ARAFURA
RESOURCES LIMITED

ABN 22 080 933 455

ARAFURA RESOURCES LIMITED (ASX: ARU)

21 AUGUST 2009

NOLANS RARE EARTHS PROJECT BFS UPDATE

The ongoing Bankable Feasibility Study for Arafura Resources' (ASX: ARU) 100% owned Nolans Project has yielded positive results regarding the relative quantities, qualities and recovery rates of extracting rare earths and phosphoric acid.

Highlights

Optimised recoveries of rare earths and phosphoric acid

- Rare earths recovery in the chemical process defined at **86%** (previously 80%)
- Phosphoric acid recovery of **85%** for a technical grade product (previously 80%)

Decreased reagent costs

- Improved rare earths recovery will reduce concentrate feed for an output of 20,000 tpa REO
- Reduced reagent consumption per tonne of product in feed will result in lower operating costs

Increased revenue from improved quality

- Phosphoric acid from Nolans is a high quality, low impurity, technical grade product that sells at a substantial premium to fertiliser grade phosphoric acid

Potential capital cost reductions identified for chemical plant construction

- Substantial component of the chemical plant can be manufactured overseas in modules
- Major capital cost savings identified

Reducing the carbon footprint

- Strategies to lower the carbon footprint of the Nolans chemical plant under investigation, in order to reduce operating costs and limit longer-term carbon trading liabilities

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Improvements in processing recoveries

At the completion of the pilot plant, optimised recoveries for rare earths and phosphoric acid from the Bankable Feasibility Study (BFS) program are now available. Recoveries for the mine site heavy media concentration stage of the project remain unchanged at 90%.

BFS studies indicate that the chemical process developed for Nolans mineralisation should yield higher recoveries than previously reported from initial results, as shown below.

	BFS recovery	Previous results
Heavy media separation	90%	90%
Rare earths to carbonate	**86%**	80%
Phosphoric acid to technical grade	**85%**	80%
Uranium (U_3O_8)	80%*	80%

*BFS recovery for uranium awaits validation and while it may improve it will not have a major impact on project economics compared to the impact of rare earths and phosphoric acid recovery

These improved recoveries result in an average recovery from mine resources to saleable product of:

Rare Earth Carbonate	77.5%
Phosphoric Acid – Technical Grade	76.5%
Uranium (U_3O_8)	72%

The improvement in rare earths recovery has resulted in the need to only treat 93% of the October 2007 Pre-Feasibility Study (PFS) tonnages to achieve 20,000 tpa REO, leading to a significant saving in pre-leach hydrochloric acid consumption.

The improvement in phosphoric acid recovery has two major impacts. This optimisation work has improved both the quality and recovery of phosphoric acid resulting in increased volumes of a high-quality product that sells at a much higher price – more than US$1,000 per tonne – compared to fertiliser grade phosphoric acid (US$400 per tonne).

Processing plant design work

Initial outcomes from the engineering design for the chemical processing plant indicate that a significant amount of plant can be built overseas in pre-fabricated module form. The labour associated with these overseas modules amounts to 4 million labour hours of work and has significant implications for reducing

the cost of capital construction. These components can then be shipped to an Australian processing plant for assembly.

Operating cost savings

Large savings in operating costs have been identified in comparison to those outlined in the pre-feasibility study. Hydrochloric acid consumption has been reduced by 30%, and caustic consumption has been reduced by 50% (by replacement with lime). Further reductions in caustic consumption are probable. Sulphuric acid consumption has been reduced by 20% for the rare earths process plant.

Reducing the carbon footprint

In light of the Australian Government's proposed Carbon Pollution Reduction Scheme (CPRS), Arafura is investigating a process aimed at reducing the carbon footprint of the chemical plant to as low as practicable, with a target of it being carbon neutral.

As the Nolans Project will have an operating life in excess of 20 years, serious consideration must be given to the impact of initiatives like the CPRS that, over time, will impose higher costs associated with carbon-related emissions. Power consumption by the Nolans chemical plant is sensitive to the CPRS, and may impose an operating liability.

The leach circuit of the Nolans chemical plant uses hydrochloric acid sourced from a chlor-alkali plant. Hydrochloric acid is used to separate Nolans concentrate into rare earths and phosphoric acid treatment streams, resulting in a calcium chloride by-product. The plant for this process design has a carbon footprint of about 1 million tonnes per annum, mainly from power consumption.

Treating calcium chloride with sulphuric acid enables the process to re-circulate hydrochloric acid (for the leach process), and generate carbon neutral power with the excess heat from a sulphuric acid plant. Subject to further analysis, the impact of this process can potentially deliver the following outcomes:

1. Reduction in the size of the chlor-alkali plant, from 300,000 tpa to 50,000 tpa;
2. Reduction in power consumption for the total operation, from 150 megawatts to about 25 megawatts; and
3. Substantial reduction in the carbon footprint of the operation (making it potentially carbon neutral), thus reducing CPRS liabilities.

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About Arafura Resources

Arafura is a Perth-based specialty metals explorer and emerging producer which has operated in the Northern Territory for the past 20 years. It listed on the Australian Securities Exchange in 2003 and has an asset portfolio that will deliver long-term and sustainable value and growth.

Arafura's corporate office is located in Perth, Western Australia, with a regional office in Darwin, Northern Territory. Arafura's assets include the Nolans rare earths project. Other tenements that Arafura controls contain gold, copper and vanadium mineralisation.

Arafura's primary focus is the development of the Nolans rare earths-phosphate-uranium project. The deposit has a current resource of 30.3 million tonnes, containing 848,000 tonnes of rare earth oxides, 3.9 million tonnes of phosphate, and 13.3 million pounds of uranium (ASX: ARU 11/11/08). The Nolans deposit is capable of sustaining a mine life of 30 years. The Company has developed a processing flow sheet, and has demonstrated the recovery of rare earths, phosphoric acid and uranium at a pre-production scale pilot plant located at ANSTO (Australian Nuclear Science and Technology Organisation) in Sydney.

Arafura has an exploration and development program to grow its position in rare earth projects with additional growth beyond the Nolans Project. The Company will focus on the identification and development of rare earth projects and specialise in rare earth products and their markets.

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The information in this release that relates to Arafura Resources Limited's exploration results and geological interpretation has been compiled by Mr Richard Brescianini BSc (Hons) and the information in this release that relates to Arafura Resources Limited's metallurgical results and interpretation has been compiled by Mr Steven Mackowski BAppSc, both full-time employees of Arafura Resources Limited.

Mr Brescianini is a Member of the Australian Institute of Geoscientists and he has sufficient experience with the style of mineralisation being reported 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 (The JORC Code)" for reporting these exploration results. Mr Brescianini consents to the inclusion in this report of the contained technical information in the form and context in which it appears.

Mr Mackowski is a Fellow of the Australian Institute of Mining and Metallurgy and he has sufficient experience with the style of mineralisation being reported 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 (The JORC Code)" for reporting these metallurgical results. Mr Mackowski consents to the inclusion in this report of the contained technical information in the form and context in which it appears.