

# ASX ANNOUNCEMENT

## HIGH-QUALITY RARE EARTH PRODUCTS FROM NOLANS VALIDATED BY SUPPLY CHAIN PARTNERS

18 September 2020



- **Customers confirm Arafura's rare earth oxide products well within Total Rare Earth Oxide (TREO) specification**
- **Validation paves way for further commercial negotiations and marks successful completion of comprehensive flowsheet piloting program**

**Arafura Resources Limited (ASX:ARU)** ("**Arafura**" or the "**Company**") is pleased to announce that the quality of final rare earth oxide (REO) products from the Nolans flowsheet piloting program has been validated by supply chain partners across the globe, including in Europe, China and Japan, and deemed to be well within required key specifications for use in their processes.

Three REO products prepared at ANSTO Minerals were the culmination of processing of 15 tonnes of representative ore feed from the Company's 100 per cent-owned Nolans Neodymium-Praseodymium (NdPr) project in the Northern Territory.

Preparation of these products involved piloting of the project's beneficiation, phosphate extraction, phosphoric acid production, rare earth extraction, rare earth processing and rare earth separation process stages to produce final NdPr Oxide, SEG-HRE (middle and heavy rare earth) Oxide and Cerium (Ce) Oxide products, achieving REO and TREO specifications indicated in the table below.

REO	REO/TREO	TREO	Planned Production (tonnes per annum) <sup>1</sup>
NdPr Oxide	>99.9%	>99.5%	4,325
SEG-HRE Oxide	>99.5%	>99.5%	600
Ce Oxide	>99.95%	>99.5%	8,280

Marketing samples of NdPr Oxide product were dispatched for testing by key partners within the metal, alloying and NdFeB magnet manufacturing supply chain in Europe, China and Japan for independent chemical analysis and to confirm they comply with the tight quality specifications mandated by end user customers in the automotive, wind energy, acoustics and personal electronics sectors.

The SEG-HRE Oxide product chemical analysis was reviewed by a Japanese trading house involved in the rare earth industry and engagement also continues with USA Rare Earth LLC for the potential to realise the Dysprosium (Dy) and Terbium (Tb) value for use in NdFeB magnets.

Finally, the Company elected to enhance the Ce product specification from a lower value Ce Hydroxide product advanced in the project's definitive feasibility study, to a more marketable, higher purity Ce Oxide product which has now been tested by leading users in Europe and China.

<sup>1</sup> Based on the updated mining inventory announced on 16 March 2020. Average production is calculated as the arithmetic annual average following the anticipated three-year ramp up and excluding the partial final year of production.

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NdPr

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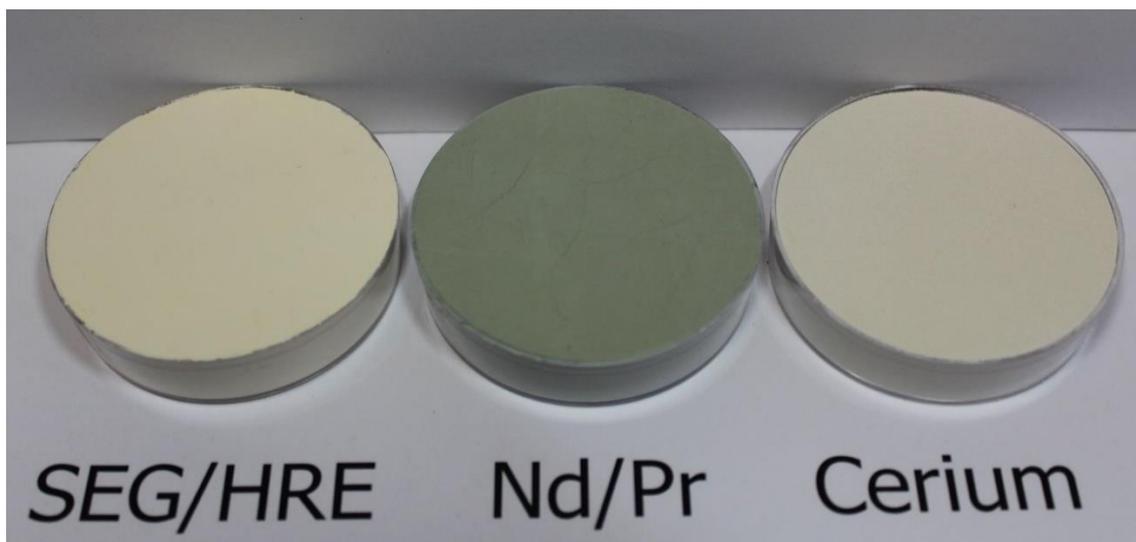
In all cases, the supply chain partners confirmed that Arafura's products met the required specifications for use in the production environment and/or in their respective downstream applications.

Arafura Managing Director Gavin Lockyer said: *"We trust that providing high quality samples will assist in formalising offtake agreements with potential customers. Many customers are becoming more active in assessing the ESG (Environmental, Social and Governance) aspects of their supply chains and Arafura is able to provide certainty in this regard, including the responsible management of all process waste residues at site."*

When in production, Nolans will be the only Australian-domiciled NdPr-focused project that mines and processes rare earths ore through to highly refined separated REO products. The value proposition for end user customers in downstream advanced manufacturing is a safe, secure, transparent, commercially competitive, long-life upstream critical minerals supply chain.

Arafura can separately confirm that phosphoric acid product from flowsheet piloting has successfully passed a quality compliance assessment by an integrated fertiliser producer in India with which an offtake MOU has been signed.

### **Rare earth oxide product samples from Nolans**



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