

## **DISCLAIMER**



These materials prepared by Meteoric Resources NL ("Meteoric" or the "Company") include forward looking statements. Forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

The information in this presentation that relates to Mineral Resource Estimates at the Cupim Vermelho Norte and the Dona Maria 1 & 2 prospects was prepared by BNA Mining Solutions and released on the ASX platform on 1 May 2023. The information in this release that relates to Mineral Resource Estimates at the Soberbo and Capão del Mel deposits was prepared by BNA Mining Solutions and released on the ASX platform on 14 May and 13 June 2024 respectively. The information in this release that relates to Mineral Resource Estimates at the Figueira deposit was prepared by BNA Mining Solutions and released on the ASX platform on 5 August 2024. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources in this publication. The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially modified.

This presentation includes exploration results, estimates of Mineral Resources and scoping study results. The Company has previously reported these results and estimates in ASX announcements dated 16 December 2022, 1 May 2023, 27 June 2023, 24 July 2023, 31 August 2023, 27 September 2023, 8 December 2023, 14 December 2023, 30 January 2024, 29 February 2024, 14 May 2024 and 13 June 2024, 8 July 2024 and 5 August 2024. The Company confirms that it is not aware of any new information or data that materially affects the information included in previous announcements (as may be cross referenced in the body of this announcement) and that all material assumptions and technical parameters underpinning the exploration results and Mineral Resource estimates continue to apply and have not materially changed.

All references to the scoping study and its outcomes in this presentation relate to ASX announcement Caldeira Project Scoping Study confirms potential for the world's lowest cost source of rare earths with outstanding financial metrics dated 8 July 2024. Please refer to the ASX announcement for full details and supporting information.

# **COMPANY OVERVIEW**

#### **MEI SNAPSHOT**

ASX Code	MEI
Share Price (2/08/24 Close)	A\$0.11
Shares on Issue	2.2 billion <sup>1</sup>
Options / Rights	176 million
Market Capitalisation	A\$240.0 million
Cash (Proforma at 30/6/24)	A\$41.4 million¹

#### **BOARD AND MANAGEMENT**

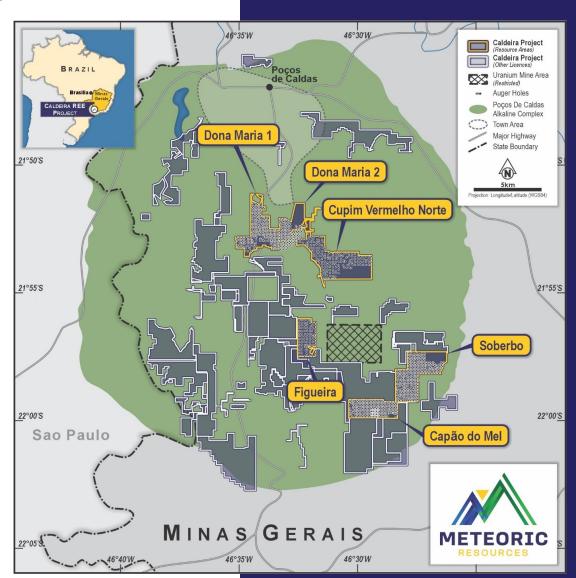
Executive Chairman	Dr Andrew Tunks
Executive Director	Dr Marcelo de Carvalho
Non-Executive Director	Dr Paul Kitto
Non-Executive Director	Mr. Peter Gundy
Non-Executive Director	Dr Nomi Prins
Chief Executive Officer	Nick Holthouse
Chief Financial Officer	Stuart Gale



## WORLD CLASS LOCATION AND INFRASTRUCTURE

An established mining region with access to low cost, renewable grid power

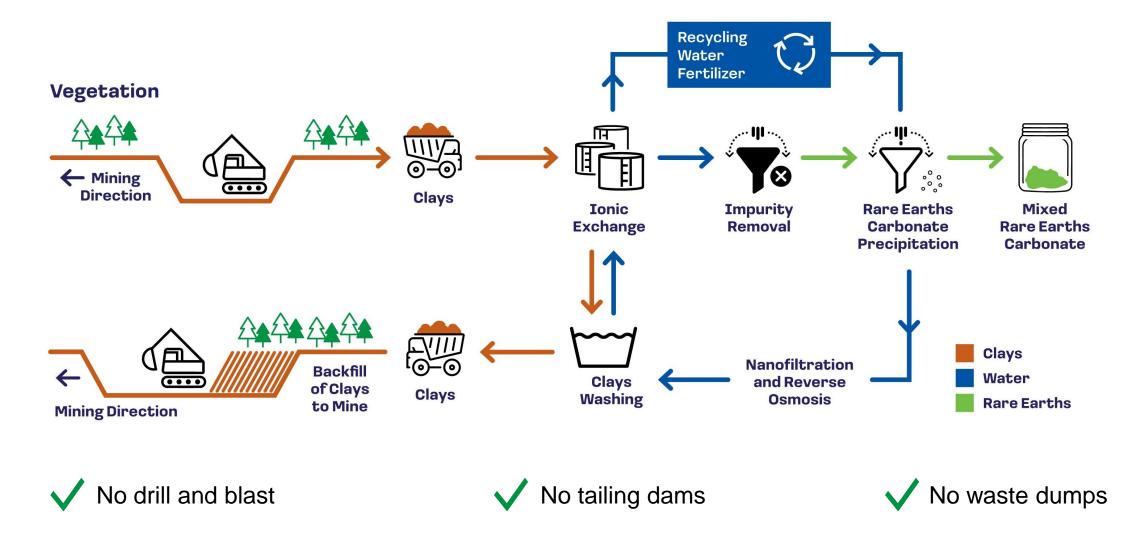
- Poços de Caldas Population 170k in a brownfields mining jurisdiction with a multi-generational workforce and service provider ecosystem.
- Located in the southern region of Minas Gerais state in Brazil
- Close to Sao Paulo (270km), Belo Horizonte (460km) and Rio de Janeiro (470km)
- Low-cost renewable energy available to Caldeira from an electricity grid entirely powered by hydro, solar and wind
- Nearby access to grid power connection (3km)
- Nearby sealed road access (3km)
- Water will be sourced from several nearby storage facilities with short pipelines required to supply the process plant-site



## **PROCESS FLOWSHEET**



A simple process with low technical risk and high environmental compliance



#### **OPERATING COSTS**

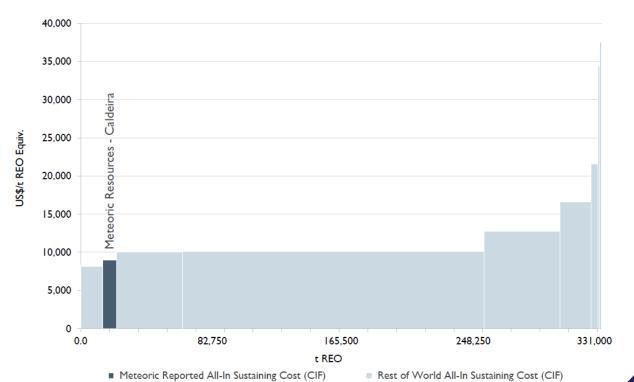


#### Production from Caldeira will be placed at the bottom of the industry cost curve

## Why are operating costs so low?

- Free dig material
- Low mining strip ratio
- Short haulage
- Simple and low cost ammonium sulfate (AMSUL) processing flowsheet
- High grade ore
- High metallurgical recoveries
- No tailings facility

Cost Metrics	Unit	Years 1-5 Average	LOM Average		
Annual C1 opex	US\$M	61	64		
Annual C1 opex	US\$/kg TREO	5.50	7.04		
Annual AISC	US\$/kg TREO	7.00	9.00		
NdPr only C1 opex	US\$/kg NdPr	17.60	21.30		



Rare earth industry MREC cost curve 2024 (source: Project Blue Consulting)

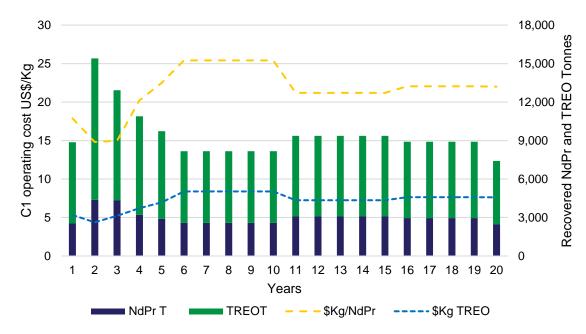
C1 opex includes all mining, processing and general and administration costs. Refer ASX release 8 July 2024 for further information.

# RARE EARTHS PRODUCTION



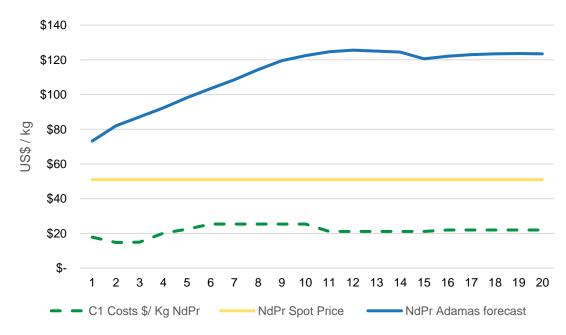
#### Attractive margins for NdPr production and TREO production throughout the cycle

- Total production of 181kt REO within 317kt MREC over the 20-year mine life
- NdPr production accounts for ~33% of TREO production by volume (~60% MREO)
- Average production LOM 9ktpa and +11ktpa in the first five years



C1 operating cost per kilogram of TREO and NdPr production

- NdPr production generates a margin over discounted Adamas pricing and spot pricing at 70% payabilities
- Other TREO revenue further improves margins
- C1 cost of US\$7/kg LOM including US\$5.50/kg in the first five years



C1 operating cost per kilogram NdPr production only compared to pricing assumptions

Refer ASX release 8 July 2024 for further information

## **WORLD-CLASS PROJECT FINANCIALS**



Potential to be the lowest cost supplier of rare earth elements in the global industry through the cycle



Operating costs at the bottom end of the industry cost curve



Operating C1 cash cost US\$7/kg TREO recovered LOM



High grade ore in the first five years lowers C1 costs to US\$5.50/kg



Initial capital cost estimate of US\$297M +35% contingency



NPV<sub>8%</sub> of US\$1.235M and post-tax US\$699M<sup>1</sup>



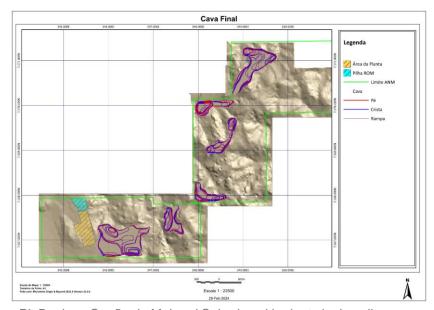
Pre-tax IRR of 38% and short payback of 2.2 years<sup>1</sup>



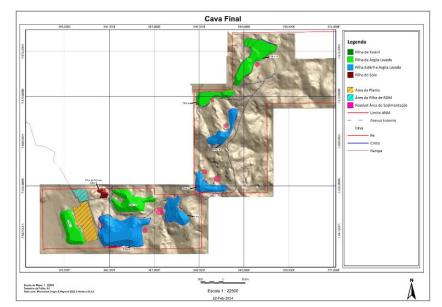
## MINING OPERATIONS

#### Favourable deposit amenable to simple, low-cost mining methods

- Owner operated and undertaken by conventional truck and shovel arrangement, similar to other clay hosted lateritic deposits.
- Mining of a series of shallow open pits at no greater depth than 30m below surface
- Ore feed limited to only from two licence areas in the Scoping Study, Capão do Mel and Soberbo
- Current mine plan incorporates only 97Mt of the existing Caldeira resource (~12% of the current JORC Mineral Resource)
- Mining rates starting at 3Mtpa in year one before ramping up to 5Mtpa from year two onwards
- Very low average strip ratio of around 0.12:1 waste to ore
- Environmental impact minimised by the via use of dry stacked tailings and backfilling of pits instead of a conventional wet tailings storage approach



Pit Designs Capão do Mel and Soberbo with plant site in yellow



Mined Final pits showing dry stacked and backfilled areas in blue and green

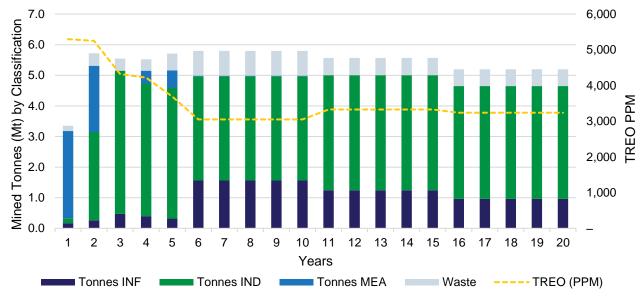


## MINE SCHEDULING



#### Ability to preferentially target high-grade ore in the early years of operations to maximise financial returns

- Mine scheduling prioritises high-grade feed and areas closest to the process plant
- Very high grades averaging 4,500ppm TREO will be delivered to the processing plant in the first 5 years
- Figueira and other areas extend this period of 4,500ppm feed in later years
- Produces an average 9,052t of REO over the 20-year
   LOM including an average 11,102t in the first five years



Mined tonnes and grade by JORC Mineral Resource classification (ASX 5 August 2024)



## **METALLURGY AND PROCESSING**



Simple, low-cost and the capacity to achieve high recoveries with minimal environmental impact

- Clay mineralisation at Caldeira displays strong ionic behaviour over thick intervals using a standard AMSUL wash
- Metallurgical test work by ANSTO producing amongst the highest known REO metallurgical recoveries ever reported on the ASX or globally
- Proposed leach circuit uses low-cost AMSUL leaching as the lixiviant at pH 4.0 and under ambient temperature and pressure.
- Strong potential to raise pH with further test work.
- Leach time of less than 30 minutes
- Produces a mixed rare earth carbonate (MREC) product recovering 73% of highly valuable MREO
- Filtration and dewatering test work progressing exceeding expectations.



MREO are magnet rare earth oxides and comprise Nd, Pr, Dy and Tb

## RESOURCE AND RESERVE DEVELOPMENT

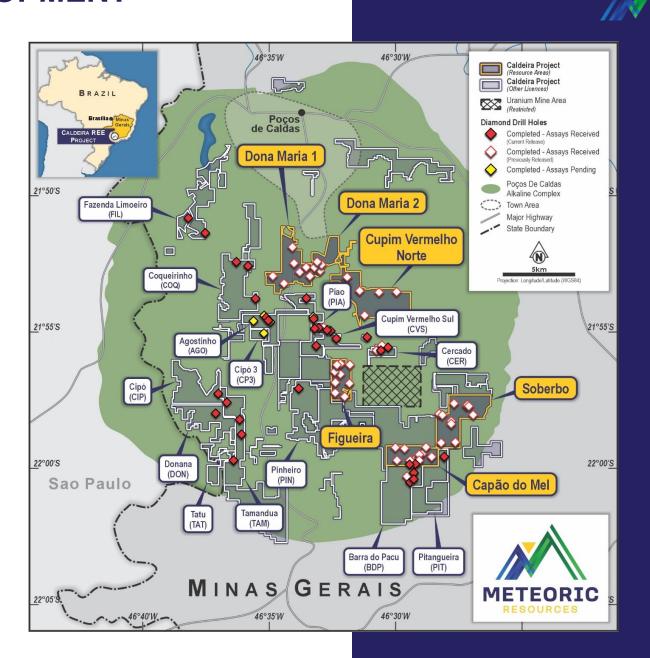
Multiple targets provide ongoing growth optionality

#### **Resource Infill Drilling**

- Only six License areas drilled from the 69 available
- 740Mt @ 2,572ppm TREO with four resource updates to follow with current infill drilling (ASX 5/8/24)
- Exceptional upside for exploration
- Targeting additional value adding heavy REE on remaining 63 licenses







## **KEY DEVELOPMENT PROGRAMS**

Progressing critical workstreams with key partners

#### **Engineering / Pre-Feasibility**

- Pre-Feasibility due in Q1 2025 including new Figuera MRE
- Focus on driving further Capex and Opex reduction
- Commencement of separated oxides scoping study

#### **Metallurgy**

- Completion of ANSTO test work in 2024
- Commencement of separation oxides test work programme
- Demonstration facility for MREC and separation test work
- Emphasis on filtration and dewatering

#### **Environmental Approvals**

- Alger Consulteria remain on track for Q4 2025 construction permit delivery
- EIS report lodged and review underway













#### **FUNDING AND OFFTAKE**



Low capital intensity and operating costs make Caldeira a highly financeable project in all market conditions

- Rare earths projects are garnering significant government support in the form of debt and grant financing
- US\$250M funding support received from the United States Export-Import Bank and engagement with several other state banks and export credit agencies is ongoing
- 3Kt MREC non-binding offtake agreement signed with Neo Performance Materials
- Other offtake approaches are being reviewed with MREC separators and Original Equipment Manufacturers
- Strategic partnerships equity, offtake and prepayment alternatives are being considered.





## **COMMUNITY AND SUSTAINABILITY**

Caldeira has strong sustainability credentials and local support for its development

- Community acceptance level of 89% returned from the social mapping component of the EIS Report indicates strong local support for the Caldeira project
- Non-binding cooperation agreement has been signed with the state economic department (Invest Minas) and State Government of Minas Gerais
- Meteoric has committed to developing industry leading practices in environmental and community performance and plans to undertake the follow actions:
  - The implementation of a workplan to deliver a maiden Sustainability Report by mid-2025;
  - The preservation where possible of remnant vegetation when considering disturbance footprints for the project processing and mining activities;
  - The use of dry stacked tailings and backfilling of pits instead of a conventional wet tailings approach;
  - Low Carbon cost. Currently calculated at \$1.31kg CO<sub>2</sub> per kg TREO based on study inputs
  - Local community engagement for social work programmes, employment education and training.









#### Collaboration Agreement

- Project development assistance including support services, further downstream processing options through to magnet production
- Facilitate and fast track approvals and licensing processes
- Caldeira placed on a list of high priority mining projects in the region

# **INVESTMENT PROPOSITION**



Caldeira is the world's most attractive rare earth development project and a true industry disruptor





# **CONTACT US**

#### **Meteoric Resources**

ABN 64 107 985 651

W www.meteoric.com.au

**A** Level 1, 35 Ventnor Avenue, West Perth WA 6005

#### Dr Andrew Tunks - Executive Chairman

**T** +61 400 205 555

E ajtunks@meteoric.com.au

#### Nick Holthouse - CEO

**T** +61 428 964 276

E nholthouse@meteoric.com.au





# CALDEIRA PROJECT RESOURCE ESTIMATES – 740Mt @ 2,572 ppm TREO

World's Highest Grade Ionic Adsorption Clay REE Deposit (1,000ppm TREO cut-off grade) (ASX 5/8/2024)

Licence	JORC Category	Material Type	Tonnes	TREO ppm	PR <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Tb₄O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub>	MREO ppm	MREO /TREO
Capão do Mel	Measured	Clay	11	3,888	222	586	6	28	842	21.7%
Total	Measured		11	3,888	222	586	6	28	842	21.7%
Capão do Mel	Indicated	Clay	74	2,908	163	449	5	23	640	22.0%
Soberbo	Indicated	Clay	86	2,730	165	476	5	23	669	24.5%
Figueira	Indicated	Clay	138	2,844	145	403	5	28	582	20.5%
Total	Indicated		298	2,827	155	436	5	26	622	22.0%
Total	Measured + Indicated		308	2,864	158	441	5	26	629	22.0%
Capão do Mel	Inferred	Clay	32	1,791	79	207	2	13	302	16.9%
Capão do Mel	Inferred	Transition	25	1,752	86	239	3	14	341	19.5%
Soberbo	Inferred	Clay	89	2,713	167	478	5	24	675	24.9%
Soberbo	Inferred	Transition	54	2,207	138	395	4	20	558	25.3%
Figueira	Inferred	Clay	9	3,105	139	379	5	28	551	17.7%
Figueira	Inferred	Transition	24	2,174	115	328	4	21	468	21.5%
Cupim Vermelho Norte	Inferred	Clay	104	2,485	152	472	5	26	655	26.4%
Dona Maria 1 & 2	Inferred	Clay	94	2,320	135	404	5	25	569	24.5%
Total	Inferred		431	2,363	138	406	4	23	571	24.0%
Total	Measured + Indicated + Inferred		740	2,572	146	420	5	24	595	23.1%