

## MAIDEN RARE EARTH AND LITHIUM EXPLORATION PROGRAM TO COMMENCE IN BRAZIL

### Key Highlights

- Maiden exploration (Phase 1) program to commence, targeting Ionic Adsorption Clays (IAC) enriched with REE at the Caldera Project in the Pocos de Caldas Alkaline Intrusive, Brazil
- The project area is situated close to Meteoric Resources' (ASX: MEI) world class<sup>1</sup> Calderia Project, as well as Viridis Mining and Minerals' (ASX: VMM) Colossus REE project
- The Minas Gerais region benefits from excellent mining-oriented infrastructure including well-established highways, water, hydroelectric power and commercial ports
- The Phase 1 exploration program will comprise field reconnaissance to identify potential anomalous REE targets for a Phase 2 auger drill program to commence shortly thereafter
- Two additional exploration programs are planned in Q2 of CY2024 in the Lithium Valley targeting lithium-hosting spodumene from pegmatites at the Araçuaí Project (adjacent to Atlas Lithium and ~25km West of Sigma) and IAC REE at the Padre Paraiso Project.

Si6 Metals Limited (ASX:Si6) ("Si6" or the "Company") is pleased to advise that the Phase 1 exploration program is set to commence at the Caldera rare earth elements (REE) project in the REE-rich Poços de Caldas Alkaline Intrusive in Brazil. Si6 aims to replicate the success of its peers in the region, which hosts recent world-class IAC rare earth discoveries and resources.

### Managing Director, Jim Malone commented,

*"We are pleased that exploration work will commence at our Brazilian joint venture projects as we fast track an initial aggressive program at Caldera. Due to its proximity to the world-class Caldeira Project discovered by Meteoric Resources, we are confident we are in the right areas to make a significant discovery. Our initial focus will be on surface sampling and pending these results, we will return to the project with auger drilling. The Joint Venture with Foxfire Metals Pty Ltd (Foxfire) allows for the experienced Foxfire team to use their on-ground expertise to manage the exploration program."*

<sup>1</sup> May 2023, ASX: MEI announcement of Caldeira REE Project Maiden Mineral Resource, World's Highest Grade Ionic Adsorption Clay REE Deposit



*We will also turn our attention to the Araçuaí lithium Project which again is near world-class discoveries from Atlas Lithium and mining giant Sigma. We have an exciting portfolio in Brazil and look forward to systematically working on these projects to uncover their potential like our neighbours have.”*

The Phase 1 program will consist of a comprehensive geophysical and geochem program including detailed mapping and rock and soil sampling on the granted JV licence sitting inside and around the weathering profile of the Poços de Caldas Alkaline Intrusive.

The Foxfire team has commenced the geophysical studies and is set to commence the field program this week with soil and rock chip samples to be delivered to SGS Geosol. Si6 will update the market in due course with results from the Phase 1 exploration program.

### Caldera Project

The Caldera Project areas are adjacent to Meteoric Resources’ Caldeira Project in the Poços de Caldas Alkaline Intrusive, which has a major ionic adsorption clay REE Mineral Resource discovered by Meteoric Resources. Recently, Viridis Mining and Minerals also reported significant exploration success at its REE Colossus Project located nearby. Refer to Table 1 for a summary of these projects.

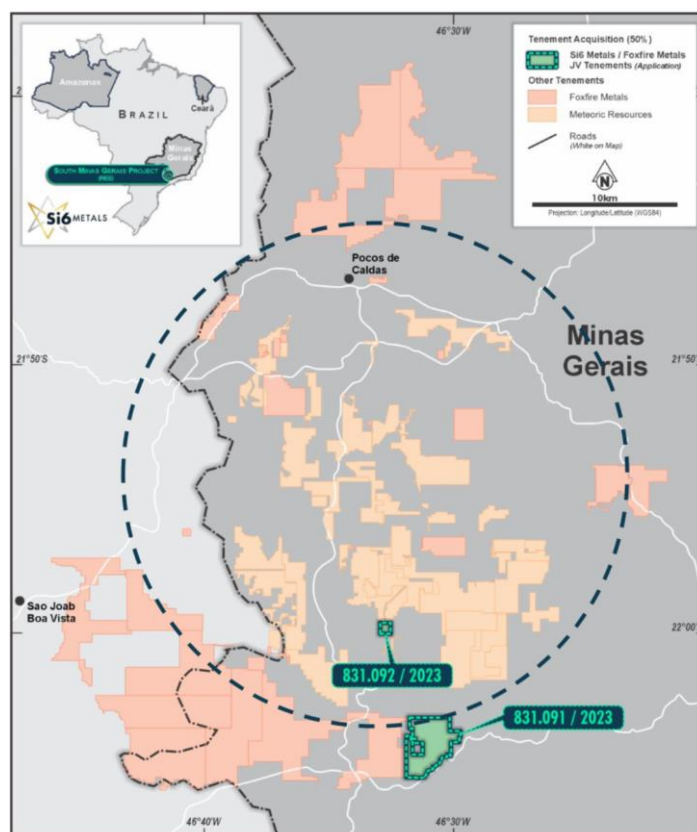


Figure 1: Poços de Caldas Alkaline Intrusive



| Company  | Market Capitalisation<br>(at 8 February 2024) | Discovery at Poços de Caldas Alkaline Intrusive  |
|--|---|--|
| <b>Meteoric Resources NL<br/>(ASX:MEI)</b>               | ~A\$318 million                               | 409Mt @ 2,626ppm TREO (Inferred Resource) <sup>ref 5</sup>   |
| <b>Viridis Mining and Minerals Limited<br/>(ASX:VMM)</b> | ~A\$54 million                                | Fazenda Prospect: Ionic Adsorption Clay (IAC) body ranging from 10 to 20 meters thick with weighted average grade of 2,938ppm TREO<br>Cupim South Prospect: IAC body ranging from 15-45 meters thick with weighted average grade of 3,460ppm TREO <sup>ref 6</sup> . |
| <b>Si6 Metals Ltd (ASX:SI6)<br/>(50% JV)</b>             | ~A\$8 million                                 | <b>Acquired 50% of two REE-prospective project areas at Caldera</b>  |

**Table 1: Major rare earth elements discoveries at the Poços de Caldas Alkaline Intrusive south Minas Gerais.**

### Lithium Valley Projects

The Lithium Valley projects are amongst global Tier 1 lithium discoveries and producers including Latin Resources Ltd (ASX: LRS), Sigma Lithium Corporation (NASDAQ: SGML), CBL, Lithium Ionic (CVE: LTH), Atlas Lithium (NASDAQ: AT LX) and nearby Rio Tinto's (ASX: RIO) exploration area in the known Eastern Brazilian Pegmatite Province. Refer to Table 2 for a summary of these projects.



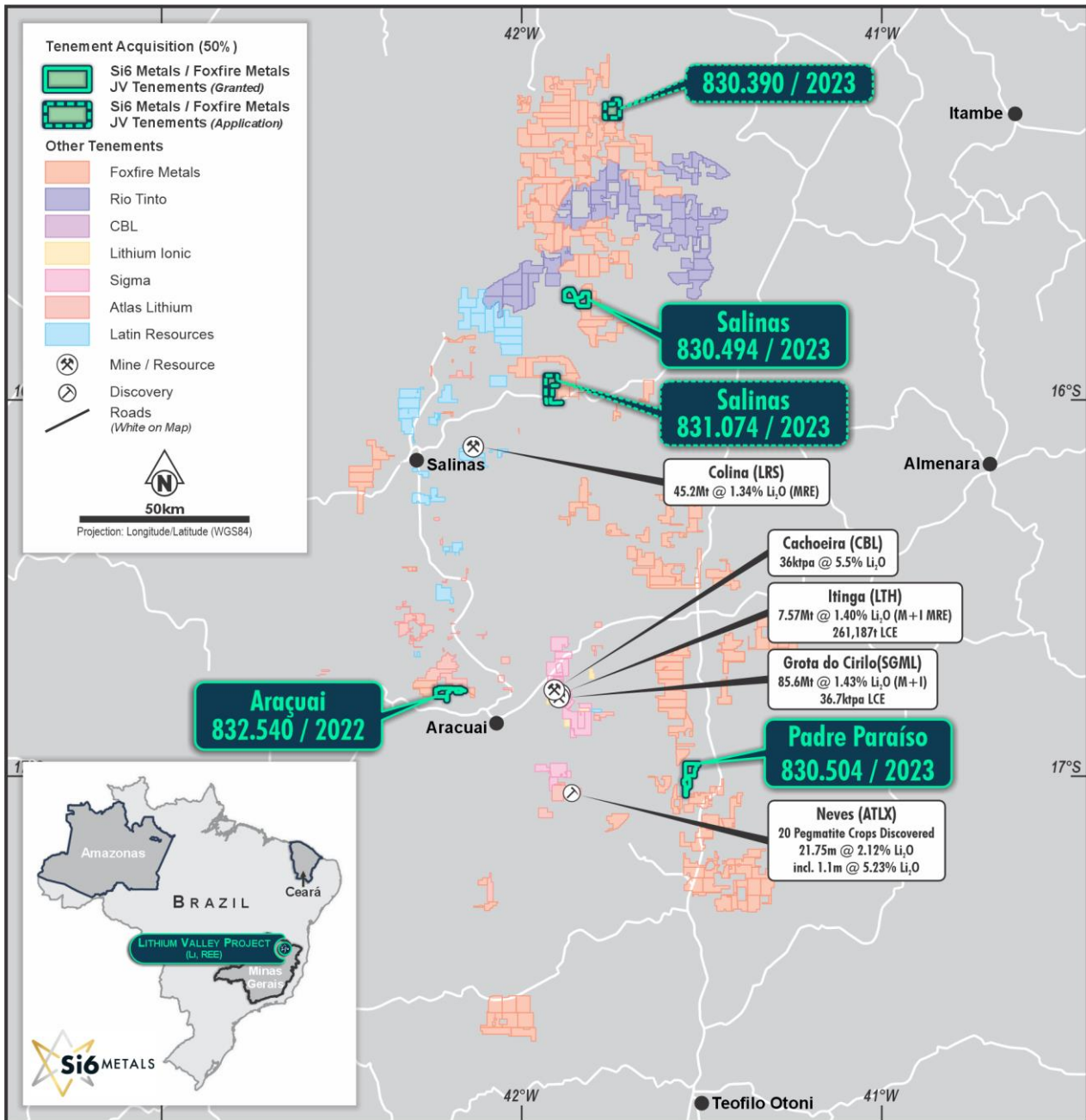


Figure 2: Lithium Valley joint venture project areas



| Company                                     | Market Capitalisation<br>(at 8 February 2024) | Discovery  | Li Valley Landholding |
|---|---|--|-----------------------|
| <b>Sigma Lithium Corp.</b><br>(NASDAQ:SGML) | ~A\$2.6 billion                               | 85.6 Mt @ 1.43% Li <sub>2</sub> O<br>(NI 43-101 Measured, Indicated and Inferred Resource)<br>36.7ktpa LCE phase 1 production, to increase to 270ktpa <sup>ref 1</sup> | ~200km <sup>2</sup>   |
| <b>Latin Resources Limited</b><br>(ASX:LRS) | ~A\$467 million                               | 70.3Mt @ 1.27% Li <sub>2</sub> O<br>(Mineral Resource Estimate) <sup>ref 2</sup>   | ~380km <sup>2</sup>   |
| <b>Atlas Lithium Corp.</b><br>(NASDAQ:ATLX) | ~A\$513 million                               | 20 pegmatite outcrops discovered.<br>Drill hole 21.75m at an average grade of 2.12% Li <sub>2</sub> O, including 1.1m @ 5.23% Li <sub>2</sub> O <sup>ref 3</sup>       | ~238km <sup>2</sup>   |
| <b>Lithium Ionic Corp.</b><br>(TSXV:LTH)    | ~A\$207 million                               | 16.69Mt @ 1.41% Li <sub>2</sub> O + (M+I)<br>16.21Mt @ 1.34% Li <sub>2</sub> O (Inferred)<br>(NI 43-101 Mineral Resource Estimate) <sup>ref 4</sup>                    | ~142km <sup>2</sup>   |
| <b>Si6 Metals Ltd (ASX:SI6)</b><br>(50% JV) | ~A\$8 million                                 | <b>Acquired 50% of three lithium-prospective project areas in Lithium Valley</b>   | ~87km <sup>2</sup>    |

**Table 2: Major lithium discoveries in the Lithium Valley, Minas Gerais.**

#### References for Tables 1 & 2

<sup>1</sup> Sigma Lithium Corp. public release: <https://site.sigmalithiumresources.com/grota-do-cirilo/>

<sup>2</sup> Latin Resources ASX Release 6 December “Significant increase to JORC Resources at Salinas”

<sup>3</sup> Atlas Lithium NASDAQ market release 13 July 2023 “Atlas Lithium Hits a Record Milestone With High Grade 5.23% Lithium Oxide Intersect at Only Nine Meters Depth in its Lithium Project.”

<sup>4</sup> Lithium Ionic TSX market release 27 June 2023 “Lithium Ionic Announces Maiden Mineral Resource Estimate at its Itinga Project in Minas Gerais, Brazil; Drilling Program Expanded with 13 Rigs Operating; PEA Underway”

<sup>5</sup> Meteoric Resources NL ASX release 1 May 2023 “World’s Highest Grade Ionic Clay REE Deposit”

<sup>6</sup> Viridis Mining and Minerals Limited ASX release 7 December 2023 “Further Exceptional Discoveries Continue at Colossus 21.5m @3.195ppm TREO from surface”

**This announcement has been approved by the Board of Si6 Metals Ltd.**

## Contacts

**For further information, please contact:**

**Jim Malone**

*Managing Director*

**T +61 (0) 419 537 714**

[jm@si6metals.com](mailto:jm@si6metals.com)

**Ben Creagh**

*Investor Relations Consultant*

**T +61 (0) 417 464 233**

[benc@nwrcommunications.com.au](mailto:benc@nwrcommunications.com.au)



## About Si6

Si6 is a diversified critical metals and minerals explorer with a portfolio of flagship projects in Brazil, Botswana and Western Australia.

The Company's Botswana portfolio contains three flagship projects where high-grade Cu-Ag (Airstrip and Dibete) and a Maiden JORC Inferred Resource (Maibele North) have been discovered. Maibele North currently hosts a JORC (2012) inferred resource of 2.4Mt @ 0.72% Ni and 0.21% Cu + PGE's + Co + Au and is located within 50km of the Selebi-Phikwe mine recently acquired by TSX-listed Premium Nickel Resources Ltd (TSX-V:PNRL).

Si6 has acquired a 50% joint venture interest in a portfolio of critical metals exploration assets from Foxtire Metals Pty Ltd, predominantly focused on rare earth elements and lithium in Brazil. The projects are amongst known discoveries in the Lithium Valley (north Minas Gerais) and Poços de Caldas (south Minas Gerais).

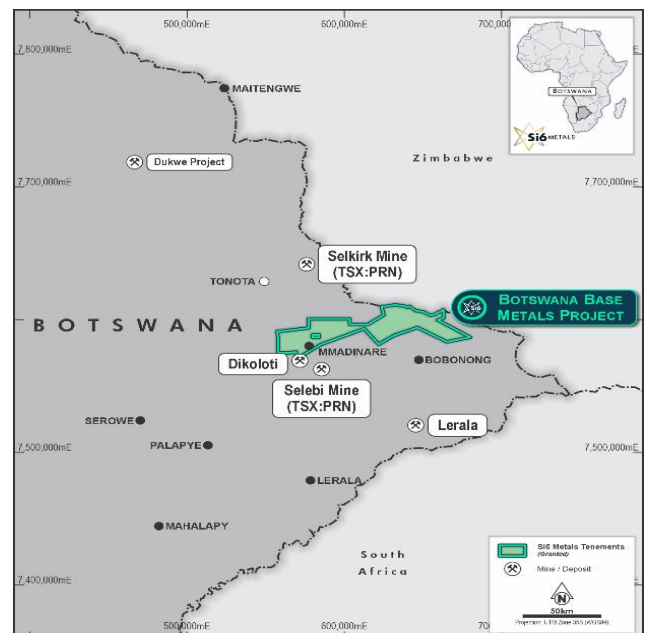
The company also owns 100% of the Monument Gold project located in Leonora in Western Australia. The project has a JORC (2012) Inferred resource of 3.257MT @ 1.4 g/t for 154koz Au.

### Brazil (50% Joint Venture)

- **Caldera Project** – South Minas Gerais (Rare Earth Elements)
- **Lithium Valley Projects** – North Minas Gerais (Lithium, Rare Earth Elements)
- **Apuí Project** – Amazonas (Rare Earth Elements, Gold)
- **Pedra Branca Project** – Ceara (Lithium, Gold)

### Botswana (65% Joint Venture)

- **Dibete Project** – High grade copper-silver
- **Airstrip Project** – High grade copper-silver
- **Maibele North Project** – Ni-Cu-PGE  
JORC Inferred Resource 2.38Mt @ 0.72% Ni + 0.21% Cu + PGE + Au



The information in this report that relates to Exploration Targets and Exploration Results is based on recent and historical exploration information compiled by Mr Cain Fogarty, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Mr Fogarty is a Non-Executive Director of Si6 Metals Limited. Mr Fogarty 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 the reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Fogarty consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Disclaimer**

In relying on the above mentioned ASX announcement and pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above announcement. No exploration data or results are included in this document that have not previously been released publicly. The source of all data or results have been referenced.

## **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Si6’s mineral properties, planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

