



Independent review of Houston deposits increases resource estimate to over 22 million tonnes

For Immediate Release

Toronto, Ontario. March 29, 2011. **Labrador Iron Mines Holdings Limited** (TSX: LIM) is pleased to report that an independent resource estimate of the Houston deposits has increased the Measured and Indicated resource estimate to in excess of 22 million tonnes, from the 19.5 million tonnes previously reported by the Company.

This independent review of the Houston deposits, part of LIM’s direct shipping iron ore projects in Western Labrador and North-Eastern Quebec near Schefferville, was carried out by Maxime Dupéré, P. Geo of SGS Canada Inc (“SGS”) who is a Qualified Person and independent of LIM within the meaning of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators. The SGS Technical Report has been filed on SEDAR and can be viewed on the Company’s website.

SGS conducted its review using the same data and block model as that utilized by the Company in its in-house report on the Houston resource estimate dated February 11th, 2011 (See LIM Press Release February 11th, 2011). SGS used different interpolation and classification parameters, which resulted in a 13% increase in the total tonnage and a slightly lower (<1%) iron grade. The increase in tonnage was more significant in the Measured category.

A summary of the new resource estimate compared to that previously reported by the Company is shown in the table below. The detailed resource estimate is shown in the Appendix to this release.

Ore Type	Classification	SGS (March 2011)				LIM (February 2011)			
		Tonnes x 1000	Fe%	Mn%	SiO2%	Tonnes x 1000	Fe%	Mn%	SiO2%
Fe Ore	Measured	17,800	57.9	0.8	12.9	9,873	59.2	0.6	11.5
	Indicated	3,340	55.7	0.9	16.7	8,710	57.7	0.8	13.6
	Inferred	690	54.9	0.8	18.2	1,014	55.9	1.0	16.5
Mn Ore	Measured	900	53.6	5	10.6	566	54.2	5.7	9.0
	Indicated	130	52.7	5.1	11.2	351	54.5	4.8	9.8
	Inferred	0	0	0	0	10	52.4	4.3	11.8
TOTAL	Measured	18,700	57.7	1.0	12.8	10,439	58.9	0.9	11.3
	Indicated	3,470	55.6	1.1	16.5	9,060	57.6	1.0	13.5
	Inferred	690	54.9	0.8	18.2	1,024	55.8	1.0	16.5
Measured + Indicated		22,170	57.4	1.0	13.4	19,499	58.3	0.9	12.3

Commenting on this independent resource estimate at the Houston deposits, John F. Kearney, Chairman and CEO of Labrador Iron Mines said, *"It is particularly encouraging that this independent review has confirmed a larger resource at what is becoming one of LIM’s major deposits. This SGS review reinforces our plans to initiate detailed design and engineering studies to evaluate the options of a new processing plant to treat ore from the Houston deposits."*

The Houston deposits remain open along strike particularly to the southeast and SGS has made recommendations for further drilling to test these possible extensions.

Qualified Person

This release has been prepared under the supervision of Bill Hooley, BSc(Eng), FAusIMM, President, Chief Operating Officer and a Director of the Company who is a Qualified Person within the meaning of NI 43-101. The resource estimate disclosed herein has been prepared by Maxime Dupéré, P. Geo of SGS Canada Inc. who is a Qualified Person within the meaning of NI 43-101.

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, and for which all operating permits have been issued and plant construction and mine development is nearing completion.

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

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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.

Appendix

Houston Deposits – SGS NI 43-101 Compliant DSO Resources March 25, 2011

Area	Ore Type	Classification	Tonnage	SG	Fe(%)	MN(%)	SiO2(%)
Houston 1	HiSiO2	Measured (M)	1,300,000	3.3	52.7	0.8	21.0
Houston 1	LMN-HMN	Measured (M)	470,000	3.4	54.4	4.9	10.3
Houston 1	LNB-NB	Measured (M)	5,210,000	3.5	59.8	0.8	10.2
Houston 2N	HiSiO2	Measured (M)	20,000	3.3	52.2	0.4	22.7
Houston 2N	HMN-LMN	Measured (M)	-	0.0	0.0	0.0	0.0
Houston 2N	LNB-NB	Measured (M)	20,000	3.5	60.1	0.4	11.6
Houston 2S	HiSiO2	Measured (M)	2,300,000	3.3	52.4	0.8	21.2
Houston 2S	HMN-LMN	Measured (M)	50,000	3.4	56.2	4.5	9.7
Houston 2S	LNB-NB	Measured (M)	5,250,000	3.5	59.8	0.6	10.6
Houston 3	HiSiO2	Measured (M)	630,000	3.3	52.7	0.6	21.0
Houston 3	HMN-LMN	Measured (M)	380,000	3.3	52.3	5.2	11.0
Houston 3	LNB-NB	Measured (M)	3,070,000	3.5	58.6	1.1	10.1
			18,700,000	3.4	57.7	1.0	12.8
Houston 1	HiSiO2	Indicated(I)	290,000	3.3	52.9	0.4	21.3
Houston 1	LMN-HMN	Indicated(I)	-	3.3	52.4	5.3	13.7
Houston 1	LNB-NB	Indicated(I)	620,000	3.5	59.5	0.6	12.1
Houston 2N	HiSiO2	Indicated(I)	20,000	3.3	53.2	0.7	21.4
Houston 2N	HMN-LMN	Indicated(I)	-	0.0	0.0	0.0	0.0
Houston 2N	LNB-NB	Indicated(I)	30,000	3.5	60.1	0.6	12.0
Houston 2S	HiSiO2	Indicated(I)	880,000	3.3	52.1	0.9	22.2
Houston 2S	HMN-LMN	Indicated(I)	-	0.0	0.0	0.0	0.0
Houston 2S	LNB-NB	Indicated(I)	690,000	3.5	58.4	1.0	13.0
Houston 3	HiSiO2	Indicated(I)	290,000	3.3	52.4	0.7	21.3
Houston 3	HMN-LMN	Indicated(I)	130,000	3.3	52.7	5.1	11.2
Houston 3	LNB-NB	Indicated(I)	520,000	3.4	57.0	1.4	12.8
			3,470,000	3.4	55.6	1.0	16.5
Houston 1	HiSiO2	Inferred	50,000	3.3	52.4	0.6	21.3
Houston 1	LMN-HMN	Inferred	-	3.2	48.8	7.7	15.8
Houston 1	LNB-NB	Inferred	70,000	3.5	58.3	0.5	13.5
Houston 2N	HiSiO2	Inferred	30,000	3.3	51.7	0.8	23.7
Houston 2N	HMN-LMN	Inferred	-	0.0	0.0	0.0	0.0
Houston 2N	LNB-NB	Inferred	-	3.5	58.3	0.9	14.6
Houston 2S	HiSiO2	Inferred	150,000	3.3	52.3	1.1	21.3
Houston 2S	HMN-LMN	Inferred	-	0.0	0.0	0.0	0.0
Houston 2S	LNB-NB	Inferred	200,000	3.4	57.4	1.0	14.8
Houston 3	HiSiO2	Inferred	130,000	3.3	52.8	0.5	21.0
Houston 3	HMN-LMN	Inferred	-	0.0	0.0	0.0	0.0
Houston 3	LNB-NB	Inferred	60,000	3.4	57.0	0.6	16.0
			690,000	3.4	54.9	0.8	18.2

Measured (M)	18,700,000	3.4	57.7	1.0	12.8
Indicated(I)	3,470,000	3.4	55.6	1.0	16.5
M+I	22,170,000	3.4	57.3	1.0	13.4

Inferred	690,000	3.4	54.9	0.8	18.2
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Ore Types	Ore Colours	T_Fe%	T_Mn%	SiO2%	Al2O3%
NB (Non-bessemer)	Blue, Red, Yellow	>=55	<3.5	<10	<5
LNB (Lean non-bessemer)	Blue, Red, Yellow	>=50	<3.5	<18	<5
HiSiO2 (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.*