



# Metals Finance Limited

SPECIALISTS IN METAL RECOVERY

The Manager  
Company Announcements Office  
Australian Securities Exchange

2 July 2012

Dear Sir/Madam,

## **BARNES HILL FEASIBILITY STUDY**

Metals Finance Limited (the Company, Metals Finance, MFC) is very pleased to advise that it has completed detailed feasibility studies on the Barnes Hill nickel laterite project in Tasmania, with assembly and issue of the final document pending only the receipt of some final testwork data, and information from external parties.

The Company's previous update on the project was issued in January 2012. Since that time significant further work has been completed, including:

- Further review of the available nickel/cobalt resource
- Review and modelling of iron rich zone associated with one of the Barnes Hill orebodies
- Continued metallurgical testing on a variety of ore types
- Continued refinement of the proposed flow sheet
- Refinement and updating of capital and operating costs
- Financial modelling and sensitivity analysis
- Evaluation of options for site location, layout and design

Before summarising the results of the study, it is important to note that it has been based only around resources which have been independently calculated by Snowden Mining Industry Consultants in late 2010 (Proto Resources Ltd (Proto) ASX releases dated Oct 18 2010 and 23 Nov 2010) and there is significant further potential for extension of mineralisation in the tenements held by Proto.

The results of the feasibility study to date are summarised as follows:

### **Resource availability**

Detailed review of the available geological information and drill data for the Barnes Hill project has been completed. The following table summarises identified mineral resources in the project in accordance with the Snowden Mining Industry Consultants study completed late in 2010.

Resource Classification	'000 t	Ni (%)	Co (%)
<b>at 0.8% Ni cut-off</b>			
Indicated	2,537	1.01	0.06
Inferred	299	0.93	0.07
Total	2,836	1.01	0.06
<b>at 0.5% Ni cut-off</b>			
Indicated	5,674	0.82	0.06
Inferred	933	0.77	0.05
Total	6,606	0.81	0.05

On the basis of this assessment, the feasibility study examines operation of the project at a throughput of 500,000 tonnes per annum of the higher grade material for a period of five years, followed by a further five years treating lower grade material at an expanded throughput (700,000 tpa). The study provides for dilution of grade that will occur through selective mining of the higher grade material in the initial period of operation. Average planned production rate for the 10 year modelled project is 4,100 tonnes of nickel and 200 tonnes per annum of cobalt.

### **Iron enriched zone**

Further assessment carried out by Metals Finance has confirmed the existence of a discrete zone of near surface iron-enriched material related to the Barnes Hill north orebody. The investigation has to this stage indicated that the zone is continuous through the drill holes in the area of interest, extends from surface to a depth of approximately 19 metres and is reasonably consistent with respect to iron content. The area has been extensively drilled, resulting in a mineralisation target of around 3.5 million tonnes at an average grade of 39% iron.

Preliminary metallurgical work has been conducted on samples of iron rich material from the entire Barnes Hill area with a view to determining if the material can be upgraded. Initial results show that a high grade magnetite product can be produced through electromagnetic separation, but yields from the bulk material are relatively low. The work has also indicated potential for production of a bulk iron concentrate with average 51.92% Fe, 3.54% SiO<sub>2</sub>, and 6.94% Al<sub>2</sub>O<sub>3</sub>. Further work is planned on bulk samples from the identified discrete iron body in the north nickel orebody area, the potential tonnage of which is highlighted above.

As further work will be required in order to classify this material under the JORC code, the Barnes Hill feasibility study does not include an assessment of potential development of this material at this stage.

### **Metallurgical test work**

Significant further metallurgical test work for nickel and cobalt extraction has been completed over the past six months, on bulk samples provided from the project by Proto. It is considered that this test work is of a standard that provides confidence in data inputs used to generate the potential financial metrics for the project.

### **Flow sheet**

The flow sheet proposed for the Barnes Hill project follows the design that has been extensively tested and designed for the Company's Lucky Break project in north Queensland. The general proposed process steps are as follows:

1. Vat leaching of the ore
2. Recovery of nickel and cobalt from leach solutions using ion exchange
3. Production of high grade nickel and cobalt cathode through electrowinning

### **Operating and Capital cost estimates**

Operating and capital costs for the proposed Barnes Hill project have been further refined over the past six months. Significant potential capital cost savings have been identified since issue of the Company's last update and a number of key operating costs have been confirmed. The feasibility study projects a start up capital cost of \$70 million dollars, including a substantial contingency amount. The operating cost estimates incorporated into the feasibility study models are based on discussions and recent quotes pertaining to all key operating areas.

Projected operating cost for the Barnes Hill project will be largely governed by acid consumption in the leach and pricing thereof. The metallurgical test work to date has established a range for acid consumption between 550 and 650 kg per tonne of ore. At a base



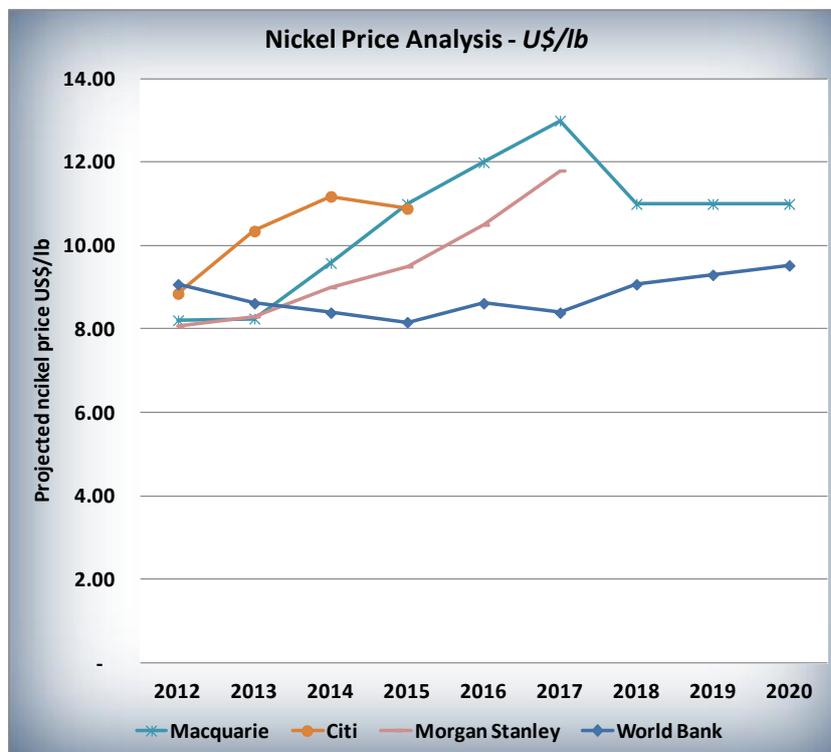
case acid consumption of 600 kg per tonne of ore, projected direct cost of nickel production in the project model is equivalent to US\$5.39 per pound of nickel in the first five years of operation.

### Financial modelling

Sufficient confidence has been established in operating and performance factors for the Barnes Hill project to allow comprehensive modelling of the potential financial result. The key factors which will impact on the potential financial performance of the project are as follows:

- Nickel (and cobalt) price
- Acid consumption and price
- Capital cost

The current value of nickel metal is at a relatively low level (around US\$7.50/lb) but it is expected that, with the return of economic stability the value of the commodity will progressively rise. The study is therefore based on long term projections for the metal, not current price. The following chart illustrates recent (Feb to May 2012) long term projections provided by a number of independent financial institutions.



Sources : Citigroup Global Markets – Commodities Strategy – 30 May 2012  
 Macquarie – Commodities research – 17 May 2012  
 Morgan Stanley – Global Metals – 28 June 2012  
 World Bank – Commodity Price Forecast – 12 June 2012

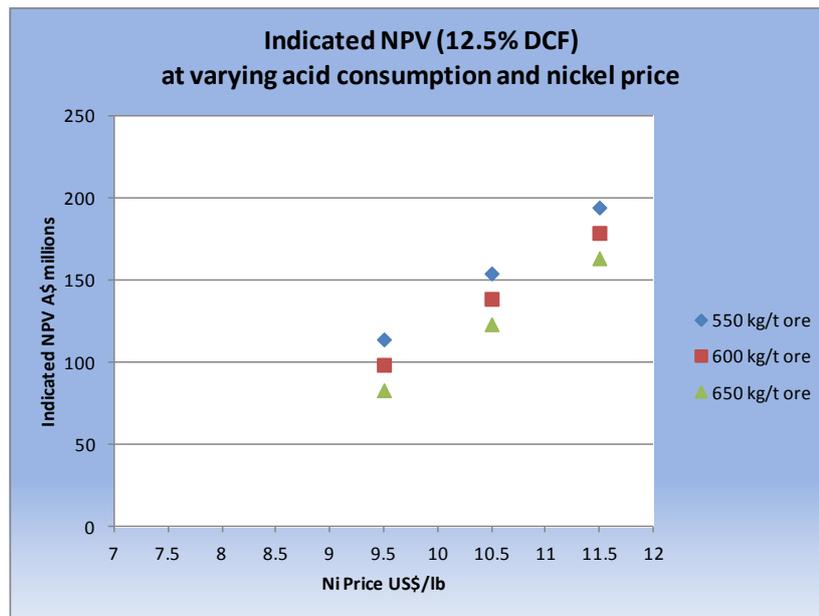
The current Barnes Hill feasibility study model is based on the following range of projected long term nickel price:

Low	:	US\$ 9.50/lb
Medium	:	US\$10.50/lb
High	:	US\$11.50/lb

An appropriate acid supplier has been identified who is positioned to be able to supply the quantity of acid required for Barnes Hill and it is proposed that a fixed price contract for the life



of the project be entered into. The feasibility model examines the range of potential acid consumption rates in the operation as outlined above. The following chart plots the indicated Net Present Value (NPV) of the project at varying nickel price and acid consumption.



The NPV of the project is a factor of installed capital cost, the above chart being based on the current capital cost estimate of \$70 million. As illustrated by the graph above, the indicated NPV of the project remains positive even at current depressed spot nickel price (around US\$7.50/lb).

The results of the study are currently being reviewed by the joint venture partners, with a view to finalisation of the formal feasibility report within the next four to six weeks. Upon completion, the joint venture will continue to progress existing discussions relating to funding and permitting, with the aim of bringing about the swiftest path to the project’s development. With respect to the former it is noted that discussions have been ongoing, given an expected positive result from the feasibility study, with Proto already having secured an agreement with Caterpillar Finance as a debt finance and equipment supply agent for the Barnes Hill joint venture. Proto have also achieved significant progress already on permitting of the project.

The relatively low projected capital and operating costs of the Barnes Hill project are largely the result of the extremely favourable location of the Barnes Hill project, in close proximity to extensive infrastructure and services. There is a deep water port within 15 kilometres of the site in a direct line, for acid supply and product shipment. The project is well serviced by sealed roads, power lines, the Temco iron ore smelter, and nearby mining facilities including a mining town. To place this into context, a brief review of other nickel project logistics in Australia shows that their average distance in a direct line from mine to port lies between 230 and 350 kilometres

The Company is extremely pleased with the results of the feasibility study and, in particular, the fact that the indicated operating cost of the project remains below the current depressed value of nickel. Completion of the feasibility studies on the Barnes Hill project provides significant impetus and added value to the business plan of Nickel Developments Limited, the separate structure now established for the development of the Company’s nickel laterite projects. Metals Finance looks forward to further updating the market on the joint venture’s development and production plans over the next few months.

Metals Finance would like to extend its appreciation to the management and staff of Proto Resources, and to acknowledge the substantial input and assistance that they have provided in bringing the Barnes Hill development programme to this stage.



The Company is continuing to monitor the progress being achieved by the Proto subsidiary, Barrier Bay Pty.Ltd., in development of its acid recovery technology. The technology has now been shown, at both bench and small scale pilot operation, to achieve a high level of recovery of acid from Barnes Hill leach test solutions, and to result in separation of potential iron and magnesium by-products. If proven to be commercially applicable it has potential to reduce operating costs of the Barnes Hill project to as low as US\$3/lb of nickel.

The Company's managing director Mr Tony Treasure said: "We are encouraged by the projected result being shown by the Barnes Hill feasibility study which, combined with the Company's Lucky Break nickel project in joint venture with Metallica Minerals Limited, should substantially increase Metals Finance's value proposition through providing a second advanced stage project closer to development and potential earnings".

A handwritten signature in black ink that reads "P.A. Treasure" with a long horizontal flourish extending to the right.

**P.A.Treasure**  
**Managing Director**

*Information within this announcement which pertains to mineralisation or resources is based on information compiled by Mr Tony Treasure who is a full time employee of Metals Finance Limited and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Treasure has sufficient experience in the fields under consideration to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration results, Mineral Resources and Ore reserves and consents to the inclusion of this information in the form and context of which it appears in this report*

