Independent metallurgical tests of LIM’s James deposit show positive results

For Immediate Release

TORONTO, ONTARIO. November 24, 2009. Labrador Iron Mines Holdings Limited (TSX: LIM) announces that it has received results of chemical, physical and metallurgical testing of its James South lump and sinter fines ore which showed excellent metallurgical characteristics that should be attractive to steel mills.

The testing was conducted by SGA (Studien-Gesellschaft für Eisenerz-Aufbereitung) research centre in Germany, an independent process laboratory specializing in iron and steel process testwork.

Bill Hooley, President of LIM commented, “We are very pleased with the results from these metallurgical tests carried out by the noted independent laboratory SGA. We are confident that iron ore products of this quality will find a ready market in both Europe and the Far East”.

The James deposit, which is located within a short distance of the Silver Yard marshalling area, is largely pre-stripped and ready for mining and is the first of four deposits in LIM’s Phase One production plan due to commence in mid-2010.

James South - Lump Ore
The results of the James South lump ore sample indicate that the iron content is high at 66.98%, while the content of non-ferrous metals, manganese, phosphorus, sulfur, alkaline materials, titanium and vanadium are favourably low.

The high reducibility was evaluated as being superior to the typical ore grades available on the European market. In addition, the physical testing of the lump ore resulted in a favourable size distribution with a low amount of fines. The tumbler test revealed well acceptable strength and abrasion for lump ores.

SGA concludes: “High reducibility was evaluated for James South being superior to other ore grades on the European market. In summary, it can be stated that James South ore represents a high quality lump ore grade which will be well accepted on the European market.”

James South - Sinter Fines
Three series of tests were performed to evaluate the sintering behavior of the fines measuring above 0.3mm. The iron content of the hematitic sample was analyzed at 67.23% with favourably low acidic gangue contents of silicon dioxide and aluminum oxide in addition to very low levels of manganese, titanium and vanadium.

The portion of fines smaller than 0.3mm was only 1.7% which is expected to have a positive effect on sinter productivity.
SGA concludes: “In summary, it can be stated that the tested sample showed excellent sintering behavior, clearly improving sintering productivity and metallurgical properties of the sinters. The high iron content and low gangue as well as the low portion of fines determine the high quality of this ore grade. Such fines will be well accepted in the market.”

Chemical Analysis

SGA reported the following chemical analysis for the two samples:

<table>
<thead>
<tr>
<th></th>
<th>Total Fe (%)</th>
<th>SiO₂ (%)</th>
<th>Al₂O₃ (%)</th>
<th>P (%)</th>
<th>Mn (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>James Deposit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lump</td>
<td>66.98</td>
<td>1.81</td>
<td>0.17</td>
<td>0.02</td>
<td>0.09</td>
</tr>
<tr>
<td>Sinter (+0.3mm)</td>
<td>67.23</td>
<td>1.49</td>
<td>0.17</td>
<td>0.02</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Qualified Person

Information of a scientific or technical nature contained in this release has been prepared by or under the supervision of D. William Hooley, FAusIMM, President and Chief Operating Officer of the Corporation and a Qualified Person within the meaning of National Instrument 43-101 of the Canadian Securities Administrators.

Labrador Iron Mines Holdings Limited (LIM)

LIM’s Schefferville area project involves the development of eight direct shipping iron ore deposits in Western Labrador near Schefferville, Quebec. The Company’s properties are part of the historic Schefferville area iron ore district where mining of adjacent deposits was previously carried out by the Iron Ore Company of Canada from 1954 to 1982. Labrador Iron Mines plans mining in three phases, the first stage comprising the James and Redmond deposits, which are located in close proximity to existing infrastructure. The Company plans to commence iron ore production in the summer of 2010.

For further information, please view the Company’s website at www.labradorironmines.ca or contact:

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