

# PROTO



RESOURCES & INVESTMENTS LTD

## STOCK EXCHANGE ANNOUNCEMENT

7 September 2012

### Iron Testwork Results and New Proto Website

**Stock Codes: ASX: PRW, OTCQX: POOOY**

*Proto Resources & Investments Ltd (“Proto”, “the Company”) is pleased to provide an update of progress at Barnes Hill, where the feasibility study has been received and iron material beneficiation testwork has confirmed the ability to produce a saleable iron product using magnetic separation. Discussion with potential off-takers has confirmed that the iron grade, silica and alumina levels are acceptable to an identified segment of the iron ore market. Further work is planned to further improve the iron material characteristics, with flotation now being assessed.*

#### **Executive Summary**

- Iron Ore beneficiation results have been received from bulk samples taken at Proto’s flagship Barnes Hill nickel-cobalt-iron project near Beaconsfield, Tasmania. A good quality magnetite product of average 61% Fe can be produced through the Low Intensity Magnetic Separation (“LIMS”). There is also scope to produce a larger volume of product through Wet High Intensity Magnetic Separation (“WHIMS”) and additional work is being done on this.
- Following the recent receipt of the successful nickel-cobalt definitive feasibility study from Metals Finance Limited (“Metals Finance”), Proto is now working to integrate iron operations and the Barrier Process into this. Important steps in this have also included the finalisation of the Barrier Bay pilot, which is explained in a new explanatory video that has been published online.
- A new Proto website has been released. The website has new features such as live metals and share price feeds, a video and image gallery, as well as detailed information on the Company’s team and local community endeavours. Please paste the following details into your browser to access it: [protoresources.com.au](http://protoresources.com.au)

#### **Iron Testwork at Barnes Hill**

Test work to assess the viability of producing an iron concentrate from Barnes Hill overburden containing more than 50% Fe<sub>2</sub>O<sub>3</sub> has now been completed by Robbins Metallurgical Pty Ltd, an iron beneficiation specialist firm based in Queensland. Proto has identified a discrete near surface zone on the top of the Barnes Hill nickel laterite ore body which has shown itself in preliminary testing to be upgradable using LIMS to a 62+% Fe with 2.7% SiO<sub>2</sub> and 4.6% Al<sub>2</sub>O<sub>3</sub>. Discussion with potential off-takers has confirmed that the iron grade, silica and alumina levels are acceptable to an identified segment of the iron ore market, and these parties are now reviewing detailed information on the product and approaching appropriate end-users. A further stage of WHIMS was also shown to produce a bulk iron concentrate with average 51.92%

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Fe 3.54% SiO<sub>2</sub>, 6.94% Al<sub>2</sub>O<sub>3</sub> and 0.13% Ni can be produced as shown in the table below. The work has shown that 1 tonne of this overburden would produce approximately 300kg of concentrate. The WHIMS simulation was operated at maximum 17,500 gauss to maximise recovery of iron.

Potential Product	Wt %	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Ni%
Magnetite	8.62	60.96	2.72	4.60	0.12
Goethite	23.33	48.57	4.36	9.28	0.13
<b>Bulk Iron Concentrate</b>	<b>31.95</b>	<b>51.92</b>	<b>3.54</b>	<b>6.94</b>	<b>0.13</b>

**Table 1 –Iron Beneficiation Results**

Further testing will be undertaken on this material, with a particular focus on flotation to further enhance its grade. Metals Finance, Proto’s joint venture partner on the nickel-cobalt-iron Barnes Hill project, has recently sent iron samples to China for testwork. Proto is awaiting the results of these further studies as an iron operation targeting the overburden at Barnes Hill would be a useful source of earnings for the Company in the lead-up to construction of the full nickel-cobalt plant. As noted above, secondary purchasers and traders of iron ore have been contacted to gauge their interest in this material with a view to further upgrading and/or blending.

The processing of iron material is now being worked into the recently completed feasibility study for Barnes Hill. This will examine both a limited dig and ruck operation and the application of successive circuits to produce iron products from the Barnes Hill ore.

### **Barrier Bay Technology Progress**

Proto’s majority owned technology development subsidiary, Barrier Bay Pty Ltd (“Barrier Bay”), has recently finished an extensive six-month pilot programme and is moving towards demonstration facility. Efforts are also being made to improve media awareness of Barrier Bay and the technology. To this end, the Chairman of Barrier Bay, David Vinson, has delivered a detailed animation prepared by the Company’s consulting engineers, Pitt & Sherry, in Tasmania to explain the Barrier Bay process in simple terms (see screenshot in Figure 1). The video also explains how the front-end Ion Exchange process works – the commercially-proven process that will be used on the Barnes Hill project.

To view the new video, please paste the link below into your browser:

[youtube.com/watch?feature=player\\_embedded&v=s9z2O\\_1bYWw#at=24](https://youtube.com/watch?feature=player_embedded&v=s9z2O_1bYWw#at=24)



**Figure 1 – Barrier Bay’s Chairman, David Vinson, explaining the Barrier Bay process**



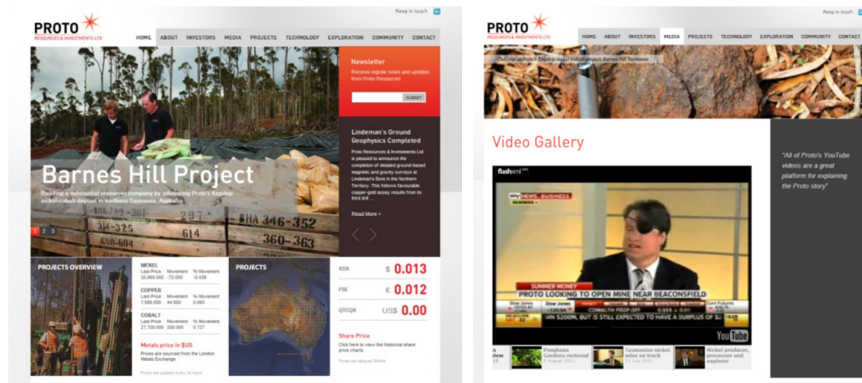
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### ***New Proto Website Released***

Proto has also now released a stronger platform for sharing information on the Company's operations through a more clearly set-out and more interactive website. The website has new features such as live metals prices and share price feeds, a video and image gallery, a map of the Company's projects, as well as detailed information on the Proto's team and local community endeavours (see Figure 2).

To view the website, copy and paste the following link into your browser:

**protoresources.com.au**



**Figure 2 – The Company's new home page and video gallery**

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### ***Competent Persons Statement***

*The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Carl Swensson, who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Swensson is a director of Swensson Integrated Resource Management Services and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". Mr Swensson consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.*