METEORIC RESOURCES

Investor Presentation

The World's Highest Grade Ionic Adsorption Clay REE Deposit

ASX:MEI

SEPTEMBER 2023

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The information in this presentation that relates to exploration results is based on information reviewed, collated and fairly represented by Dr Andrew Tunks a Competent Person and a Member of Australian Institute of Geoscientists #2820 and a consultant to Meteoric Resources NL. Dr Tunks has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results. Dr. Tunks consents to the inclusion in this report of the matters based on this information in the form and context in which it appears

The information in this presentation that relates to exploration results is based on information reviewed, collated and fairly represented by Dr Carvalho a Competent Person and aa Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Dr. Carvalho has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr. Carvalho consents to the inclusion in this report of the matters based on this information in the form and context in which it appears

The information in this presentation that relates to Mineral Resources is based on information compiled by Dr. Beck Nader, a Competent Person who is a Fellow of Australian Institute of Geoscientists #4472. Dr. Beck Nader is a consultant for BNA Mining Solutions. He 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 him as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr. Beck Nader consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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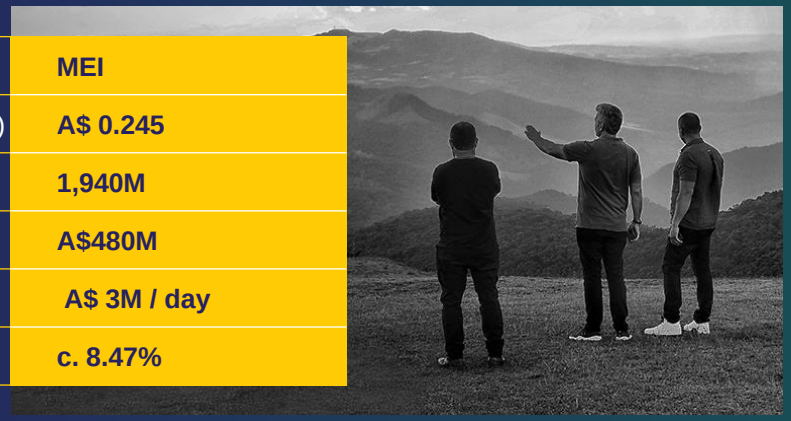
COMPANY OVERVIEW

Supported by an experienced and competent Board, the share price has performed significantly well this year

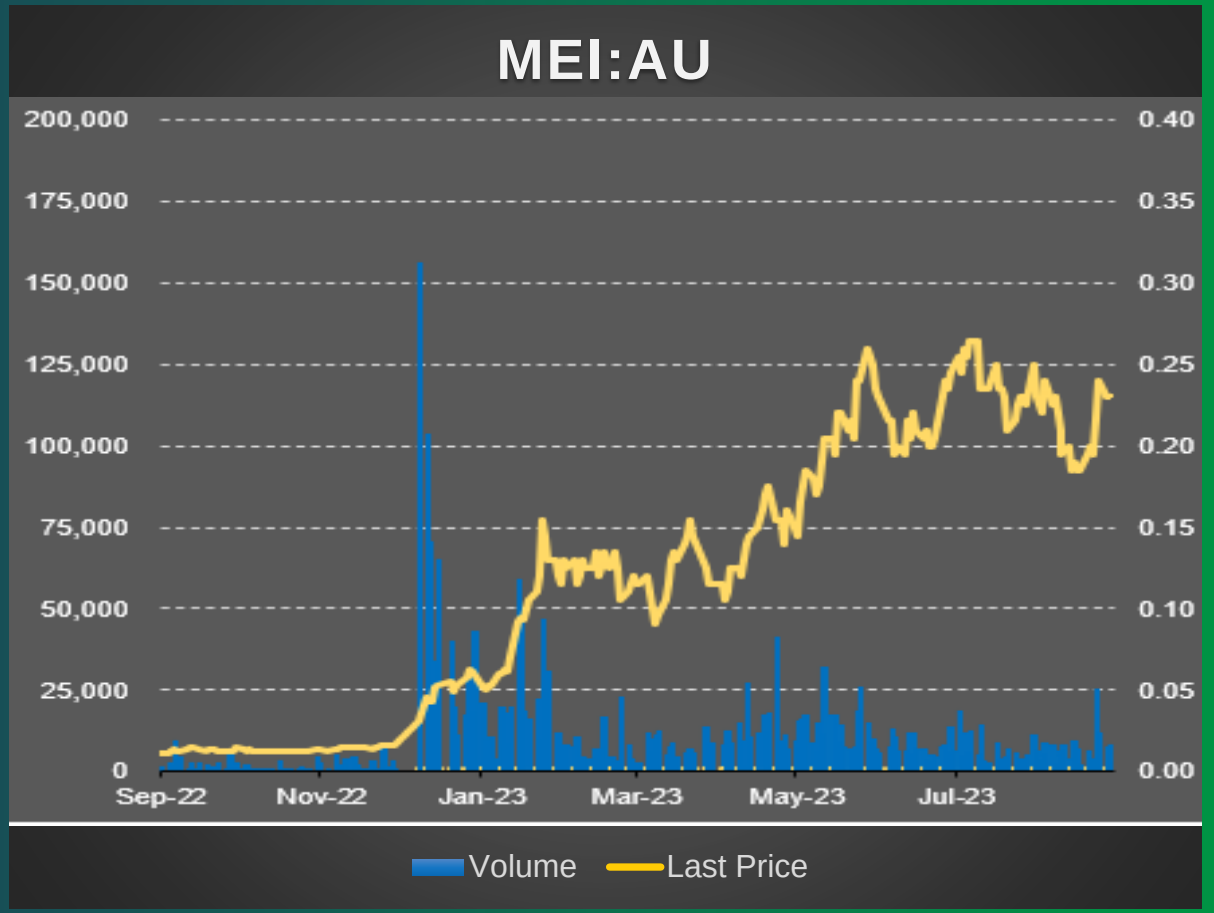
MEI Snapshot

ASX Code	**MEI**
Share Price (17/07/23 Close)	**A$ 0.245**
Shares on Issue	**1,940M**
Market Capitalisation	**A$480M**
Liquidity (3-Month Avg.)	**A$ 3M / day**
Largest Shareholder	**c. 8.47%**



Board of Directors

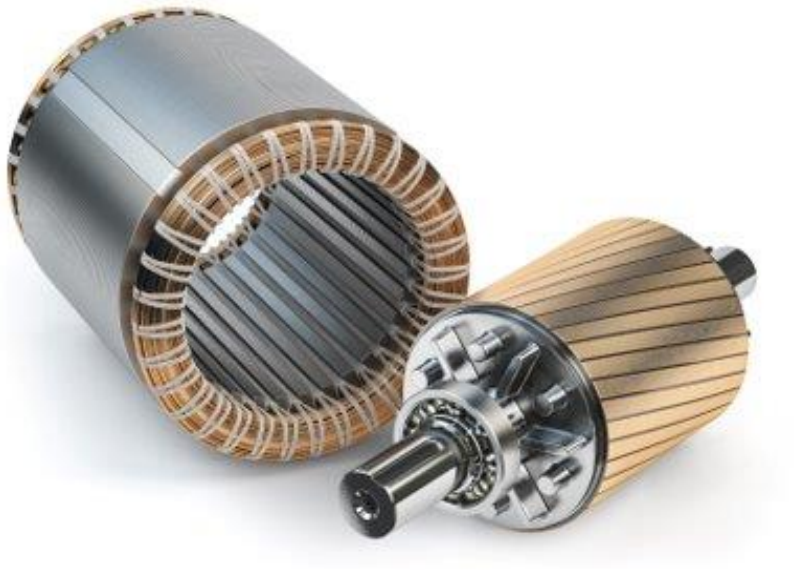
Executive Chairman	**Dr Andrew Tunks**
Executive Director	**Dr Marcelo de Carvalho**
Non-Executive Director	**Dr Paul Kitto**
Chief Executive Officer	**Nick Holthouse**



Director Experience and Background

NEWCREST MINING LIMITED | VALE | HASTINGS Technology Metals Limited | ACAP Energy

RARE EARTHS AND WHY WE NEED THEM



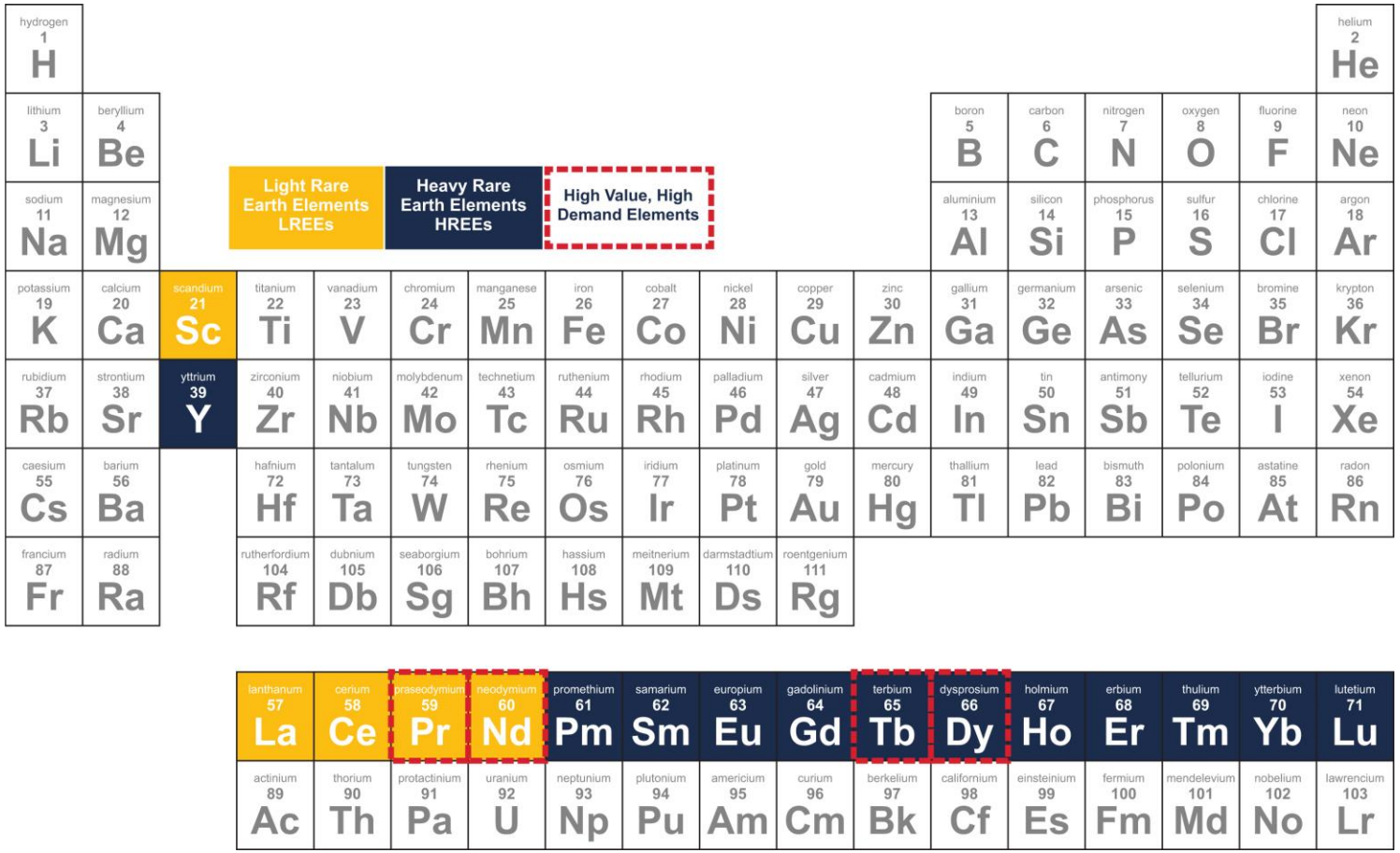
4 REE have permanent magnet power

praseodymium 59 Pr | neodymium 60 Nd

Light Rare Earth Elements (LREE)

terbium 65 Tb | dysprosium 66 Dy

Heavy Rare Earth Elements (HREE)



METEORIC RESOURCES

RARE EARTH DEPOSIT TYPES AND COMPARABLES

Ionic clay allows for expedited development timelines, reduced capex requirements and a higher value product

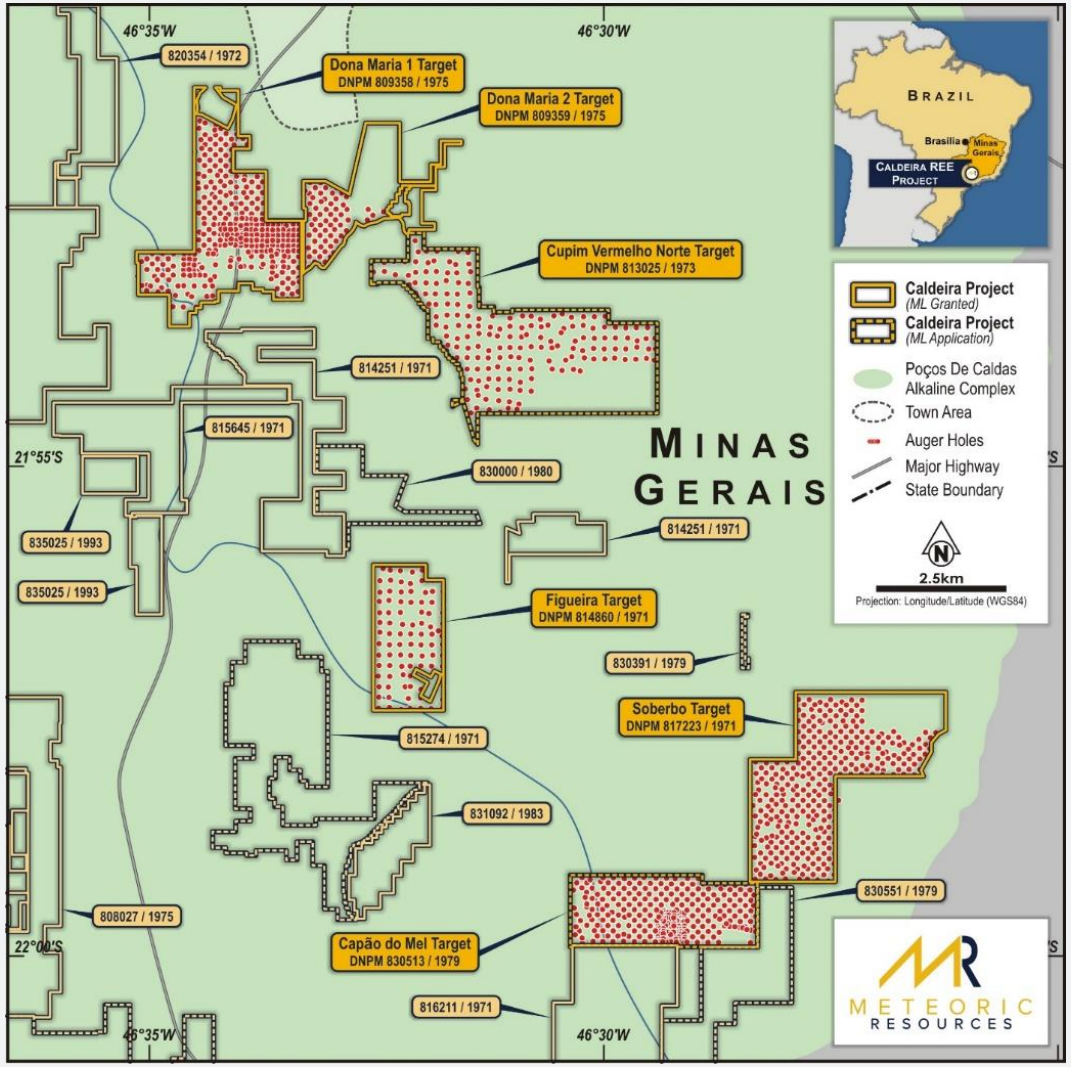
	Ionic Clay-hosted REE	Hard Rock-hosted REE
Location	▪ Predominantly mined in China and Myanmar	▪ Majority of production based in China,
Payability	▪ Contains both light and heavy REEs	▪ Typically light REEs only
Scale	▪ Lower initial capex allows for increased scalability ▪ Typically ~US$15/kg TREO annual output *(capital intensity)*[1]	▪ Typically ~US$150/kg TREO annual output *(capital intensity)*
Exploration	▪ Quick and inexpensive – aircore drilling into deeply weathered granite (clays)	▪ Similar to other hard rock base minerals requiring substantial drilling and geochemistry
Mining	▪ Surface mining, with minimal stripping of waste material ▪ Pits backfilled leaving no tailings or waste dumps	▪ Drill and blast with large mining fleet (typically, with high strip ratios) ▪ Capital-intensive open cut and underground operations required
Processing	▪ Simple dissolution of REE from clay in ammonium sulphate ▪ No radioactive waste streams	▪ High temperature mineral cracking using strong reagents for REE minerals ▪ Tailings are often radioactive and are costly to dispose

Source: (1) Hochschild Mining plc, Capital Markets Presentation, September 2021

SIGNIFICANT HISTORIC EXPLORATION

JOGMEC successfully explored project between 2016 and 2019

Drilling Collar Plan – 1311 Holes



Drilling Results (ASX 16/12/2022)

10m	@	**8,810** ppm TREO	ending in	**1,942** ppm TREO	(Hole FG-82)
20m	@	**8,924** ppm TREO	ending in	**9,945** ppm TREO	(Hole CDM-311)
15m	@	**7,042** ppm TREO	ending in	**3,425** ppm TREO	(Hole CDM-286)
7m	@	**7,646** ppm TREO	ending in	**12,429** ppm TREO	(Hole DM2-28)
20m	@	**6,779** ppm TREO	ending in	**4,652** ppm TREO	(Hole CDM-47)
12m	@	**8,367** ppm TREO	ending in	**5,829** ppm TREO	(Hole CVN-22)
13m	@	**6,600** ppm TREO	ending in	**6,817** ppm TREO	(Hole CVN-80)
20m	@	**5,918** ppm TREO	ending in	**2,239** ppm TREO	(Hole CDM-27)
14m	@	**5,979** ppm TREO	ending in	**2,325** ppm TREO	(Hole FG-27)
15m	@	**7,551** ppm TREO	ending in	**7,915** ppm TREO	(Hole FG-89)
13m	@	**7,641** ppm TREO	ending in	**2,072** ppm TREO	(Hole SB-109)
19m	@	**6,895** ppm TREO	ending in	**7,840** ppm TREO	(Hole CDM-134)
15m	@	**6,709** ppm TREO	ending in	**4,460** ppm TREO	(Hole SB-44)

TIER 1 IONIC ADSORPTION CLAY (IAC) RARE EARTH

The due diligence program and previous metallurgical work has proven the project's IAC characteristics across various prospects

Metallurgy Bulk Sample

- 4,917ppm TREO
- 25.5% Magnet REE
- MREO = 1,250 ppm

Classification	Element		REE (ppm)	Conversion Factor	Oxide	REO (ppm)	REO /TREO %
LREE	Lanthanum	La	1961	1.1728	La_2O_3	**2300**	46.8%
	Cerium	Ce	731	1.2284	Ce_2O_3	**898**	18.3%
	Praseodymium	Pr	274	1.1702	Pr_6O_{11}	**321**	6.5%
	Neodymium	Ne	756	1.1664	Nd_2O_3	**882**	17.9%
HREE	Samarium	Sm	86	1.1596	Sm_2O_3	**100**	2.0%
	Europium	Eu	22	1.1579	Eu_2O_3	**25**	0.5%
	Gadolinium	Gd	60	1.1526	Gd_2O_3	**69**	1.4%
	Terbium	Tb	8	1.151	Tb_4O_7	**9**	0.2%
	Dysprosium	Dy	35	1.1477	Dy_2O_3	**40**	0.8%
	Holmium	Ho	6	1.1455	Ho_2O_3	**7**	0.1%
	Erbium	Er	15	1.1435	Er_2O_3	**17**	0.3%
	Thulium	Th	2	1.1142	Tm_2O_3	**2**	0.0%
	Ytterbium	Yt	11	1.1379	Yb_2O_3	**13**	0.3%
	Lutetium	Lu	2	1.1372	Lu_2O_3	**2**	0.0%
	Yttrium	Y	183	1.2697	Y_2O_3	**232**	4.7%
	Totals		**4151**			**4917**	**100%**

Metallurgy Results and Future Work

- Leach in ammonium sulphate solution
- pH 4
- Maximum leach % occurring within 5-10mins
- Recoveries to the leach are exceptional
  - Nd & Pr above 70%
  - Tb 60-70% and
  - Dy 50-60%
- First pass un optimised recoveries to the liquor will be available for all six resource areas in Early October.

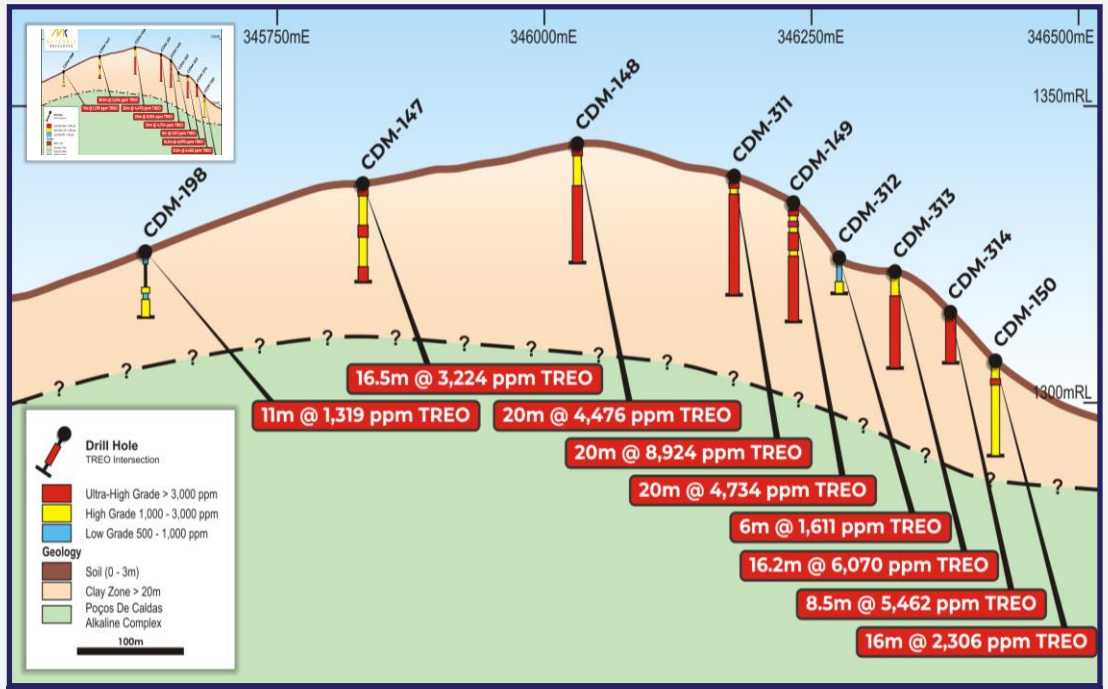
Metallurgical Recoveries (ASX 27/6/23)

REO	Sample1	Sample2	Sample3	Sample4	AVERAGE
La_2O_3	61%	62%	59%	64%	**62%**
Ce_2O_3	4%	4%	4%	4%	**4%**
Pr_6O_{11}	53%	51%	49%	54%	**52%**
Nd_2O_3	65%	63%	61%	67%	**64%**
Sm_2O_3	53%	52%	48%	53%	**52%**
Eu_2O_3	55%	53%	52%	56%	**54%**
Gd_2O_3	56%	57%	53%	57%	**56%**
Tb_4O_7	50%	47%	42%	48%	**47%**
Dy_2O_3	41%	38%	35%	40%	**39%**
Ho_2O_3	33%	28%	15%	29%	**26%**
Er_2O_3	28%	29%	31%	29%	**29%**
Tm_2O_3	26%	25%	22%	25%	**25%**
Yb_2O_3	15%	19%	17%	19%	**18%**
Lu_2O_3	21%	21%	19%	22%	**21%**
Y_2O_3	37%	38%	35%	37%	**37%**

CALDEIRA GRADES, DRILLING INTERCEPTS AND PEERS

Outstanding grades, wide continuous intercepts and open at depth

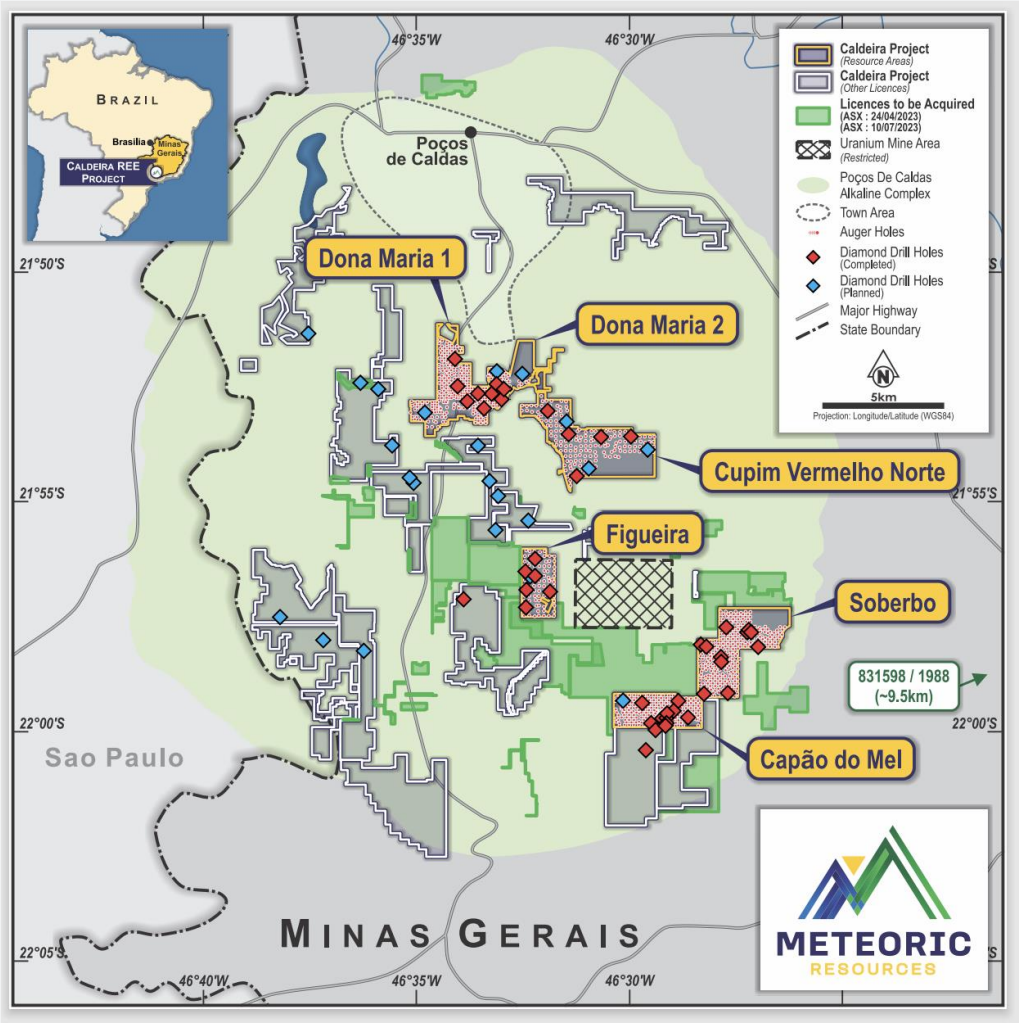
Capo Do Mel Prospect



Stylised Cross Section 7,566,800m N

New drilling is designed to intersect the underlying granite (green) at depth to establish the thickness of the prospective clay zone. Every hole on this section finished in grades above 1,000ppm TREO. Vertical exaggeration = 5 times (refer ASX release 16/12/2022).

Caldeira Project – Diamond Drilling



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Meteoric's Drilling

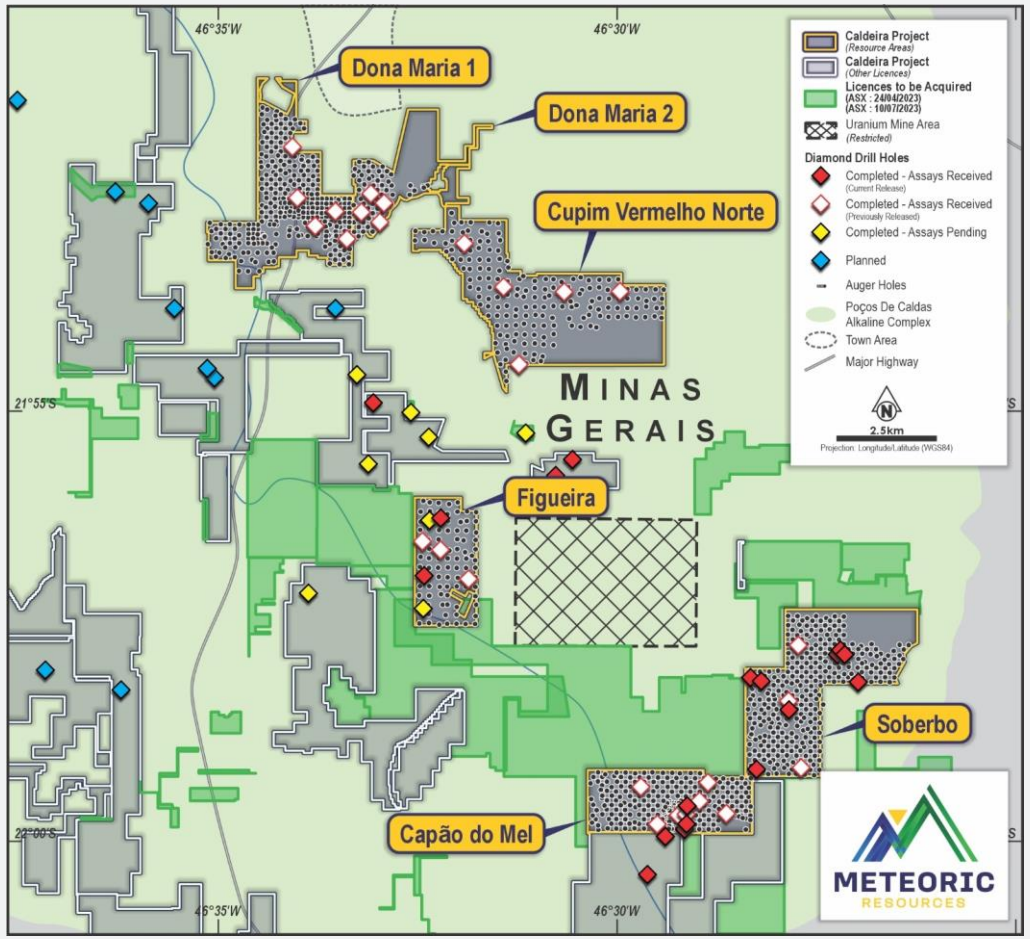
Depth Extensions beneath and outside the MRE

Exploration Drilling (Outside the Caldeira Project Resource Estimate) (24/7/2023)

- CVSDD001 - 149.5m @ 8,912 ppm TREO [0m],
  - with 52m @ 12,692ppm or 1.27 % TREO [61m],
- BDPDD001 – 73.3m @ 3,939ppm TREO [0m], including 42,3m @ 4,719ppm TREO [0m]
- CDMDD003 - 26.7m @ 1,561ppm TREO [0m], including 4.2m @ 3,582ppm TREO [0.9m]
- CRDD001 - 58m @ 2,702ppm TREO [0m], including 33m @ 3,006ppm TREO [5m]

Resource Drilling

- CDMDD009 - 16.9m @ 3,649ppm TREO [0m], including 7m @ 5,834ppm TREO [0m]
- CDMDD010 - 52.6m @ 2,619ppm TREO [0m], including 5m @ 3,016ppm TREO [17m]
- CDMDD011 - 25m @ 6,575ppm TREO [0m], including 4.5m @ 15,598ppm TREO [2m]
- FGDD004 - 97.7m @ 1,817ppm TREO [0m], including 12.3m @ 3,666ppm TREO [22.8m]
- FGDD005 - 11.1m @ 2,670ppm TREO [0m], including 7.1m @ 3,072ppm TREO [4m]
- FGDD006 - 59m @ 2,594ppm TREO [0m], including 28m @ 3,905ppm TREO [10m]
- SBDD004 - 22.7m @ 2,359ppm TREO [0m], including 10.3m @ 3,755ppm TREO [0m]
- SBDD008 - 26.2m @ 3,306ppm TREO [0m], including 18.2m @ 4,172ppm TREO [8m]
- SBDD009 - 26.2m @ 3,958ppm TREO [0m], including 19.2m @ 4,785ppm TREO [7m]
- SBDD010 - 24.3m @ 2,992ppm TREO [0m], including 14m @ 4,038ppm TREO [7m]
- SBDD011 - 24.5m @ 2,240ppm TREO [0m], including 10m @ 3,781ppm TREO [12m]



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CALDEIRA PROJECT MAIDEN RESOURCES – 409Mt @ 2626 ppm TREO

World's Highest Grade Ionic Adsorption Clay REE Deposit (ASX 1/5/2023)

Licence	JORC Category	Tonnes Mt	TREO ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	MREO ppm	MREO/TREO (%)
Capão do Mel	Inferred	**68**	**2,692**	148	399	4	22	572	**21.3%**
CVN	Inferred	**104**	**2,485**	152	472	5	26	655	**26.4%**
Dona Maria 1 & 2	Inferred	**94**	**2,320**	135	404	5	25	569	**24.5%**
Figueira	Inferred	**50**	**2,811**	135	377	5	26	542	**19.3%**
Soberbo	Inferred	**92**	**2,948**	190	537	6	27	759	**25.8%**
Total	**Inferred**	**409**	**2,626**	**154**	**447**	**5**	**25**	**631**	**24.0%**

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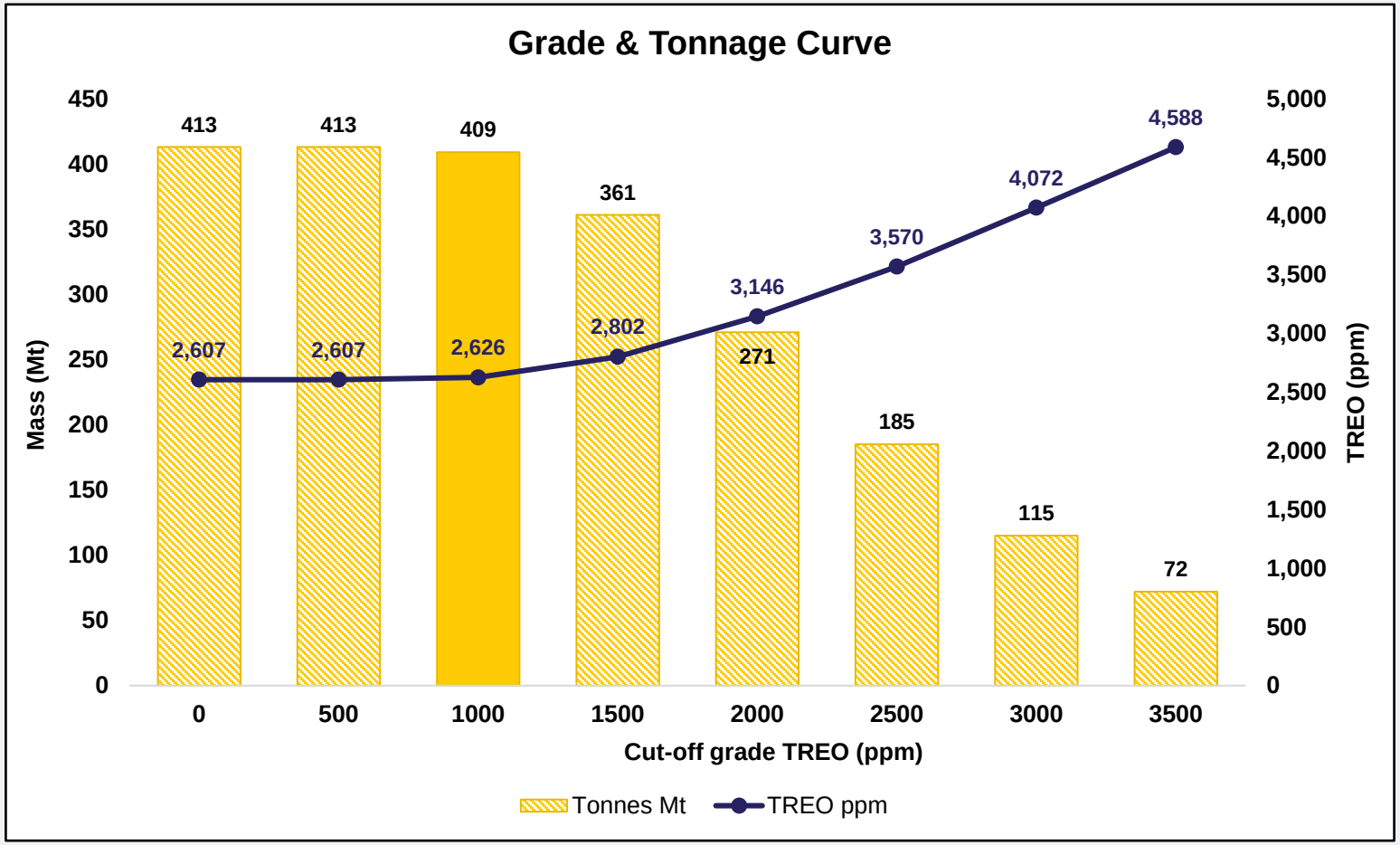
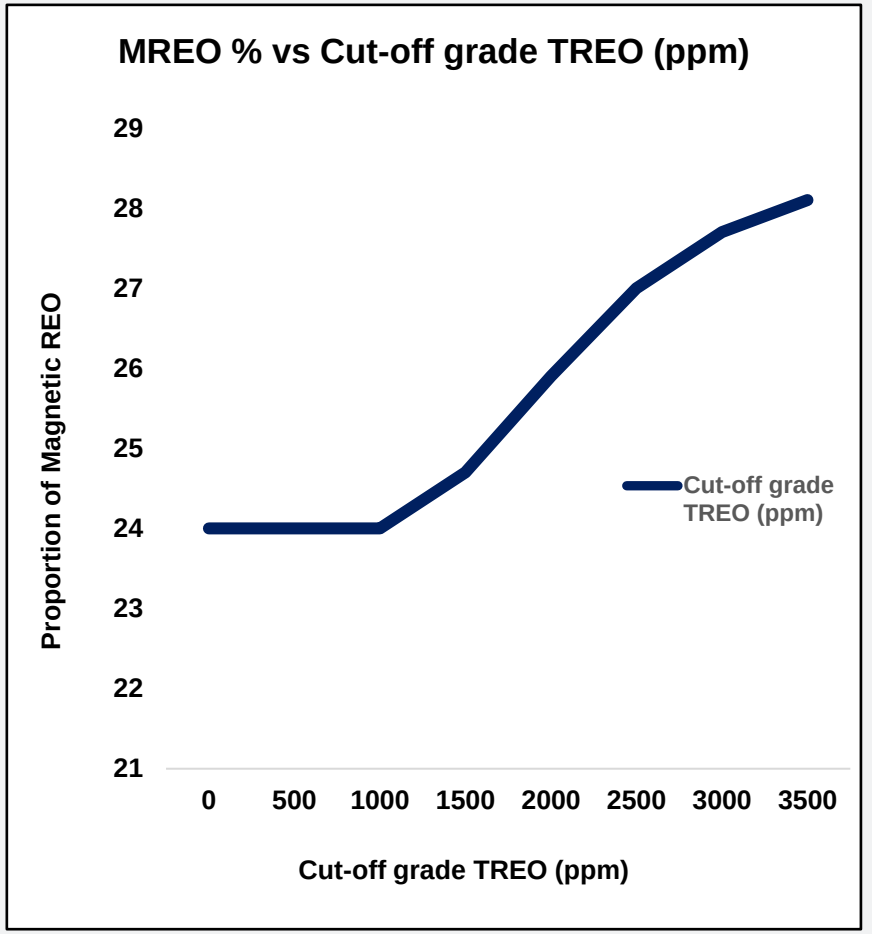
SUBSTANTIAL ULTRA HIGH-GRADE RESOURCE

Magnetic Rare Earth Oxide proportion increases as cut-off grade increases





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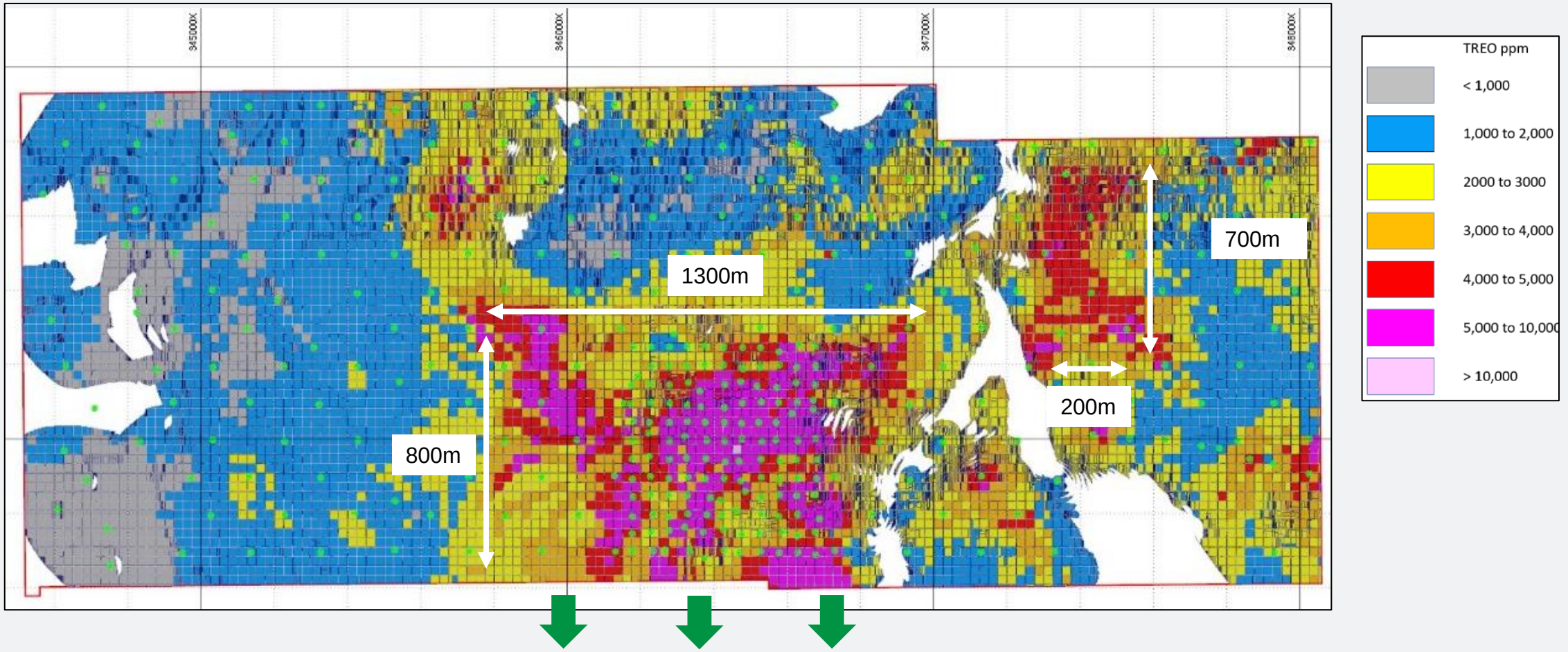
HIGH GRADE START TO MINE LIFE

Capão do Mel - Plan View Block Model



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In-House drilling capabilities

Hanjin 8D Multipurpose Drill rig

Currently configured to drill Air Core (150m of rods).

50,000m In-Fill drilling program commenced on the Southern licenses of Figueira, Capao do Mel and Soberbo.

Initial production steady at 100m per day (expected to ramp up to 200m per day).

Potential to add a second Drill Rig in 6-8 weeks doubling production to ensure Resource Update deadline is met.

Government Partnership

- Meteoric Resources has entered into a non-binding Cooperation Agreement with the State Economic Department (Invest Minas) and the State Government of Minas Gerais
- The Cooperation Agreement will assist with the development of the Caldeira Project and to look at further downstream processing options through to magnet production
- The Cooperation Agreement through Invest Minas will facilitate approvals and licensing processes between Meteoric Resources and government regulators and departments
- Environmental consultants Alger have been engaged to undertake Environmental Impact Study (EIS) for the Caldeira Project

Governor Zema addressing audience

Meteoric Directors Dr Andrew Tunks (left) and Dr Marcelo de Carvahlo (right) with Alger Partners Dr Antonio Malard (center left) and Mr Germano Luiz Gomes Vieira (centre right)

METEORIC RESOURCES

Focus on Southern Licenses for Initial Operations

The Focus for an initial REE processing facility and mining operations remains on the Southern licenses of Figueira, Capao do Mel and Soberbo.

Current work packages to develop a Circa 5Mtpa processing facility with a +4000ppm feed grade includes:

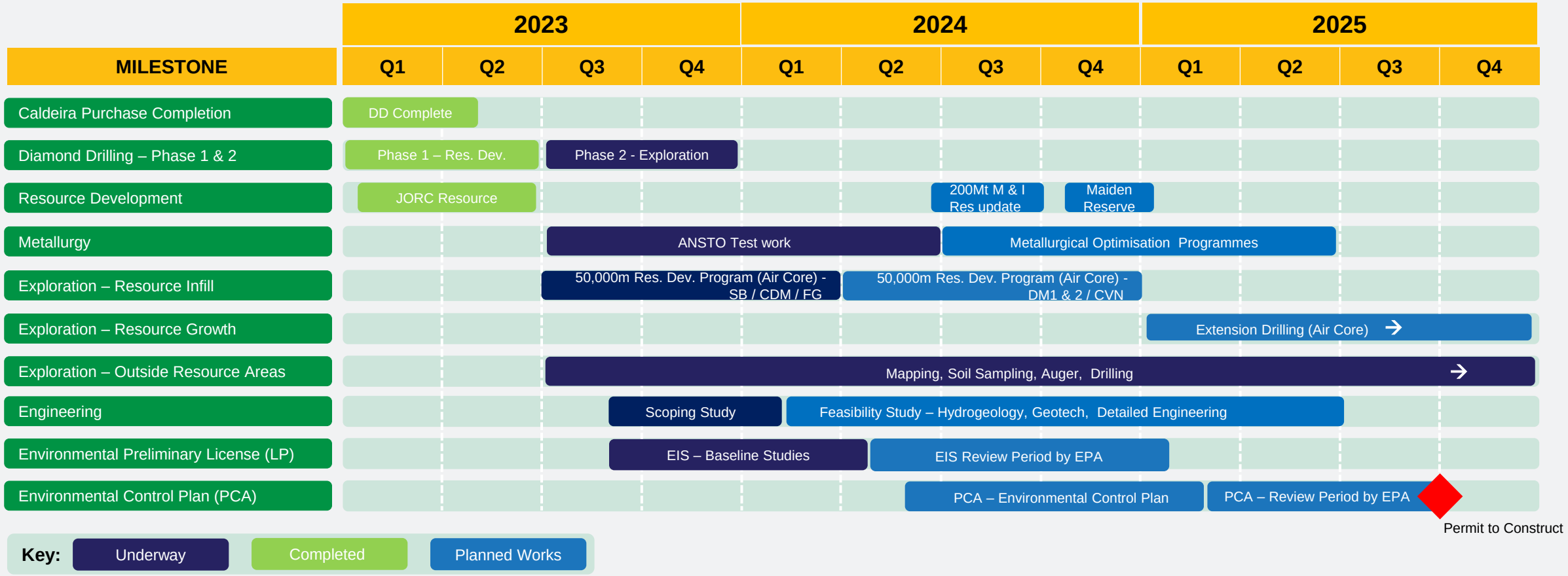
- Engineering Studies - Ausenco
- Metallurgical flowsheet development - ANSTO
- EIA process – Alger Consulting
- Resource infill drilling – Inhouse

Proposed plant site location has:

- Access to all weather road network
- Access to existing HV power
- Access to water abstraction points

INDICATIVE PROJECT TIMETABLE AND KEY MILESTONES

Meteoric is positioned for a milestone 2023 and beyond with multiple packages progressing



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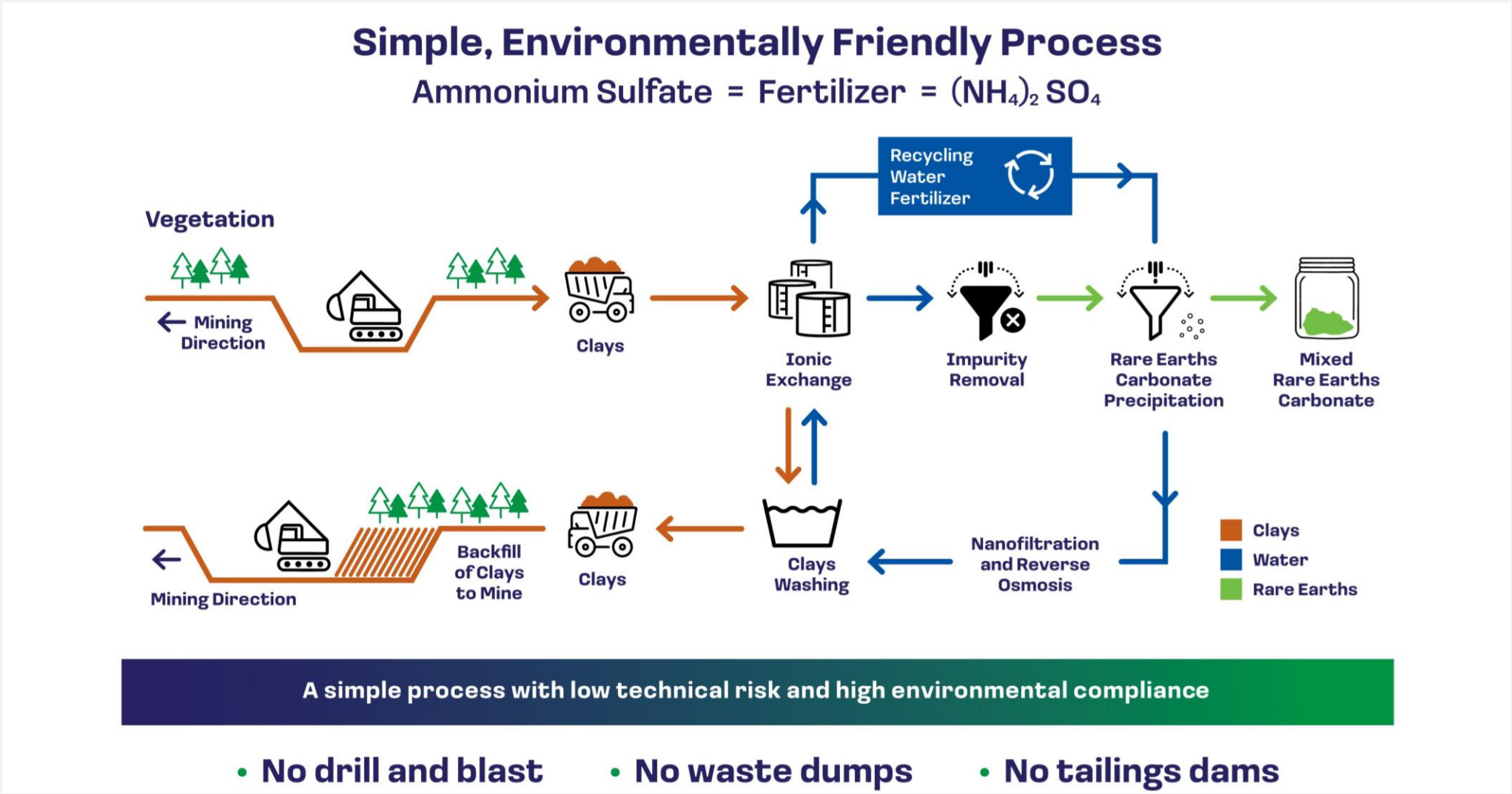
A Green Mine for Green Metals

IONIC ADSORPTION CLAY PROJECT FLOW SHEET



METEORIC RESOURCES

Contact Information

Meteoric Resources

ABN 64 107 985 651

T +61 8 9226 2011
E info@meteoric.com.au
W www.meteoric.com.au
A Level 1, 33 Ord St, West Perth WA 6005

Dr Andrew Tunks - *Executive Chairman*

T +61 400 205 555
E ajtunks@meteoric.com.au

Victoria Humphries - *Investor & Media Relations*

T +61 431 151 676
E victoria@nwrcommunications.com

ASX:MEI