ZMM Canada Minerals Corp.
ZMM Zeopolymer – A New Low Carbon Concrete

April 11, 2022

ZMM Properties
ZMM has two zeolite/basalt ("ZB") ore bodies in the Kamloops area of British Columbia.

ZMM SCM
Our ZB is a an SCM and reactive aggregate, see attached. The ZMM SCM provides advantages of uniformity, decreases alkali conversion, and increases acid resistance. The result of testing confirms ZMM ZB material complies with ASTM C618-19 and AASHTO M295-19 specifications for Class N pozzolans.

ZMM Zeopolymer
The ZMM Zeopolymer concrete made with ZB contains no cement. ASTM C1012 allows the use of the ZMM Zeopolymer concrete in cast and precast applications. The ZMM Zeopolymer is produced with ZB powders and polymerized with alkalis for crystallization of the ZB into concrete.

The advantages of ZMM Zeopolymer concrete:

1. High strength concrete
2. Exceptional thermal insulation
3. High resistance to acid and sulfates
4. Extremely low carbon footprint
5. Fast curing with no shrinkage
6. Attains full strength within hours
7. Excellent freeze/thaw resistance

ZMM is developing its new ZMM Zeopolymer concrete technology and is requesting expressions of interest for utilizing the ZMM SCM and/or the ZMM Zeopolymer. We will keep interested parties advised on the ZMM Zeopolymer development.

Please forward expressions of interest (using the attached form) to verne@zmmcanadamineralscorp.com or call Verne at 778 479-6767

6459 Mack Road, Peachland, BC V0H 1X8 Phone: 250 767-6788 • 778 479-6767
www.zmmcanadamineralscorp.com info@zmmcanadamineralscorp.com

ZMM Canada Minerals Corp.
Expression of Interest

Date: _____
DATE

Further to initial discussions during the pre-development stage of ZMM's SCM and

Zeopolymer development, I, _____, _____, of
NAME TITLE

_____, confirm our interest in utilizing ZMM's SCM
COMPANY

and/or ZMM's Zeopolymer subsequent to market readiness. This expression of interest does

not constitute a commitment.

Please provide a brief description of your requirements:

ZMM welcomes your suggestions, questions, or concerns related to our new products. It is our intention to work closely with our industry partners to create new, low carbon products.

6459 Mack Road, Peachland, BC V0H 1X8
www.zmmcanadamineralscorp.com
Phone: 250 767-6788 • 778 479-6767
info@zmmcanadamineralscorp.com

SGS TEC SERVICES
Testing • Engineering • Consulting

Client: Mr. LuVerne E.W. Hogg
ZMM Canada Minerals Corp.
6459 Mack Road
Peachland, BC V0H 1X8

Date: March 20, 2020
TEC Services Project No: TEC 20-1592
TEC Laboratory No: 20-098

REPORT OF NATURAL POZZOLAN TESTS

Sample Date: December 2019
Manufacturer: ZMM Canada Minerals Corp.

Date Samples: December 2019
Date Received: January 15, 2020

Chemical Analysis	Results (wt%)	Specification (Class N) ASTM C618-19	Specification (Class N) AASHTO M295-19
Silicon Dioxide (SiO_2)	**52.4**	----	----
Aluminum Oxide (Al_2O_3)	**14.5**	---	----
Iron Oxide (Fe_2O_3)	**8.79**	----	----
Sum of Silicon Dioxide, Iron Oxide & Aluminum Oxide (SiO_2+Al_2O_3+Fe_2O_3)	**75.6**	70.0 % min.	7.0 % min.
Calcium Oxide (CaO)	**6.2**	----	----
Magnesium Oxide (MgO)	**5.1**	----	----
Sodium Oxide (Na_2O)	**3.26**	----	----
Potassium Oxide (K_2O)	**3.33**	---	----
"Sodium Oxide Equivalent (Na_2O+0.658K_2O)"	**5.45**	----	----
Sulfur Trioxide (SO_3)	**0.02**	4.0 % max.	5.0 % max.
Loss on Ignition	**3.9**	10.0 % max.	5.0 % max.
Moisture Content	**2.61**	3.0 % max.	3.0 % max.
Available Alkalies			
Sodium Oxide (Na_2O) as Available Alkalies	**2.21**	----	----
Potassium Oxide (K_2O) as Available Alkalies	**2.45**	----	----
Available Alkalies as "Sodium Oxide Equivalent (Na_2O+0.658K_2O)"	**3.82**	----	1.5 % max.
Physical Analysis			
Fineness (Amount Retained on #325 Sieve)	**9.9%**	34 % max.	34 % max.
Strength Activity Index (Lehigh Leeds Alabama Portland Cement)			
At 7 Days:	**81%**	75 % min.† (of control)	75 % min.† (of control)
Control Average, psi: 4810 / Test Average, psi: 3910			
At 28 Days:	**84%**	75 % min.† (of control)	75 % min.† (of control)
Control Average, psi: 5850 / Test Average, psi: 4910			
Water Requirements (Test H_2O/Control H_2O)	**109%**	115 % max. (of control)	115 % max. (of control)
Control, mls: 242 / Test, mls: 263			
Autoclave Expansion	**-0.03%**	± 0.8 % max.	± 0.8 % max.
Specific Gravity:	**2.54**	----	----

† Meeting the 7 day or 28 day strength activity index will indicate specification compliance.
* Optional

The results of our testing indicate that this sample complies with ASTM C618-19 and AASHTO M295-19 specifications for Class N pozzolans.

Respectfully Submitted,
SGS TEC Services

Dean Roosa
Project Manager

Shawn McCormick
Laboratory Principal