#### **ASX Announcement**

#### Investor Presentation – Australian Mining & Technology Metals Investor Conference



22 May 2020

Arafura Resources Limited (ASX:ARU) (Arafura or the Company) is pleased to attach a copy of the presentation which was used as the basis of the live presentation at the Australian Mining & Technology Metals Investor Conference. The virtual investor conference is hosted by OTC Markets and includes keynote presentations from the Minister of Mines and Geoscience Australia.

Mr Gavin Lockyer, Arafura's Managing Director will be presenting live at the conference. Subscribers to the Company's announcements have been sent a link to the webinar. For future webinar invitations, please subscribe to the Company's announcements at <a href="https://www.arultd.com">www.arultd.com</a>.

- ENDS -

#### For further information contact:

Gavin Lockyer
Managing Director
T: +61 8 6210 7666

#### Media enquiries:

Luke Forrestal Media & Capital Partners M: +61 411 479 144



PO Box 5773, St Georges Terrace, Perth WA 6831



Virtual Investor Presentation

OTC Markets – Murdock Capital Partners Australian Mining & Technology Metals

ASX:ARU (ARAFF:US OTC)







### Disclaimer

This presentation has been prepared by Arafura Resources Limited (Arafura, Arafura Resources or the Company) and is of a summary form only and therefore contains general background information which may not be complete. It should be read in conjunction with and full review made of Arafura Resources' disclosures and releases lodged with the Australian Securities Exchange (ASX) and available at www.asx.com.au.

This presentation contains certain statements which may constitute "forward-looking statements." Such statements are only expectations or beliefs and are subject to inherent risks and uncertainties which could cause actual values, results or performance achievements to differ materially from those expressed or implied in this presentation. No representation or warranty, express or implied is made by Arafura Resources that any forward-looking statement contained in this presentation will occur, be achieved or prove to be correct. You are cautioned against relying upon any forward-looking statement.

Except for statutory liability which cannot be excluded, each of Arafura Resources and its related body corporates and their officers, employees and advisers expressly disclaims any responsibility for the accuracy or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any error in it or omission from it. Arafura Resources accepts no responsibility to update any person regarding any inaccuracy, omission or change in information in this presentation or any other information made available to a person, nor any obligation to furnish the person with any further information.

This presentation does not constitute an offer of any securities in Arafura Resources, in any jurisdiction, nor an invitation to apply for such securities, in any jurisdiction, and will not form part of any contract for the acquisition of Arafura shares. This presentation does not provide investment advice or financial product advice. You should obtain professional advice and carry out your own independent investigations and assessment of the information in this presentation (including any assumptions) before acting.

Information in this presentation which is attributed to a third-party source has not been checked or verified by Arafura Resources.

#### Mineral Resources and Ore Reserves

The information in this presentation that relates to Mineral Resources was released in an ASX announcement dated 7 June 2017 (Detailed Resource Assessment Completed) and was completed in accordance with the guidelines of the JORC Code (2012). The information in this presentation that relates to Ore Reserves was released in an ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project) and was completed in accordance with the guidelines of the JORC Code (2012). Arafura Resources confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. Arafura Resources confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

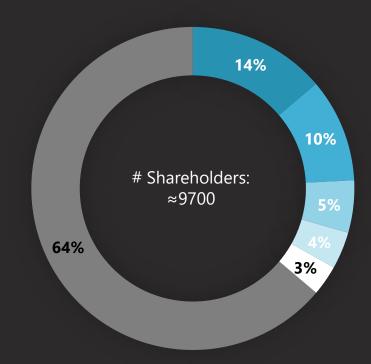
#### Production Targets and Forecast Financial Information

The information in this presentation that relates to production targets and financial information included in this presentation is extracted from ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project) including the cost and pricing assumptions referred to in the Company's 16 March 2020 announcement that were used in the DFS and which are set out in the Company's ASX Announcement 7 February 2019 (Nolans Project Definitive Feasibility Study) continue to apply and have not materially changed.



(ASX:ARU)

# **Corporate Snapshot**



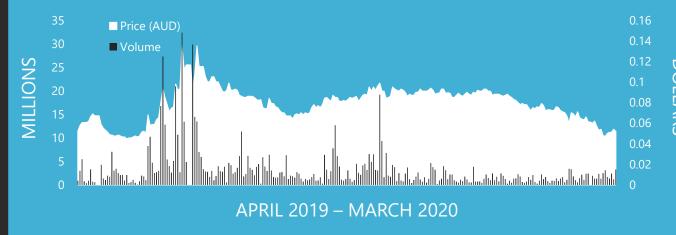
- JP Morgan Nominees Australia Pty Ltd
- ECE Nolans Investment Company
- Talaxis Ltd
- Citicorp Nominees Pty Ltd
- HSBC Custody Nominees (Australia) Ltd
- Other

- Developing the world-class Nolans NdPr project
- Nolans will supply 5-10% of global demand for NdPr oxide, the key rare earths in permanent magnets used extensively in electric motors
- DFS completed February 2019
- 100% Australian domiciled ore to oxide strategy

Capital Structure		
ASX Code	ARU	
ASX Share Price (18 May)	\$0.084	
Shares on Issue	1,055m	
Market Capitalisation (31 March)	\$54.8m	
12 Month Liquidity	\$67.6m	
Cash (31 March*)	\$20.1m	
Debt	Nil	
Enterprise Value (31 March*)	\$34.75m	

<sup>\*</sup> Data based on 31 March 2020 2019 Quarterly Report

#### **12 Month** Share Price Performance





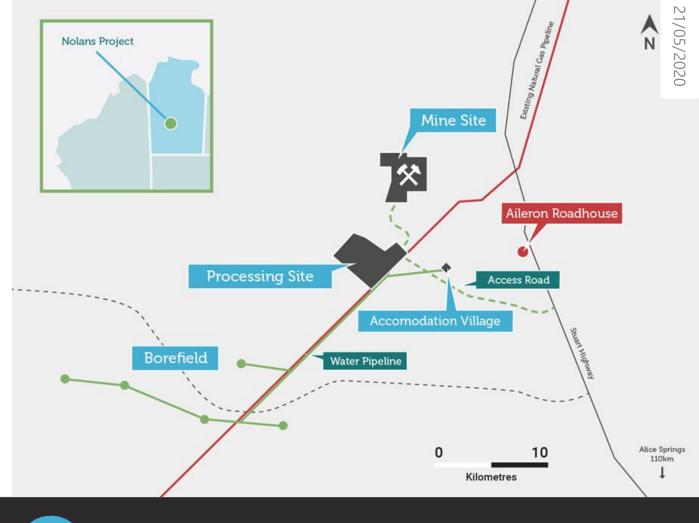


## Nolans Project



# 100% Australian Domiciled in the NT





- Ore to oxide at a single site in the Northern Territory
- Environmental approvals secured including for water management
- Product traceability and single site waste management certainty
- DFS includes fully-costed rehabilitation of permanent disposal facility for tailings and process residues



# Definitive Feasibility Study (DFS) Completed & Improved

	DFS Ore Reserves	Updated Ore Reserves	Updated Mining Inventory
Mining & Processing			
Project Life (years)	23	33	39
Production			
NdPr Oxide (tpa)	4,357	3,923	4,325
Financial			
Capital Cost (A\$m)	1,006	1,003	1,026
KPI Analysis			
Operating Cost (US\$/kg NdPr with Phosphoric Acid credit)	\$25.94	\$27.02	\$23.71
NPV10 after tax (A\$m)	729	782	968
IRR after tax (%)	17.43%	17.29%	17.97%
After tax payback	Year 5	Year 5	Year 5

As announced on 16 March 2020. Average production and costs are calculated as the arithmetic annual average following the anticipated three year ramp up and excluding the partial final year of production.

- DFS completed February 2019 confirming Nolans as a world class NdPr project
- CAPEX US\$726m, low OPEX producer at US\$25.94/kg NdPr
- Long-life asset based on Ore
   Reserves only, with potential to further optimise production
- Well positioned to feed forecastNdPr supply shortfall
- ✓ Globally strategic 100% Australiandomiciled operation in the NT
- Only Australian NdPr project with environmental approval for ore to oxide









Extensive community and stakeholder consultation



Waste management plan tailings and residue facility



Assessing impact from mining, extraction and transport corridor



Surface water and groundwater management plans



Biodiversity studies on existing flora and fauna



Framework for decommissioning closure and rehabilitation

# Licence to Operate – Sustainable Supply

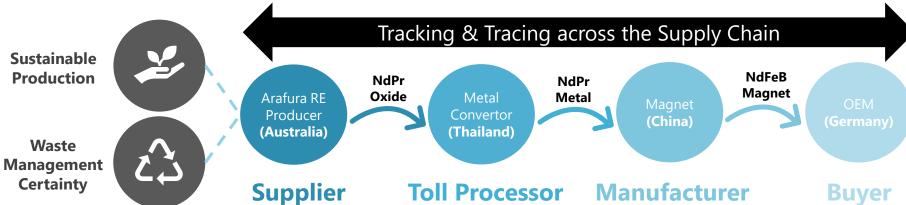




- Nolans is the only NdPr-focused project in Australia with environmental approval for mining, extraction and separation, including for radioactive and other waste management from all processes
- Provides customers with a long-term reliable and sustainable supply from outside China



## Verified Supply Chain



MoU with Source Certain International to deliver a verified supply chain enabling origin verification of Arafura's NdPr Oxide

NdPr central to many clean energy applications including **EVs** and wind turbines

#### **Toll Processor**

Each 1 tonne batch Trusted reliable processor • Unique Product

identifier (GTIN)

(GLN)

· Global location Number

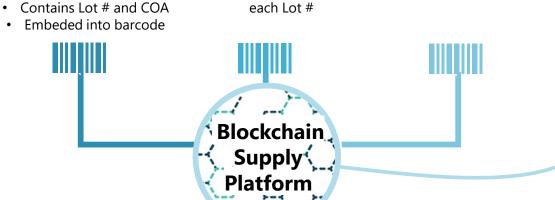
- Batch process
- Unique Batch code representing the metal material made from each Lot #

#### Manufacturer

A Unique Batch code representing the magnet material made from NdPr metal which can be traced to NdPr oxide Lot#

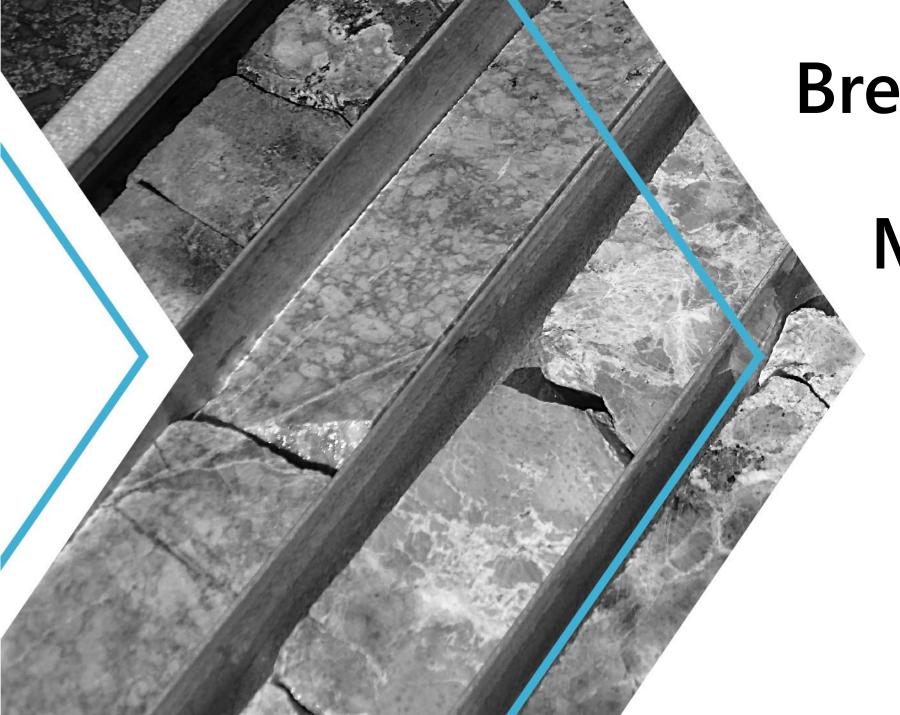
#### **Buyer**

End user can track item from blockchain



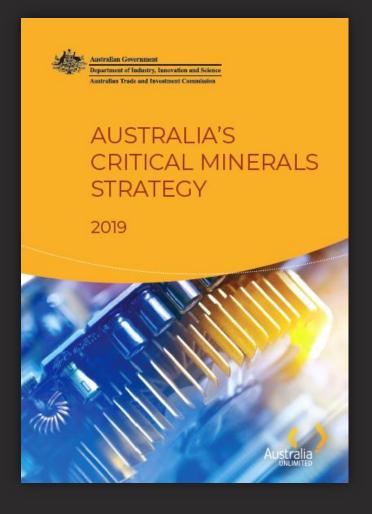


(ASX:ARU)



Breaking the Chinese Monopoly

# Rare Earths are Critical Minerals

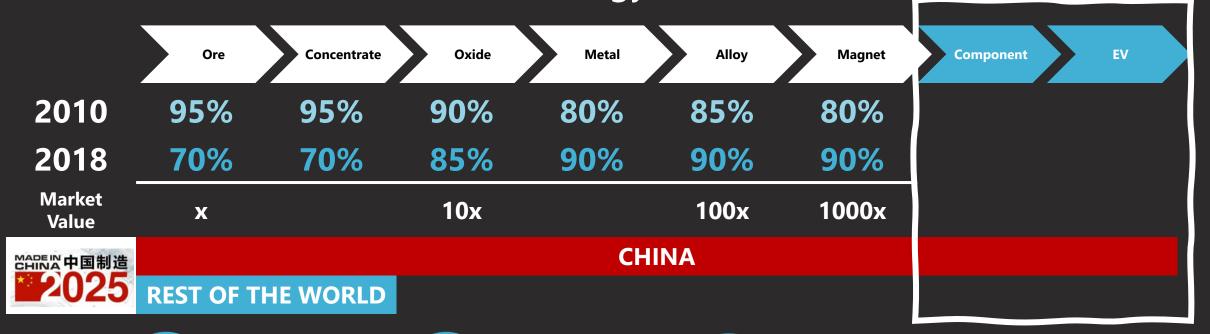


- China exerts control over most of the global rare earth supply chain
- Australia and its strategic allies recognise the threat posed by China's strategy to deny capital to new developments
- ✓ Australia is active in its policy response: Critical Minerals Strategy & Facilitation Office, expanded EFA mandate via Defence Export Facility, NAIF-EFA co-investment, Austrade support
- Multilateral engagement intensifying with Japan, EU member states and USA
- ✓ Nolans will supply 5-10% of global demand for NdPr oxide



## China's Evolving Integrated NdPr Supply Chain

Enables Made In China 2025 Strategy



1

More recently China has **increased its reliance** on concentrate and
oxide from non-China sources

2

Access to capital and increased environmental constraints means ore, concentrate and oxide production from China will be less reactive to world demand

3

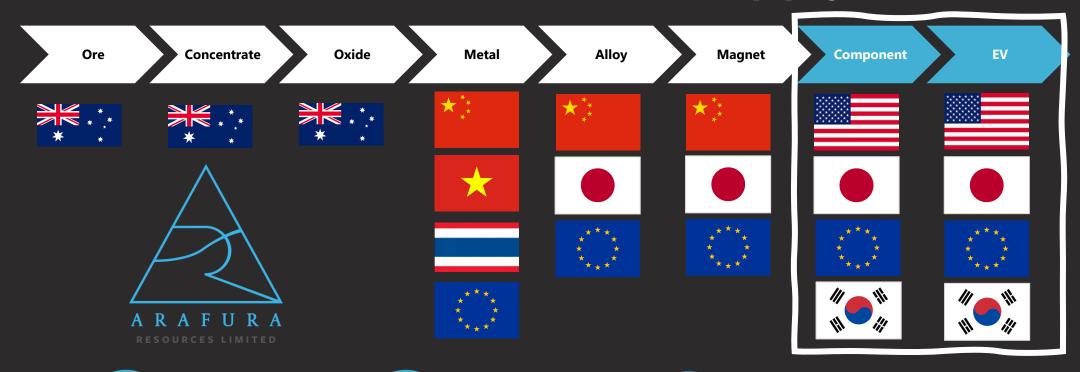
Capital deployed down the value chain focused on enabling China's **Made In China 2025 strategy** 

4

China is the only country with a fully integrated **Mine to Motor** supply chain



## Rest of the World Alternative Supply Chain



1

**2** 

3

4

European auto industry employs
13.8 million people which equates
to 6.1% of the EU workforce and
11.4% of all manufacturing jobs
("Electric cars sparks jobs fears in
Germany's auto heartland" – Wall Street
Journal, August 2019)

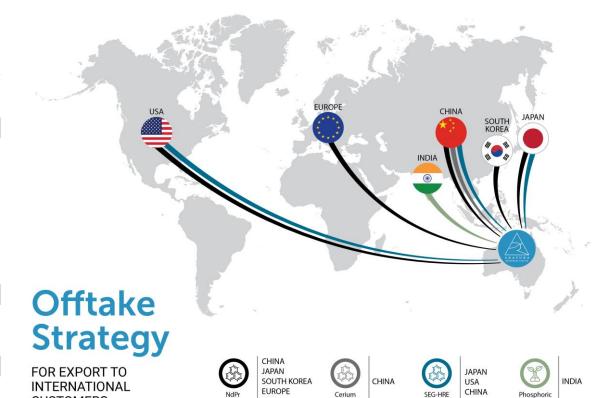
**Diversification of NdPr supply source** may provide better traceability, supply certainty and more transparent pricing Government recognition of the strategic significance of NdPr can enable multilateral Mine to Motor supply chain solutions

Nolans offtake strategy focused on parties not aligned with the Made in China 2025 strategy



#### **Product Offtake**

Customer / Target Region	Amount (tonnes p.a.)	Offtake Status	Proportion of Revenue
NdPr Oxide – targeting contract with NdFeB magnet companies &/or end users			
JingCi Material Science	900	MoU	
Baotou Tianhe Magnetics	900	MoU	
Japan			96%
South Korea	2.557	la	90%
Europe	2,557	In progress	
USA			
SEG-HRE Carbonate – targeting contract with rare earth processors			
China	606 (TREO	la	10/
Japan	equivalent) In progress		1%
Cerium Hydroxide – targeting contracts with rare earth processors			
Baotou Xinyuan Rare Earth Hi-tech	8,383 (TREO equivalent)	MoU	3%





Customer Engagement targeted at NdPr users not aligned with Made in China 2025 strategy

- Japan NdFeB magnet manufacturers
- Europe & Korea automotive component makers, OEMs and wind turbine makers
- China Tier 1 NdFeB magnet manufacturers with significant export markets

U.S. emerging as an offtake opportunity

**CUSTOMERS** 

Product offtake closely linked to project funding



## Development Opportunities



- Most rare earth processing is based on Chinese technology for bastnaesite or monazite/xenotime ore types
- Export of rare earth separation technology from China prohibited
- Arafura has patented IP proven at demonstration scale for apatite ore to oxides
- Arafura's IP can be applied to:
  - ✓ Other apatite and monazite/xenotime ores
  - ✓ Phosphogypsum waste from the production of wet-process phosphoric acid
  - ✓ Waste or bleed liquors from acid process uranium projects







## **Project Funding Solutions**

## The EnablersAlignment with offtake and strategic partners that removes

- Offtake contracts and project finance will need to be engineered to mange downside price risk for low cost / efficient producers
- Piloting at scale to mitigate materials handling and commissioning risk

some market risk

- Traceability for product and waste management certainty, permitting is robust
- NdPr is a strategic input leverage this to access funding: ECAs, industry and commercial banks
- Trade war has highlighted the structural supply chain risk for ROW

#### **The Opportunities**

- China new supply more constrained capital strategically focused downstream and tougher environmental standards
- Supply chain risk will bring greater linkage between OEMs, producers and funding (China and ROW)
- Funding challenges and development complexity will prevent a rush of new ROW NdPr producers



## **Project Funding Strategy**

- Arafura looking to secure US\$726m to meet CAPEX requirements for the Nolans project
- Potential sources of funding include equity, debt, JV and/or project selldown with a strategic investor
- DFS completion and environmental approval are critical enablers for engagement with funding partners
- Critical mineral supply and NdPr supply diversification strategies are topical with industry, ECAs and governments
- Nolans a key critical minerals project identified for potential financing support through Australian Government's Export Finance
  Australia (EFA) and Northern Australia Infrastructure Facility (NAIF)

# Offtake & Equipment Procurement

- ✓ Offtake long term strategic supply
- ✓ Procurement for high value specialist capital equipment

# Export Credit Agencies

- Government-backed direct loans and quarantees
  - Leveraged to strategic link with NdFeB magnet supply and capital equipment procurement
  - ✓ NAIF mandate encourage investment and Indigenous engagement in Northern Australia

## Commercial Banks

- Long-life project, high margin and low-cost producer
- Offtake and Export Credit Agency(s) (ECA) – reduce market exposure and credit risk
  - Improved bankability for conventional lenders

#### Equity

- ECA and bank involvement "haloeffect" – reduced funding risk and less equity dilution
- Market and technical validation
- ✓ JV / Project selldown opportunities



(ASX.ARU

# Other Funding Sources



## Subordinated debt facilities and other funding sources

- ✓NAIF and Clean Energy Finance Corporation (CEFC)
- Mezzanine or cost over-run facility
- ✓ Build-Own-Operate (BOO) and equipment financing
- ✓Offtake finance prepayment or working capital





# **Current Focus**



### 2020 Focus



1

Prioritising project work streams against cash conservation priorities in light of COVID-19 and uncertain recovery of capital markets.

2

Provision of sample product & advancing terms sheets with end users for offtake.

3

with financiers and financial advisors for project financing.

4

**Continued dialogue** with Australian and

other governments seeking to establish non-Chinese critical minerals supply chains.







## **Experienced Board**



MARK SOUTHEY
CHAIRMAN

Mark Southey has previously held senior executive positions with Honeywell and ABB both in Australia and internationally, and more recently was part of the global executive leadership team within WorleyParsons, where he held the position of Group Managing Director for the Minerals, Metals and Chemicals Sector. He is Chair of Arafura Resources' Remuneration and Nomination Committee and is a member of the Audit and Risk Committee.



CHRIS TONKIN
NON-EXECUTIVE DIRECTOR

Chris Tonkin has over 35 years' experience as a senior business executive with a broad industry background in business generation, management, and strategy development. He is a member of Arafura Resources' Remuneration and Nomination and is the Chair of the Audit and Risk Committee.



**QUANSHENG ZHANG**NON-EXECUTIVE DIRECTOR

Quansheng Zhang holds a Doctoral degree in Engineering and a Masters degree in Geophysical Prospecting. He is based in Nanjing in the Peoples Republic of China and is the General Manager of Hong Kong East China Non-Ferrous Mineral Resources Co Ltd (HKECE). Quansheng has over 30 years of mineral prospecting and exploration experience, and expertise in mineral resource surveys and geophysics.



CATHY MOISES
NON-EXECUTIVE DIRECTOR

Cathy Moises has extensive resource sector experience having worked for several major stockbroking firms including McIntosh (now Merrill Lynch), County Securities (now Citigroup) and Evans and Partners. More recently, she was Head of Research at Patersons Securities. Cathy holds a Bachelor of Science with Honours in Geology from the University of Melbourne and a Diploma of Finance and Investment from the Securities Institute of Australia. She is a member of Arafura's Remuneration and Nomination and Audit and Risk Committees.



**GAVIN LOCKYER**MANAGING DIRECTOR

Gavin Lockyer's diverse, global provided experience has leadership management and opportunities in a range of disciplines including; Accounting, Financial & Investment Banking, Major Resource Development & Operations, and Global Bank Treasuries. Over the past 20 years his career has exposed him to business practices in North America, Europe, and Australasia.



(ASX:ARU)

## **Experienced Management**



**RICHARD BRESCIANINI GENERAL MANAGER EXPLORATION & BUSINESS** DEVELOPMENT

30 Richard has over experience in the minerals industry. He worked with BHP Minerals on precious base and metals exploration programs throughout Australasia and North America. contributing to significant economic discoveries at Eloise (copper-gold) and Cannington (silver-lead-zinc). Thereafter he led the Northern Territory Government's Geological Survey as its Director from 2003 to 2007 before joining Arafura.



PETER SHERRINGTON CHIEF FINANCIAL OFFICER & COMPANY SECRETARY

Peter commenced employment with Arafura in 2008 as Commercial Manager and was appointed Chief Financial Officer in July 2013. He has more than 20 years' experience in professional and corporate roles in Perth. Prior to working with Arafura, he held senior finance and commercial positions with several ASX and public unlisted entities. He has also worked in public practice for 10 years in the areas of business services and corporate advisory.



**LLOYD KAISER GENERAL MANAGER SALES & MARKETING** 

Lloyd has more than 10 years' experience in the sales and marketing of industrial minerals into high value sector markets including the nuclear, automotive, and advanced ceramics sectors. Prior to joining Arafura, he held several positions in senior account management, business development and marketing across a diverse range of commodities and chemicals including alumina, coal, industrial minerals, refractories, and ceramics.



**BRIAN FOWLER GENERAL MANAGER NT & SUSTAINABILITY** 

Brian has worked for over 40 years

in private sector mineral companies

developing a range of commodities,

including rare earths, base metals,

and gold. Brian is a member of the

Northern Territory Mining Board,

Management Board of the Northern

Territory Minerals Council of

Australia, and a member of Work

Health & Safety Advisory Council of

the Northern Territory.



many facets of the mining industry including operations, engineering consulting, project development and management. Stewart is a Fellow of the AusIMM. This has included a wide range of roles including corporate and business business management, development, project/study design, management, process commissioning and process plant operation.



(ASX:ARU)

## Long Life Asset

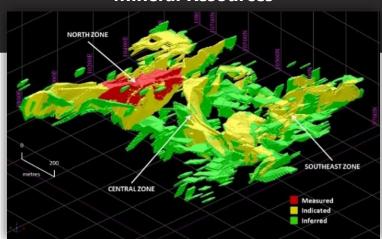
RESOURCES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P <sub>2</sub> O <sub>5</sub> %	NdPr ENRICHMENT %
Measured	4.9	3.2	13	26.1
Indicated	30	2.7	12	26.4
Inferred	21	2.3	10	26.5
TOTAL	56	2.6	11	26.4

As announced on 7 June 2017. 1% TREO cut-off grade. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising  $Nd_2O_3$  and  $Pr_6O_{11}$ .

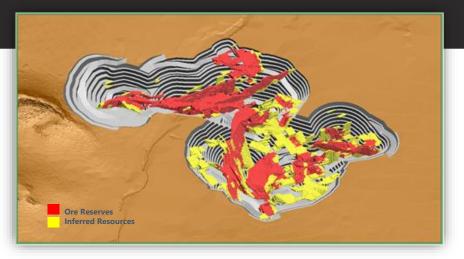
RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P <sub>2</sub> O <sub>5</sub> %	NdPr ENRICHMENT %
Proved	5.0	3.0	13	26.2
Probable	24.6	2.8	13	26.5
TOTAL	29.5	2.9	13	26.4

As announced on 16 March 2020. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising  $Nd_2O_3$  and  $Pr_6O_{11}$ .

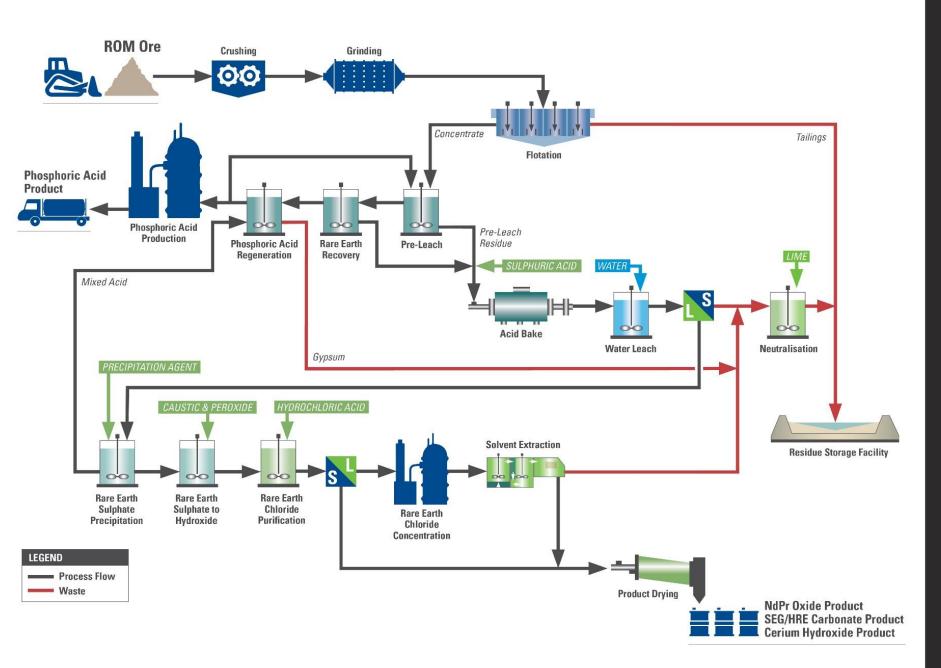
#### **Mineral Resources**



#### **Ore Reserves**







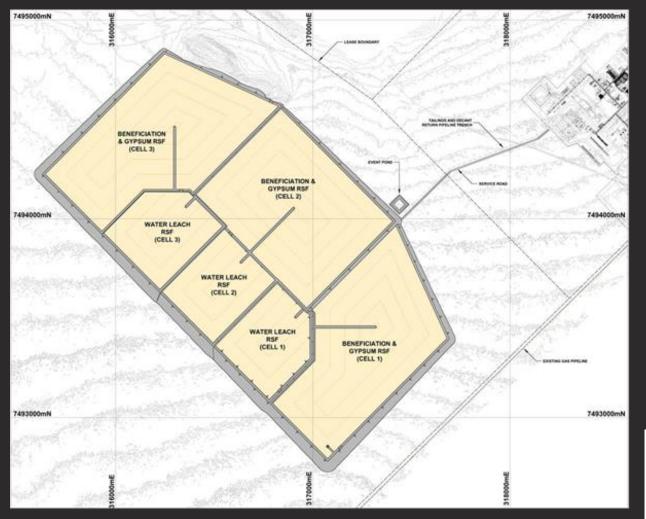
# Process Flowsheet Supported by Successful Pilot



## Residue Storage Facility

- Waste streams generated within the process plant disposed in RSF, a purpose built, longterm, earth fill, lined containment facility.
- The RSF footprint has been designed for the entire LOM and will be a permanent facility that will be closed and rehabilitated on site without the need for any further residue handling.
- Each cell seven to nine years and will then be decommissioned and capped in preparation for rehabilitation.
- Subsequent cells will be constructed immediately adjacent to the initial structure. In addition to the volume occupied by the residue, each cell can contain the rainfall runoff due to extreme short duration storms and/or prolonged wet periods.

#### General arrangement of the final RSF design





#### Indicative Production Timeline

- ✓ Targeting Front-End Engineering & Design (FEED) to be fully funded prior to commencement.
- Project Commitment Timetable subject to change due to impact on funding and offtake activities of COVID-19

