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January 22, 2009

Ministry of the Environment West Central Region 119 King Street West, 12<sup>th</sup> Floor Hamilton, Ontario L8P 4Y7

Attention: Mr. Carl Slater, Director, Water Resources

Re: St. Marys Cement, Permit to Take Water

Flamborough

Dear Mr. Slater,

We wanted to take the opportunity to thank you for meeting with representatives of St. Marys Cement and our consultants from AECOM and Stantec on November 27, 2008. The meeting was held to discuss the Ministry's decision not to allow the second phase of the pumping test program to proceed at the St. Marys Flamborough property. Also in attendance at the meeting were representatives from Golder Associates who provided third party peer review during the Phase 1 pumping test program, and a independent overview report on the practices undertaken for monitoring during the course of the testing.

The following letter provides our understanding of what was discussed during the course of the meeting, and also outlines our official response to the decision provided by the Ministry on October 30, 2008.

## Meeting overview

While we recognize the Director has the discretion to render a decision that does not align with the technical staff at the Ministry, one of the main concerns raised by St. Marys and our consulting team during the meeting was the apparent inconsistency between the technical reviews carried out by the Ministry's hydrogeological and surface water experts, and the final decision that was provided in the Ministry's letter dated October 30, 2008. During the meeting Mr. Steve Hollingshead of AECOM requested that the Ministry provide an overview of the process that led to the Ministry's final decision. The Ministry indicated the following general reasons for their ultimate decision:

- 1. In the Ministry's opinion sufficient baseline data had not been acquired from the Phase 1 testing that could be used in the next phases of the GRS test.
- 2. The nature of surface water and groundwater interaction had not adequately been established from the Phase 1 testing.

It was apparent to us in the meeting that the major concern for the Ministry, which transcended each of the issues listed above, was the major precipitation events that occurred prior to, and during the course of the Phase 1 testing. As a result of the precipitation, the Ministry felt that a) baseline data for the impact assessment would be "confounded", and b) surface water/groundwater interaction could not be adequately demonstrated in the field. In addition, the Ministry expressed concerns that one of the purposes of the Phase 1 test, at least in their opinion, was to repeat the test that was carried out in 2004, which had been called into question due to excessive precipitation events that also had occurred during the course of the test at that time.

In response to these concerns Mr. Hollingshead reiterated that the purpose of the pumping test in Phase 1 was not to determine the groundwater/surface water interaction at the site, neither was it to be carried out as a repeat of the 2004 test. The Phase 1 test had one main purpose, and a secondary purpose of lesser concern. The main purpose of the test was to confirm bedrock properties in the vicinity of the newly constructed pumping well in preparation for the next phase of the pumping test program, which is to include the development of a pilot mitigation system. The purpose of the test was set out in the application for PTTW that was submitted to the Ministry in 2006.

The second purpose of the test was to establish the radial influence that would be realized through the depressurization of the bedrock aquifer through pumping. As we stated at the meeting, these two goals were, in our opinion, met through the Phase 1 testing that took place on the site in July 2008. In addition, Mr. Hollingshead met with the Ministry following the July 2008 test and advised the Ministry that, in his professional opinion, the July 2008 test was not compromised by the precipitation, due to the robust monitoring program that was in place during the test. It is certainly disappointing to us that before reaching a decision, the Ministry did not ask to review our full analysis of the pumping test, nor attempt to carry out its own, if it had any further doubts about this matter.

When the Ministry questioned why our consulting team did not feel the need to quantify the interaction between groundwater and surface water, stating that this, in their opinion, was the main goal of the test, Mr. Hollingshead responded that this interaction has been previously evaluated, and was a fundamental consideration for the design and operation of the proposed mitigation system. It was apparent during the meeting that this was not clear to the Ministry at the time of their review.

It was also stated by Mr. Hollingshead and Mr. Perrone from Stantec that monitoring has been on-going at the site for over 6 years at some locations. The amount of data available to the consulting team for the construction of a groundwater flow model is considered to be more than adequate. A model is currently being constructed (and almost complete) that will accurately depict the groundwater flow regime at the site and the various development and mitigation stages of a future quarry. This model will then allow the consulting team to determine the impact assessment for the property with an acceptable level of comfort.

It became clear to us by the end of the meeting that had the Ministry communicated some of their concerns to St. Marys prior to rendering their decision, it may have allowed some of these misunderstandings to be avoided and an alternate decision based on the technical findings may have been reached.

## **Decision Response**

St. Marys will not be providing a point by point response to both of the technical reviews and the overall decision of the Ministry, as these were reviewed in detail during the course of the meeting discussed above. We would like to state, however, that we disagree with the Ministry's final decision. It was clear during the meeting that the final decision provided by the Ministry was not supported by either their own technical review or the conclusions of the studies carried out during the first phase of the pumping test.

At no point in time did St. Marys, or our consulting team, understand there was a requirement for us to carry out an impact assessment based on the Phase 1 test results, which is essentially what the Ministry stated we failed to do in your October 30, 2008 letter. In fact, in the August 11, 2008 meeting between the MOE and St. Marys, the Director indicated that an impact assessment would be expected following the final stage of the GRS testing program, not at the end of each individual phase. This test is one component of a three stage pumping test program, which was designed to ultimately be used in an overall assessment of potential mitigation options for the property, not as a tool for determining potential impacts as a result of quarrying.

The impact assessment will be incorporated within the Aggregate Resources Act application that will be filed for the purpose of obtaining a licence at the property. The Ministry will have the opportunity at that time to review the impact assessment and determine whether or not sufficient interpretation has been carried out on the property. In addition, there will be a requirement for St. Marys to obtain a long-term Permit to Take Water and Section 53 Certificate of Approval for discharge, both of which will require review and ultimate approval by the Ministry at that time.

As such, it remains unclear to us after our meeting how, when provided with the available information from both our consulting team and the Ministry's own technical review, the final decision to repeat the pumping test has been determined to be the best course of action. It is clear from the Ministry's own hydrogeological technical review that the Phase 1 technical report provided by St. Marys satisfied Condition 4.22, and that during the meeting on November 27, 2008 the Ministry's surface water technical reviewer also understood that their main concern over the groundwater/surface water interaction was not valid and did not need to be addressed in the Phase 1 report. This request remains particularly perplexing when examining the requirements for Phase 2 of the testing program. In that Phase, there is a need to pump the well for at least a 2 to 3 day period prior to the reintroduction of the water through the recharge system. This 2 to 3 day period will in essence act as a repeat of the first Phase of the program. It remains our position that the work carried out in July 2008 satisfied the conditions set forth in the Permit and, as such, a repeat of the first Phase of the program is not necessary, nor will it provide any additional information.

## **Next Steps**

St. Marys does not believe that any further data will be gained by repeating Phase 1 of the pumping test and therefore will not be repeating that Phase. Three separate pumping tests have been carried out on the site and doing another one will not garner any further useful information.

St. Marys plans to submit the ARA shortly as further data on the hydrogeology of the site is not required for this Application. This will allow all the agencies involved and the community to evaluate the merits of the project as a whole.

St. Marys recognizes that it will eventually have to apply for a long term Permit to Take Water and Section 53 Certificate of Approval for discharge once the land use has been approved, both of which will require review and approval by the Ministry of Environment at that time.

## Closure

Thank you again for taking the time to meet with us on November 27, 2008. The meeting was helpful in clarifying a number of issues and although we remain disappointed with the Ministry's position on our Phase 1 testing program, we will continue to strive to work closely with the Ministry in the future on this, and other projects in the Province.

Yours very truly,

ST. MARYS CEMÊNT INC. (CANADA)

John Moroz, P. Eng.

Vice President and General Manager