



Pele Mountain Hits High Grade Gold at Highland's A-Zone

Symbol: **GEM**

Listing: TSX Venture Exchange

Common Shares Outstanding: 101,843,608

FOR IMMEDIATE RELEASE

March 4, 2010 - Toronto - Pele Mountain Resources Inc. (TSX Venture: GEM) ("**Pele**" or the "**Company**") today announced assay results for the first 20 holes from its diamond drill program at the East Highland Gold project in Northern Ontario. The program included drilling at the 'A', Lone Ranger, Haystack, and Golden Eagle East zones and was aimed primarily at locating near surface, mineable, gold mineralization. East Highland is 100-percent owned by Pele Gold Corporation, a wholly owned subsidiary of the Company.

Results from the A zone confirm high grade, near surface gold mineralization located immediately below the small open pit from which a 3800 tonne bulk sample averaging 5 grams per tonne ("g/t") gold was mined in 1999. Previous drilling has established that the A zone has a strike length of a minimum of 65 metres and continues to a vertical depth of approximately 200 metres with the mineralized trend remaining open along strike to the east and at depth.

The holes were drilled from the ice in the pit, at 5 to 10 metre spacing over a strike length of 65 metres to a vertical depth of approximately 22 metres to delineate a near-surface, bulk mineable resource (A surface plan of A zone drill collar locations can be viewed http://www.pelemountain.com/images/AZone_PlanMap.jpg.) Drilling highlights to-date, all over estimated true widths, include:

- 10.61 g/t gold over 4.40 metres (Hole #10)
- 17.15 g/t gold over 2.40 metres (Hole #18)
- 5.94 g/t gold over 6.31 metres (from two distinct mineralized zones, combined, Hole # 20)

Results for the other 9 of the 21 holes drilled on the A zone remain pending.

A Zone Results

Drill Hole	From (m)	To (m)	Interval (m)	Est. True Width (m)	Gold (g/t)
PM-AZ-10-09	6.57	11.20	4.63	3.30	9.00
PM-AZ-10-10	11.23	17.55	6.32	3.95	6.74
PM-AZ-10-11	8.16	11.88	3.72	3.10	11.35
PM-AZ-10-12	9.96	16.14	6.18	4.40	10.61

PM-AZ-10-13	14.15	18.08	3.93	2.45	6.34
PM-AZ-10-14	8.90	13.00	4.10	3.40	6.86
PM-AZ-10-15	12.90	16.28	3.38	2.40	9.60
PM-AZ-10-16	10.65	13.65	3.00	2.40	17.15
PM-AZ-10-17	13.00	18.30	5.30	3.30	7.94
PM-AZ-10-18	12.23	15.60	3.37	2.40	3.62
PM-AZ-10-19	11.95	15.80	3.85	3.20	3.96
PM-AZ-10-20	11.00	16.25	5.25	3.28	5.40
incl.	14.4	15.24	0.84	0.5	23.67
and	19.65	20.65	1.0	0.6	26.08

The mineralized zone is composed of quartz veining / silicification with associated sulphides – mainly pyrrhotite and pyrite in a sheared, altered (silicified, sericitized) mafic to felsic volcanic unit in contact with a quartz porphyry.

Assay results from the Lone Ranger and Haystack and Golden Eagle East zones, gave generally anomalous to low grade gold values, confirming weak mineralization over reasonable widths, at shallow depths. True widths of the drill intersections are considered to be one half to two thirds of intersected widths.

Lone Ranger Results

Drill Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
PM-LR-10-01	25.47	33.38	7.91	0.25
PM-LR-10-02	22.00	29.88	7.88	0.36

Haystack Results

Drill Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
PM-HS-10-03	13.96	15.36	1.40	1.42
PM-HS-10-04	17.43	25.30	7.87	0.56
PM-HS-10-05	19.04	21.64	2.60	0.19
PM-HS-10-06	30.38	37.50	7.12	0.12
PM-HS-10-07	19.00	22.83	3.83	0.98

Golden Eagle East Results

Drill Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
PM-GE-10-08	32.47	34.00	1.53	0.32

The drill program has been completed. Samples from the remainder of the drill holes, all from the A zone, have been shipped to, and received, at the Accurassay Laboratory in Thunder Bay. Results will be reported as they become available.

Pele's Highland gold properties cover more than 10,000 acres of the Michipicoten Greenstone Belt, located approximately 100 kilometres to the southeast of Hemlo in Northern Ontario. The properties include shear-hosted gold occurrences along the regional Goudreau-Localsh Deformation Zone, home to several past producing gold mines including the Renabie Mine (over one-million ounces) and where Richmond Mines Inc. is now operating the Island Gold Mine and milling complex. Pele's Highland properties have excellent geological potential for the discovery of a mineable gold deposit similar to Renabie and the Island deposit.

Core samples were halved by sawing with one half of the core sent in security-sealed packages by ground transport to the Accurassay Laboratory in Thunder Bay, ON, an ISO certified laboratory, for analysis by fire assay (1/2 assay tonne) and an ICP technique for other elements.

This news release has been reviewed and approved by Peter Dimmell, P.Geo. (NL, Temp ON), a Pele Director and a Qualified Person under National Instrument 43-101.

About Pele

Pele Mountain Resources has generated and advanced high-quality mineral projects for more than a decade, discovering and developing the mineral wealth of Northern Ontario. At its vast Eco Ridge Mine uranium project, Pele is focused on the sustainable development of a safe, secure, and reliable operation near Elliot Lake. At its high-grade Highland gold properties, Pele's goal is to identify mineable, near-surface gold resources. At its over 100 square mile Pigeon River project, Pele has completed a VTEM survey over large unexplored magnetic targets in search of Ni/Cu/PGE deposits. The Company also holds the Ardeen Gold and Sudbury Nickel projects, which are actively explored under option agreements with Coventry Resources Ltd. and Wallbridge Mining Company, respectively. Pele's shares are listed on the TSX Venture Exchange under the symbol "GEM".

For further information please contact Al Shefsky, President, at (800) 315-7353, or visit the Pele website at www.pelemountain.com.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. Some of the statements contained in this release are forward-looking statements, such as estimates and statements that describe Pele's future plans, objectives or goals, including words to the effect that Pele or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. The economic viability of the 43-101 mineral resource at Pele's Elliot Lake Project has not yet been demonstrated by a preliminary feasibility study.