

ASX RELEASE

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NOLANS OPEX FURTHER REDUCED BY 15%

- **Independent engineering analysis further reduces Nolans operating costs to A\$12.36/kg of TREO**
- **Optimisation work results in reduced reagent use, providing numerous benefits to Nolans operations**
- **Social impact studies completed as part of EIS process reinforces proposed lower labour and transport costs**

Australian rare earths company, **Arafura Resources Limited (ASX: ARU, “Arafura” or the “Company”)** is pleased to announce a significant reduction in feasibility study operating costs (“OPEX”) for its 100 per cent-owned Nolans Rare Earth Project in the Northern Territory.

The Nolans Project OPEX has been reduced to A\$12.36/kg of TREO (total rare earth oxide), a 15% reduction from the previous A\$14.51/kg of TREO. The savings of approximately \$2.15/kg of TREO was identified from work in three key areas on which Arafura has focussed during the second half of 2015 and first quarter of 2016:

1. Resizing of equipment identified in capital review studies (as previously advised in ASX announcement 18/11/15);
2. Laboratory-scale test work targeting a number of process improvement efficiencies, including recycle loops and residence times, have identified a reduction in use of a number of reagents; and
3. Extensive studies undertaken as part of the Nolans Environmental Impact Statement (“EIS”) have confirmed that the estimated workforce required for the Nolans operation will be lower than previously expected.

Arafura Managing Director Gavin Lockyer said, “At \$12.36/kg Nolans remains entrenched in the lowest quartile of the cost curve. This is important given the general softening of many rare earth prices over the last twelve months.”

Since China announced the structural review of the industry in May 2015 rare earth markets continue to be challenging. However there are some elements within the commodity group, such as Neodymium (Nd) and Praseodymium (Pr) that have somewhat resisted the broader price weakness. Further improvements in the OPEX estimate will assist the Company to advance and finance the Project when the broader rare earth market sentiment improves.

“The fact that the NdPr price has not fallen by as much as many other rare earths is unsurprising. NdPr is the cornerstone of a rapidly growing permanent magnet market which produces magnets that are three times stronger and one-tenth the size of conventional magnets. There is no known substitute for these magnets that are integral to the drive for further efficiencies in hybrid and electric vehicles, wind turbines and electronic devices. Without them, these products just don’t work,” Mr Lockyer said.

“Our forecasts indicate this market will grow by 10% per annum over the next ten years and analysts believe this will be driven by new rather than existing technologies. Current supply simply cannot keep pace with demand.”

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Project Enhancement - Current Work being Undertaken

The configuration of the Nolans Project currently requires a significant capital expansion in year 7 of operation, which is not considered ideal by project financiers. A review of the mining schedules was undertaken to optimise the mining rate that provides upfront capital savings and defers any capital expansion to well after any initial project finance period. An analysis is underway to assess the impact of a reduced mining rate on REO production, which will be partially offset by improvements identified in beneficiation and REO recoveries.

Arafura recently completed a wide-ranging and extensive EIS on the Nolans Project that will be available for public comment later this month. During this EIS process, the Company investigated a number of process improvements primarily aimed at optimising the flowsheet, however some effort was also focused on examining the use of alternate reagents. The objective of the alternate reagent program is to achieve lower operating costs, assist with a reduction in the waste residue storage requirements at the Nolans site and as a consequence, reduce the Project's environmental impact.

This also provided the opportunity to consider if the Project could benefit from the production of commercial quality by-products, such as phosphate products, which currently report to waste streams.

Investigations into Project operation enhancements were all undertaken with minimal cost through careful use of internal resources, selective use of locally based laboratories and referencing back to the Company's comprehensive data base from previous testwork. Assessment of these results is ongoing but early analysis indicates the Project to be more robust from a technical, operational and financial perspective. Third party process engineering experts in the phosphate industry are currently reviewing this work and to date no substantial weak points have been identified in the technical due diligence of the process.

"If a merchantable phosphate product can be realised rather than ending up as waste this will have a number of advantages including enhanced Project returns and reduced environmental impact at Nolans," Mr Lockyer said. "Nolans has the natural advantage of elevated NdPr and phosphate grades. If both can be better utilised it helps to de-risk the Project further and minimise the impact on future income streams from commodity price fluctuations."

- ENDS -

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Nameplate Production

The OPEX estimates in this document are based on a nameplate production target of 20,000 tonnes per annum of TREO equivalent from Measured and Indicated Mineral Resources at Nolans Bore. The Mineral Resources were estimated and reported by the Company (ASX: ARU 30/10/15) following the guidelines of the JORC Code 2012. Classification of total resources at Nolans Bore into Measured, Indicated and Inferred resources, using a 1.0% TREO cut-off grade, is shown in Table 1. Contained (in-situ) resources of rare earths are also shown.

Table 1: Statement of Nolans Bore Mineral Resources at 30 October 2015 using a 1% TREO COG

RESOURCES	TONNES million	RARE EARTHS TREO %	TONNES TREO	PHOSPHATE P ₂ O ₅ %	URANIUM U ₃ O ₈ lb/t
Measured	4.9	3.2	158,000	13	0.54
Indicated	30	2.7	816,000	12	0.44
Inferred	21	2.3	489,000	10	0.36
TOTAL	56	2.6	1,462,000	12	0.42

Numbers may not compute exactly due to rounding. 1 lb/t U₃O₈ = 0.0454% U₃O₈.

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Kelvin Hussey, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Hussey is a full time employee of Arafura Resources Limited. Mr Hussey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hussey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.