

SI6 SECURES 300KM² PROSPECTIVE RARE EARTHS PROJECT

Key Highlights

- 300km² rare earth elements (REE) tenements secured with significant thorium anomalies indicating high prospectivity for both ionic adsorption clay and allanite-hosted REE (Pimenta Project)
- Pimenta Project located in north-east Minas Gerais with potential to be a new REE discovery zone
- Potential large-scale system with over 26km of anomalous REE strike over strong radiometric signals
- Circular thorium anomaly feature identified in the airborne radiometric data suggesting allanite zone response, known as a REE-rich accessory mineral.
- Pimenta Project tenements applied for and secured by SI6 via 70-30 Joint Venture with Foxfire Metals (SI6:70%-Foxfire Metals:30%)

Si6 Metals Limited (“**Si6**” or “the **Company**”, ASX: **Si6**) is pleased to announce that Brazilian Mining Ventures Ltda, a 100%-owned subsidiary (and 70%/30% Joint Venture vehicle with Foxfire Metals Pty Ltd – refer ASX release 2 May 2024) of the Company’s 100%-owned subsidiary Brazilian Ventures Pty Ltd, has secured 16 new tenements (13 applications and 3 granted) covering 30,075 hectares (300km²) in north-east Minas Gerais, prospective for both ionic adsorption clay-hosted (**IAC**) and allanite-hosted rare earth elements (**REE**) (**Pimenta Project**).

The Pimenta Project was secured based on a review of geological and radiometric data and the Company has identified highly anomalous thorium and uranium responses over at least 26km of strike suggesting a zone potentially hosting allanite or other REE-bearing minerals over the Santo Antonio do Jacinto granite.

The Pimenta Project is located in north-eastern Minas Gerais and lies over the Santo Antonio do Jacinto granite (Figure 1), which is characterized as a magnetite-biotite granite with significant allanite presence and shows promise for a potentially new REE discovery zone. Allanite is a REE-bearing mineral that belongs to the epidote group of minerals. The distinct geological and mineralogical features of the Santo Antonio do Jacinto granite highlights its potential as a source for REE. The thorium map



(Figure 2) indicates potential allanite-concentration that is often associated with the alteration of host rocks and channels for REE-hosting hydrothermal fluids.

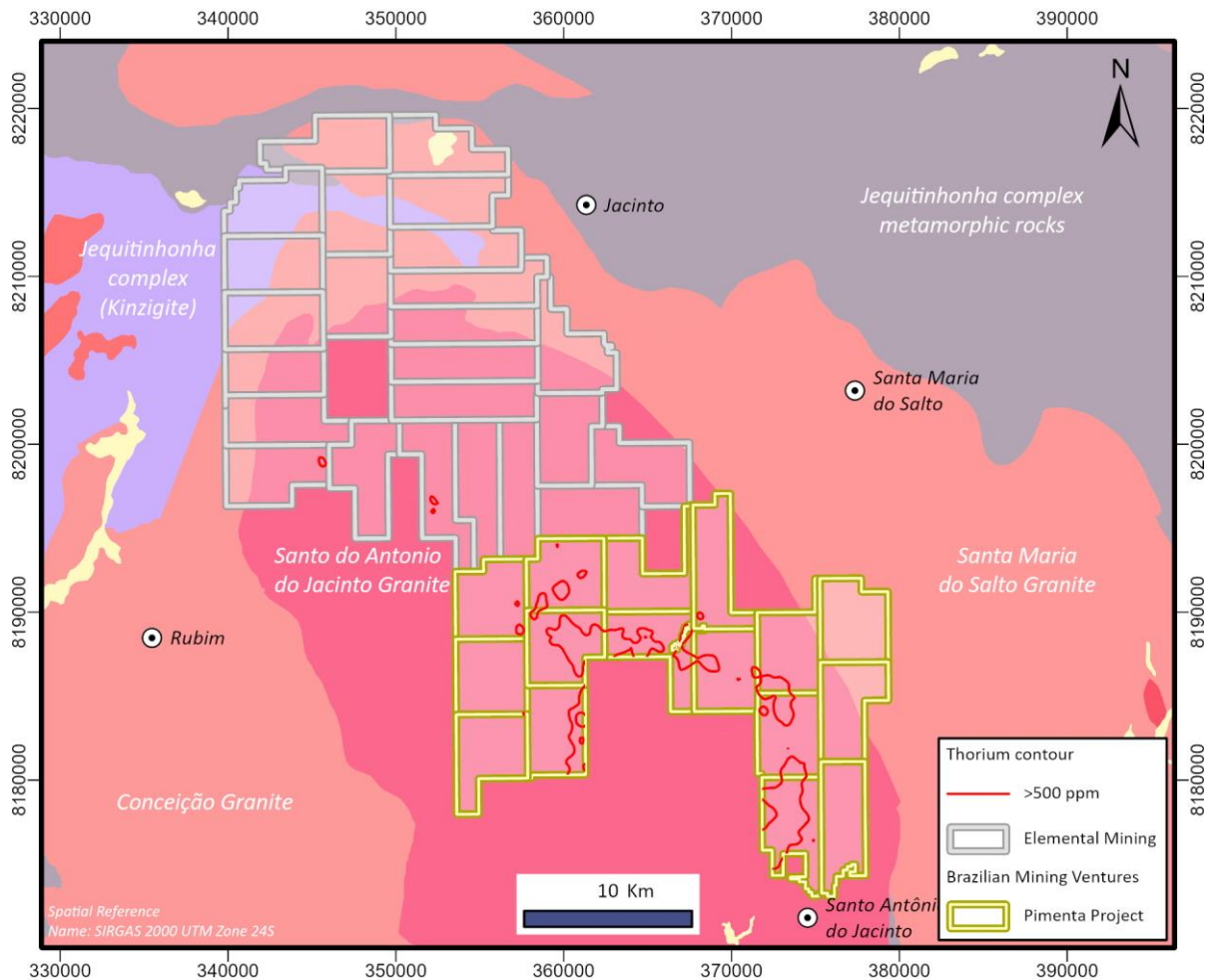


Figure 1: The Pimenta Project (and neighbouring third-party project) location over the Santo Antonio do Jacinto granite, with a contour of anomalous thorium (500ppm).

Allanite-hosted REE are of global significance and are typically large-scale, low cost and high magnetic rare earth oxide (MREO) content, demonstrated by American Rare Earths Limited's 3,000Ha (30km²) Halleck Creek project hosting a JORC Inferred Resource of 2.34 billion tonnes, with 1.42 billion tonnes of measured and indicated resources at a grade of 3,296ppm TREO (1,000ppm cutoff) and 27.1% MREO/TREO (refer ASX:ARR Scoping Study, released 18 March 2024).



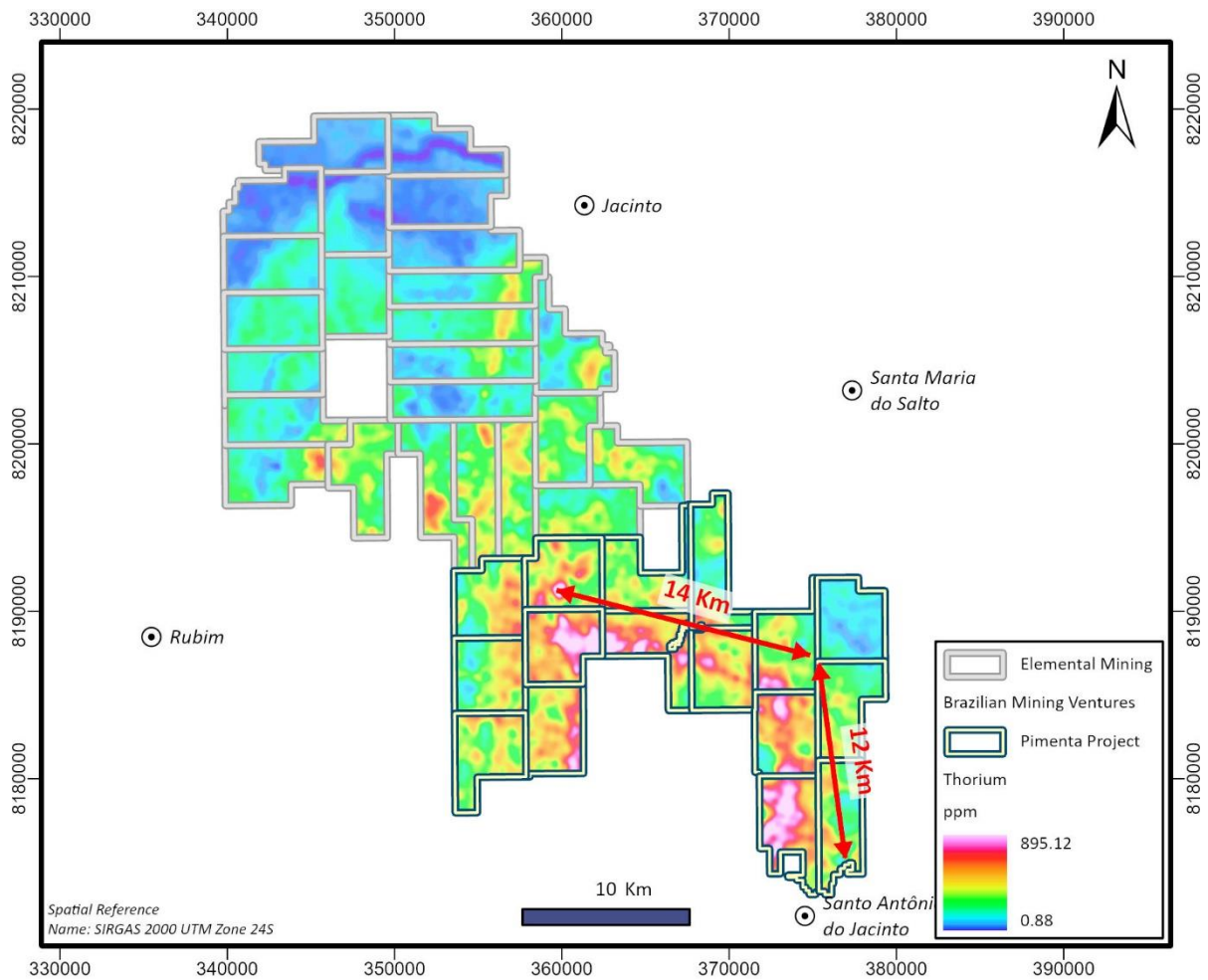


Figure 2: The Pimenta Project (and neighbouring third-party project) over very strong thorium anomalies.

Figure 2 shows the Pimenta Project area in relation to the highly anomalous thorium response, demonstrating the circular feature spanning at least 26km. The high thorium anomaly also suggests a potential allanite zone response.

Figure 3 and Figure 4 show elevated uranium signals consistently located over the 26km thorium anomalous contour strike and thorium/potassium (Th/K) ratio respectively, indicating alteration zones or geochemical processes favourable for forming a potentially large REE system.



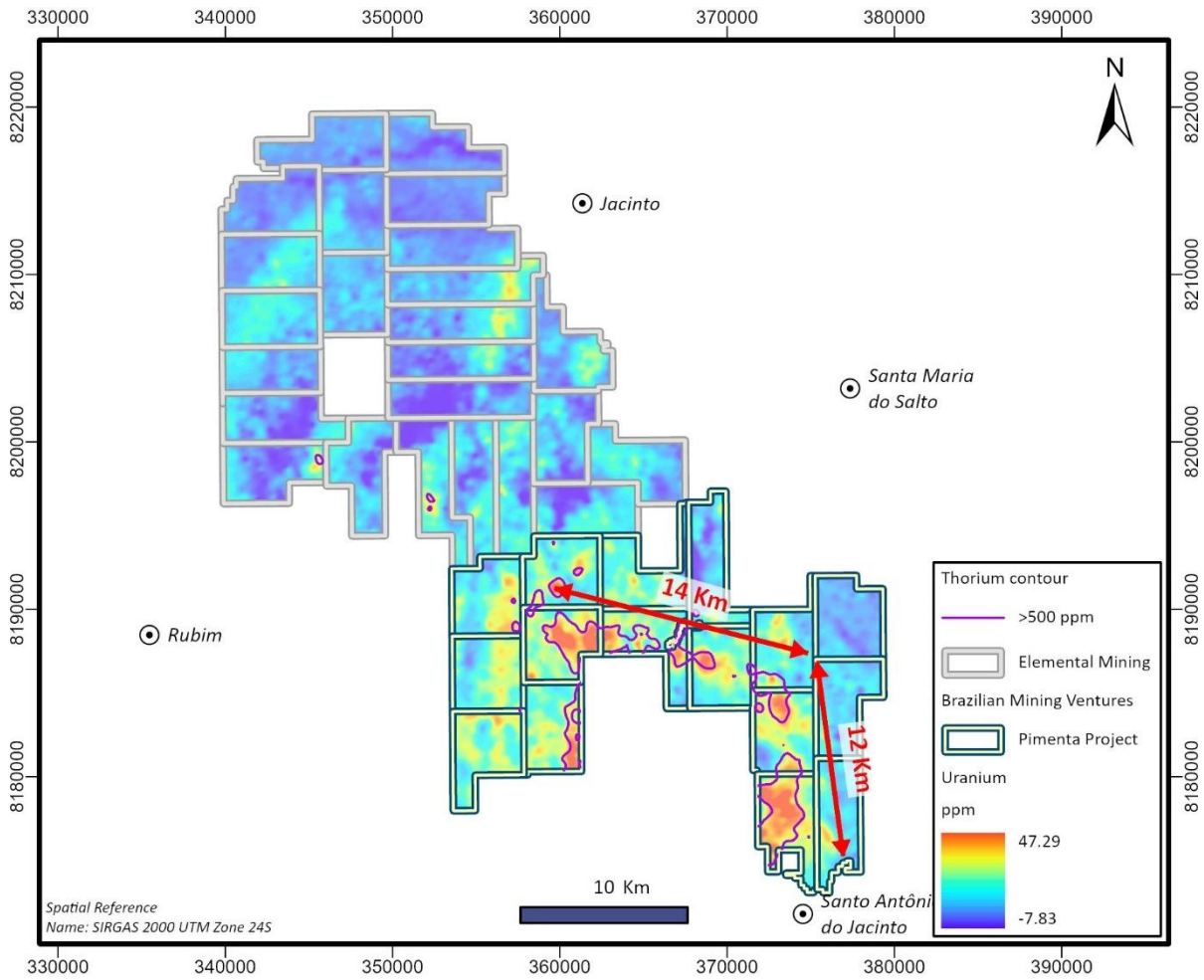


Figure 3: The Pimenta Project, and neighbouring third-party project, over high uranium anomalies



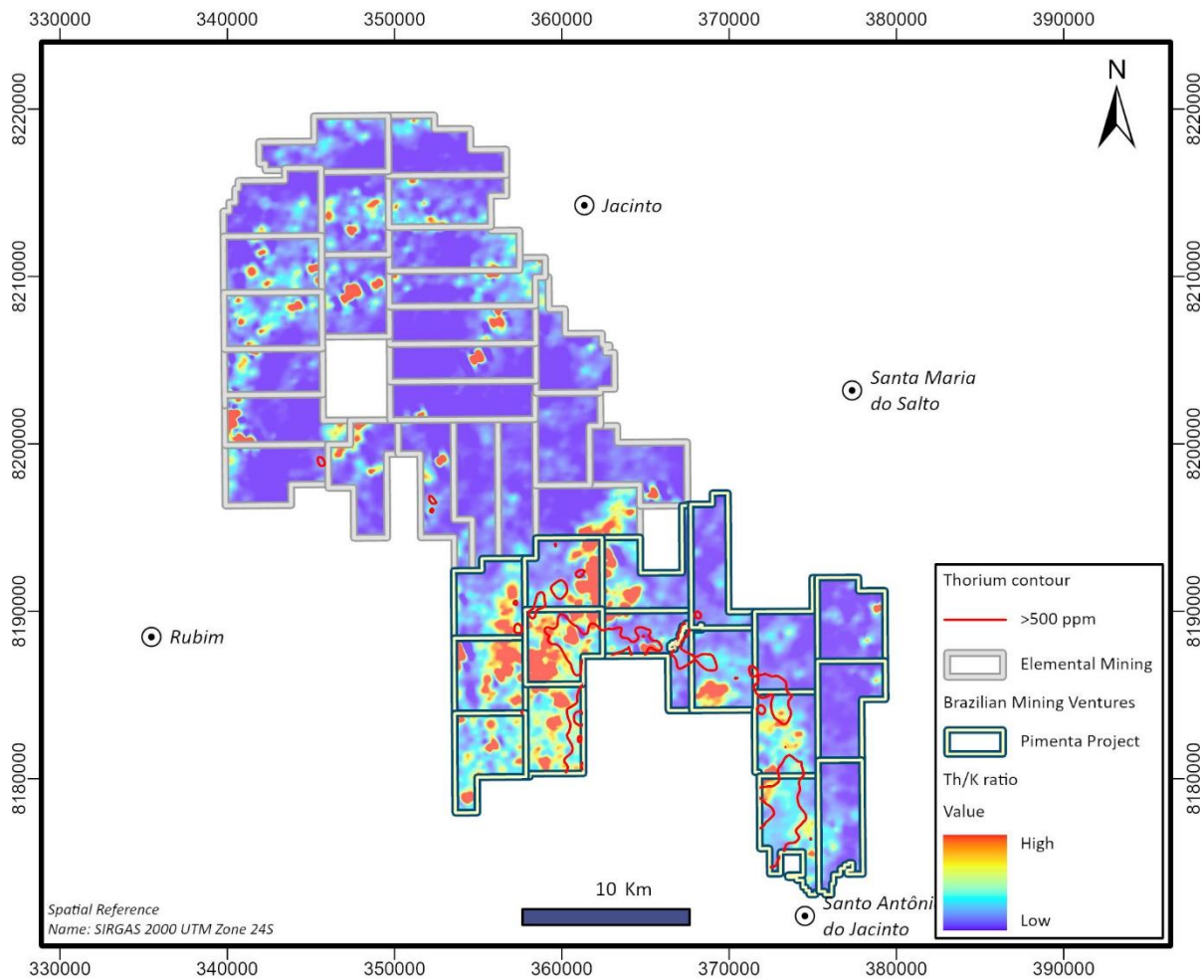


Figure 4 - Th/K ratio map showing a large area (red colour) could indicate the presence of a preserved weathering profile.

Th/K ratio map is an indicator for mapping preserved weathering profiles, which can delineate potential targets for ionic adsorption clay REE development by highlighting areas of differential weathering and elemental enrichment. The map identifies zones within the thorium anomaly contours where weathering processes have concentrated REEs, making them viable prospects for exploration.

Planned Exploration

The Company has three drill programs in progress at Poços de Caldas (South Minas Gerais) and Padre Paraiso (Lithium Valley). As 13 of the Pimenta Projects licences are currently under application, the Company will prepare for a future exploration program that may consist of a combination of channel sampling of weathered profiles, and reconnaissance auger drilling, once sufficient licence applications are granted. The Company will update the market in due course on the next steps.



This announcement has been made with the approval of the Si6 Board of Directors.

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About Si6

Si6 is a supply-critical metals and minerals explorer with base and precious metals project in the Limpopo Mobile Belt in Botswana, a district known for hosting major nickel and copper producing operations. The Company's portfolio contains an advanced Ni-Cu-Co-PGE resource at Maibele North and drilled high-grade Cu-Ag discoveries at Airstrip and Dibete. The project contains nickel sulphide mineralisation related to ultramafic intrusions within mobile belt rocks and is broadly similar in style to other ultramafic intrusion-related mobile belt nickel discoveries such as IGO's Nova Bollinger (ASX: IGO), Chalice Mining's Julimar (ASX:CHN) and the globally significant Thompson Belt in Canada. It currently hosts a resource of 2.4Mt @ 0.72% Ni and 0.21% Cu + PGMs + Co + Au.

Si6 also has entered into a joint venture to acquire 50% of a portfolio of rare earth elements, lithium, gold, base and precious metals in Brazil including licences in the "Lithium Valley" and Poços de Caldas in the state of Minas Gerais, globally known as prolific lithium and rare earth elements districts respectively.

Si6 also owns 100% of the Monument Au-Ni project located near Laverton in Western Australia. This project currently has a JORC compliant (2012) Inferred resource of 3.257 Mt @ 1.4 g/t for 154,000 ounces Au. (inferred resources calculated by CSA Global in 2021 to JORC 2012 compliance using a 0.5 g/t cut-off grade; see 2 August 2021 ASX announcement "Mineral Resources Estimate declared for Monument Gold Project "for further information).

Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on recent and historical exploration information compiled by Dr Paul Woolrich, who is a Competent Person and a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Dr Woolrich 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". Dr Woolrich 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.



Appendix 1 - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> - Nature and quality of sampling (eg channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. - Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - Aspects of the determination of mineralisation that are Material to the Public Report. - In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<p>No sampling has been carried out by the Company.</p> <p>No results have been received to date. Style of mineralisation sought is Ionic Adsorption Clay type REE mineralisation as well as lag deposits of REE mineralisation derived from hard rock sources in the weathering profile.</p> <p>High grade hard rock deposits of magmatic allanite hosted REE deposit are also a style of mineralisation being sought.</p>
Drilling techniques	<ul style="list-style-type: none"> - Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc). 	No drilling undertaken
Drill sample recovery	<ul style="list-style-type: none"> - Method of recording and assessing core and chip sample recoveries and results assessed. - Measures taken to maximise sample recovery and ensure representative nature of the samples. - Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	No drilling undertaken
Logging	<ul style="list-style-type: none"> - Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged. 	No drilling undertaken



<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> - If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. - Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. - Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>No drilling undertaken</p>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> - The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. - Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<p>No sampling undertaken</p>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> - The verification of significant intersections by either independent or alternative company personnel. - The use of twinned holes. - Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. - Discuss any adjustment to assay data. 	<p>No samples analysed</p>
<p>Location of data points</p>	<ul style="list-style-type: none"> - Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. - Specification of the grid system used. - Quality and adequacy of topographic control. 	<p>No drill holes proposed</p>



Data spacing and distribution	<ul style="list-style-type: none"> - Data spacing for reporting of Exploration Results. - Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. - Whether sample compositing has been applied. 	No sampling undertaken
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> - Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. - If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	No drilling undertaken
Sample security	<ul style="list-style-type: none"> - The measures taken to ensure sample security. 	A competent, independent contractor transports and delivers samples to SGS-Geosol lab at Vespasiano for analysis.
Audits or reviews	<ul style="list-style-type: none"> - The results of any audits or reviews of sampling techniques and data. 	Field duplicate samples stored for future reference.

Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> - Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. - The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	Brazilian Mining Ventures Ltda (BMV) owns 16 tenement applications in the Pimenta Project. BMV is 100%-owned by Brazilian Ventures Pty Ltd, which is 100%-owned by Si6 Metals Ltd. Si6 Metals Ltd, via BMV, is subject to an unincorporated joint venture whereby (BMV) holds 70% interest in the Pimenta Project and Foxfire Metals holds a free-carried 30% interest in the Pimenta Project.
Exploration done by other parties	<ul style="list-style-type: none"> - Acknowledgment and appraisal of exploration by other parties. 	No known exploration for REE has been carried out on the exploration licence application areas. No known exploration for other minerals is known over the licence areas.
Geology	<ul style="list-style-type: none"> - Deposit type, geological setting and style of mineralisation. 	<p>The deposit type sought off is described as an Ionic Adsorption Clay Rare Earth Element (REE).</p> <p>The REE mineralisation is in clays located in the saprolite/clay zone of the weathering profile derived from the subjacent rocks.</p>
Drill hole Information	<ul style="list-style-type: none"> - A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all material drill holes: <ul style="list-style-type: none"> o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length. 	No drilling undertaken.



	<p>- If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>	
Data aggregation methods	<p>- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>- Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>- The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	No drilling or sample aggregation undertaken, no cut off grades applied
Relationship between mineralisation widths and intercept lengths	<p>- These relationships are particularly important in the reporting of Exploration Results.</p> <p>- If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>- If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	No drilling undertaken; plan views of tenement and geophysical data locations are provided
Diagrams	<p>- Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</p>	No drilling undertaken; plan views of tenement and geophysical data locations are provided
Balanced reporting	<p>- Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</p>	No sampling results reported
Other substantive exploration data	<p>- Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</p>	There is no additional substantive exploration data to report.
Further work	<p>- The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	The Company will carry out a detailed assessment of data available in the project area and plan an exploration programme over the tenement application area which will commence as soon as the licences are granted.



Tenement	Area (ha)	Status	Substance	Ownership	Municipality	State
830379/2024	1894.39	Research Permit	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830381/2024	1905.35	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830382/2024	1902.57	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830385/2024	1893.77	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830386/2024	1873.81	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830387/2024	1841.34	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830388/2024	1897.2	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830389/2024	1860.03	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830391/2024	1855.1	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830392/2024	1858.34	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830393/2024	1860.54	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830394/2024	1889.61	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830395/2024	1917.82	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830396/2024	1898.1	Mineral Research Application	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
830397/2024	1876.44	Research Permit	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
870268/2024	1850.93	Research Permit	Lithium	Brazilian Mining Ventures Ltda	Santo Antônio Do Jacinto	Minas Gerais
Total Area (Ha)	30,075.34					
No. Applications	13					
No. granted	3					

