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## LABRADOR IRON MINES ANNOUNCES 620 MILLION TONNE RESOURCE AT ELIZABETH NO. 1 TACONITE DEPOSIT

### Additional Potential of 350 to 600 million tonnes in Elizabeth No. 2

Toronto, Ontario, June 24, 2013. **Labrador Iron Mines Holdings Limited** (“LIM” or the “Company”) (TSX: LIM) is pleased to announce that its exploration efforts over the past two years have identified a large iron orebody hosted within its 100%-owned Elizabeth Taconite Project, leading to its first independent National Instrument 43-101 (“NI 43-101”) inferred mineral resource estimate of 620 million tonnes and exploration potential of 350 to 600 million tonnes<sup>1</sup>.

The Elizabeth Project is located in Western Labrador, approximately four kilometres (“km”) west of LIM’s currently producing James Mine, alongside existing infrastructure, including roads, rail bed and power line corridor.

In 2011 and 2012, LIM identified two parallel deposit areas at the Elizabeth Project by conducting airborne and ground geophysics over the region. LIM’s exploration drilling in 2012 was successful in defining an inferred mineral resource at Elizabeth No. 1 by completing five, HQ-sized diamond drill holes totalling 1,728 metres (“m”). Exploration drilling was also successful in identifying exploration potential in Elizabeth No.2, which is oriented in a parallel zone located immediately to the southwest of Elizabeth No.1.

LIM engaged George H. Wahl, P.Geo, of G H Wahl & Associates Consulting to carry out an independent resource estimation of the Elizabeth Taconite Project, which has confirmed an inferred mineral resource of 620 million tonnes at 31.8% iron (“Fe”) (refer to Table 1), as well as exploration potential (Table 2). The review of the data collection methodologies and quality assurance and quality control (“QA/QC”) results indicated that the database was appropriate for resource estimation. A NI 43-101 Technical Report containing the mineral resource estimate for the Elizabeth taconite deposit will be filed on SEDAR ([www.sedar.com](http://www.sedar.com)) within 45 days.

### Elizabeth Taconite Project Highlights

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- A **total inferred mineral resource of 620 million tonnes at 31.8% Fe** has been estimated within Elizabeth No. 1.
- A potential **350 million to 600 million tonnes at 31.9% Fe** has been estimated in Elizabeth No. 2<sup>1</sup>.
- The initial Elizabeth target measures approximately four km long and is made up of magnetite and hematite dominant zones. **There is significant potential for resource expansion, as the deposit remains open along strike to the northwest and southeast.**
- Results from Davis Tube test work have been extremely positive, indicating concentrate grades of greater than 68.8% Fe in the magnetite zones.
- The Elizabeth Project is situated next to the former producing Wishart mine, alongside existing roads, rail bed and power line corridor and is within five km of the town of Schefferville. LIM’s current direct shipping iron ore operations are located four km from the Elizabeth Project, with direct rail access to the Port of Sept-Îles.
- Airborne and ground geophysics have also highlighted the Gagnon taconite target, located in Québec, a few km from the Elizabeth Project.

*“The Elizabeth Project represents LIM’s first foray into taconite exploration and we are extremely pleased with the initial 620 million tonne inferred resource that was identified” commented Rod Cooper, LIM’s President and Chief Operating Officer. “There is outstanding potential for additional opportunities situated in close proximity to our existing infrastructure. While LIM will remain primarily a producer of direct shipping iron ore, the taconite targets represent a potential additional strategic value component on our extensive iron ore assets in the Labrador Trough.”*

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<sup>1</sup> The potential tonnage and grade in Elizabeth No. 2 is conceptual in nature; there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource. The range of tonnage has been outlined based on the lateral extent of ground and airborne magnetic and gravity anomalies, surface mapping and two drill holes intercepts, which define the width and estimated grade at the southeast extent of Elizabeth No. 2.

**Table 1: Elizabeth Taconite Mineral Resource Estimate (NI 43-101 compliant) as at June 15, 2013**

Inferred Mineral Resource	Zone Solids	Million Tonnes	Fe %	Satmagan % <sup>2</sup>	Al <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	SiO <sub>2</sub> %	Mn %	P %
Magnetite Taconite	200	410	32.8	29.2	0.08	1.8	2.1	43.6	0.8	0.01
Hematite Taconite	100; 300	210	29.8	3.4	0.6	0.9	2.6	39.3	1.15	0.04
<b>Total Inferred</b>	<b>100; 200; 300</b>	<b>620</b>	<b>31.8</b>	<b>20.5</b>	<b>0.3</b>	<b>1.5</b>	<b>2.3</b>	<b>42.1</b>	<b>0.9</b>	<b>0.02</b>

Note 1: Tonnage is based on dry tonnes. The resources are not reported within an economic pit shell. Based on a cut-off of 26% Fe for hematite taconite and 14% Satmagan for magnetite taconite.

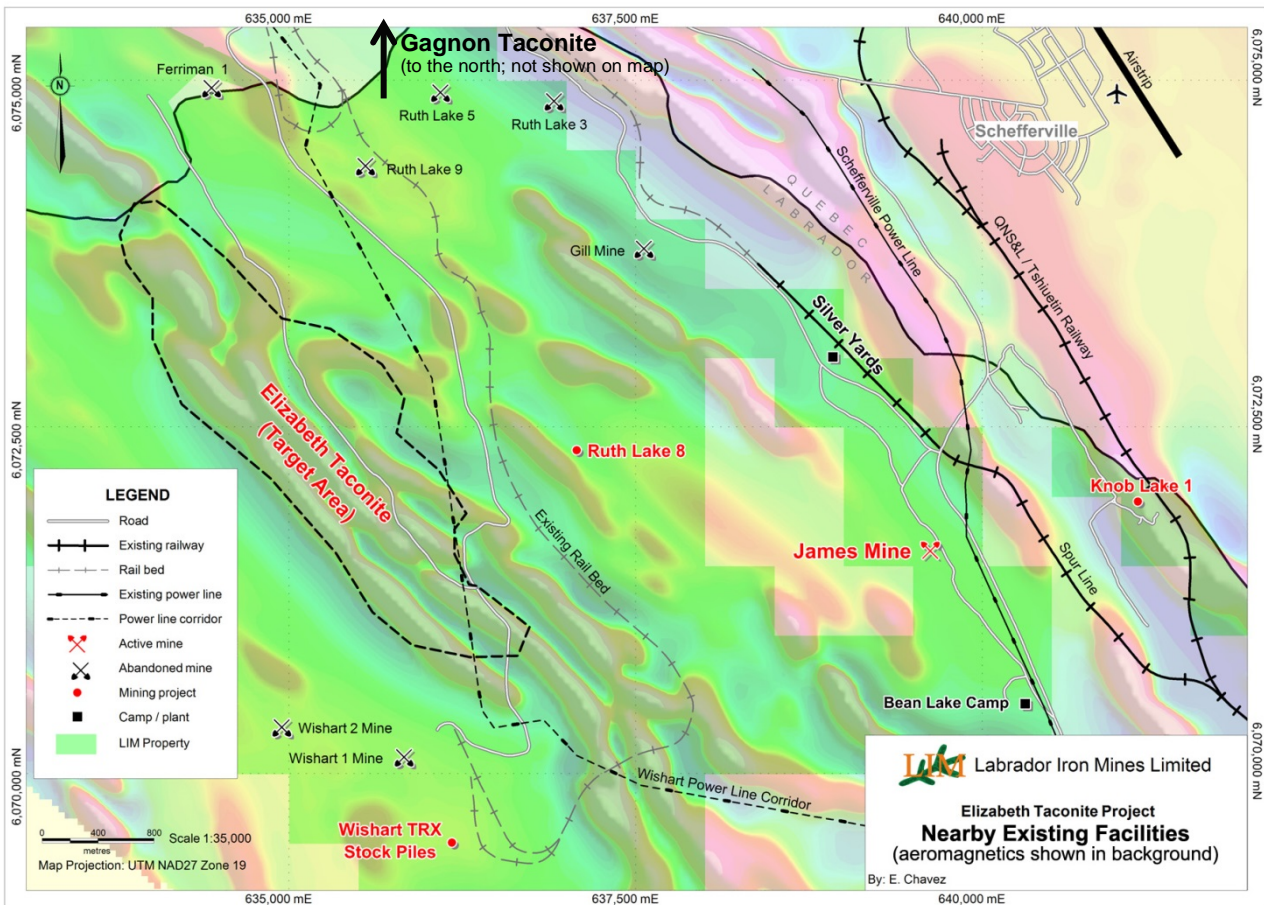
Note 2: Satmagan: Saturation magnetization analyzer – an instrument used for measuring the magnetic material (usually in the form of % magnetite) content of the sample.

## Elizabeth Project Overview

### Property Location

The Elizabeth Project is located in Western Labrador, approximately four km west of the currently producing James Mine. The location is advantageous, situated next to the former producing Wishart Mine and within five km of the town of Schefferville. The area also has direct access to existing roads, rail bed and power line corridor as shown in Figure 1 below. The Gagnon taconite target is situated in Québec, a few km northeast of the Elizabeth Project.

**Figure 1: Location Map of Property and Local Infrastructure**

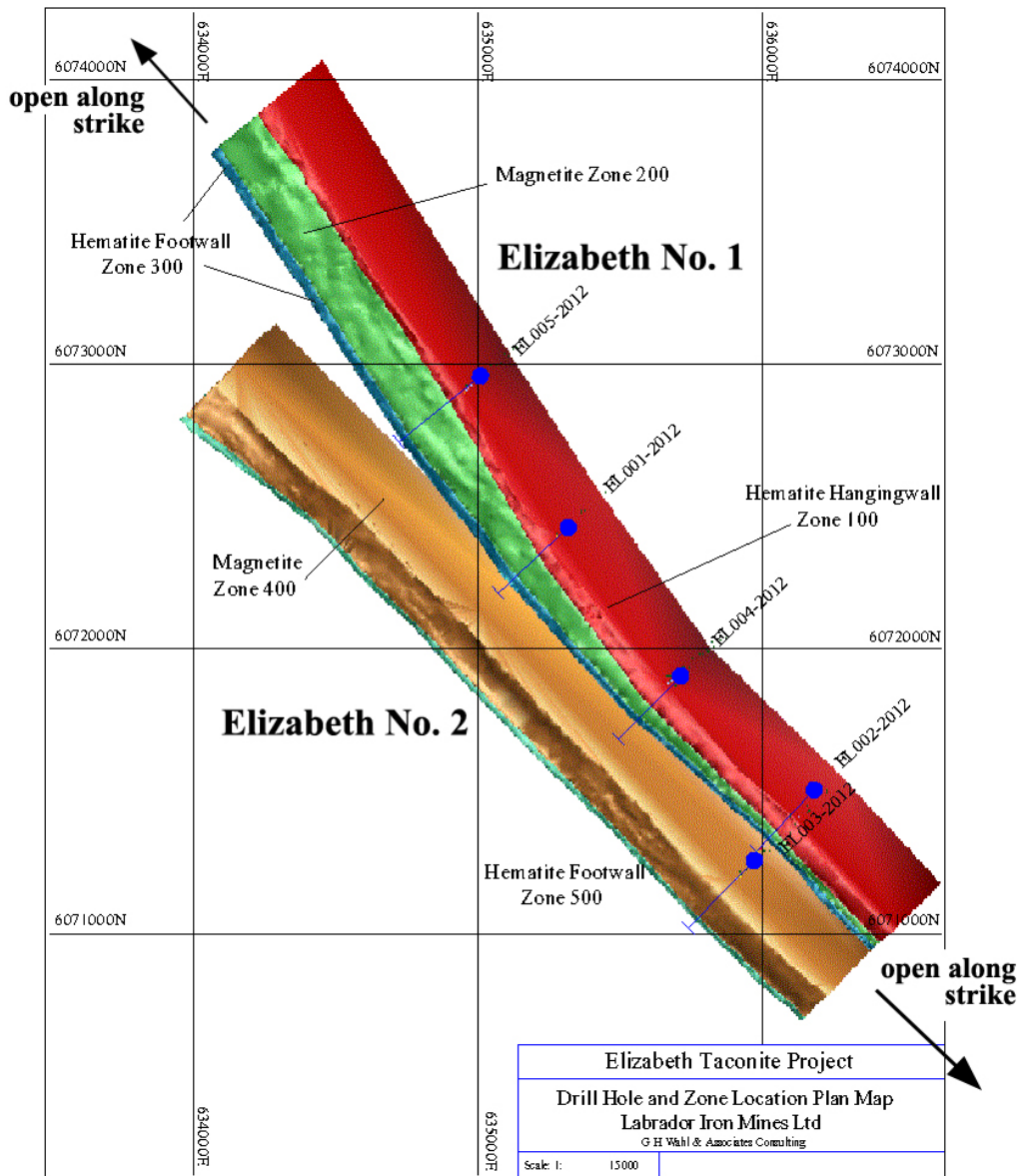


**Resource Overview**

The initial Elizabeth taconite target measures approximately four km long and is made up of magnetite and hematite dominant zones. The inferred mineral resource is contained in Elizabeth No. 1, which is considered attractive for potential mining with widths greater than 100 m at the north end, allowing for a low strip ratio. Drilling in 2012 has also defined a parallel zone immediately to the southwest, Elizabeth No. 2. While there is insufficient drilling to estimate a NI 43-101 mineral resource in this zone, potential tonnage and grade have been identified.

There is significant potential for resource expansion, as the Elizabeth taconite deposit areas remain open along strike to the northwest and the southeast. In addition, field mapping within both deposit areas and further widely-spaced drilling (300 to 600 metres) in Elizabeth No. 2 may contribute to future mineral resource expansions. Figure 2 provides a plan map of these zones and drill hole locations from the 2012 drill program.

**Figure 2: Plan Map – Elizabeth No. 1 and No. 2 and Drill Hole Locations**



**Potential Tonnage and Grade in Elizabeth No. 2**

Table 2 shown below provides an indication of potential tonnage within Elizabeth No. 2. The potential quantity and grade is conceptual in nature in that there has been insufficient exploration to define a mineral resource and that it is uncertain if further exploration will result in the target being delineated as a mineral resource. The range of tonnage has been outlined based on the lateral extent of ground and airborne magnetic and gravity anomalies, surface mapping and two drill holes intercepts (as shown in Figure 3), which define the width and estimated grade at the southeast extent of this zone.

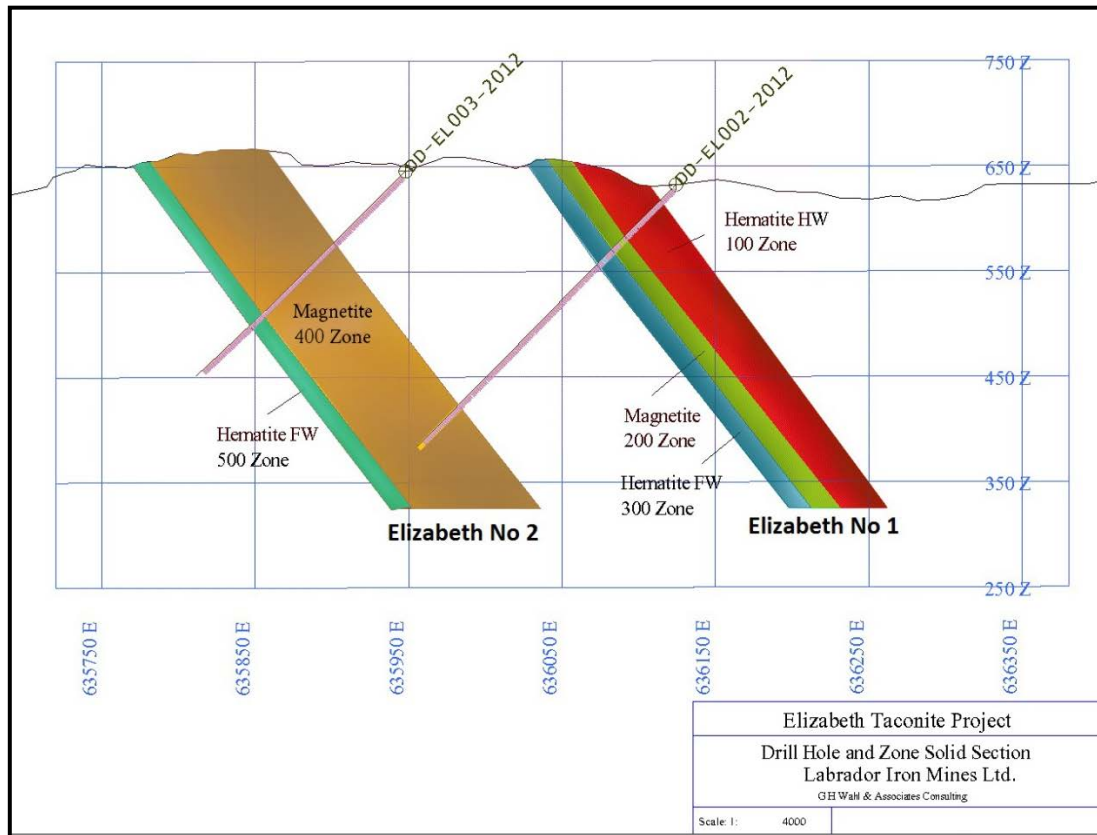
**Table 2: Potential Tonnages and Grades in Elizabeth No. 2<sup>1</sup>**

Potential Tonnage	Zone Solids	Million Tonnes	Fe %	Satmagan % <sup>2</sup>	Al <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	SiO <sub>2</sub> %	Mn %	P %
Magnetite Taconite	400	300 – 500	32.4	32.7	0.3	1.8	2.4	43.8	0.9	0.01
Hematite Taconite	500	50 – 100	29.5	1.4	0.3	1.0	4.0	34.6	1.6	0.05
Total Potential	400; 500	350 – 600	31.9	27.8	0.3	1.7	2.65	42.3	1.0	0.02

Note 1: Figures in Table 2 do not comprise NI 43-101 defined mineral resources; however, they do provide an inventory of exploration potential tonnage and grade per ore type. Based on a cut-off of 26% Fe for hematite taconite and 14% Satmagan for magnetite taconite.

Note 2: Satmagan: Saturation magnetization analyzer – an instrument used for measuring the magnetic material (usually in the form of % magnetite) content of the sample.

**Figure 3: Cross-section of Elizabeth Taconite Target (showing two drill hole intercepts in Elizabeth No. 2)**





### **Davis Tube Test Work**

Davis Tube results received to date have been positive, indicating that concentrate grades of greater than 68.8% Fe and weight recoveries of 25% to 37.9% may be achieved from the magnetite zones. Results have also indicated that the mean Davis Tube manganese oxide (MnO) head grade of 1.2% can be reduced to 0.145% in the Davis Tube concentrate, demonstrating that the magnetic separation can be effective in reducing the manganese grades to more easily saleable product grades.

### **Background History and Geology of the Elizabeth Taconite Project**

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The Elizabeth area was initially explored by a mapping program, which established the presence of a moderately dipping and broad thickness of Sokoman Iron Formation extending northeast through the deposit area.

The Sokoman Iron Formation, which is part of the Knob Lake Group and hosts the Elizabeth taconite, is the source for most of the iron mineral resources and reserves outlined in the Labrador Trough.

The Sokoman Iron Formation has been classified as Lake Superior Type consisting of alternating bands of hematite and/or magnetite with chert along with variable amounts of Fe-silicates, carbonates and sulphides.

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### **Quality Assurance / Quality Control (QA / QC)**

From the beginning of the 2008 RC drilling and trenching programs, LIM initiated a quality assurance and quality control protocol. The procedure includes the systematic addition of in-house blanks, in-house reference standards, field duplicates, and preparation laboratory duplicates to approximately each 25 sample batch sent for analysis at Actlabs facilities.

### **Analyses, Satmagan and Davis Tube Tests**

Analyses for all of the samples from the Elizabeth Taconite drilling program were carried out by Activation Laboratories (Actlabs). A total of 856 samples were collected for borate fusion whole rock X-Ray Fluorescence and Satmagan. An additional 11 composites were selected for Davis Tube test work completed by Actlabs and verified by SGS Lakefield.

### **Geological and Resource Model**

The geological model was based on a sectional interpretation of drill hole assay intercepts, in conjunction with historical surface geological mapping by the Iron Ore Company of Canada, as well as ground and airborne magnetic and gravity surveys completed for LIM in 2011 and 2012. Satmagan, Davis Tube and magnetic susceptibility data were used to domain separate hematite and magnetite dominant solids, which were interpolated separately.

The Elizabeth Taconite mineral resource estimate was completed using an inverse distance squared interpolation methodology.

### **Qualified Person**

The current resource estimate disclosed herein has been prepared by George H. Wahl, principal of G H Wahl & Associates Consulting, who is an Independent Qualified Person within the meaning of NI 43-101. This release has been prepared under the supervision of Michel Cormier, Vice-President, Exploration of the Company and a Qualified Person within the meaning of NI 43-101.

### **Technical Report**

A NI 43-101 compliant Technical Report, containing the Elizabeth taconite mineral resource estimate disclosed in this press release, will be filed on SEDAR ([www.sedar.com](http://www.sedar.com)) within 45 days.

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### **About Labrador Iron Mines Holdings Limited (LIM)**

Labrador Iron Mines (LIM) is Canada's newest iron ore producer with a portfolio of direct shipping (DSO) iron ore operations and projects located in the prolific Labrador Trough. Initial production commenced at the James Mine in June 2011, and through 2012, iron ore sales have totalled 2.0 million dry tonnes in 13 shipments into the Chinese spot market.

Now in its third year of operations, LIM recently completed its first shipment of iron ore for the year in June and is targeting 1.75 to 2.0 million tonnes of saleable iron ore production in 2013.

The James Mine is connected by a direct rail link to the Port of Sept-Îles, Québec. The operation also benefits from established infrastructure including the town, airport, hydro power and railway service. Starting with the James Mine and leading to the development of the expanding Houston flagship project, LIM's objective is to provide shareholders with long-term value with a plan to increase production towards 5 million tonnes per year from its iron ore deposits in Labrador and Quebec, all within 50 kilometres of the town of Schefferville.

**LIM is currently the only independently-owned Canadian iron ore producer listed on the Toronto Stock Exchange and trades under the symbol LIM.**

For further information, please visit LIM's website at [www.labradorironmines.ca](http://www.labradorironmines.ca) or contact:

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### **Cautionary Statements:**

*Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that mineral resources will be converted into mineral reserves.*

*The potential tonnage and grade referred to in this press release is conceptual in nature; there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.*

*The terms "iron ore" and "ore" in this document are used in a descriptive sense and should not be considered as representing current economic viability.*

### **Forward Looking Statement:**

*Some of the statements contained in this Press Release may be forward-looking statements which involve known and unknown risks and uncertainties relating to, but not limited to, the Company's expectations, intentions, plans and beliefs. Forward-looking information can often be identified by forward-looking words such as "anticipate", "believe", "expect", "goal", "plan", "intend", "estimate", "may" and "will" or similar words suggesting future outcomes, or other expectations, beliefs, plans, objectives, assumptions, intentions or statements about future events or performance. Forward-looking information may include reserve and resource estimates, estimates of future production, unit costs, costs of capital projects and timing of commencement of operations, and is based on current expectations that involve a number of business risks and uncertainties. Factors that could cause actual results to differ materially from any forward-looking statement include, but are not limited to, failure to establish estimated resources and reserves, the grade and recovery of ore which is mined varying from estimates, capital and operating costs varying significantly from estimates, delays in obtaining or failures to obtain required governmental, environmental or other project approvals, delays in the development of projects, changes in exchange rates, fluctuations in commodity prices, inflation and other factors. Forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results to differ materially from expected results. There can be no assurance that the Company will be successful in maintaining any agreement with any First Nations groups who may assert aboriginal rights or may have a claim which affects the Company's properties or may be impacted by the Schefferville Projects. Shareholders and prospective investors should be aware that these statements are subject to known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those suggested by the forward-looking statements. Shareholders and prospective investors are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and various future events will not occur. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking information whether as a result of new information, future events or other such factors which affect this information, except as required by law.*