



TARUGA

**Defining Maiden JORC REE-
Clay Resource at Morgans
Creek**

**Melbourne Investor Presentation
December 06 2022**



CORPORATE OVERVIEW

Focus on Rare Earth Elements & Copper in SA

Capitalisation Data⁽¹⁾

\$0.038

Share Price

690M

Basic S/O

A\$0.65M

Receivables ⁽³⁾

~\$27M

Market Cap

\$5.4M

Net Cash⁽²⁾

~\$21.6M

EV

Board & Management

THOMAS LINE

CEO

GARY STEINPREIS

Non-Executive Director

PAUL CRONIN

Non-Executive Director

ERIC DE MORI

Non-Executive Director

DAVID CHAPMAN

Non-Executive Director

DAN SMITH

Company Secretary

1. As at market close 01 December 2022

2. Cash and receivables as of 31 October 2022

3. Accelerated Discovery Initiative funding announced 16/06/22



Share Price and Volume (Jul - Dec 2022)



Top Shareholders

Board & Management

~10%

Top 20

~50%

Rare Earths Critical for Multiple High Value Products

Rare Earths are essential to obtain high-performance with the lowest amount of energy

PRIMARY USES



Electric Vehicles

- Increased range autonomy
- Better use of space and lower weight
- Faster acceleration
- ≈30% lower battery size: Reduces lithium, cobalt & nickel content



Wind Turbines

- More energy generated with less wind
- Lower maintenance cost

OTHER RELEVANT USES

- Defence
- Aerospace
- Water Pumps
- E-Trains
- Robotics
- Air Conditioners

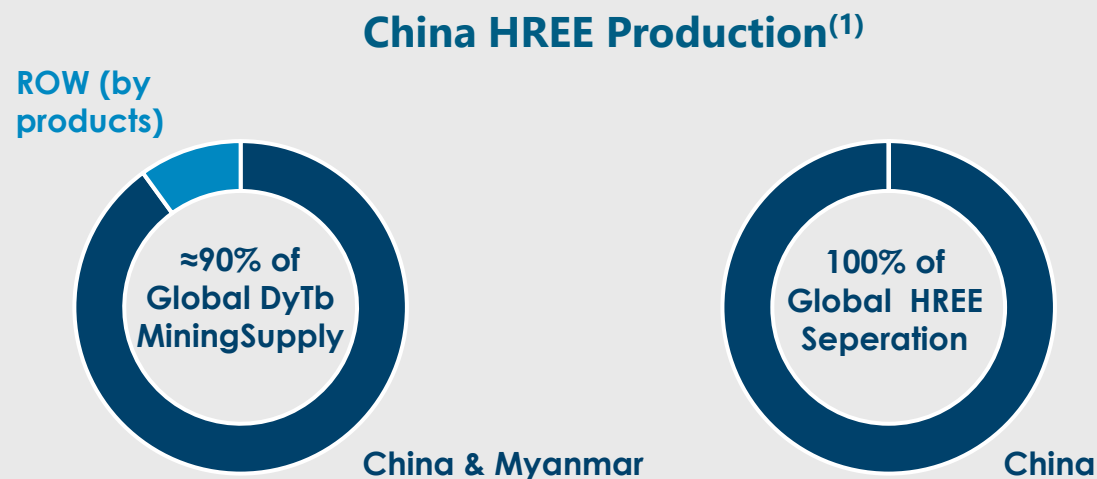
PERMANENT MAGNETS TECHNOLOGY

- Viability of energy transition
- Reduced energy input
- Increased mechanical response
- Smaller battery size

The electric revolution requires efficiency in order to reduce energy consumption

Heavy Rare Earths Offer a Competitive Advantage

China currently dominates the global supply of REE, specially the Heavy Rare Earth Elements



The ionic clay advantage:



High value from HREE content



Negligible radioactivity



Low cost and capex due to very simple metallurgy

Despite Chinese dominance, the Asian giant has been unable to lift HREE quotas

Production Quotas	LREE (Tonnes)	HREE (Tonnes)	Total (Tonnes)
2022	190,850	19,150	210,000
2021	148,850	19,150	168,000
2020	120,850	19,150	140,000
2019	112,850	19,150	132,000
2018	100,850	19,150	120,000
2017	87,150	17,850	105,000
2016	87,150	17,850	105,000
2015	87,150	17,850	105,000
2014	87,150	17,850	105,000
2013	75,950	17,850	93,800
CAGR	9.7%	0.7%	8.4%

Source: Ministry of Land Resources (MLR) of China
 (1) As of 2021; Includes Myanmar (2) Per United States Geological Survey

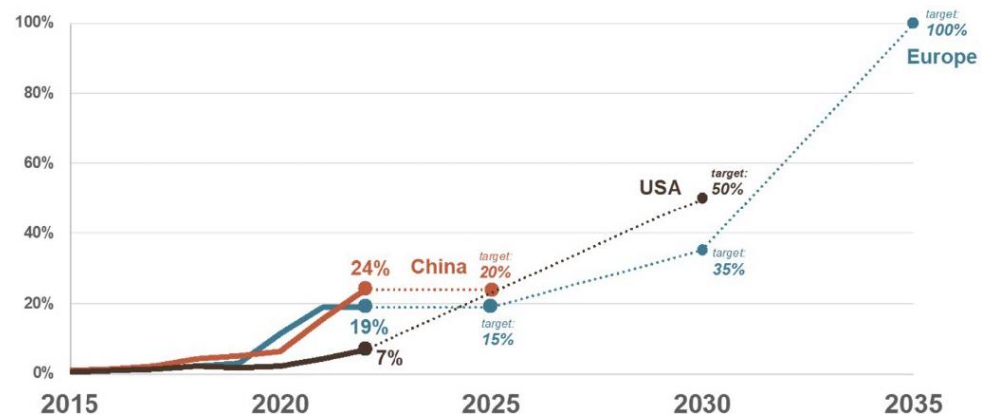
China's HREE dominance stems from its ionic clay deposits, a rare and unique source of REE



Transition to Green Energy Technologies will drive Exponential Demand

Global EVs demand will grow at CAGR 30% from 2021 to 2030*

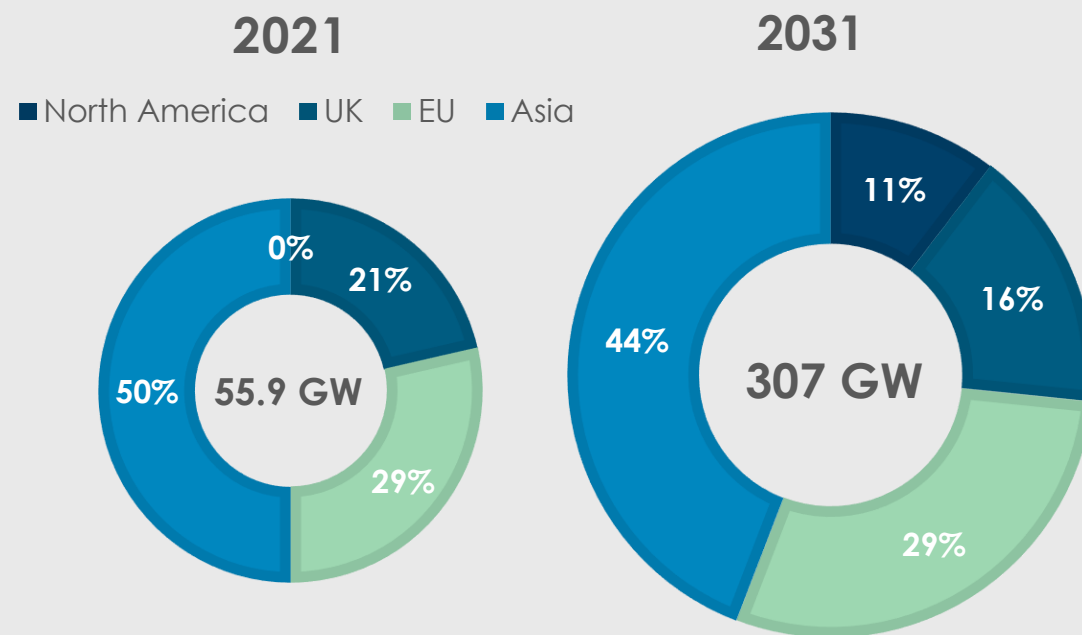
EVs adoption rate (US, EU, China)



- China has already surpassed the 20% EV share target contained in its Energy Saving and Emission Reduction Work Plan, two years ahead of the target year of 2025
- Europe to prohibit the sale of non-electricvehicles by 2035
- US targets 50% EV sales by 2030

Off-Shore Wind Turbines installations will grow at CAGR 20% from 2021 to 2030**

Offshore wind installations by region



Source: (*) International Energy Agency Sustainable Development Scenario, (**) Global Wind Energy Council (GWEC) Global OffshoreWind Report 2022

RARE EARTHS & COPPER IN SA

JORC REE Resource Drilling to Commence Q1 2023

Great infrastructure (power, rail and ports)

Mt Craig Project

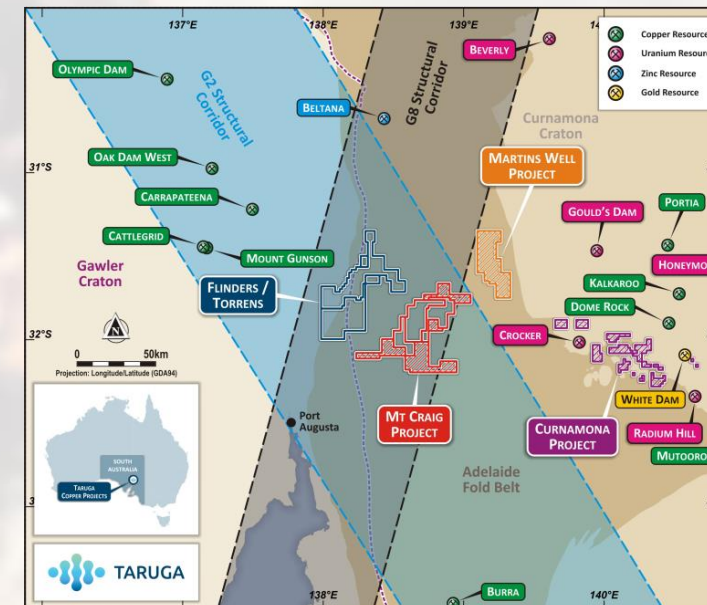
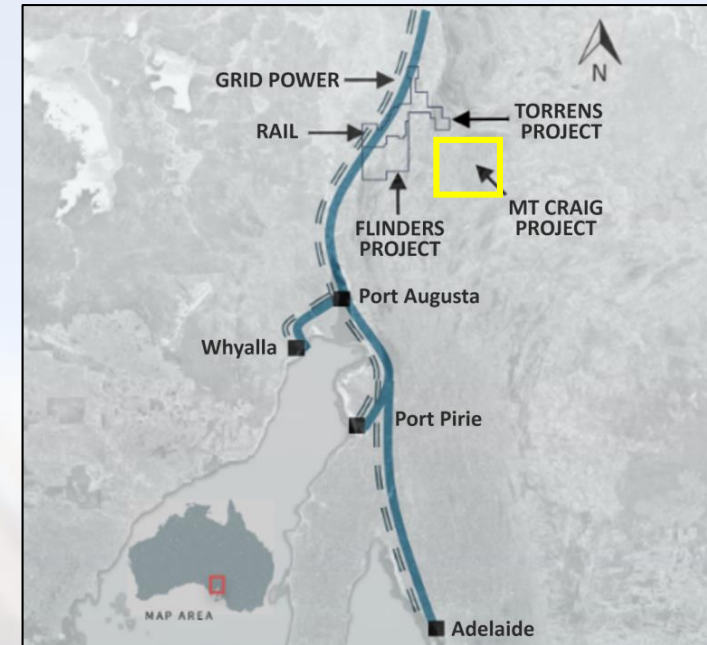
Clay Hosted REEs (1500km² 100% TAR)

- A new high-value REE province is being uncovered by Taruga, in the underexplored Adelaide Fold Belt
- Commence 6,000m – 8,000m JORC REE resource drilling Q1 2022
- Huge exploration upside potential with numerous regional REE and targets identified over 34km strike

Flinders IOCG Project

Copper (1400km² 100% TAR)

- Located in the Gawler Craton – Home of Copper Giants
- Olympic Dam (10 billion tonnes @ 0.82% Cu, 0.31g/t Au, 1.6g/t Ag 260ppm U3O8) ~ 160km
- Carrapateena (760 Mt @ 0.78% Cu, 0.3g/t Au, 3.3g/t Ag and 143ppm U3O8) ~ 60km
- High grade IOCG mineralisation at surface





MT CRAIG PROJECT

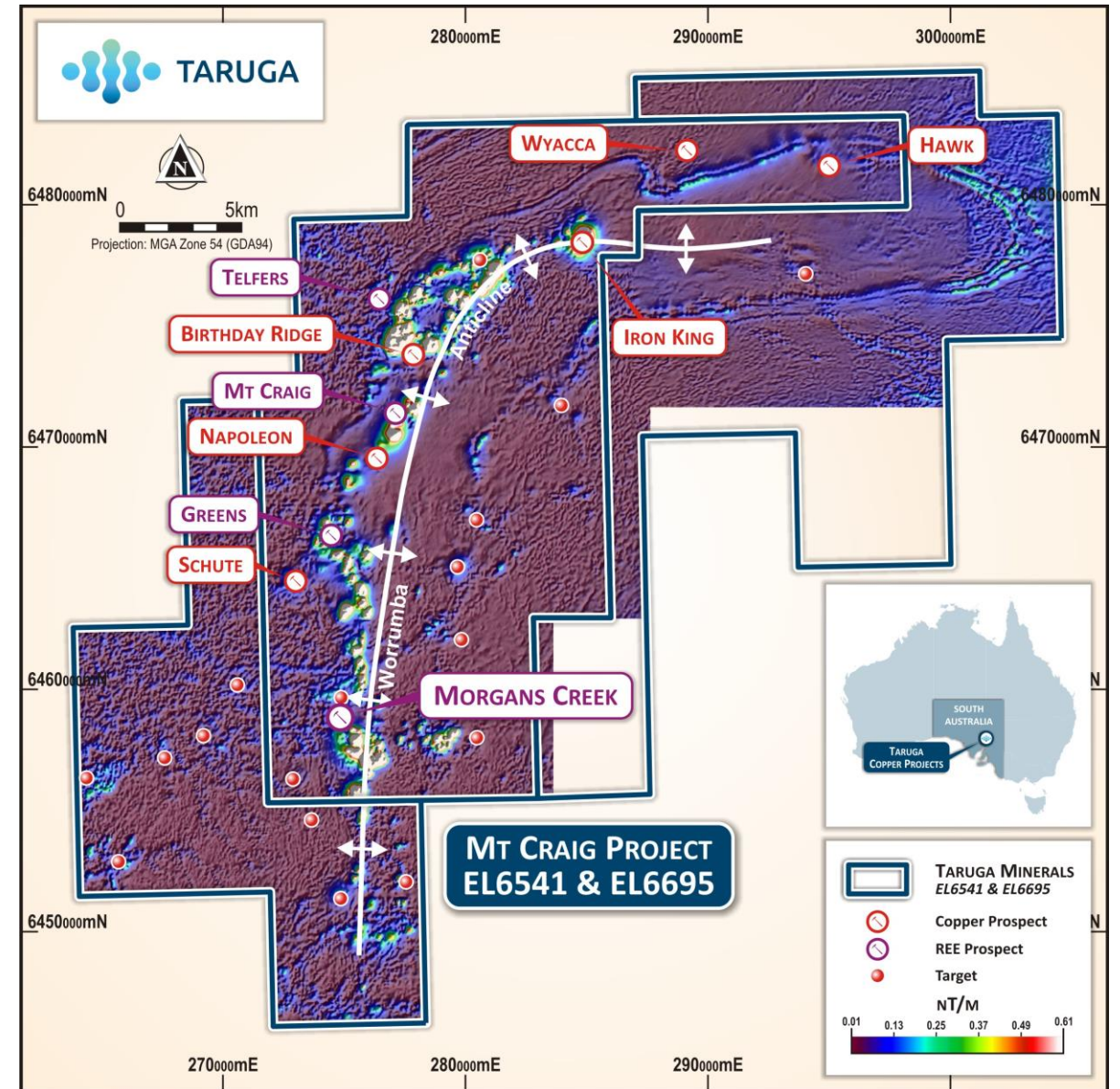
High-Grade REEs & Copper

PROJECT SUMMARY

MT CRAIG PROJECT (100% TAR)

Clay-hosted rare earth elements, and copper

- Large 1,500km² project (100% TAR)
- The largest diapiric breccia system in Australia – the Worrumba Diapir (endowed with high value magnet REEs and copper)
- 34km of prospective strike (REEs and copper discovered)
- Taruga 'owns the whole system' – no competitors
- REEs and Copper exploration **Funded by State Government (\$650,000 in funding)**

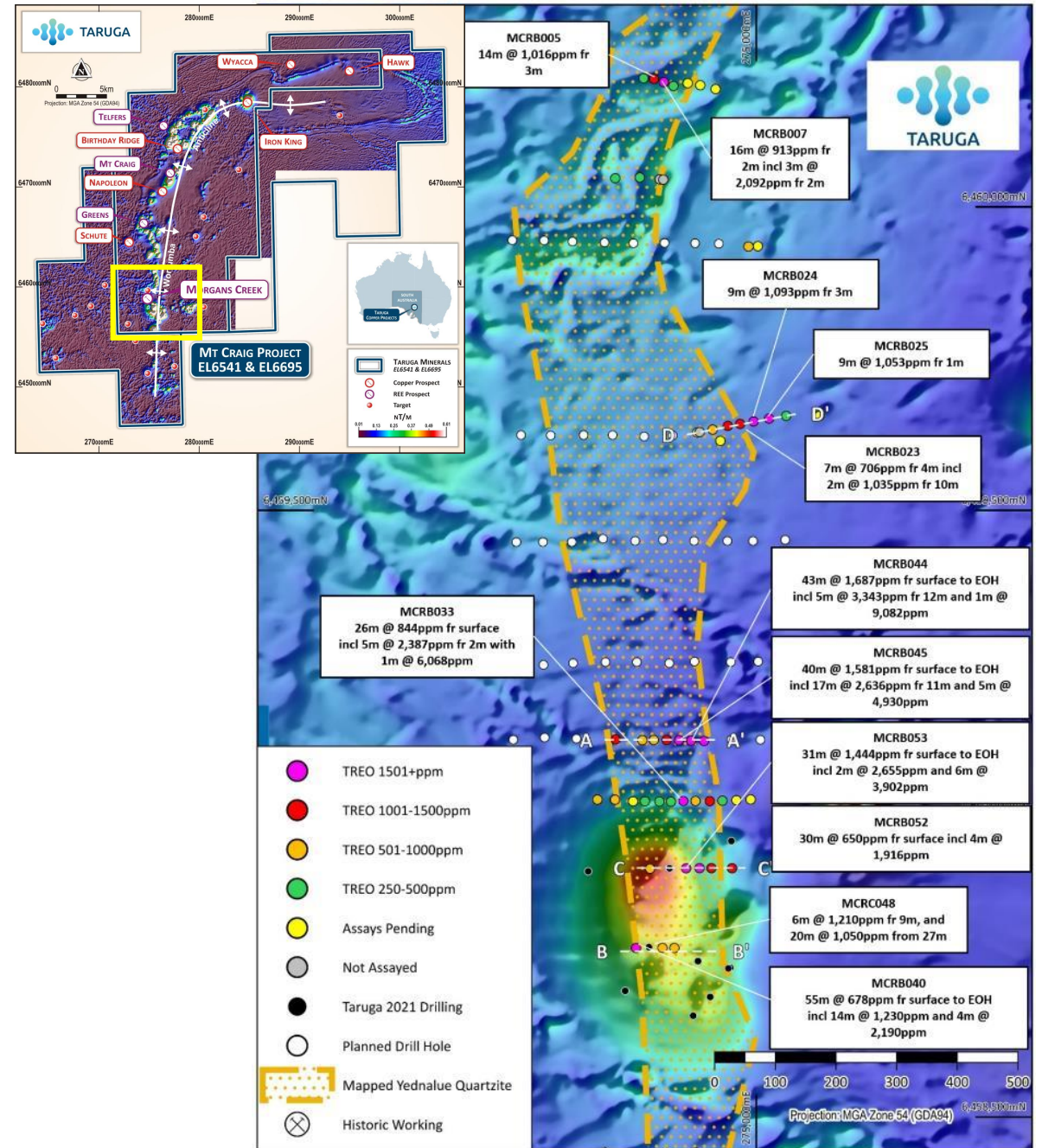




MORGAN'S CREEK REE'S

New Discovery – Advancing to JORC Resource

- REE mineralisation from surface to end of hole
- Long strike
- High basket value
- Heavy REE and magnet REE dominate
- Low deleterious elements
- Thick mineralisation
- Strong project fundamentals





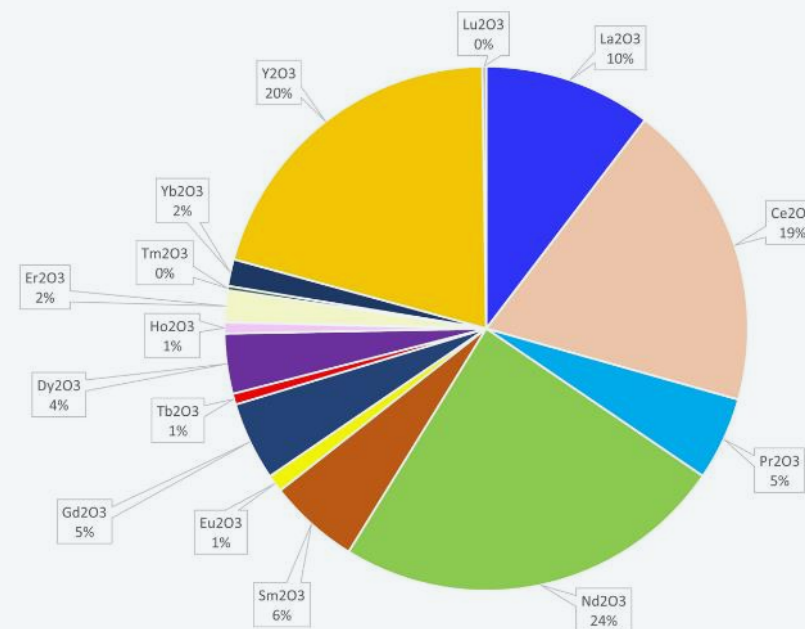
MORGAN'S CREEK

REE basket - Standing Out from the Pack

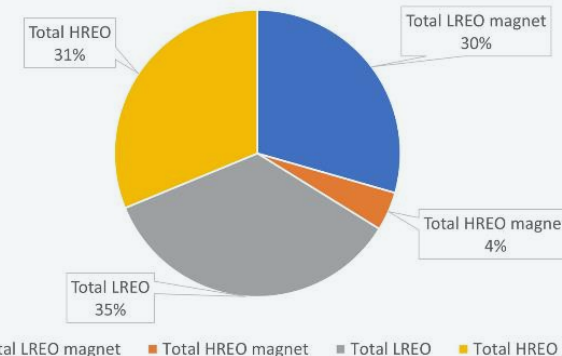
- Exceptional Basket and positive initial metallurgy
- High MREO (Nd + Pr + Dy + Tb) content (34% MREO average) above the 25% MREO market average compared to peers
- High Tb₂O₃ and Dy₂O₃ content (~13% of MREO, and ~5% of TREO)
Low levels of deleterious elements: cerium, thorium and uranium, calcium and aluminium
- Positive preliminary acid leach test results with recoveries¹ of 85% TREO and 93% MREO in the clay zone

¹Recovery refers to the % extraction of soluble REEs as indicated by the modified ("weak") aqua regia analytical analysis relative to the Fusion/Full Digest analysis obtained by dividing the weak aqua results by the Fusion/Full Digest results for a particular sample.

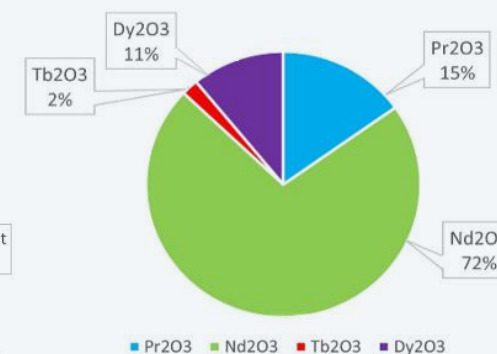
DISTRIBUTION OF RARE EARTH OXIDE ELEMENTS



DISTRIBUTION OF HEAVY & LIGHT RARE EARTH OXIDE ELEMENTS



DISTRIBUTION OF MAGNET RARE EARTH OXIDE ELEMENTS

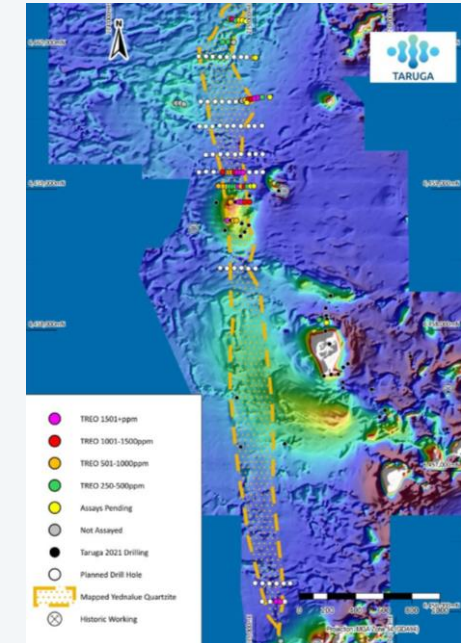
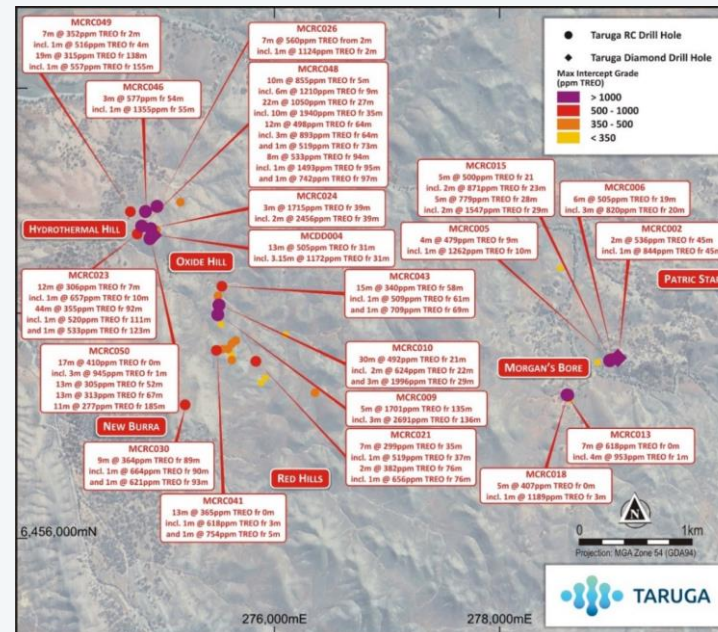




MORGAN'S CREEK

Next Steps

- Metallurgical work with ANSTO to optimize a commercial flowsheet
- Next phase of drilling (RAB and RC)
- Define maiden JORC resource at Morgans Creek, targeting Yednalue formation (2023)
- Maiden JORC resource by Q4 2023 (6,000 - 8,000m RAB + RC)
- Regional Exploration focused on new discoveries





FLINDERS PROJECT

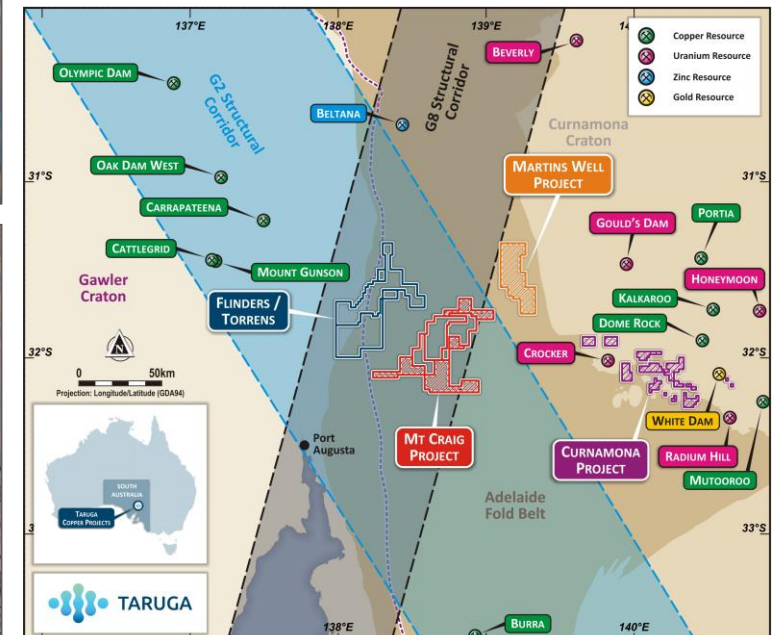
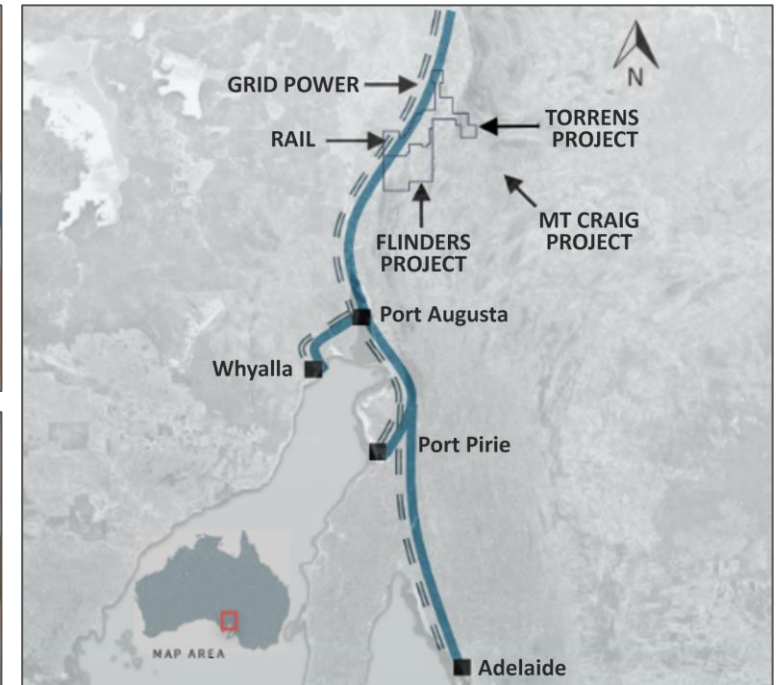
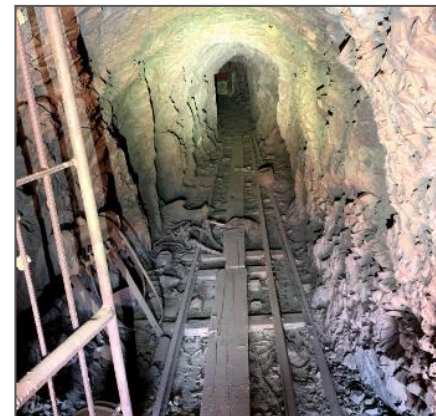
Iron-Oxide-Copper-Gold (IOCG) Cu-Au-Ag

PROJECT SUMMARY

FLINDERS & TORRENS IOCG PROJECTS

High-grade IOCG targets over 15km of strike

- Well defined drill targets over **15km of strike** at Flinders
- ~ **1500km² land position**
- **Power and Rail on lease**
- **Outcropping** high-grade **IOCG breccias (Cu-Au-Ag)** supported by strong gravity and magnetic anomalies – never been drilled
- Mineralised hematite and magnetite breccias
- Only known outcropping IOCG project in South Australia
- Nearby Monster IOCG's:
 - Olympic Dam (10 billion tonnes @ 0.82% Cu, 0.31g/t Au, 1.6 g/t Ag 260ppm U3O8) ~ 160km
 - Carrapateena (760 Mt @ 0.78% Cu, 0.3g/t Au, 3.3g/t Ag and 143ppm U3O8) ~ 60km
- Ministerial Approvals under the Aboriginal Heritage Act are required for the planned drilling program – awaiting decision from the Minister

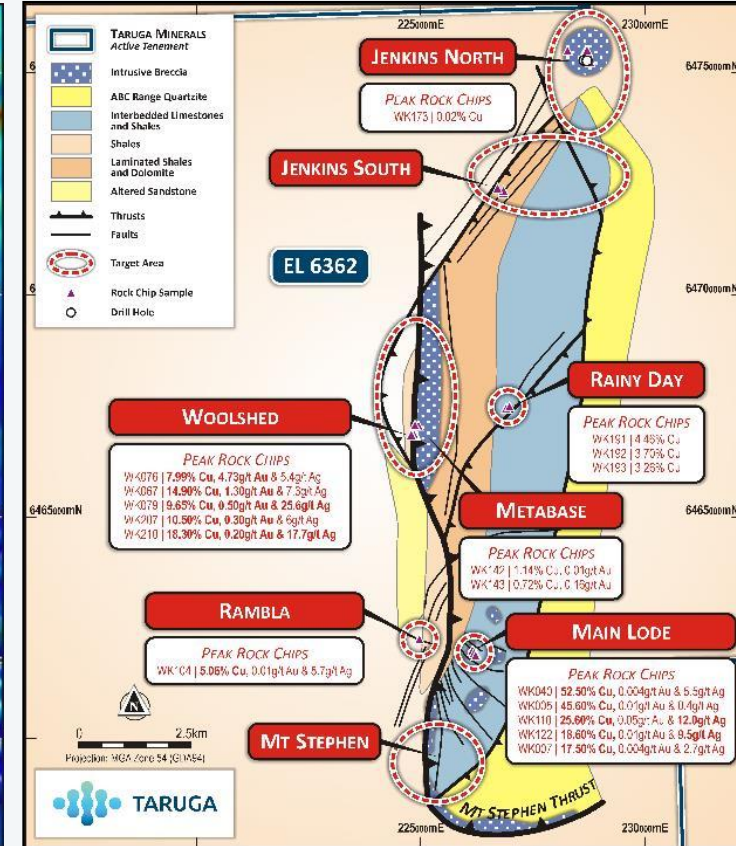
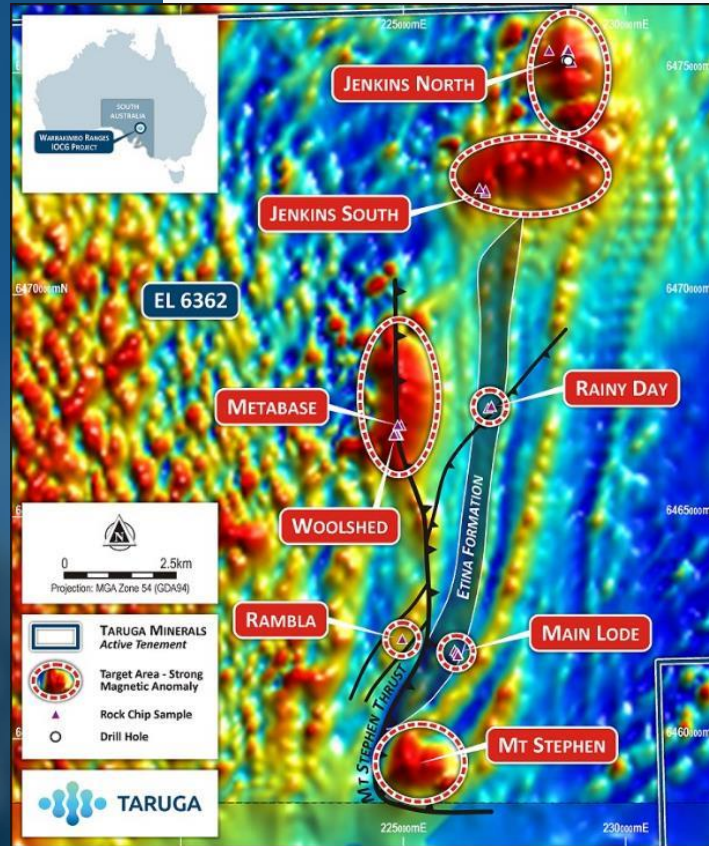




FLINDERS IOCG PROJECT

Surface mineralisation over a strike-length of 15km

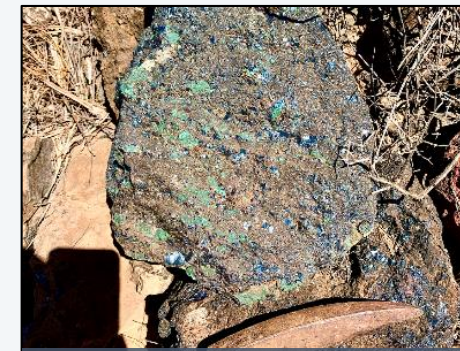
- The Flinders Project sits on the eastern margin of the Gawler Craton and is dominated by a series of major thrusts and faults
- Priority-1 prospects – Woolshed and Jenkins
- Cu-Au-Ag mineralised hematite/magnetite IOCG breccias at **Jenkins, Woolshed, Main Lode**
- Only IOCG project with outcropping IOCG mineralisation in SA, that we are aware of
- Coincident and semi coincident pipe-like magnetic and gravity anomalies
- Modelling suggests large scale and very high density/highly magnetic response at Jenkins



Sample	Cu %	Au g/t	Ag g/t
WK005	45.6	0.01	0.4



Sample	Cu %	Au g/t	Ag g/t
WK076	8.0	4.73	5.4



IOCG Mineralisation



WHY **INVEST NOW?** UPCOMING CATALYSTS

- ANSTO metallurgical test results (early Dec)
- JORC resource drilling at Morgans Creek (early Q1 2023)
- Phase 2 REE drilling assay results (mid-late Q1)
- Phase 2 metallurgical sample results (ANSTO) (late Q1)
- Regional REE exploration + drilling (new priority REE targets over Mt Craig Project (late Q1/early Q2 2023)
- Third phase resource drilling at Morgans Creek (mid-late Q2 2023)
- Finalising and reporting maiden JORC resource (Q3 – Q4 2023)
- Continued regional exploration, and drilling on new regional REE discoveries





TAKE HOME MESSAGES

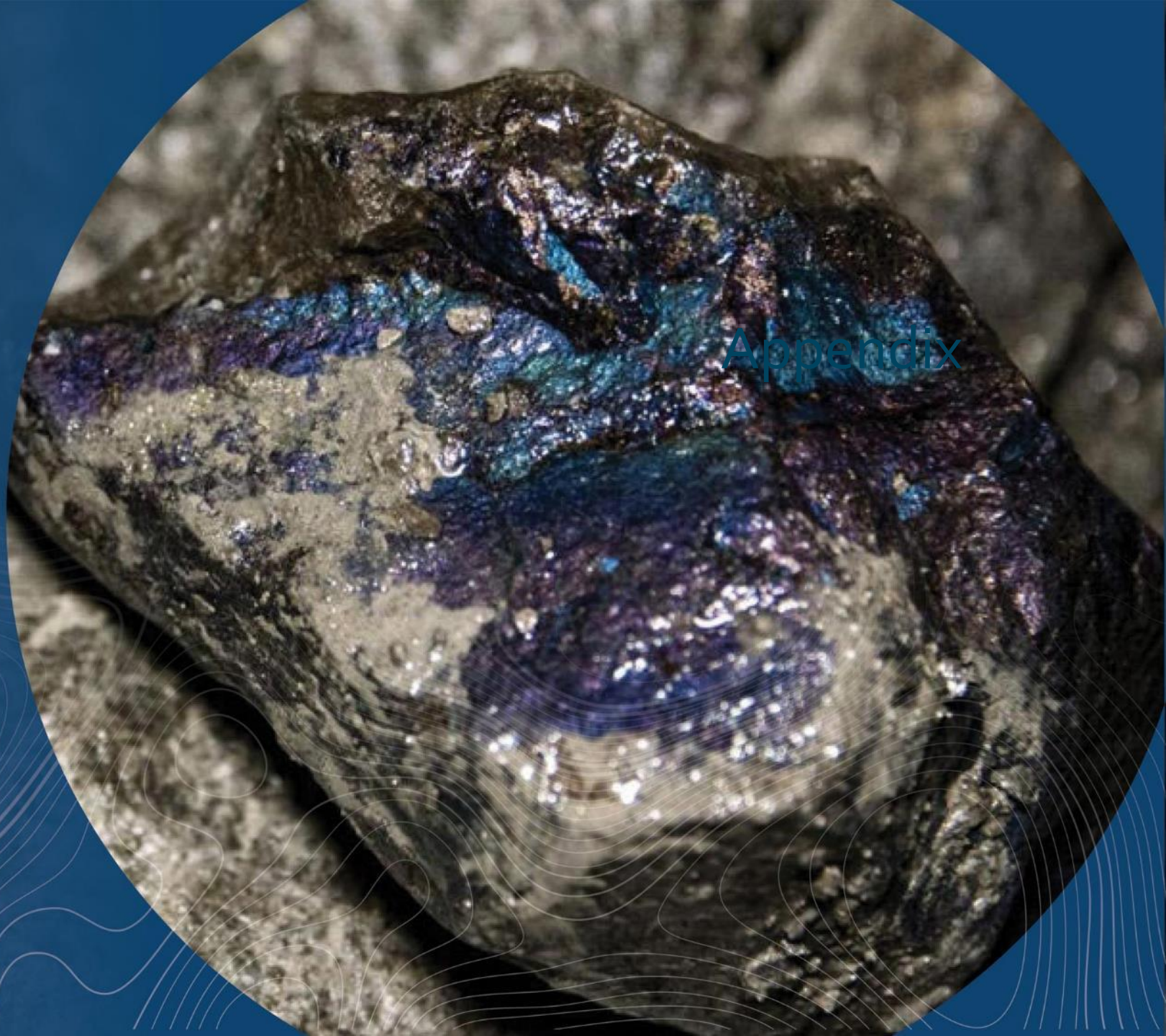
- Strong cash position of ~\$5.4M
- New REE discovery – working toward JORC in 2023
- REEs have very high MREO and HREO content (standout)
- Pipeline of regional REE and Copper targets
- Strong land position ~ >4000km²
- Large unexplored strike with significant new discovery potential
- Discovery focussed active explorers with a strong ESG framework





TARUGA

APPENDIX



Appendix

Competent Person Statement & Disclaimer



The information contained in this presentation has been prepared by Taruga Minerals Limited (Company).

Competent Person Statement

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr Brent Laws, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Processing and modelling of the geophysics have been conducted by Mr Jim Allender, a geophysical consultant to the Company through Allender Exploration. Jim Allender is a member of the Australian Institute of Geoscientists (AIG) and is an experienced geophysicist with over 30 years' experience. Mr Allender has sufficient experience relevant to the style of mineralisation and the type of deposit under consideration. Mr Laws is the Exploration Manager of Taruga Minerals Limited. Mr Laws 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 Resource and Ore Reserves". Both Mr Laws and Mr Allender consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Taruga confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Disclaimer

To the maximum extent permitted by law, the Company and their related bodies corporate, affiliates and each of their respective directors, officers, partners, employees, advisers and agents and any other person involved in the preparation of the presentation disclaim all liability and responsibility (including without limitation any liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use or reliance on anything contained in, or omitted from, the presentation.

No representation or warranty, express or implied, is given as to the fairness, accuracy, completeness, likelihood of achievement or reasonableness of any assumptions, forecasts, prospective statements or returns contained in the presentation. Such assumptions, forecasts, prospective statements or returns are by their nature subject to significant uncertainties and contingencies, have been based on current expectations about future events and are subject to risks, uncertainties and assumptions that could cause actual results to differ materially from the expectations described. The Company has no responsibility or obligation to inform you of any matter arising or coming to their notice, after the date of this presentation document, which may affect any matter referred to in the presentation.

All statements other than statements of historical fact included in this presentation including, without limitation, statements regarding future plans and objectives of Taruga, are forward-looking statements. Forward-looking statements can be identified by words such as "anticipate", "believe", "could", "estimate", "expect", "future", "intend", "may", "opportunity", "plan", "potential", "project", "seek", "will" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management of Taruga that could cause Taruga's actual results to differ materially from the results expressed or anticipated in these statements.

The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this presentation will actually occur and investors are cautioned not to place any reliance on these forward-looking statements. Taruga does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this presentation, except where required by applicable law and stock exchange listing requirements.

You must not rely on the presentation provided but make your own independent assessment of the presentation and seek and rely upon your own independent taxation, legal, financial or other professional advice in relation to the presentation and any action taken on the basis of the presentation. All information in this presentation is current as at 6/12/2022.



TARUGA

Contact

Thomas Line
Chief Executive Officer
Thomas.line@tarugaminerals.com.au
+61 8 9486 4036

Website: www.tarugaminerals.com.au

LinkedIn: [taruga-minerals-limited](https://www.linkedin.com/company/taruga-minerals-limited)

Twitter: [@MineralsTaruga](https://twitter.com/MineralsTaruga)