

**TEST METHOD FOR DETECTION OF
ALKALI-SILICA REACTIVE AGGREGATE
BY ACCELERATED EXPANSION OF
MORTAR BARS
CSA A23.2-25A**

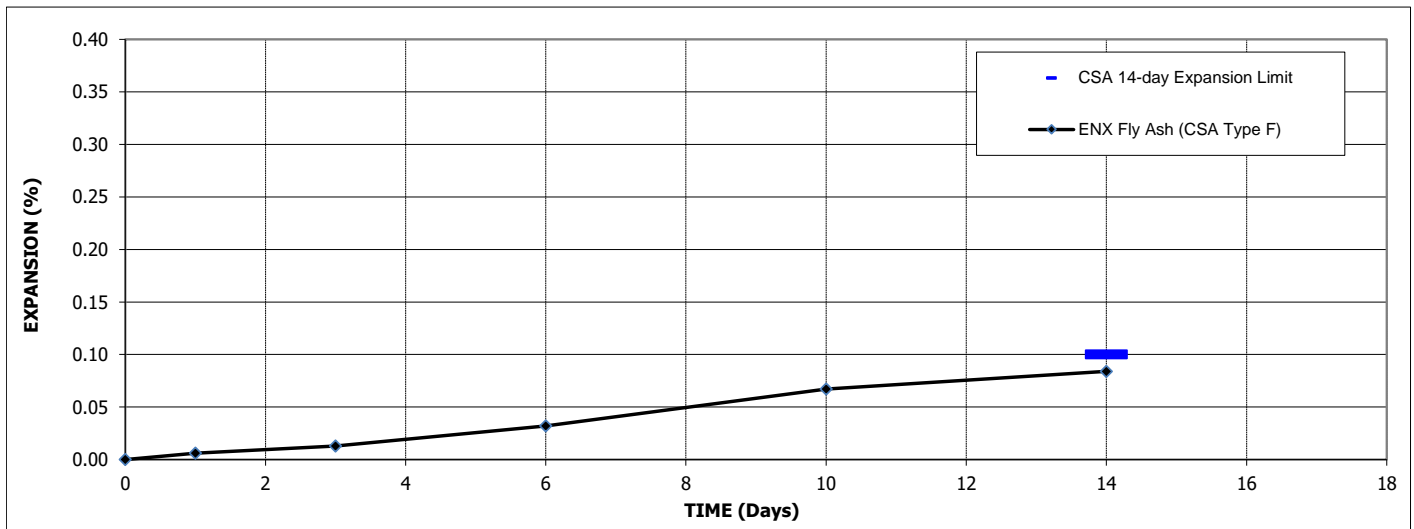
ENX Inc.
Acheson Terminal
10798 HWY 60
Acheson, AB T7X 6N5

Report Date: December 15, 2021
Project Number: 19-01608-002
Revision: 0

Attention: Mr. Paul Johnson

Sample:	ENX Fly Ash (CSA Type F)
Source:	Genesee Generating Station (G3)


TEST NO:	21ENX-12	CEMENT TYPE:	GU
SAMPLED BY:	Client	CEMENT SOURCE:	Lafarge Brookfield
DATE SAMPLED:	November-21	TOTAL CEMENT ALKALI:	K2O: 1.21% ; Na2O: 0.22%
SCM TYPE:	Fly Ash (Type F)	CEMENT ALKALI (Na ₂ O eq.):	0.90%
SCM SOURCE:	ENX Genesee (G3)	WATER BINDER RATIO:	0.47
SCM REPLACEMENT:	15%	AGGREGATE SOURCE:	Spratt Coarse Aggregate



Expansion (%)											
TIME, Days	0	1	3	6	10	14	16	19	21	24	28
AVERAGE	0.000	0.006	0.013	0.032	0.067	0.084					
CSA 14-day Expansion Limit						0.100					

- Notes:
- The average expansion for this sample after 14 days is 0.084% which is below the maximum expansion limit of 0.10% as per CSA A23.2 - 28A. Results show that the proposed material in this combination is effective to mitigate ASR.
 - Testing performed in accordance with CSA, ASTM and Concrete Reference Laboratory (CCRL) certification requirements.
 - Spratt Aggregate validation result: 0.280% expansion at 16 days, cast January 2021.

Reported by: TM

Reviewed by: 
Gene Lecuyer, P. Eng - 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.