

ENX Inc.  
Acheson Terminal  
10798 HWY 60  
Acheson, AB T7X 6N5

Report Date: January 6, 2021  
Project Number: 19-01608-002  
Revision: 0

Attention: Mr. Paul Johnson

<b>Test Report Number:</b>	<b>ENX Gub-20F_January2021</b>
<b>Year:</b>	<b>2021</b>
<b>Month of Analysis:</b>	<b>January</b>
<b>Cement Type:</b>	<b>ENX Gub-20F</b>

FLY ASH SOURCE: Genesee Generating Station  
SAMPLES RECEIVED: December 18, 2020  
SAMPLED BY: Client

CEMENT SOURCE: Lafarge Exshaw  
SAMPLES RECEIVED: November 24, 2020  
TESTED BY: EXL Engineering

CHEMICAL ANALYSIS				
TEST DESCRIPTION	TEST RESULTS <sup>(1)</sup>	UNITS	SPECIFICATION LIMITS	
			CSA A3001-18	ASTM C150M-12
Silicon Dioxide (SiO <sub>2</sub> )	28.0	%	-	-
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	7.7	%	-	-
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	3.8	%	-	-
Calcium Oxide (CaO)	51.6	%	-	-
Magnesium Oxide (MgO)	3.8	%	-	-
Sulphur Trioxide (SO <sub>3</sub> )	2.3	%	-	-
Loss on Ignition (LOI)	1.91	%	-	-
Equivalent Alkali Content (Na <sub>2</sub> O <sub>eq</sub> )	1.19	%	-	-

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


PHYSICAL ANALYSIS				
TEST DESCRIPTION	TEST RESULTS	UNITS	SPECIFICATION LIMITS	
			CSA A3001-18	ASTM C150M-12
Fineness Retained on 45µm	6.6	%	24 max	-
Soundness, Autoclave Expansion	0.050	%	0.80 max	-
Compressive Strength				
3-Day	21.0	MPa	14.5 min	-
7-Day	26.0	MPa	20.0 min	-
28-Day (previous month's result)	38.0	MPa	26.5 min	-
Time of Setting, Vicat Initial	170	Minutes	45 - 480	-
Density	2.90	g/cm <sup>3</sup>	-	-

### 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.