



April 6, 2009

TSXV-MMS  
NR2009-8

### **LAKE GILES RESOURCE ESTIMATE INCREASED BY 73 PERCENT**

Vancouver, BC – **Macarthur Minerals Limited** (TSXV-MMS) today advised that an updated independent estimate had increased the Inferred Mineral Resource Estimate for its Lake Giles magnetite iron ore project in Western Australia by 73 percent.

Lake Giles resource estimates have been updated by Hellman & Schofield Pty Ltd ("H&S") with the addition of estimates for the Moonshine deposit in the south of the Lake Giles Project. No new estimates were completed for the four other deposits.

Macarthur Minerals Chairman and CEO David Barwick said a NI43-101 Technical Report for the project will be lodged with Sedar within 45 days.

The previous resource estimate by H&S as reported on 4<sup>th</sup> November 2008 was an Inferred Mineral Resource of 197 million tonnes at @ 26.1% Fe.

For the resource update, the Company supplied H&S with a drill hole database comprising collar location, downhole survey and geology logs. Analytical data for mineralised portions of these holes include Davis Tube concentrate results which measure the proportion of sample extractable by magnetic separation. Material concentrated by the Davis Tube test was assayed by X-ray fluorescence (XRF) for iron and other elements of interest.

The Moonshine resources were estimated by Ordinary Kriging of generally five metre sample values within mineralized domains. The other Lake Giles deposits are more broadly drilled than Moonshine, so resource estimates as previously reported for these deposits used a simple polygonal approach.

The updated resource estimate is shown in Table 1. The Lake Giles project is at an early stage of evaluation. Macarthur has not established the economic viability of the Mineral Resources, and no Mineral Reserve estimates have been produced for the deposit. The extent to which mining, metallurgical, marketing, infrastructure, permitting, marketing and other financial factors may affect Mineral Resource Estimates is not well defined.

In addition to the Inferred Mineral Resource estimate shown in Table 1, broadly spaced drill holes suggest the presence of mineralisation with exploration potential for the combined Lake Giles resource areas of 80 to 200 million tonnes at an average iron grade of approximately 23 to 31%. This potential mineralisation has had insufficient exploration to define a Mineral Resource, and the estimates of tonnage are conceptual in nature. It is uncertain that further drilling will convert any of the exploration potential to a Mineral Resource.

Drilling has not yet defined the extents of the Lake Giles magnetite mineralization. There is potential for substantial additional mineralization, particularly in the Clark Hill North area which has currently been drill tested by only scattered, very broadly spaced drill holes. Not even conceptual tonnage estimates are currently possible for this mineralization.

### **Stage 7 Drilling Program**

The Company has identified additional drill ready targets and a further 6,500 metres of reverse circulation drilling will begin in April 2009. This program is designed to test areas of exploration potential as described above with the objective of outlining additional Inferred Mineral Resources.

**Table 1: Lake Giles Inferred Mineral Resource Estimate**

<b>Deposit</b>	<b>Million Tonnes</b>	<b>Fe %</b>
Snark	26.3	27.5
Clark Hill North	37.1	26.0
Sandlewood	84.7	28.3
Clark Hill South	48.5	21.9
Moonshine	144.1	25.9
<b>Total</b>	<b>341</b>	<b>26.1</b>

(rounding errors may occur)

### **Notes:**

- Magnetite mineralization at Moonshine is interpreted to comprise several sub-vertical northwest trending zones associated with banded iron formation (BIF) and ultramafic rocks. The zones included in the current resource estimate have a combined strike length of 5.1 kilometres and an average width of approximately 50 metres. The mineralized interpretation used for the estimates extends from the base of oxidation at an average of approximately 70 metres below surface to the depth of the deepest Moonshine mineralized drill intersection at approximately 250 metres below surface
- The Moonshine deposit has been sampled by 68 RC holes drilled by Macarthur between June and December 2008. Drill hole coverage of the Moonshine area is irregularly spaced with spacing between drill holes varying from less than 50 metres to approximately 350 metres.

Mr. Jonathon Abbott, MAusIMM, who is a full-time employee of H&S and is an Independent Qualified Person, has reviewed and approved the above technical information relating to resource estimates contained in this release.

## QUALIFIED PERSON

Mr. Nick Revell BSc, a member of AusIMM, and a Company director, is a Qualified Person as defined in National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"), in charge of the exploration on the Lake Giles project.

On behalf of the Board of Directors,  
**MACARTHUR MINERALS LIMITED**

*"David K. Barwick"*

David K. Barwick, President, Chairman & CEO

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