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## **PROGRESS UPDATE AT HASTINGS HEAVY RARE EARTHS PROJECT**

### **HIGHLIGHTS**

- **ANSTO successfully recovers rare metals (recovery 70-75%) in line with historical test results**
- **Clearance received to conduct further site work, including exploration on the Southern Extension**
- **Project development preparations include work on the pilot plant, feasibility study and seeking a strategic partner**

### **HASTINGS PROJECT**

On the 5<sup>th</sup> September 2102, the Company announced the successful completion of a Scoping Study on its Hastings heavy rare earths project in Western Australia. The Scoping Study incorporates the results of extensive testwork completed by the Australian Nuclear Science and Technology Organisation (ANSTO), capital and operating cost assessments by Jacobs Engineering and work completed by the Company.

The Scoping Study shows compelling economics with a base case net present value (NPV) of A\$1.9 billion, an IRR of 26% and payback of 3.6 years for the 100% owned Hastings Project. Significant progress has been achieved recently, including the following:

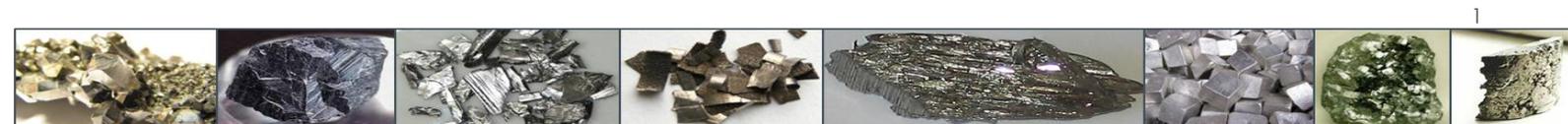
#### **Process flow sheet and recoveries**

ANSTO has been reviewing the process flow sheet for the Hastings rare earths project since April of this year. The Company is pleased to advise that the metallurgical recoveries have been confirmed for the rare metals, being 75% for Niobium and 70% for Zirconium when tested under various operating conditions. These are excellent results and are significant because rare metals are an important contributor to sales revenue. The most recent results confirm the assumptions used in the Scoping Study and allow the Company to start preparations for testing on a larger scale.

The metallurgical recoveries achieved to date can be summarised as follows:

	<b>Metallurgical recovery</b>
Dysprosium	75%
Yttrium	75%
Niobium	75%
Zirconium	70%

For persons



**Clearance to conduct further exploration work at Hastings Project**

Official clearance was received from the Jaru Named Applicant Group to undertake infill and extension drilling at the Hastings Project. The clearance follows the site visit completed in the July quarter and enables infill drilling in the area of the current resource and extension drilling in surrounding areas.

The main target for extension drilling is to the southwest of the current resource, referred to as the Southern Extension (Figure 1). This extension was identified by previous explorers and considered to host only narrow, discontinuous zones of mineralisation. Traverses by Hastings' personnel using a hand-held scintillometer (Photo 1) have indicated that the potential mineralisation in this area occurs over wider intervals than previously outlined, and that the area has the potential to host significant amounts of relatively near surface mineralisation. These traverses indicate surface mineralisation over wider intervals than those in the current resource area.

There have been only two holes drilled historically in this area and both would appear to have been drilled at oblique angles to the mineralised target. One hole failed to intersect the target zone with the other returning 10m (57-67m) at 0.88%ZrO<sub>2</sub>, 0.48%Nb<sub>2</sub>O<sub>5</sub>, 300ppm Ta<sub>2</sub>O<sub>5</sub> and 0.14%Y<sub>2</sub>O<sub>3</sub>.

An assessment is being undertaken with a view to determining an appropriate drilling program. The objective of a drilling program of the Southern Extension would be to increase the mine life beyond the current 25 years and further improve the economics of the Project.



Figure 1 – Plan showing drilling of existing resource and the Southern Extension area

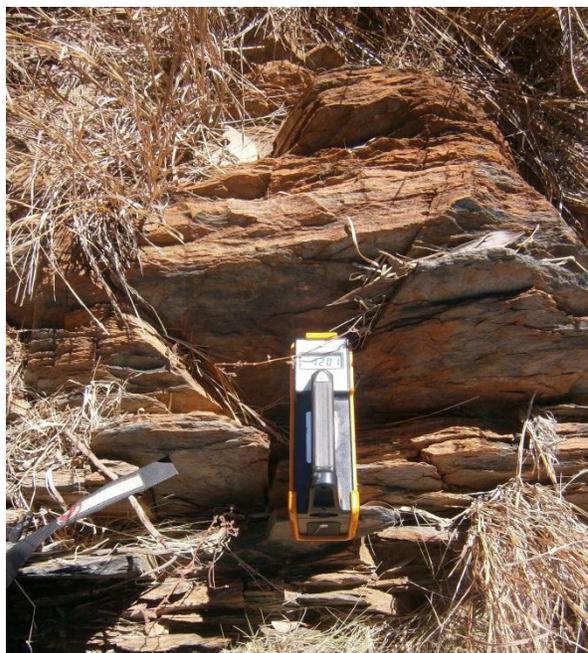
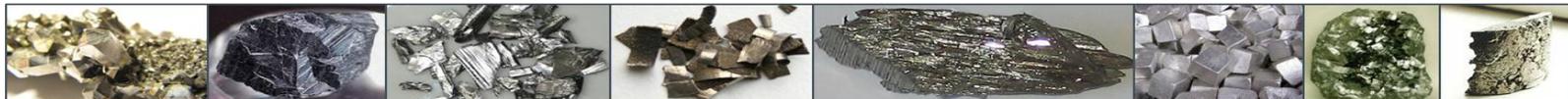


Photo 1 – Scintillometer on outcropping mineralised zone in southern extension. Scintillometer reading of 1200cps

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### **Next Steps in the Project's development**

The next steps towards development of the project are proceeding as planned. Some of the steps are as follows:

1. **Process optimisation work** – the Company is planning to commission ANSTO to conduct further work on the process flow and the operating parameters. In preparation for this work, samples are being prepared at ANSTO from a bulk sample previously transported to ANSTO. This phase of work is expected to take 5 to 6 months to complete. The objective is to look for opportunities to enhance the processing, conduct tests on a larger scale and to prepare for pilot plant stage.
2. **Pilot Plant** - Design, construction and operation of a pilot plant at the ANSTO facilities is intended to process an initial 30 tonnes of ore. The purpose is to further confirm the flow sheet, identify improvement opportunities and produce samples of the saleable products. Design is scheduled to begin in late 2012, with operation during a 3 month period starting in the first quarter of 2013. Costs for the pilot plant will be minimised by utilising existing ANSTO equipment.

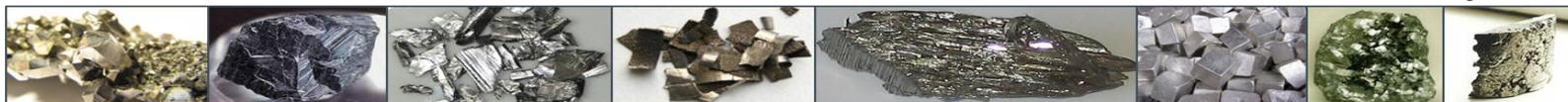
As part of the preparation, bulk samples are being transported from site to storage facilities in Halls Creek, so they can be forwarded to ANSTO when required for processing through the pilot plant.

3. **Pre-feasibility study** – considerable work is being undertaken to scope the work required for a Pre-feasibility study and a Definitive Feasibility Study. This includes more detailed mine planning, geotech, geohydrology, environmental baseline surveys together with further, design engineering and costing assessments. The Company is starting to receive and evaluate proposals to undertake this work.
4. **Strategic partner** - A strategic partner will be sought to fund the major components of the feasibility work in return for a direct project interest. Preliminary discussions have confirmed that the product suite is very attractive to a number of parties in the major manufacturing countries. The Company is confident of being able to secure a suitable partner and has initiated contact with a number of parties.

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### **About Hastings Rare Metals**

- Hastings Rare Metals is a leading Australian rare earths company, with two rare earths projects in Western Australia.
- The Hastings deposit contains JORC Indicated and Inferred Resources totaling 36.2 million tonnes at 0.21% TREO, including 0.18% HREO, plus 0.89% ZrO<sub>2</sub> and 0.35% Nb<sub>2</sub>O<sub>5</sub>.
- Rare earths are critical to a wide variety of current and new technologies, including smart phones, hybrid cars, wind turbines and energy efficient light bulbs.
- The Hastings deposit contains predominantly heavy rare earths (HREO) (85%), such as dysprosium and yttrium which are substantially more valuable than the more common light rare earths (LREO).
- The company aims to capitalise on the strong demand for heavy rare earths created by expanding new technologies. It has recently completed work to validate the extensive historical work and undertaken a Scoping Study to confirm the project economics.

### **Competent Person's Statement**

*The information in this presentation that relates to Resources is based on information compiled by Simon Coxhell. Simon Coxhell is a consultant to the Company and a member of the Australasian Institute of Mining and Metallurgy. The information in this presentation that relates to Exploration Results is based on information compiled by Andy Border, an employee of the Company and a member of the Australasian Institute of Mining and Metallurgy. The information in this presentation that relates to metallurgy is based on information compiled by Steve Mackowski, an employee of the Company and a fellow of the Australian Institute of Mining and Metallurgy.*

*Each have sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this presentation and to the activity which they are 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' ("JORC Code"). Each consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.*

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