NEWS RELEASE
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For Immediate Dissemination

INITIAL HEMATITE INFERRED MINERAL RESOURCE ESTIMATE

VANCOUVER, BRITISH COLUMBIA – (Marketwire – June 22, 2010), Macarthur Minerals Limited (MMS – TSXV)("the Company") is pleased to release its initial Inferred Mineral Resource estimate for its Banjo and Moonshine North DSO ("Direct Shipping Ore") projects, at its Lake Giles iron ore project located in Western Australia, of 4.4 million tonnes at 54.2 % Fe.

The new Inferred Mineral Resource estimate is based on recent drilling carried out at the Lake Giles project and is the Company's inaugural Inferred Mineral Resource estimate (refer Table 1) for surface hematite-goethite mineralisation. The resource was modelled by independent mining consultancy group CSA Global Pty Ltd ("CSA") using the company's geological interpretation.

Table 1 – Lake Giles – NI 43-101 Hematite-Goethite Inferred Resource Estimate based on 50% Fe cutoff is.

Tonnes (Mt)	Fe%	P%	SiO2%	Al2O3%	LOI %
4.4	54.2	0.067	10.65	4.89	7.00

- Figures contained within Table 1 have been rounded.
- Resource estimated over a combined strike length of 3km for both projects.
- The mineralisation generally consists of two or more parallel lenses which extend from the surface to between 20 and 45 metres depth. Horizontal thickness is typically 16 to 25 metres.
- A block model was constructed using three dimensional geological wireframes.
- Approximately 45% of mineralised intercepts are still pending assay results.
- Variograms were generated but were generally very poor due to limited data. Grades were estimated using ordinary kriging.
- Outlines and wireframes honour the actual locations of contacts on drill holes that are off section.
- A density estimate of 3.6 t/m3 was applied, based on surface samples.

The resource is based on the first 32 RC drill holes and further drilling is required to define the limits of the mineralisation at Banjo. Macarthur Minerals President, Mr Alan Phillips, stated "This is a pleasing result given the prospect was only discovered earlier this year, and we are at the infancy of understanding of the hematite geology in the region and our team is confident that its objective to delineate 10mt from the existing identified prospects will be achieved ".

Mr Phillips added "It is important to recognise that as the Company achieved its goal of delineating a 1Bt+ magnetite resource last year, commencing this year, the focus has been on quantifying the hematite potential in the region".

After the delineation off the initial hematite mineral resource estimate a further 77 RC holes have been drilled on 7 projects and analytical results for this drilling are still pending. The additional 7 projects have been identified through ongoing mapping of the 25 geophysical DSO targets denoted by the exploration team (refer table 2). RC drilling and mapping is continuing.

Table 2 – Mapped outcropping hematite zone.

Project	Mapped Strike Length (km)
South Central	1
Central	6
North Central	2
Snark	2
Woodcutters	0.5
Lost World	0.5
Sandalwood	3
Total	**15**

Diamond Drilling and Metallurgical Testwork

A diamond drilling programme has commenced to provide suitable material for a comprehensive metallurgical testwork programme and the testwork is scheduled to commence late July. It is likely the completion of this programme will trigger the commencement of a pre feasibility study to be undertaken by Engenium Pty Ltd. Engenium has an impressive track record with emerging and established resource companies in the mining and iron ore sector.

Quality Assurance and Quality Control (QAQC)

Intersections reported have been verified by the company's QAQC protocols. All samples from drill holes are prepared by SGS Laboratory and pulverised to 90% passing 75 microns then analysed for the iron suite using XRF.

QUALIFIED PERSON

Mr. Chris Allen, MAIG, who is a full-time employee of CSA and is an Independent Qualified Person, has reviewed and approved the above technical information relating to Mineral Resource estimates contained in this release.

Mr. Andrew Spinks B.App.Sc, Grad.Dip (Mining), a member of AusIMM, and a consultant geologist, 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.

Further information on Macarthur Minerals Limited and technical reports on the Lake Giles project can be found on the company's website www.macartherminerals.com or www.sedar.com

On behalf of the Board of Directors,
MACARTHUR MINERALS LIMITED

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