

The image shows three white wind turbines standing on a lush green forested hill. The scene is captured during sunset or sunrise, with a warm orange and yellow glow in the sky. The turbines are positioned at different heights and angles, creating a sense of depth. The background shows rolling hills under the soft light of the low sun.

VIRIDIS

MINING & MINERALS

COLOSSUS IONIC CLAY PROJECT

*Unlocking a new frontier of Rare Earths in the
Poços De Caldas Alkaline Complex*

Investor Presentation

September 2023

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This document contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (2012 JORC Code) and available for viewing at <https://viridismining.com.au/>. VMM confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcements.

The release of this document on ASX has been authorised by the Board of Viridis Mining and Minerals Limited.

Competent Person Statement

Dr. José Marques Braga Júnior, the in-country Executive Director of Viridis' Brazilian subsidiary (Viridis Mining and Minerals Brazil Ltda), compiled and evaluated the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2023, 336416), accepted to report in accordance with ASX listing rules. Dr Braga has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Dr Braga consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

CORPORATE SUMMARY

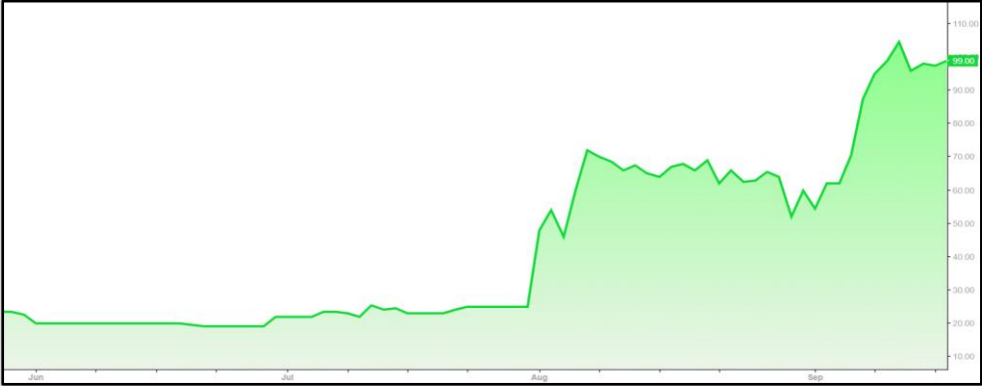


CAPITALISATION DATA

Current shares on Issue ¹	45,739,556
Share Price ²	\$0.99
Market Capitalisation (MC)	\$45.28 Million
BALANCE SHEET	
Cash Balance (as of 30/06/23) ¹	\$1.94 Million
Debt (as of 30/06/23)	Nil

- 1. Post completion of Capital Raise (Announced 01/08/2023) and issue of vendor shares and upfront payment consideration for Acquisition of Colossus Project
- 2. Closing Price 18 September 2023

SHARE PRICE PERFORMANCE²



CONTACT

Agha Shahzad Pervez
Executive Chairman

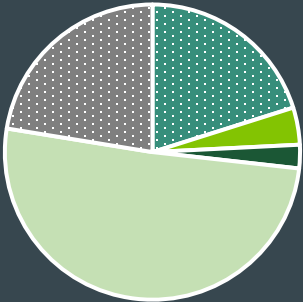
Shannon Robinson & Carly Terzanidis
Joint Company Secretaries

✉ agha@viridismining.com.au ✉ cosec@viridismining.com.au

Company Website
<https://viridismining.com.au/>

Principal Office
Level 50,
108 St Georges Terrace
Perth, WA 6000

SHAREHOLDER BREAKDOWN



- Substantial Shareholders
- Remaining Top 20 Shareholders
- Ionic Rare Earths Strategic Investment
- Board & Management
- Other Shareholders



Mr Agha Shahzad Pervez
Executive Chairman

Mr Agha Shahzad Pervez is an experienced corporate accountant, CFO and Company Secretary, with over 10 years' experience working with ASX listed companies. Mr Pervez has previously held senior executive roles at Resonance Health Limited, Equinox Resources Limited and Battery Age Minerals Limited.



Mr Faheem Ahmed
Non-Executive Director

Mr Ahmed holds a Bachelor of Engineering and Bachelor of Project Management and has over 6 years of experience in project evaluation, asset management, data analysis, lifecycle cost analysis and risk modelling including projects in the fields of infrastructure, mining, health and transport.



Mr Timothy Harrison
Non-Executive Director

Mr Harrison has over 23 years' of experience as a metallurgist and executive with an extensive record advancing resource companies through to project development. He has a successful track record in fields of processing and hydrometallurgy across multiple commodities, including technology metals experience. Previously, Mr Harrison has held senior positions with BHP, WMC, Fluor, Ivanhoe Australia and Clean TeQ. He is currently CEO and Managing Director of Ionic Rare Earths Limited.



Mr Christopher Gerteisen
Non-Executive Director

Mr Christopher Gerteisen has over 25 years of experience as an economic geologist and executive with an extensive record of managing and advancing resource projects from discovery to start-up. Previously, he has held senior positions with Newmont, Sons of Gwalia, Oxiana, OZ Minerals, PanAust. He is currently CEO and Executive Director of Nova Minerals Limited.



Dr Jose Marques Braga Junior
Executive Director, Viridis Brazil

Dr Jose Marques Braga Junior is former Principal Geologist at CBMM. His 12 years of experience at CBMM has allowed him to gain a unique skillset in Niobium and Rare Earth mineral assets.

- Oversaw CBMM's full suite of geological activities
- Led CBMM's team of geologists through exploration strategy
- Specialisation and publications in alkaline-hosted Nb, REE, P deposits, saprolite and weathered ores in Brazil.

Relevant Qualifications: B. Geological Engineering, M. Mining Engineering, PhD Geology. Registered member of AusIMM with qualifications for mineral exploration and evaluation of supergene deposits of REE, Nb, P, Ba and Fe.



Dr Klaus Petersen
Executive Director, Viridis Brazil, & Country Manager

Dr Petersen is a seasoned geologist and mining executive with 35-years' experience across Iron, Gold, Copper, Manganese and Rare Earth projects in Brazil. Dr Petersen has built an extensive network with mining investors, financiers, governmental agencies.

- Co-founder of Target Latin America
- Co-founded numerous Australian, Canadian and Brazilian companies and assets including founding Executive of 2008 IPO of the year; ASX: CTM
- Spent significant time in Poços De Caldas over the last year and is very familiar with Ionic Clay Rare Earth hosting mineralisation in the Complex.

Relevant Qualifications: B. Geological Engineering, M. of Science in Mineralogy and Petrology, PhD in Mineralogy and Petrology and is a registered member of AusIMM.

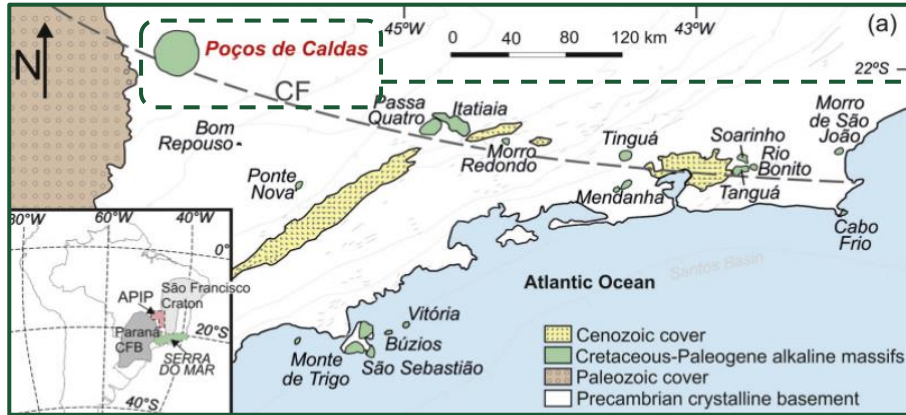
Poços De Caldas Alkaline Complex

Unlocking the true geological
potential of the Colossus Project



COLOSSUS – IDEAL LOCATION

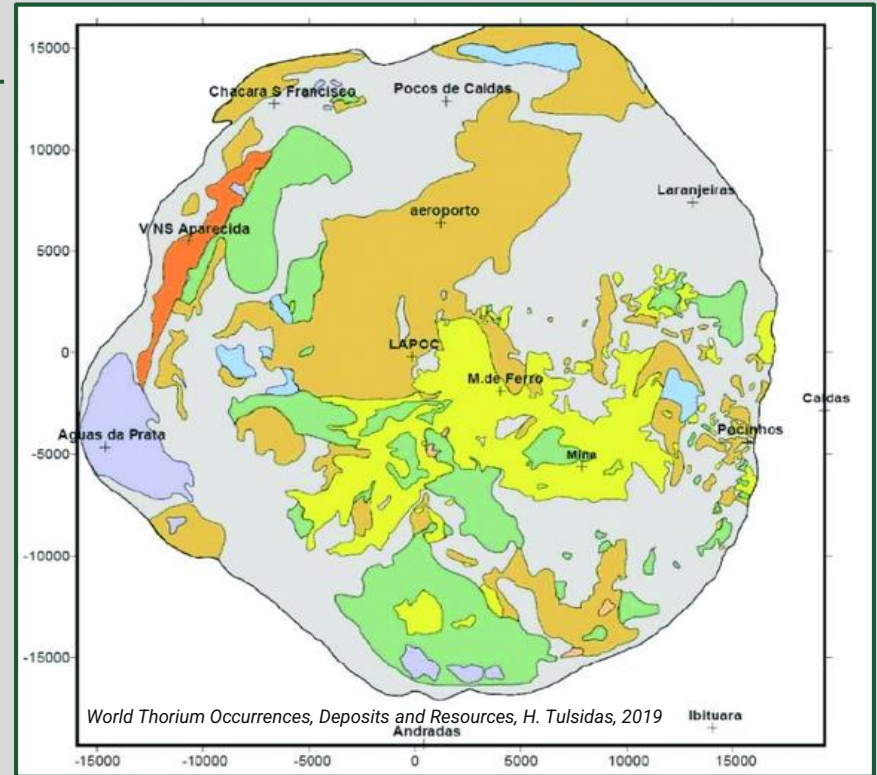
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Poços De Caldas

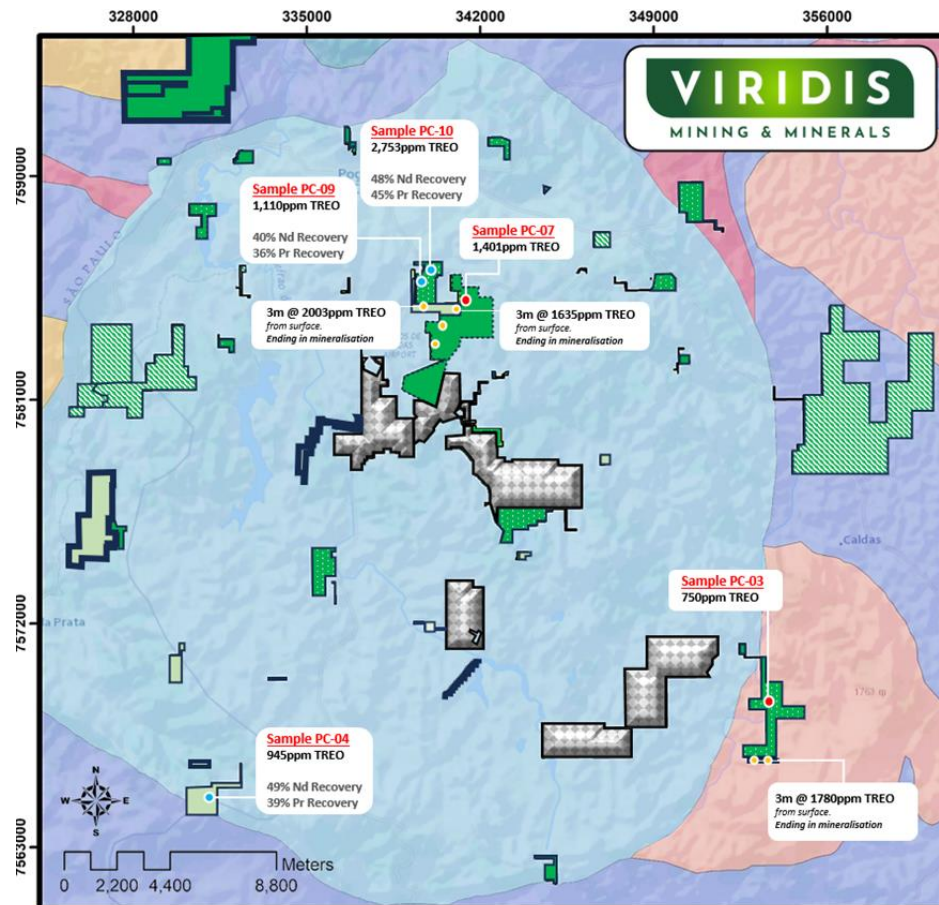
Largest Alkaline Complex in Southern Hemisphere

- Located on the southern border of Minas Gerais, Brazil – A Tier I Mining Jurisdiction
- Local community is supportive of mining operations with numerous bauxite, phosphate and clay mines and chemical plants. Ample infrastructure, paved roads and mining focused labour force
- The Alkaline Complex measures 33km in diameter and is homogenously mineralised with Rare Earths



COLOSSUS – STRATEGIC LAND POSITION

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Strategic Importance of Land Position

- Proven IAC REE geology in the Poços De Caldas (“PDC”) Alkaline Complex.
- Viridis secured a rare opportunity for a large consolidation of areas to develop a substantial Rare Earth Operation in PDC.
- Remainder of significant area’s available to consolidate into a single large contiguous project are held by majors such as Alcoa & CBA.
- Viridis to continue to appraise opportunities to expand its dominant footprint.

LEGEND

Mining Licence	Poços de Caldas alkaline complex
Mining Application	Syenite
Right to Request Mining	Granite
Exploration Licence	Charnockite
Exploration Licence Application	Paragneiss
Recently acquired Exploration Licences (ASX Announcement 14/08/23)	Orthogneiss
Recently acquired Right to Request Mining (ASX Announcement 14/08/23)	Weathered outcrop samples from Colossus Concessions – Chemical Analysis
Caldeira Mineral Resource Estimate boundary – 409Mt @2,626ppm TREO	Saprolite samples from Colossus Concessions – Chemical & Metallurgical Analysis (Ammonia Sulfate)
	Previous areas of historic auger drilling up to 3meters depth

VMM ASX announcement dated 01 August 2023 ‘Acquisition Potential Tier One Ionic Clay Rare Earth Project’

COLOSSUS PROJECT

Current exploration activities



Acquisition Background

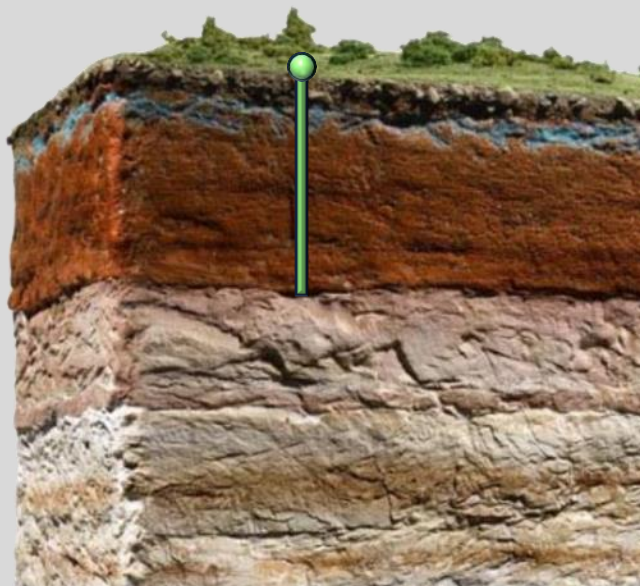
- Binding agreement signed to acquire 100% of REE rights in Colossus, covering an area of ~91km² in Poços De Caldas Complex, Brazil.
- Contiguous to the world class Caldeira Ionic REE deposit (409Mt @2,626ppm TREO¹).
- USD \$1M upfront which has been paid, US \$1M to be paid on 6 month anniversary with 4.75% Royalty>
- Vendors of the Colossus Project have a rich mining history in the region with over 300 registered deposits and currently operate 8 open-pit mines which produce 560ktpa of ore & clay.
- Drill tested by Vendors only within top 3 metres confirming presence of Rare Earths.



Varginha Mineracao clay processing plant located in Poços De Caldas

Geological Highlights

The Colossus Project has never been tested beyond 3 metres into the “REE Accumulation” Zone



1-2 metre thick organic humic layer

~2 metre thick “leached layer” where REE ions have been remobilised downwards. Mostly oxidised clays.

>10m thick “REE Accumulation zone” of highly weathered clayey-saprolite, with affinity to ionically bond liberated REE ions.^{1,2}

1 Adsorption of rare earth elements in regolith-hosted clay deposits, A. Borst, M. Smith et al., 2020

2 Review on the Development and Utilization of Ionic Rare Earth Ore, X. Luo, Y. Zhang, H. Zhou et al., 2022

3 ASX:MEI Announcement dated 01 May 2023 May 2023 ‘Caldeira REE Project Maiden Mineral Resource’

4 VMM ASX announcement dated 01 August 2023 ‘Acquisition Potential Tier One Ionic Clay Rare Earth Project’

- A total of 34 historic holes were completed by hand-held auger to a depth of 3 metres. All holes were drilled from surface and ended in mineralisation⁴:

- 3m at 2,003ppm TREO (22% MREO)
- 3m at 1,997ppm TREO (22% MREO)
- 3m at 1,785ppm TREO (34% MREO)

- Both Cupim South and Caminho Das Pedras (Colossus) prospects share the same saprolite hill which the Cupim Vermelho Norte (104Mt @2,485ppm TREO) and Dona Maria (94Mt @2,320ppm TREO) resources are formed on, respectively³.

- Hole CVN-I87 was drilled 5m from Colossus intersecting 15m @3,127ppm TREO. Hole DM2-06 was drilled <5m from Colossus intersecting 11.3m @2,502ppm³.

COLOSSUS – A TRUE IONIC CLAY REE PROJECT



	Ionic Clay ¹	“REE in Clay”	Hard Rock
LEACHING AGENT	Ammonia Sulfate (weak salt)	HCl, Nitric Acid, Sulfuric Acid, Aqua Regia	HCl, Nitric Acid, Sulfuric Acid, Aqua Regia
LEACHING TEMPERATURE	Room Temperature	50 – 80 Degrees	Up to 800°C
LEACHING PH LEVEL	3 to 5	< 2 (highly acidic)	< 2 (highly acidic)
LEACHING TIME	15 to 60 minutes	2 – 24 hours	2 – 24 hours

Viridis obtained exceptional recoveries through Ammonia Sulfate leaching at pH4, room temperature, with 30 minutes leaching cycle and no sample preparation. This illustrates Colossus as a true Ionic Clay Project which will benefit from superior leaching and extraction economics.

1 Review on the Development and Utilization of Ionic Rare Earth Ore, X. Luo, Y. Zhang, H. Zhou et al., 2022

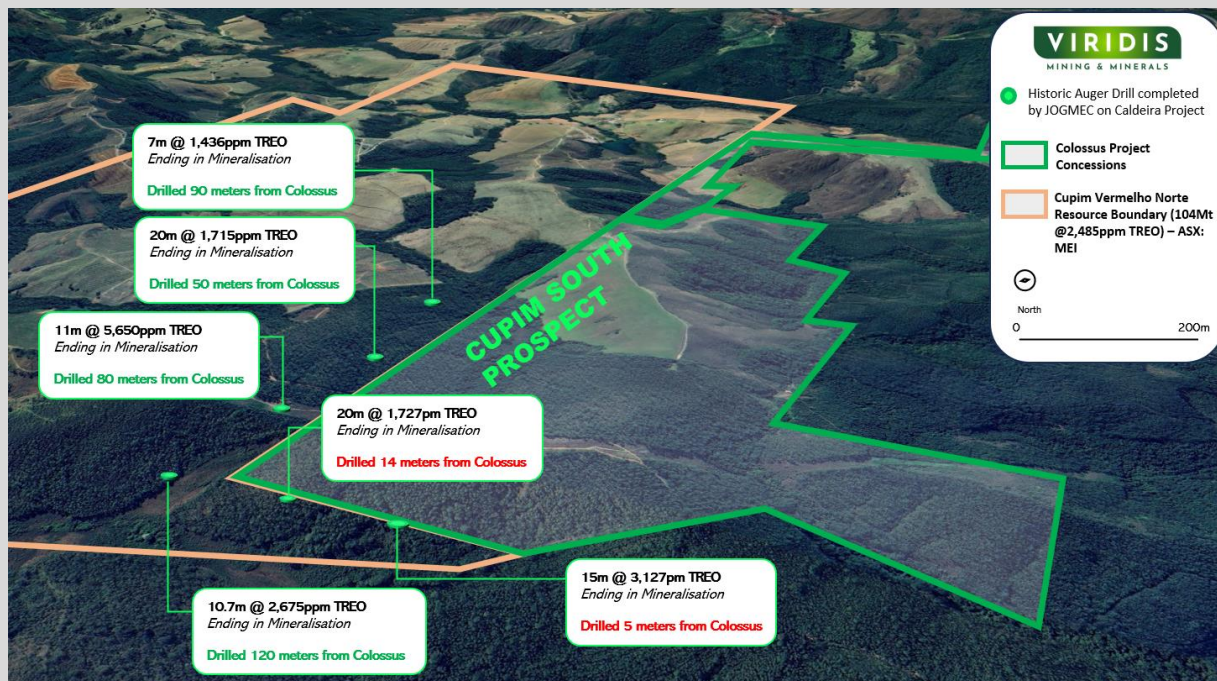
The Ionic Advantage

- Despite lower grades & recoveries of Ionic Clay Rare Earths, the extraction of Ionic Clays is multi-folds cheaper from an operational and capital perspective.
- Key barrier to entry for Hard-Rock Rare Earth projects is start-up CAPEX. Hence, the low CAPEX Ionic Clay’s using simple extraction provides a highly economic & disruptive opportunity for Viridis.

Colossus Metallurgy²

- Preliminary network at has proven Colossus hosts IAC mineralisation through surface grab samples from “leached layer” sent for Ionic testing.
- Exceptional average recovery of 46% and 40% for Nd and Pr respectively with Ammonia Sulfate, with no sample preparation taken prior to sending to lab.
- Significant scope for optimisation as Viridis intends to complete deeper advanced metallurgical testing.

2 VMM ASX announcement dated 29 August 2023 ‘Initial Metallurgical Work Confirm Colossus True AIC Project



Colossus Drilling

- Phase I of maiden drilling program will focus on Mining Licenses which are adjacent to the Dona Maria 1 & 2 IAC resource.
- Three auger rigs mobilised which will be able to test depth extensions of historic 3m auger holes.
- Phase II will focus on Southern and Western Licenses, with priority drilling on the Cupim South Prospect.

Satellite image of Cupim South Prospect, an extension of the Cupim Vermelho Norte resource body near JOGMEC historic auger holes.

Value for shareholders is generated by the drill bit

- Viridis has commenced drilling within 6 weeks of signing the agreement to acquire REE rights to the Colossus project.
- Over the following months Viridis intends to conduct aggressive drilling in order to progress the Colossus Project into a potential Tier-I Ionic Clay mineral resource.

RARE EARTHS MARKET

Developing a new supply chain
of Critical Metals



RARE EARTHS – RACE TO DEVELOP WESTERN SUPPLY CHAIN

Poços De Caldas Alkaline Complex presents an opportunity to be the next South China Rare Earth Hub

“Significant investment by governments in the US, the EU and Australia is now going into rare earths...However, there must be further financial support throughout the supply chain to reduce dependence on China.” – Wood Mackenzie

Australia joins Western alliance on critical minerals



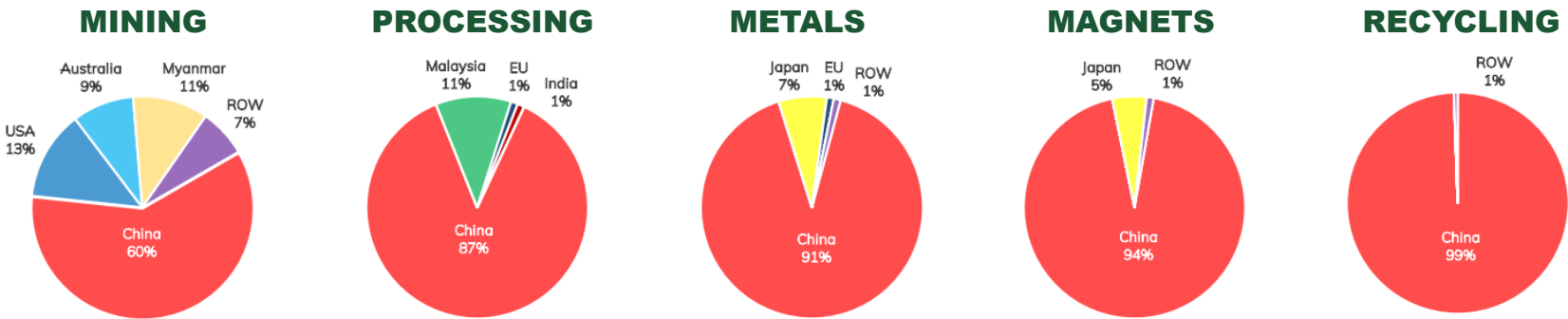
Stuart McKinnon | The West Australian
Tue, 12 July 2022 1:02PM



Source: N.LePan, Visual Capitalist, 2021

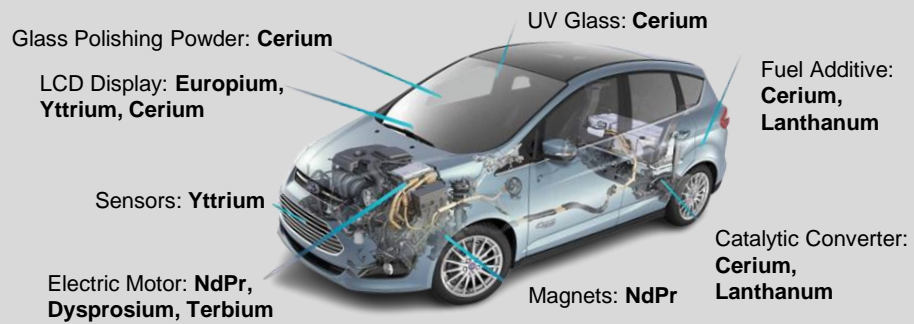


CHINA CONTROLS EACH STAGE



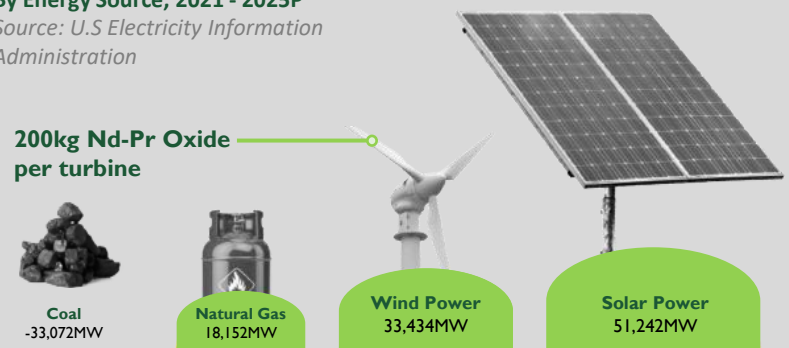
RARE EARTHS – TECHNOLOGY METAL FOR A GREEN FUTURE

EACH HYBRID VEHICLE USES 4.5KG OF REE ON AVERAGE

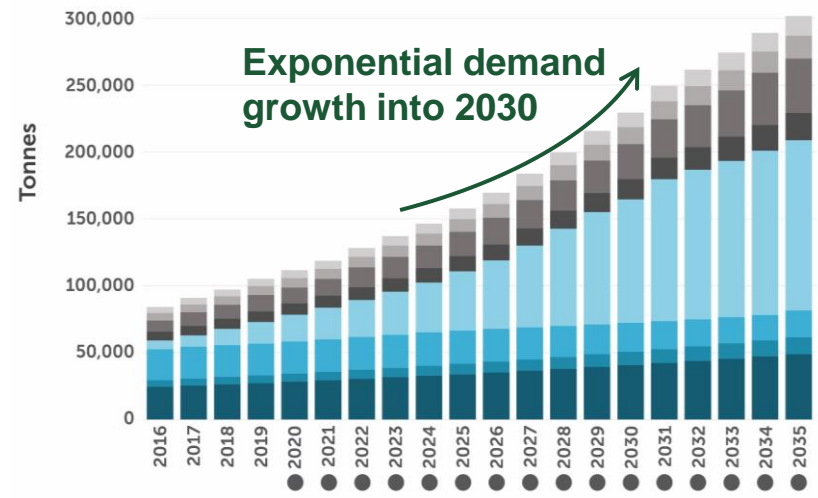


NET ELECTRIC CAPACITY ADDITIONS

By Energy Source, 2021 - 2025P
Source: U.S Electricity Information Administration



FORECAST NdFeB MAGNET CONSUMPTION



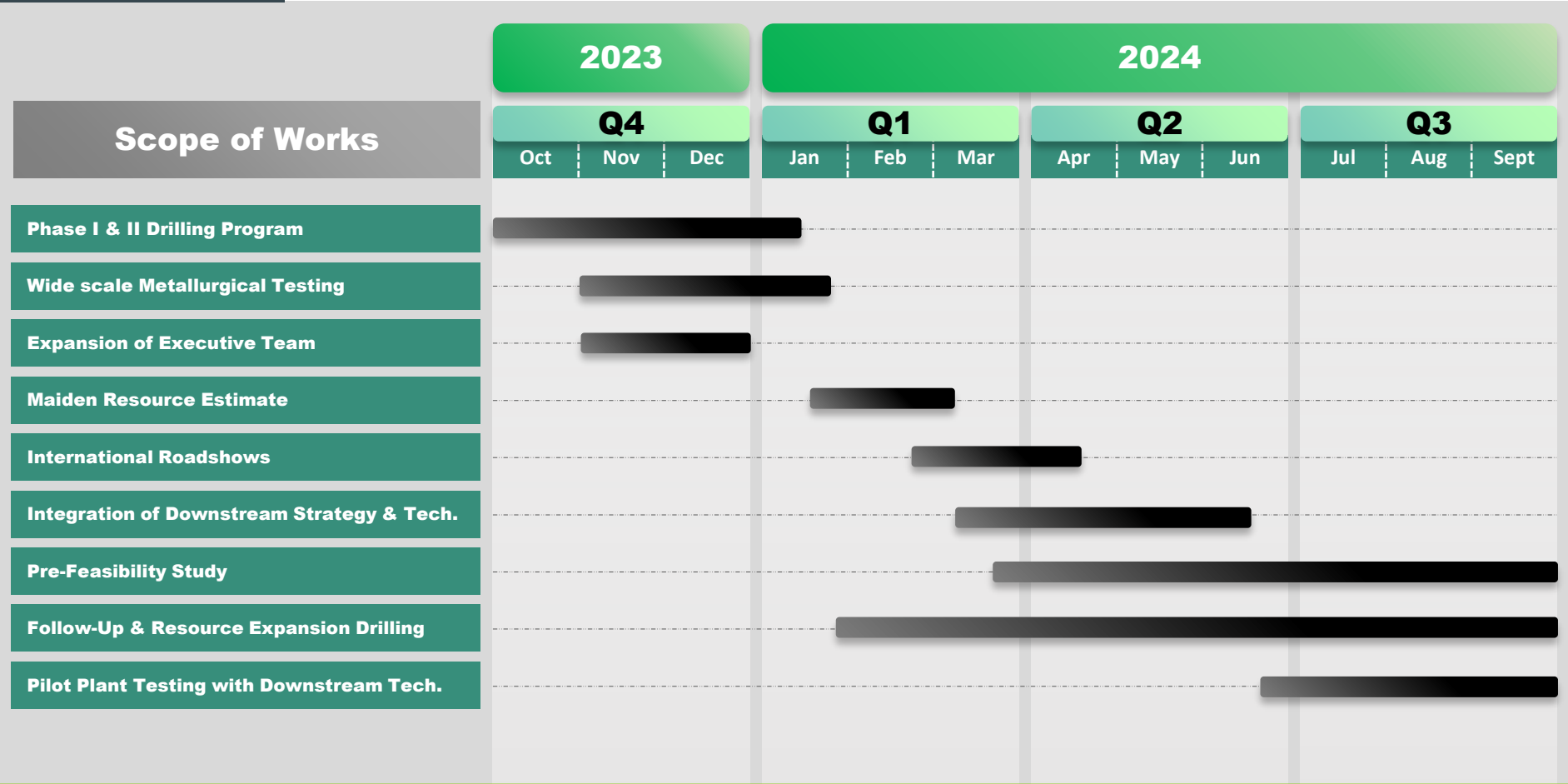
*'Other' includes MRI, elevator motor, magnetic separator, robotics and industrial applications.
Source: CRU – Rare Earth Report 2020

● Forecast



INVESTMENT HIGHLIGHTS

Right asset, right location with
a fast-moving team



INVESTMENT HIGHLIGHTS

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- Poços De Caldas is unparalleled in terms of geology, for both size & grade of Ionic Rare Earths.
- Alkaline Complex homogenously enriched in Rare Earths and is gaining global recognition.
- Highest grade for Ionic Clays globally.
- Preliminary met-work from multiple grab samples of Saprolite returned Ionic Mineralisation.
- Samples underwent NO drying or crushing prior to laboratory analysis, and were taken from the leached layer. This indicates significant upside for network optimisation during secondary testing.

Secured last major opportunity in PDC

- Second major mover into the Poços De Caldas ("PDC") Alkaline Complex.
- Remaining concessions which could potentially be consolidated into one contiguous major REE Project are held by major corporations focussed on Bauxite & Alumina.

World Class Geology

Significant Exploration Upside

- Colossus drilling has never tested the body beyond 3 metres depth.
- All shallow holes ended in mineralisation.
- Historical drilling & grab samples to date are all assayed from humic & leached layers, where REE grade tends to be lowest.

True Ionic Clay Project

Fast-Moving Team

- Highly experienced In-Country team to advance Colossus at a rapid pace.
- Dr Braga led CBMM's entire geological team. Dr Petersen is a geology veteran in Brazil with significant experience in Ionic Clays hosted within the PDC Alkaline Complex.
- Consistent news flow expected with aggressive maiden drilling programs now underway.

THANK YOU

Further Enquiries:

Agha Shahzad Pervez

Executive Chairman

+61 3 9071 1847

agha@viridismining.com.au

Shannon Robinson

Carly Terzanidis

Joint Company Secretaries

+61 3 9071 1847

cosec@viridismining.com.au