



**New Mineralized Extension at LIM’s Houston Deposits
Increases Houston Resource to 20 Million Tonnes**

For Immediate Release

Toronto, Ontario. February 11, 2011. **Labrador Iron Mines Holdings Limited** (TSX: LIM) is pleased to report a new resource estimate for its 100% owned Houston deposits located in western Labrador following the 2010 exploration drilling program. The new resource estimate of 19,499,000 million tonnes of measured and indicated resources represents a significant increase over previous estimates.

Commenting on the increased resource estimate at the Houston deposits, **John F. Kearney, Chairman and CEO** of Labrador Iron Mines said, “As a result of the exploration success and this significant increase, the Houston deposits are now of sufficient tonnage to merit evaluation of a stand-alone operation. We are now assessing the development of a new separate “South Central Zone”, with its own dedicated processing plant, which, subject to environmental assessment, permitting and detailed engineering, could be brought into production in 2013 at a rate of 2 to 3 million tonnes per year. This would be in addition to LIM’s existing processing plant at Silver Yards scheduled to start-up in April and which with planned expansions will have a similar design capacity.”

The Houston 1, 2 and 3 deposits comprise 12 mineral rights licenses representing 112 mineral claim units that cover approximately 2,800 hectares, situated 15 km south-east of LIM’s James Mine and Silver Yards processing area and approximately 20 km from the town of Schefferville, Quebec. The Houston deposits form part of the Stage 1 planned production at LIM’s Schefferville area direct shipping iron ore projects.

The new estimate, prepared in accordance with NI 43-101, represents an increase in tonnage of over 25% from the previous NI 43-101 estimate announced in April 2010 and more than double the historical resource (not NI 43-101 compliant) previously estimated by the Iron Ore Company of Canada (IOC) prior to 1982. The new resource also includes about one million tonnes of mangiferous ore (Mn) grading about 54.4% Fe and 5% manganese.

The Houston Deposits –Resource Summary – February 2011(See attached table for details)

Class		43-101 (February 2011)				43-101 (April 2010*)				Historical 1982			
		Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %
Fe – Ore	M+IND	18,582	58.7	0.7	12.2	14,684	59.3	0.6	11.3	9,114	57.4	-	7.1
	INF	1,014	56.3	1.0	15.9	1,498	57.0	0.8	14.7	-	-	-	-
Mn -Ore	M+IND	917	54.4	5.4	9.2	831	54.3	5.5	9.1	-	-	-	-
	INF	10	53.2	4.5	11.5	47	54.0	4.6	10.3	-	-	-	-
TOTAL	M+IND	19,499	58.3	0.9	12.3	15,515	59.0	0.9	11.2	9,114	57.4	-	7.1
	INF	1,024	55.8	1.0	16.5	1,545	56.9	0.9	14.5	-	-	-	-

• Technical Report filed on SEDAR on May 25, 2010.

The updated resource estimate for the Houston deposits are based on an additional 1,804 metres of drilling in 26 holes and 625 samples carried out by LIM in 2010. The majority of the additional resource has resulted from the drilling of a new mineralized zone located between the Houston 1 and 2 deposits, as well as in-fill drilling within the deposit outlines during 2010. The Houston deposits remain open along strike particularly to the southeast and further drilling is planned on Houston 3 during 2011.

The classification of resources was completed using the results of drilling and trenching carried out by LIM during the 2006 to 2010 field seasons, which comprised twinning, in-fill and step-out drilling and trenching, as well as drill and trench data previously obtained by IOC.

Block Modeling

LIM used Gemcom GEMS 6.4.2.1 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 matches with 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 to 2010 drilling and trenching programs were carried out by SGS-Lakefield Laboratory and Activation Laboratories. The analytical method used was borate fusion whole rock X-Ray Fluorescence.

Qualified Person

The resource estimates and 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. A Technical Report will be filed on SEDAR within the required timeframe.

About 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 stages, the first phase of Stage 1 comprising the James and Redmond deposits, which are located in close proximity to existing infrastructure, where construction is being completed and mine start-up is planned to commence in Spring 2011.

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 iron ore and steel, 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 reach agreements with any potentially impacted aboriginal groups or to obtain required governmental, environmental or other project approvals. There can be no assurance that the Company will be successful in reaching 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 Area project. Caution should be exercised on placing undue reliance on forward looking information.

Table Attached to LIM Press Release Feb 11, 2011
Houston Deposits - NI 43-101 Compliant Direct Shipping Resources – Feb 2011

Classification	Area	Ore Type	Tonnes (x 1000)	Fe%	Mn%	SiO ₂ %
Measured + Indicated	Houston 1	LNB-NB	4,970.6	61.1	0.7	8.8
		HiSiO ₂	1,277.7	52.8	0.6	21.1
		LMN-HMN	510.8	54.8	5.4	8.8
		Total	6,759.1	59.0	1.0	11.1
	Houston 2N	LNB-NB	55.2	60.2	0.6	11.6
		HiSiO ₂	116.9	52.4	0.6	22.8
		LMN-HMN	9.0	44.8	10.7	13.4
		Total	181.1	54.4	1.1	18.9
	Houston 2S	LNB-NB	5,989.0	60.3	0.7	10.1
		HiSiO ₂	2,565.5	52.6	0.8	21.5
		LMN-HMN	144.2	56.0	4.8	9.5
		Total	8,698.7	58.0	0.8	13.4
	Houston 3	LNB-NB	3,013.6	59.4	0.9	10.0
		HiSiO ₂	593.8	52.6	0.7	20.9
		LMN-HMN	253.0	52.6	5.3	10.2
		Total	3,860.4	57.9	1.2	11.7
Total			19,499.3	58.3	0.9	12.3
Inferred	Houston 1	LNB-NB	80.7	58.2	0.6	13.0
		HiSiO ₂	86.9	52.4	0.5	20.4
		LMN-HMN	4.2	54.7	4.2	10.6
		Total	171.9	55.2	0.7	16.7
	Houston 2N	LNB-NB	-	-	-	-
		HiSiO ₂	0.4	50.8	0.8	24.3
		LMN-HMN	-	-	-	-
		Total	0.4	50.8	0.8	24.3
	Houston 2S	LNB-NB	335.9	59.4	1.0	12.0
		HiSiO ₂	298.1	52.5	1.3	21.2
		LMN-HMN	-	-	-	-
		Total	634.0	56.2	1.1	16.3
	Houston 3	LNB-NB	107.6	58.3	1.0	12.4
		HiSiO ₂	104.3	52.6	0.6	21.6
		LMN-HMN	5.3	50.6	4.3	12.8
		Total	217.2	55.3	0.9	16.8
Total			1,023.5	55.8	1.0	16.5

Ore Types	Ore Colours	T_Fe%	T_Mn%	SiO ₂ %	Al ₂ O ₃ %
NB (Non-bessemer)	Blue, Red, Yellow	>=55	<3.5	<10	<5
LNB (Lean non-bessemer)	Blue, Red, Yellow	>=50	<3.5	<18	<5
HiSiO ₂ (High Silica)	Blue	>=50	<3.5	18-30	<5
HMN (High Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50	>=6	<18	<5
LMN (Low Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50	3.5-6	<18	<5

- LIM resource definitions includes Hi-SiO₂ ores (>=50% Fe <=30% SiO₂ dry basis)
- The original IOC ore definition was: >=50% Fe, <=18% SiO₂ dry basis.
- A variable specific gravity (density) was used for the modeled ore blocks using the following equation previously calculated by LIM based upon 229 specific gravity tests: $SG = (2.3388 + Fe \times 0.0258) \times 0.9$
- Blue ores, which are composed mainly of the minerals hematite and martite, are generally coarse grained and friable. They are usually found in the middle section of the iron formation.
- Yellow ores, which are made up of the minerals limonite and goethite, are located in the lower section of the iron formation in a unit referred to as the “silicate carbonate iron formation” or SCIF.
- Red ore is predominantly a red earthy hematite. It forms the basal layer that underlies the lower section of the iron formation. Red ore is characterized by its clay and slate-like texture.