

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

Report Date: August 4, 2022
Project Number: 22-01608-002
Test No.: ENX-08-2022
Revision: 0

Attention: Mr. Paul Johnson

| | |
|----------------------------|-----------------------------|
| Test Report Number: | ENX G3_08-2022_F_CSA |
| Year: | 2022 |
| Month of Analysis: | August |

FLY ASH SOURCE: Genesee Generating Station (G3) SAMPLED BY: Client
SAMPLE DATE: July 25, 2022 SAMPLES RECEIVED: August 1, 2022

| CHEMICAL ANALYSIS | | | | | |
|---|--------------|-------|----------------------|---------------|------------|
| TEST DESCRIPTION | TEST RESULTS | UNITS | SPECIFICATION LIMITS | | |
| | | | TYPE F | TYPE CI | TYPE CH |
| Silicon Dioxide (SiO ₂) | 60.9 | % | - | - | - |
| Aluminum Oxide (Al ₂ O ₃) | 21.4 | % | - | - | - |
| Iron Oxide (Fe ₂ O ₃) | 4.7 | % | - | - | - |
| Total (SiO ₂) + (Al ₂ O ₃) + (Fe ₂ O ₃) | 87.0 | % | - | - | - |
| Sulphur Trioxide (SO ₃) | 0.10 | % | 5.0% (max) | 5.0% (max) | 5.0% (max) |
| Calcium Oxide (CaO) | 6.3 | % | ≤ 15% | > 15% - ≤ 20% | > 20% |
| Magnesium Oxide (MgO) | 1.30 | % | - | - | - |
| Moisture Content ⁽¹⁾ | 0.35 | % | 3.0% (max) | 3.0% (max) | 3.0% (max) |
| Loss on Ignition (LOI) | 1.32 | % | 8.0% (max) | 6.0% (max) | 6.0% (max) |
| Total Equivalent Alkali Content (Na ₂ O _{eq}) | 3.72 | % | - | - | - |
| Total Available Equivalent Alkali Content (Na ₂ O _{eq}) | - | % | - | - | - |

(1) Optional requirement as per CSA A3001-18 - Table A.3

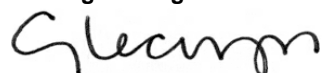
| PHYSICAL ANALYSIS | | | | | |
|---|--------------|-------------------|----------------------|------------|------------|
| TEST DESCRIPTION | TEST RESULTS | UNITS | SPECIFICATION LIMITS | | |
| | | | TYPE F | TYPE CI | TYPE CH |
| Fineness Retained on 45µm (No. 325 Sieve) | 21.9 | % | 34% (max) | 34% (max) | 34% (max) |
| Quantity of Air Entrainment | 1.1 | % | - | - | - |
| Drying Shrinkage (Increase at 28-days) | 0.02 | % | - | - | - |
| Strength Activity Index with Portland Cement ⁽²⁾ | | | | | |
| % of Control at 7-Days | 75 | % | - | - | - |
| % of Control at 28-Days (previous month's result) | 84 | % | 75% (min) | 75% (min) | 75% (min) |
| Water Requirement, Percent of Control | 96 | % | - | - | - |
| Soundness, Autoclave Expansion | 0.02 | % | 0.8% (max) | 0.8% (max) | 0.8% (max) |
| Density | 2.09 | g/cm ³ | - | - | - |

(2) Optional requirement as per CSA A3001-18 - Table A.3

| COMMENTS |
|---|
| We hereby certify that the fly ash represented by the above chemical and physical analyses meets the requirements of CSA A3001-18 for Type F. Testing performed by accredited laboratory in accordance with CSA A283-19 and Canadian Council of Independent Laboratories (CCIL) 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.