



October 31, 2013

Phyllis Beaulieu, Manager of Licensing  
Nunavut Water Board  
P.O. Box 119, Gjoa Haven NU X0B 1J0

Dear Ms. Beaulieu:

**Re: Baffinland Iron Mines Corporation (BIMC) - Submission of 2013 Annual Geotechnical Inspection, Water Licences Type 'A' No. 2AM-MRY1325 and Type 'B' 2BB-MRY1114**

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## **1. INTRODUCTION**

Under Part D, Item 19, of Baffinland Iron Mines Corporation (BIMC) Water Licences Type 'A' 2AM-MRY1325 and Type 'B' 2BB-MRY1114, there are requirements to conduct geotechnical inspections of specified Mary River Project (the 'Project') infrastructure. Part D, Item 19, of the Type 'A' Licence states that:

"The Licensee shall conduct inspections of the earthwork, geological regime, and the hydrological regime of the Project Biannually during the summer or as otherwise approved by the Board in writing. The inspection shall be conducted by a Geotechnical Engineer and the inspection report shall be submitted to the Board within sixty (60) days of the inspection, with a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations."

During 2013, the geotechnical field inspection was conducted by Barry H. Martin Consulting Engineer and Architect (Barry Martin) of Timmins, Ontario. The focus of the inspection was on Water Licence related infrastructure at its two main camp sites, known as the Mary River Mine Site and Milne Port Site Camps. Mr. Barry Martin was the design engineer of record for much of the Project infrastructure at the camps. Since 2008, as part of the Type 'B' Licence requirements, BIMC had retained Mr. Martin, then with GENIVAR Consultants to complete each of its annual Water License geotechnical inspections of infrastructure. Barry Martin was on the Project site August 29, 30, and 31, 2013. The 2013 report was completed and submitted to Baffinland on October 29. During the 2012 inspection, the containment structures reviewed at the respective camps included the following:

### **Mary River Mine Site Camp**

- Bulk Fuel Storage Facility Containment
- Generator Fuel Storage Facility Containment
- Polishing/Waste Stabilization Pond No.1
- Polishing/Waste Stabilization Ponds No.2 and No.3 (Constructed as a 2 cell structure)
- Helicopter Fuel Cell Containment
- Barrel Fuel Containment (Constructed as a 2 cell structures)
- Stove Oil Storage
- Enviro-Tank Storage (Constructed contiguous with hazardous waste storage and stove oil storage).
- Hazardous Waste Storage
- Jet fuel Tank and Pump Containment
- Solid Waste Disposal Site.

- Waste Oil Storage Containment

### **Milne Port Camp Site**

- Bulk Fuel Storage Facility Containment
- Polishing/Waste Stabilization Pond
- Barrel Fuel Storage (Constructed as a 2 cell structure)
- Hazardous Waste Storage (Constructed as a 2 cell structure)
- Oil and Antifreeze Containment
- Jet "A" Pump Containment
- 5M Litre Steel Fuel Storage Tank Containment, now expanded to contain 48.25 m litres.
- New Effluent Pond to accommodate the new camp.

Attached, herewith, is Barry Martin's 2013 geotechnical report which presents the 2013 findings and recommendations for the aforementioned structures. Sections 2.0 and 3.0 of this letter summarize Baffinland's plan for implementing Genivar's recommendations. In some cases, corrective actions were taken while Barry Martin was on site.

The recommendations as presented in the geotechnical report for infrastructure and the implementation plan for each are presented in Sections 2.0 and 3.0, below. Where this is no mention of particular infrastructure, there were no recommendations for same.

## **2. MARY RIVER MINE CAMP RECOMMENDATIONS**

- **Bulk Fuel Storage Facility Containment**

There was a minor concern at the load-out end of the facility where the gravel ramps over the berm had worn down and some gravel from the ramps had migrated into the loading area at the end of the dyke. Mr. Martin noted in his report that some gravel was removed while he was on site and that with the gravel removed, there are no further recommendations for this infrastructure.

- **Generator Fuel Storage Facility Containment**

There was a small amount of water ponded in the bottom of the containment at the time of the inspection. BIMC subsequently removed this water while Mr. Martin was at site and this was noted in his report.

Based on the need to contain 110 % of the bladder volume in the event of a fuel spill, the maximum volume of fuel permitted to be stored in the bladder in this facility as it is constructed, is 77,376 litres (76 cm height).

BIMC Action: BIMC will continue to control the amount of fuel to the stated volume as per current practice.

- **Polishing/Waste Stabilization Pond No. 1**

Some minor tears to the liner were noted at the top of the dyke likely originating from past activity. These tears were subsequently patched by Layfield Plastics in early September.



It was recommended that an elevation monitoring program on the top of the berm be continued during 2014.

BIMC Action: BIMC will ensure that one round of elevation monitoring measurements will be completed prior to the 2014 annual inspection.

- **Polishing/Waste Stabilization Pond Nos. 2 and 3**

It was recommended that an elevation monitoring program on the top of the berm be continued during 2014.

BIMC Action: BIMC will ensure that one round of elevation monitoring measurements will be completed prior to the 2014 annual inspection.

### **3. MILNE PORT CAMP RECOMMENDATIONS**

There were no recommendations made for infrastructure located at the Milne Port Camp based on the attached geotechnical inspection report.

We trust that this submittal satisfies the requirements the geotechnical requirements as outlined in our water licence. Should you have any questions, please do not hesitate to contact Jim Millard, Environmental Manager, at 902-403-1337 or by e-mail at [jim.millard@baffinland.com](mailto:jim.millard@baffinland.com).

Best Regards,

**Baffinland Iron Mines Corporation**

A handwritten signature in black ink, appearing to read "J. Millard", written over a horizontal line.

James Millard, M.Sc., P.Geo.  
Environmental Manager

Attach: Annual Geotechnical Inspection 2013, prepared by Barry Martin Consulting Engineer and Architect for BIMC, dated August 31, 2013.

cc. Stephen Bathory, (QIA)  
Justin Hack, Erik Allain (AANDC)  
Erik Madsen, Michael Anderson, Stephen Ranger (Baffinland)