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PRESS RELEASE

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BAFFINLAND REPORTS IMPRESSIVE ASSAY RESULTS FROM THE 2008 DRILL PROGRAM AT ITS MARY RIVER IRON ORE DEPOSITS

TORONTO, ONTARIO – **February 23, 2009** – Baffinland Iron Mines Corporation (“Baffinland” or the “Company”) released today the assay results from the Company’s 2008 advanced exploration program on its wholly-owned Mary River Iron Ore Deposits, Baffin Island, Nunavut Territory, Canada.

The 2008 core drilling, all on Deposit No. 1, totalled 5,071 metres in 27 holes (not including the conclusion of MR1-07-136). About half of the holes were drilled at a flat angle (less than 20 degrees) and the program was designed to improve confidence levels of Deposit No. 1, particularly in the upper 250 metres of the deposit.

Fifteen of holes (MR1-08-142 to 144, 146 to 148, 150 to 153 and 155 to 159) were drilled on the northern limb to better define the zone and the distribution of deleterious elements. As previously discussed, high levels of deleterious elements will generally occur along the footwall contact and at the contacts of internal waste zones.

Moving northerly to southerly, five of the holes (MR1-08-161, 163, 166, 140 and 145) were all drilled at low angles to test the upper zone of the deposit. On the south limb, the remaining seven holes (MR1-08-141, 149, 154, 160, 162, 163 and 164) tested this limb where the topography makes drilling a challenge within this part of the deposit. As noted in the Definitive Feasibility Study release in February 2008, there remains some 22 million tonnes of inferred resources within the limb.

The 2008 drilling intersected a cumulative 2,680 metres of 66% iron. The highlight of the drill program was hole MR1-08-154 that cut a true width of more than 196 metres grading 66.5% iron. Importantly, the hole increased the width of the south limb by more than 35 metres. Drilling on this part of the deposit limb remains open.

“Prior to starting the drilling of Deposit No.1 we rebuilt our salt mixing station in order to obtain better quality control of the brine. As a result of consistent penetration of the footwall with the infill holes we have demonstrated that Deposit No. 1 is much thicker in certain areas and this has positive implications when we revise the reserves and resources estimate for Deposit No. 1”, stated Gordon McCreary, Baffinland’s President and CEO.

“Mineralization within the upper parts of Deposit No. 1 appears to have lower and more localized deleterious elements than previously interpreted. Drilling of the south limb remains a challenge due to the topography, but some of the best mineralisation within Deposit No. 1 remains to be defined.” stated Michael Zurowski, Executive Vice President of Baffinland.

SGS Lakefield Research Limited performs assay and analytical work under a strict protocol designed for testing lump iron ores. All mineralized drill core from the 2008 drilling, once complete, will be sent from Lakefield to Studien Gesellschaft für Eisenerz-Aufbereitung (SGA) in Germany, where they are composited for detailed metallurgical testing to ISO standards for iron ore. Current work is almost complete on the 2007 drill core and surface material. The 2008 work includes additional lump tests and sinter testwork on bulk sample material, quality control analyses and additional physical testwork to further define handling characteristics of the high quality Mary River iron ores. Cross-sections and plan maps are being updated and will be posted on the Baffinland website www.baffinland.com to assist in the interpretation of the data.

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Baffinland is a Canadian publicly-traded junior mining company that is focused on its wholly-owned Mary River iron ore deposits located on Baffin Island, Nunavut Territory, Canada.

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This press release contains certain information that may constitute forward-looking information within the meaning of securities laws. Forward-looking information may relate to management's future outlook and anticipated events or results, and may include statements or information regarding the future plans or prospects of the Company. Without limitation, statements about the Company's plans to complete a magnetic survey, including the scheduled timing thereof and other related statements, statements about the planned release of additional assay results and related statements, statements about the continuation of drilling on Deposit No. 1 and statements about the Company's planned additional drilling and metallurgical testwork programs, are forward-looking information.

Forward-looking information is based on certain factors and assumptions regarding, among other things, expected mineral resources, iron ore prices, the timing and amount of future exploration expenditures, the estimation of additional capital requirements, the availability of necessary financing and materials, the receipt of necessary regulatory approvals, the feasibility of constructing and operating a direct-shipping iron ore mine at the Company's Mary River project and assumptions with respect to environmental risks, title disputes or claims, weather conditions and other similar matters. While the Company considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect. Without limitation, in stating that the Company plans to, complete a magnetic survey, to release additional assay results, continue drilling on Deposit No. 1, and to complete additional drilling and metallurgical testwork programs, the Company has assumed, among other things, that iron ore prices will not change materially from the prices used in its current financial forecasts and that it will obtain the financing and regulatory approval and other authorizations required to enable the exploration, development and mining activities required in order to complete such activities.

Forward looking-information is subject to certain factors, including risks and uncertainties that could cause actual results to differ materially from what is currently expected. These factors include risks inherent in the exploration for and development of mineral deposits, risks relating to changes in iron ore prices and changes in the worldwide demand for and supply of iron ore, uncertainties inherent in the estimation of mineral reserves and resources, risks relating to the remoteness of the Mary River Property including access and supply risks, reliance on key personnel, construction and operational risks inherent in the conduct of mining activities, regulatory risks, including risks relating to the acquisition of necessary licenses and permits, financing, capitalization and liquidity risks, including the risk that the financing required to fund all currently planned exploration and related activities may not be available on satisfactory terms, or at all, environmental risks and insurance risks.

Summary of Drill Hole Assays

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Drill Hole	TD (m)	From (m)	To (m)	Interval (m)	SiO ₂ %	Al ₂ O ₃ %	Fe %	P %	S %
MR1-07-136 (hole con't from 2007) total intersection	192.0 incl.	108.2	165.4	47.2	0.6	0.6	67.9	0.027	< 0.01
		40.1	155.3	115.3	0.6	0.6	68.1	0.017	0.01
MR1-08-140	166.0	51.1	157.1	106.0	1.9	1.0	66.7	0.032	0.13
MR1-08-141	350.0	73.1	135.8	62.7	4.0	2.0	63.1	0.047	0.09
		214.6	220.3	5.7	6.6	0.8	62.8	0.095	0.23
		233.9	329.6	95.7	2.0	1.2	64.5	0.009	0.88
MR1-08-142	169.0	33.4	157.8	124.4	2.4	1.9	66.1	0.049	0.06
MR1-08-143	199.0	21.4	177.4	156.0	3.2	2.0	65.4	0.060	0.26
MR1-08-144	235.0	105.8	189.3	83.5	4.6	1.7	63.6	0.121	0.76
MR1-08-145	159.0	24.0	128.5	104.5	3.2	2.8	63.6	0.024	0.03
MR1-08-146	254.0	121.0	197.0	76.0	3.4	2.1	64.8	0.126	0.37
		205.0	209.0	4.0	7.6	2.2	62.8	0.181	0.22
		221.0	237.0	16.0	6.7	2.6	60.2	0.178	0.48
MR1-08-147	188.0	110.4	188.0	77.6	2.0	1.7	66.0	0.066	0.08
MR1-08-148	120.0	13.7	113.6	99.9	3.2	2.1	65.4	0.016	0.06
MR1-08-149	222.0	29.2	84.6	55.4	1.2	0.7	66.8	0.018	0.01
		94.7	105.6	10.9	4.5	1.1	64.7	0.022	0.02
		115.4	214.3	98.9	1.1	0.9	67.6	0.017	0.04
MR1-08-151	102.0	22.2	88.2	66.0	1.3	1.1	67.7	0.005	0.01
		95.1	102.0	6.9	0.5	0.4	68.8	0.012	0.01
MR1-08-152	165.0	77.2	117.2	40.0	0.9	1.0	68.4	0.044	0.04
		95.1	102.0	36.0	5.6	1.1	63.5	0.417	0.72
MR1-08-153	151.1	103.5	151.1	47.6	3.9	2.8	62.9	0.030	0.03
MR1-08-154	261.0	39.0	101.4	62.4	4.9	0.8	65.5	0.013	0.02
		117.1	182.1	65.0	0.4	0.3	69.0	0.008	0.08
		184.0	252.9	68.9	2.3	1.6	65.0	0.015	0.68
MR1-08-155	150.0	20.9	38.9	18.0	1.2	0.9	67.5	0.178	0.02
		42.9	64.9	22.0	1.1	0.6	70.0	0.130	0.27
		68.9	109.4	40.5	3.4	0.9	67.0	0.147	0.12
MR1-08-156	194.0	145.0	194.0	49.0	1.2	1.0	67.8	0.008	0.01
MR1-08-157	174.4	91.0	171.0	80.0	4.7	2.0	62.3	0.096	0.72
MR1-08-158	311.0	209.3	267.3	58.0	4.0	2.0	63.9	0.116	0.91
		283.5	291.4	7.9	5.9	1.6	63.4	0.290	0.48

Summary of Drill Hole Assays

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Drill Hole	TD (m)	From (m)	To (m)	Interval (m)	SiO2 %	Al2O3 %	Fe %	P %	S %
MR1-08-159	195.0	28.0	74.0	46.0	2.3	1.8	66.2	0.081	0.27
		80.0	90.0	10.0	13.8	0.7	60.6	0.081	0.54
		100.0	122.0	22.0	6.4	0.2	66.3	0.093	0.33
MR1-08-160	183.0	24.0	90.0	66.0	0.3	0.1	69.3	0.007	0.05
		94.0	152.0	58.0	0.8	0.5	67.8	0.010	0.10
		168.0	174.0	6.0	2.8	1.4	62.9	0.057	0.56
MR1-08-161	165.0	7.5	109.2	101.7	2.5	1.4	65.8	0.016	0.17
		126.5	138.5	12.0	0.5	0.4	70.1	0.167	0.04
MR1-08-162	188.0	30.6	64.6	34.0	9.2	0.8	63.2	0.007	0.34
		68.6	154.6	86.0	3.0	2.1	61.6	0.019	0.99
MR1-08-163	157.0	3.6	107.0	103.4	2.3	1.6	67.1	0.005	0.21
MR1-08-164	105.0	10.9	20.7	9.8	0.8	0.7	68.6	0.021	< 0.01
		36.7	56.7	20.0	1.8	1.5	67.0	0.029	< 0.01
		62.7	108.0	45.3	0.5	0.4	69.2	0.009	0.03
MR1-08-165	157.0	74.5	104.5	30.0	5.2	0.8	64.1	0.061	< 0.01
		116.5	157.4	40.9	6.9	1.3	63.7	0.099	< 0.01
MR1-08-166	111.0	14.1	111.0	96.9	2.0	1.6	66.2	0.013	0.04