
Cement Type: ENX GUb-20F

FLY ASH SOURCE: Genesee Generating Station (G3) CEMENT SOURCE
SAMPLES RECEIVED: April 22, 2021 SAMPLES RECEIVED:
SAMPLED BY: Client TESTED BY:

CHEMICAL ANALYSIS						
TEST DESCRIPTION	TEST RESULTS (1)	UNITS	SPECIFICAITON LIMITS			
			CSA A3001-18	ASTM C150M-12		
Silicon Dioxide (SiO ₂)	27.8	%	_	_		
Aluminum Oxide (Al ₂ O ₃)	7.8	%	-	-		
Iron Oxide (Fe ₂ O ₃)	3.8	%	-	-		
Calcium Oxide (CaO)	51.7	%	-	-		
Magnesium Oxide (MgO)	3.9	%	-	-		
Sulphur Trioxide (SO ₃)	2.3	%	-	-		
Loss on Ignition (LOI)	1.90	%	-	-		
Equivalent Alkali Content (Na ₂ Oeq)	1.17	%	-	-		

(1) Rapid Method, X-Ray (A3003)

PHYSICAL ANALYSIS						
TEST DESCRIPTION	TEST RESULTS	UNITS	SPECIFICAITON LIMITS			
			CSA A3001-18	ASTM C150M-12		
Fineness Retained on 45μm	6.5	%	24 max	-		
Soundness, Autoclave Expansion	0.060	%	0.80 max	-		
Compressive Strength						
3-Day	22.0	MPa	14.5 min	-		
7-Day	29.0	MPa	20.0 min	-		
28-Day (previous month's result)	35.0	MPa	26.5 min	-		
Time of Setting, Vicat Initial	212	Minutes	45 - 480	-		
Density	2.87	g/cm³	-	-		
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COMMENTS

We hereby certify that the cement represented by the above chemical and physical analyses meets the requirements of CSA A3001-18. Testing performed in accordance with CSA, ASTM and Concrete Reference Laboratory (CCRL) certification requirements.

Report prepared by:

EXL Engineering Inc.

Gene Lecuyer, P. Eng. Senior Materials Engineer







Results pertain only to the sample(s) provided and constitutes a testing service only. Engineering interpretation or evaluation of the test results will be provided upon written request only.