



# Arafura Resources Limited

(ASX:ARU)

*Emerging as Australia's Next NdPr Producer*

October 2019

Annual General Meeting

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## ***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 7 February 2019 (Nolans Project Definitive Feasibility Study) 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 Financial Information***

Information in relation to production targets and financial information included in this presentation is extracted from an ASX announcement dated 7 February 2019 (Nolans Project Definitive Feasibility Study). Arafura Resources confirms that all material assumptions underpinning the production target and financial information set out in the announcement released on 7 February 2019 continue to apply and have not materially changed.

# Rare Earths are now in the Popular Press

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sky news .COM.AU



Australia must 'help the US meet its need for critical minerals'



Forbes

China And The U.S. Fight Over Australian Rare Earths



REUTERS

U.S., Australia to unveil plan Friday to improve rare earth mineral supply

2GB  
873AM

US looks to Australia for rare earths

FINANCIAL REVIEW

Australia points to holes in US rare earth supply chain

Why taxpayers should fund Aussie rare earth miners

THE AUSTRALIAN 

Australia to finalise joint strategy with US on rare earths mining

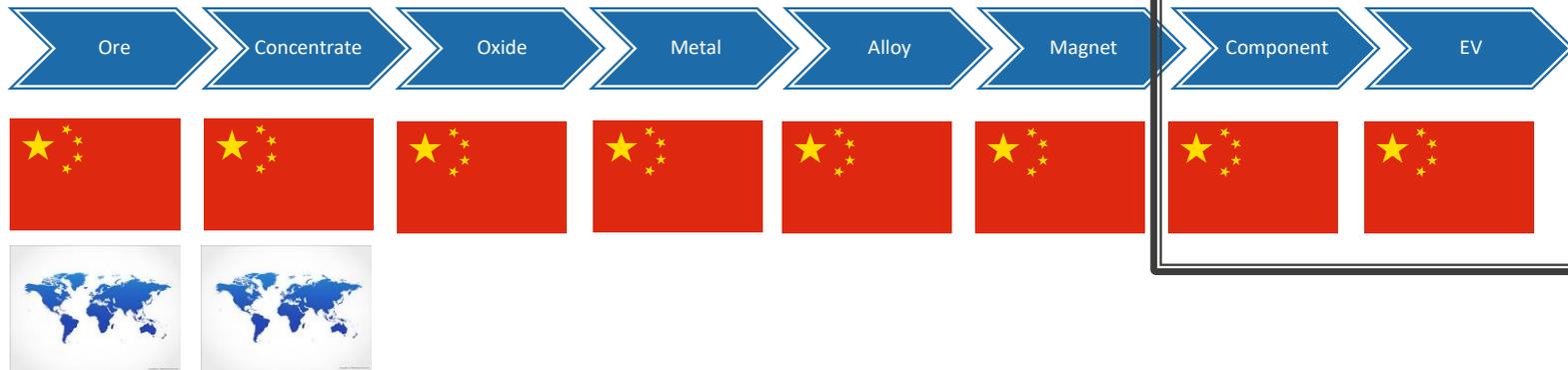
The Sydney Morning Herald

Morrison and Trump open new front in China trade war with rare earth 'action plan'

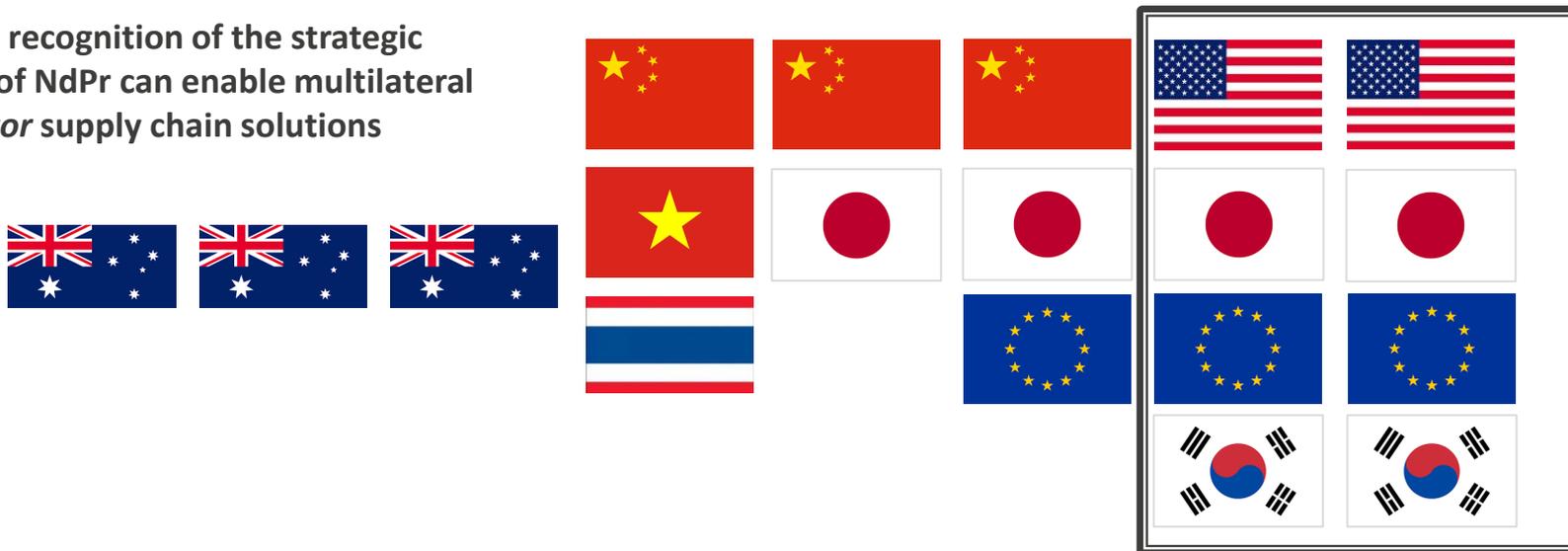


RARE EARTHS: IS THERE A CASE FOR GOVERNMENT INTERVENTION?

# Made in China 2025 & Alternative Supply Chain



Government recognition of the strategic significance of NdPr can enable multilateral *Mine to Motor* supply chain solutions



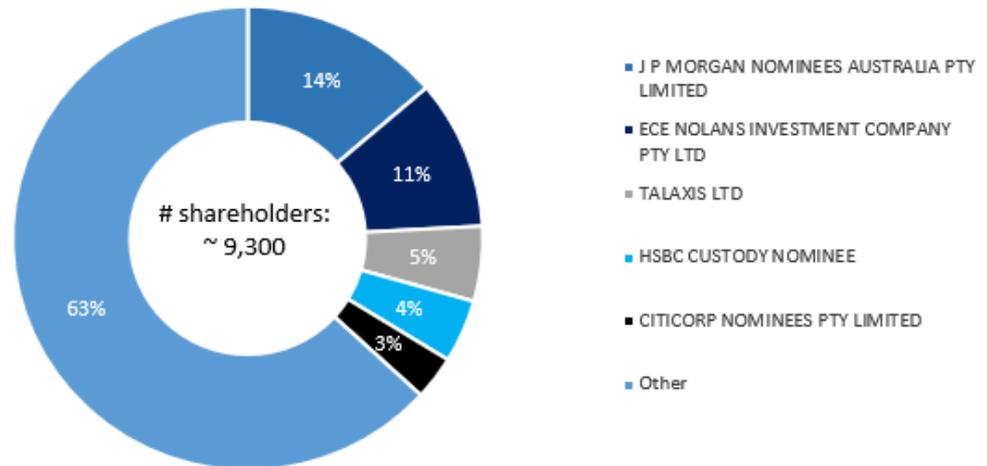
# Arafura Corporate Snapshot



Capital Structure	
ASX Code	ARU
ASX Share Price (30 Sep)	\$0.081
Shares on Issue	1,055m
Market Capitalisation (30 Sep)	\$85.5m
12 Month Liquidity	\$50.9m
Cash (30 Jun*)	\$28.6m
Debt	Nil
Enterprise Value (30 Jun*)	\$76.6m

- **Investment by Talaxis Ltd, a member of the Noble Group**
- **Leading energy products and industrial raw materials supply chain manager that invests and participates in development of technology metals projects**
- **Arafura and Talaxis are working to refine a partnership for the provision of product, project and capital related services**

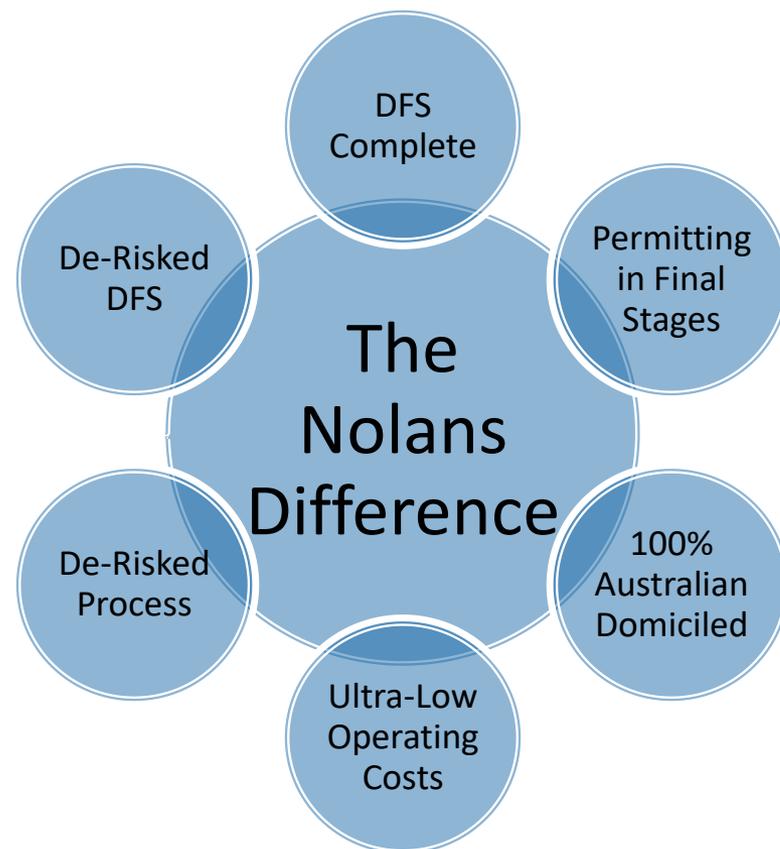
12 Month Share Price Performance and Volume



\* Data based on 30 June plus proceeds from entitlement offer. 30 September 2019 Quarterly report is yet to be released.

# Definitive Feasibility Study (DFS) Completed

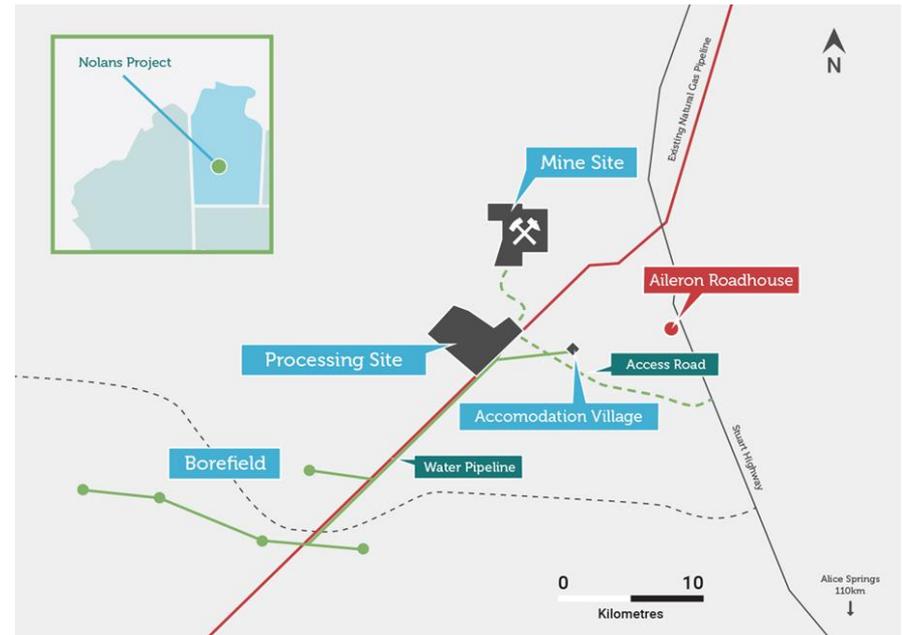
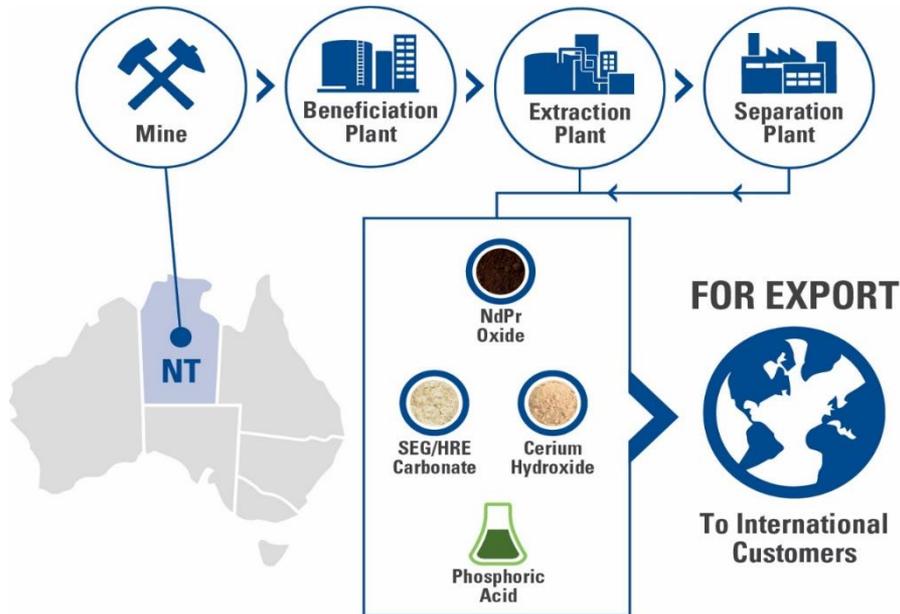
- DFS completed February 2019 confirming Nolans as a world class NdPr project
- Capex US\$726m, low cost producer at US\$25.94/kg NdPr
- Long-life asset – 23-year mine life based on Ore Reserves only with potential to extend production
- Well positioned to feed forecast NdPr supply shortfall
- Target project commissioning in 2022
- Globally strategic – 100% Australian-domiciled operation in the NT with environmental approval



*Refer ASX announcement 7 February 2019: Nolans Project Definitive Feasibility Study*

# 100% Australian Domiciled in the NT

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- Separation plant re-located to site during the year
- DFS includes fully costed permanent disposal and rehabilitation of tailings and process residues at site
- Environmental approvals secured
- Able to provide customers with product traceability and waste management certainty

# Sustainable Supply is Our Value

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

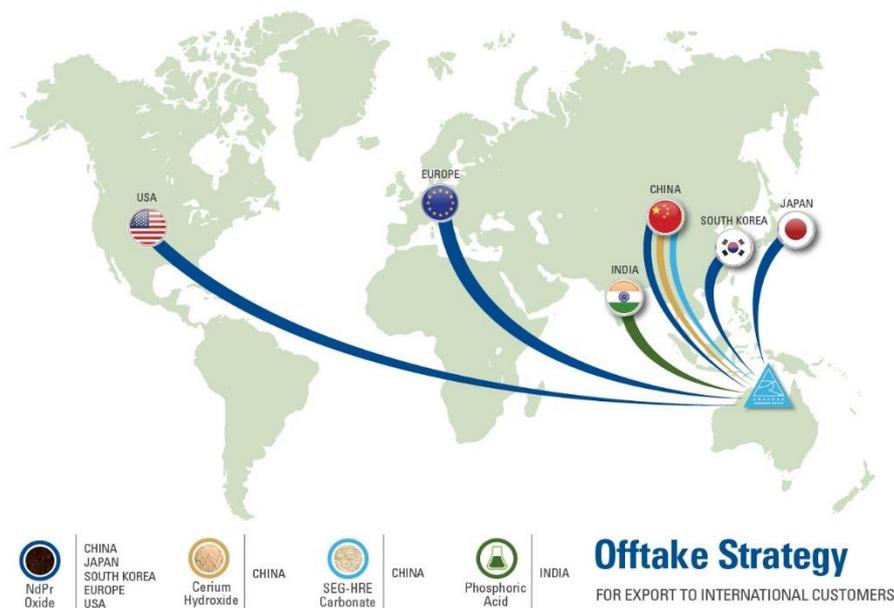
**Social License to Operate**

**Arafura can provide customer's assurance for reliable and sustainable supply sourced outside China**

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# Funding to Production

# Product Offtake



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

*Proportion of revenue for rare earth products only*

- Customer engagement targeted at NdPr users not aligned with China 2025 strategy
  - Japan – NdFeB magnet manufacturers
  - Europe & Korea – automotive OEMs and wind turbine makers
  - China – NdFeB magnet manufacturers with significant export markets
- U.S. emerging as an offtake opportunity
- India – vertically integrated fertilizer producers

# Project Funding Strategy

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- 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
- Currently in due diligence by Northern Australia Infrastructure Facility (NAIF)
- Recently completed A\$23.2m raising to accelerate Project timeline and get “shovel ready”

## Offtake & Equipment Procurement

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

## Export Credit Agencies

- Government-backed direct loans and guarantees
- 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 “halo-effect” – reduced funding risk and less equity dilution
- Market and technical validation
- JV / Project selldown opportunities

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# Current Activities

## In addition to the funding and offtake activities:

- **Drilling and metallurgical work in progress**
  - Targeted exploration and metallurgical program aims to potentially increase current mine life of 23 years
  - Opportunity to potentially reduce very low estimated OPEX of US\$25.94/kg NdPr (lowest amongst peers) even further
  
- **Negotiations with Central Land Council (CLC) ongoing leading to final regulatory approval (Mining Licence)**
  
- **Execution readiness activities**
  - Strategy to accelerate engineering activities to be aligned with forecast NdPr price increases from 2020

# 2019/20 Activities

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*October 2019 – Drilling at Nolans Bore – hole NBDH1105*



*Northern Territory Senator Sam McMahon inspects drill core at Nolans Bore*

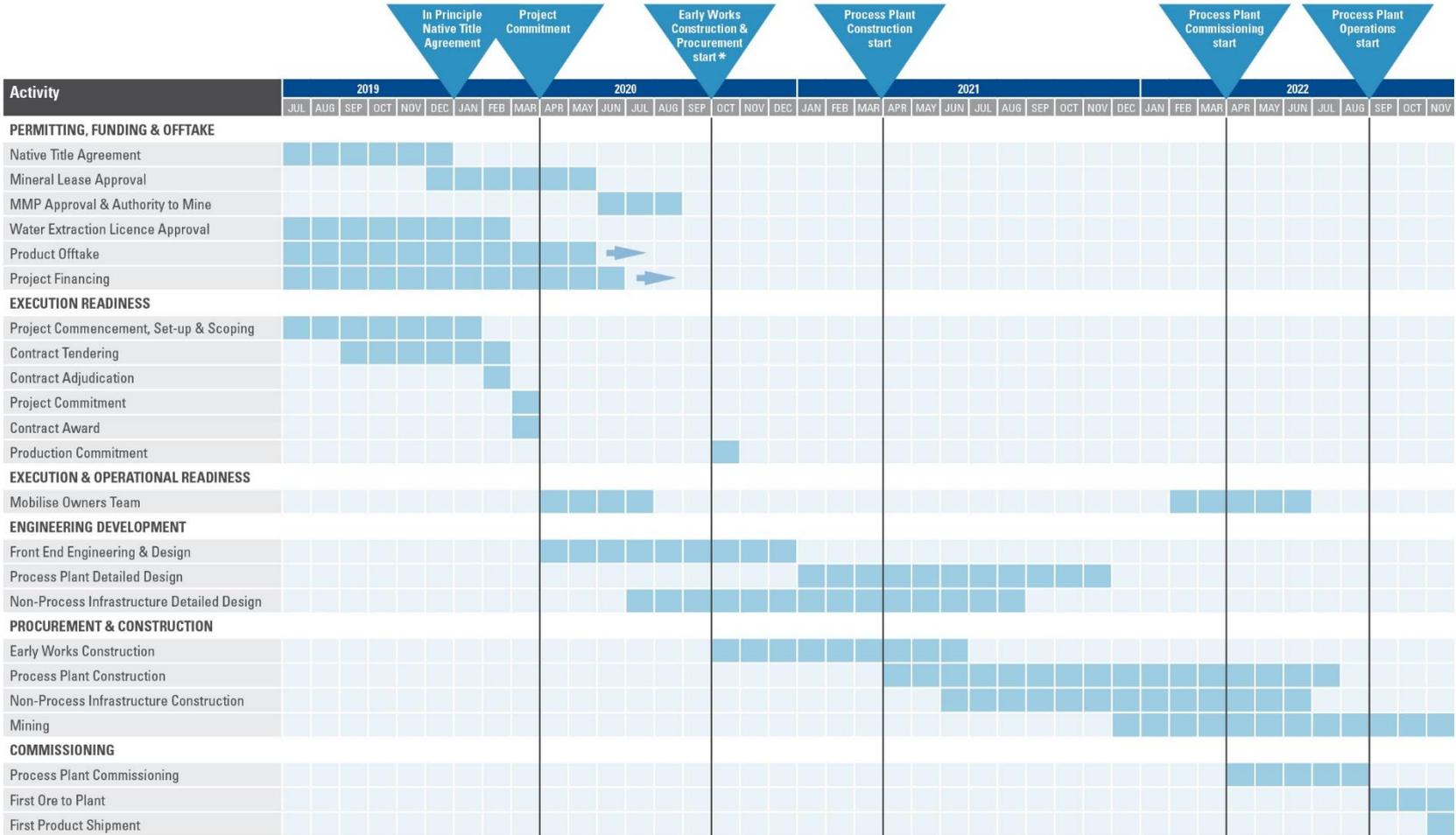


*Drill core sample from Nolans Bore used in flotation variability program*



*October 2019 – Flotation variability test work at Nagrom mineral processing facility*

# Indicative Production Timeline



\*Early Works Construction & Procurement to the items that follow are subject to:  
 - Product Offtake being secured  
 - Sufficient Project Funding secured  
 - Permitting and other related activities being completed  
 - Each previous activity being completed successfully  
 Delays to commencing Early Works Construction will also impact the timing of Plant Construction and Commissioning.



*Thank You*

October 2019

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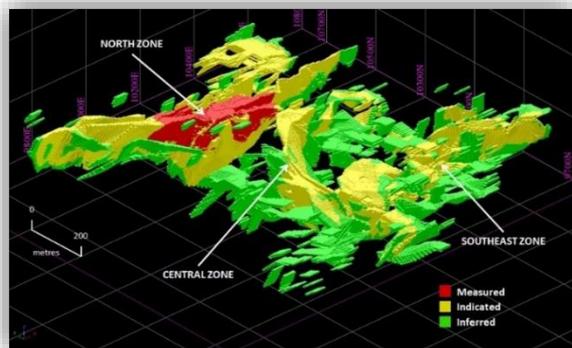
# Long Life Asset

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
<b>TOTAL</b>	<b>56</b>	<b>2.6</b>	<b>11</b>	<b>26.4</b>

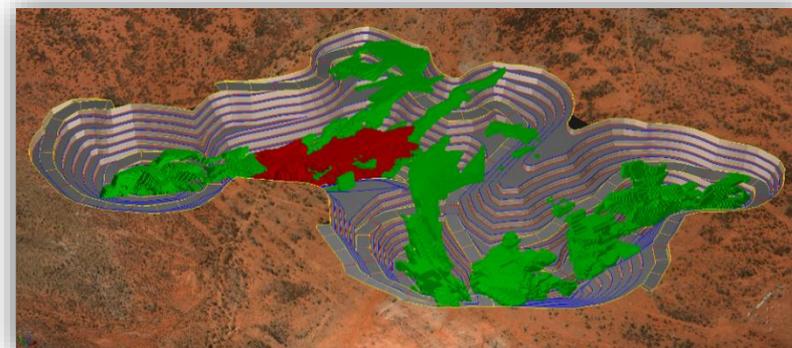
As announced on 7 June 2017. 1.0% TREO cut-off grade. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd<sub>2</sub>O<sub>3</sub> and Pr<sub>6</sub>O<sub>11</sub>.

RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P <sub>2</sub> O <sub>5</sub> %	NdPr Enrichment %
Proved	4.3	3.1	13	26.1
Probable	14.9	2.9	13	26.5
<b>TOTAL</b>	<b>19.2</b>	<b>3.0</b>	<b>13</b>	<b>26.4</b>

As announced on 7 February 2019. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd<sub>2</sub>O<sub>3</sub> and Pr<sub>6</sub>O<sub>11</sub>.



Mineral Resources



Ore Reserves