



Labrador Iron Mines Holdings Limited

PRESS RELEASE

LIM announces new Resource Estimates for the Houston Deposit

For Immediate Release

Toronto, Ontario. April 8, 2010. **Labrador Iron Mines Holdings Limited** (TSX: LIM) is pleased to report new resource estimates, prepared in accordance with NI 43-101, for its 100% owned Houston deposit located close to the town of Schefferville, which comprises part of LIM's Stage 1 direct shipping iron ore project located in western Labrador and north-eastern Quebec.

The new resource estimates for Houston, combined with the previously announced resource estimates for the James and Redmond deposits (see LIM press release dated November 12, 2009), brings the total Measured and Indicated (NI 43-101 compliant) resource for LIM's Stage 1 deposits to 25.71 million tonnes at a grade of 58.5% Fe.

LIM's resource estimates for the Houston deposit total 14.68 million tonnes at a grade of 59.3% iron in the Measured and Indicated categories and 1.5 million tonnes of resources have been classified in the Inferred category. A further 0.831 million tonnes of manganiferous iron resources have been classified in the Measured and Indicated categories.

The new estimates show a significant increase in tonnage over the historical resources (not NI 43-101 compliant), previously estimated by the Iron Ore Company of Canada (IOC) prior to 1982.

New Resource Estimate Houston Deposit

(at 50% Fe cut-off)

Category	New resource (Million tonnes)	Grade (% Fe)	Historical resource (Million tonnes)
Measured	8.029	59.7	
Indicated	6.656	58.8	
Total M+I	14.684	59.3	9.114
Inferred	1.498	57.0	
Manganiferous	0.831	54.3	

Commenting on the Houston resource estimates, John F. Kearney, Chairman and CEO of Labrador Iron Mines said, *"The new resource estimates for Houston have indicated a substantial increase in tonnage over the historic estimates for this deposit. This is of particular significance as the increase will extend the expected life of our Stage 1 project. The Houston deposit remains open to the northwest and southeast and to depth."*

The resource estimates have been prepared under the supervision of Terence N. McKillen, P.Geo, in accordance with NI 43-101. The classification of resources was completed using results of drilling and trenching carried out by LIM during the 2006, 2008 and 2009 field seasons, which comprised twinning,

in-fill and step-out drilling and trenching, as well as drill and trench data previously conducted by IOC. The resource estimates were prepared in-house by LIM and are therefore not independent.

Houston Deposit

The Houston deposit is located in Labrador, approximately 8kms east of LIM's Redmond deposit currently under development, and 5kms east of the main Schefferville-Sept-Iles rail line.

The resource estimates for the Houston deposit are based on 4,181 metres of drilling in 63 holes, 554 metres of trenching and 1,449 samples carried out by LIM, in addition to 4,418 metres of drilling in 84 holes, 6,900 metres of trenching and 3,571 samples previously carried out by IOC and are shown in the following tables.

***Houston Deposit - NI 43-101 Compliant Iron Resources
(Direct Shipping Resource)
(at 50% Fe cut-off)***

Type	Classification				
		Tonnes (x1,000)	SG	Fe%	SiO2%
NB-LNB	Measured	6,700	3.52	61.12	8.58
	Indicated	5,274	3.51	60.40	9.61
	Inferred	1,004	3.48	59.17	11.43
HSiO2	Measured	1,329	3.33	52.64	21.33
	Indicated	1,382	3.33	52.71	21.08
	Inferred	494	3.32	52.55	21.19
Total	M + I	14,684	3.48	59.30	11.28
	Inferred	1,498	3.43	56.99	14.65

Houston Deposit - NI 43-101 Compliant Manganiferous Iron Resources

Classification	Tonnes (x1,000)	Fe%	SiO ₂ %	Mn%
Measured	480	54.2	8.8	5.8
Indicated	351	54.4	9.5	5.0
Total	831	54.3	9.1	5.5

Cautionary Note

Mineral resources are not mineral reserves and have not demonstrated economic viability. No dilution or recovery factors have been applied. There is no guarantee that mineral resources will be converted into mineable reserves. LIM has not completed an economic feasibility study on the Houston deposit or the Labrador Project. The Houston deposit is not part of LIM's Phase 1 Schefferville Area Iron Ore Project on which the Environmental Assessment has been completed.

Block Modeling

LIM used Gemcom GEMS 6.2.3 software for the resource estimation. The ordinary kriging interpolation method was used to estimate the resources by block modeling with block sizes of 5x5x5 metres and block rotation of 45.6° which corresponds to the general strike of the deposit. LIM used the geological and ore models interpreted in plane and in sections. LIM used different search ellipses derived from 3D semi-variogram analyses for the classification of the resources.

Analyses

Analyses for all of the samples from the 2006, 2008 and 2009 drilling and trenching programs were carried out by SGS-Lakefield Laboratory and/or by Activation Laboratories. The analytical method used was borate fusion whole rock X-Ray Fluorescence.

Density

A variable specific gravity (density) was used for the modeled ore types. LIM used the following equation: $SG (in-situ) = (2.3388 + Fe \times 0.0258) * 0.9$. The regression formula was calculated by LIM based upon 229 specific gravity tests which is considered a conservative measure of density.

Qualified Person

Information of a scientific or technical nature contained in this release has been prepared by or under the supervision of Terence McKillen, P.Geo., Executive Vice President 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 twenty direct shipping iron ore deposits in western Labrador and north-eastern Quebec 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 contemplates mining in four stages, the first phase of Stage 1 comprising the James and Redmond deposits, which are located in close proximity to existing infrastructure. The Company plans, subject to timely receipt of permits, to commence iron ore production in mid-2010.

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

John F. Kearney
Chairman and Chief Executive
Tel: (647)728-4105

Donna Yoshimatsu
Vice-President, Investor Relations
Tel: (647) 728-4119
E-mail: Yoshimatsu.d@labradorironmines.ca

Cautionary Statements:

Some of the statements contained herein may be forward-looking statements which involve known and unknown risks and uncertainties. Without limitation, statements regarding potential mineralization and resources, exploration results, and future plans and objectives of the Company are forward looking statements that involve various degrees of risk. The following are important factors that could cause the Company's actual results to differ materially from those expressed or implied by such forward looking statements: changes in the world wide price of mineral commodities, general market conditions, the uncertainty of future profitability and access to additional capital, risks inherent in mineral exploration and risks associated with development, construction and mining operations, delays in obtaining or failures to obtain required governmental, environmental or other project approvals. Caution should be exercised on placing undue reliance on forward looking information.