



## HIGH-GRADE MONAZITE DISCOVERY INDICATES DISTRICT-SCALE RARE EARTH POTENTIAL AT PARAIBA

### HIGHLIGHTS

- Assays from reconnaissance sampling at the Paraiba Rutile and Monazite Project indicate the presence of a high-grade "Monazite-Enriched Granite" system.
- Laboratory analysis of Sample 0085/25 returned high-grade results for Rare Earth Elements (REE) and Thorium, including:
  - 12.99% Cerium Oxide ( $\text{CeO}_2$ )
  - 5.99% Lanthanum Oxide ( $\text{La}_2\text{O}_3$ )
  - 4.69% Neodymium Oxide ( $\text{Nd}_2\text{O}_3$ )
- The assemblage contains a high proportion of critical rare-earth metals, with Neodymium (Nd) and Praseodymium (Pr) accounting for ~20% of the Total Rare Earth Oxides (TREO).
- Immediate mobilisation of a high-resolution airborne radiometric survey to map the granitic source, followed by auger drilling to define the regolith-hosted resource potential.
- Paraíba hosts an established mineral sands industry, with several majors such as Tronox, and several large-scale private companies with existing processing plans or plans to build an integrated HMS/Monazite processing plant. The industry is increasingly focused on monazite recovery to support the supply of rare earth elements.
- Energy Fuels' proven monazite processing technology also has plans to build an integrated processing plant next to the 100% owned Alcobaca project, which unlocks Th (and U) as credits, promotes REE recoveries, and has a stated interest in third-party supply, potentially providing an accelerated pathway to market.
- Liberty has highly experienced, well-established in-country teams—one dedicated team per project, each mobilising to their respective project this week, with strong news flow expected over the coming weeks.

**Liberty Metals Ltd (ASX: LIB) (Liberty or the Company)** is pleased to announce positive developments on its 100%-owned Paraiba Rutile and Monazite Project in Brazil.

New assay results from Alex Stewart International (ASI) have identified high-grade monazite mineralisation in a limited number of samples, alongside the previously reported high-grade rutile mineralisation. Although early-stage, these results indicate additional critical mineral potential at the project and support further exploration to assess the distribution, scale, and significance of monazite mineralisation.

**Cautionary Statement:** *The exploration results contained in this announcement are derived from a single reconnaissance grab sample, 0085/25. The Company advises that grab samples are selective and not necessarily representative of the general mineralisation or the average grade of the deposit. There is no certainty that further exploration will result in the estimation of a Mineral Resource.*

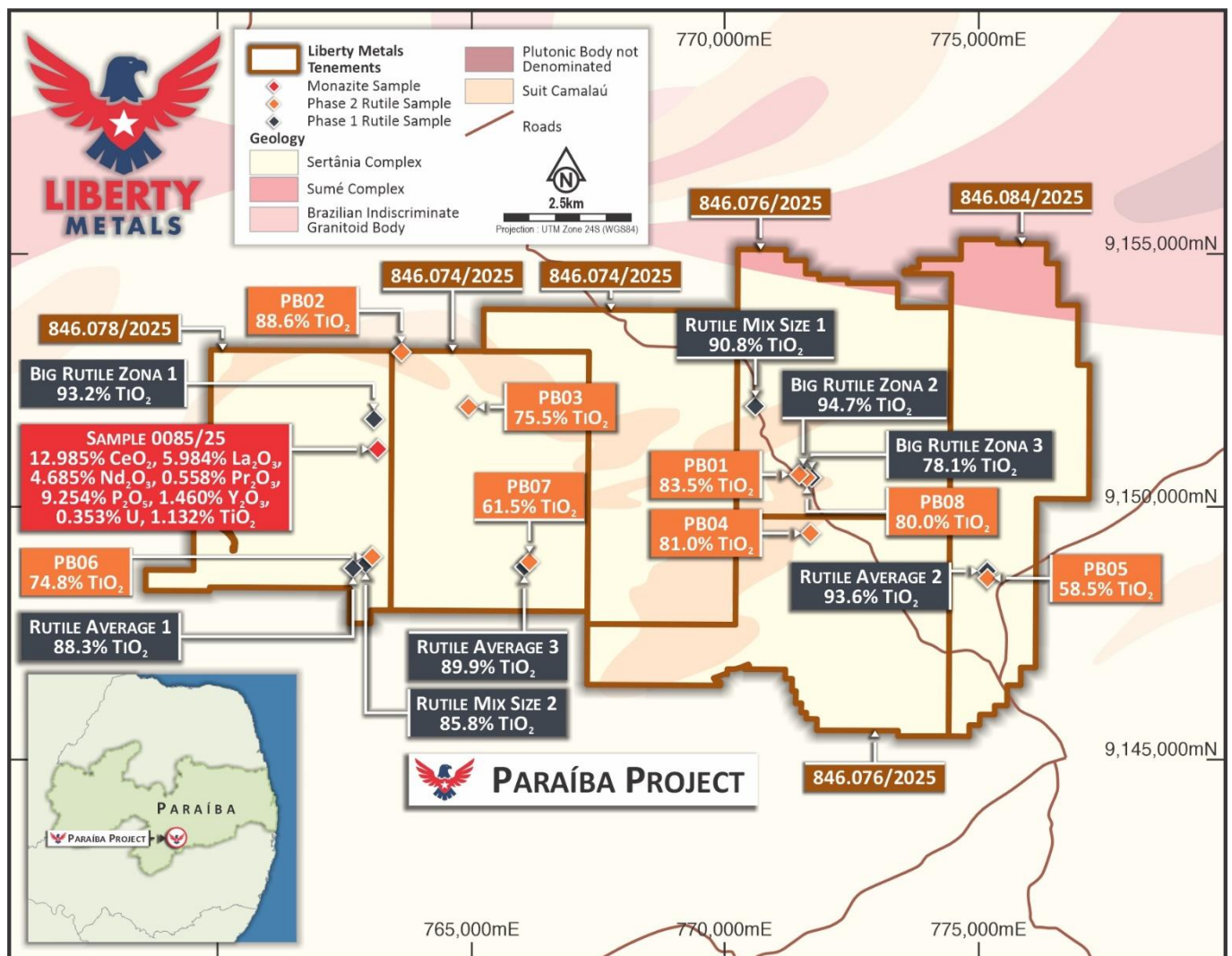
**Liberty Metals Director and Non-Executive Chair, Mr Nicholas Katris, commented:**

*“This assay result is a watershed moment for the Paraíba Project. When we acquired this asset, we focused on its exceptional hard-rock rutile potential, with historical grades exceeding 90% TiO<sub>2</sub>. However, the confirmation of high-grade Monazite with such a robust Neodymium-Praseodymium profile fundamentally changes the scale of the opportunity.*

*With 4.7% Neodymium Oxide in the concentrate and significant Yttrium credits indicating heavy rare earth potential, we are looking at a mineral system that mirrors the 'Monazite-Enriched Granite' models our peers in Cameroon are successfully developing. The geology of the Borborema Province is a direct trans-Atlantic cousin of the Central African Fold Belt, and today's results prove that the mineral endowment is shared.*

**The "Monazite-Enriched Granite" Model**

The geological rationale for this discovery is based on the pre-drift reconstruction of Gondwana, which links the Borborema Province in Northeast Brazil to the Central African Fold Belt in Cameroon.



**Figure 1: Location of the monazite sample (0085/25) within the Paraíba Rutile and Monazite Project, including regional geology, rutile sampling and assay, tenements, and the Project Location. The rutile results were first discussed in the ASX announcement released on October 16th, 2025: Acquisition of Three Highly Prospective Brazilian Heavy Mineral and Monazite Rare Earth Projects.**

Recent successes by Lion Rock Minerals (ASX: LRM) at their Minta Est Project in Cameroon have defined a specific geological model: a "Monazite-Enriched Granite" intrusion characterised by high Thorium radiometrics and a heavy-mineral assemblage comprising Monazite, Rutile, and Zircon.

The assay data from Paraíba's Sample 0085/25 on the Brazilian side of the Atlantic are consistent with this model. The sample contains features that allow us to identify a diagnostic signature of the specific potassic, differentiated granites that source heavy mineral sands in these Pan-African/Brasiliano belts.

This similarity provides Liberty Metals with a predictive exploration template. The methods that unlocked the Minta discovery, specifically channel radiometrics followed by auger drilling of the regolith, can be confidently applied directly to Paraíba.

Paraíba hosts an established mineral sands industry, supported by multiple operating and planned projects and a growing focus on monazite recovery to supply rare earth elements. Nearby operations, such as Tronox's Paraíba HMS Project, demonstrate active heavy mineral sand production and underscore the region's emerging emphasis on downstream processing solutions for monazite-bearing materials. This established industrial setting provides Liberty Metals with a supportive regional backdrop and a range of potential future processing pathways, subject to technical and commercial evaluation.

Monazite processing technologies deployed internationally, e.g., by Energy Fuels, illustrate that thorium, historically viewed as a complicating factor, can be effectively managed through established industrial processing routes. In this context, Liberty Metals is assessing proven processing methodologies used within the global mineral sands and rare earths industry as part of its longer-term development strategy. These approaches offer the potential to manage thorium-bearing streams in a controlled manner while supporting rare earth element recoveries, reframing thorium from a constraint into a manageable component of the processing flowsheet. Energy Fuels' Bahia Monazite Project adjoins Liberty's Alcobaca Monazite Project in southern Brazil.

Importantly, no metallurgical test work has yet been undertaken on material from the Paraíba Rutile and Monazite Project. All referenced processing pathways are conceptual only and are intended to demonstrate potential strategic optionality rather than to define a preferred development route. Further technical studies, including metallurgical testing, will be required to assess processing characteristics and confirm the most appropriate pathway as the project advances.

## Technical Analysis of Assay Data

The sample was analysed by X-ray fluorescence (XRF) spectrometry at the Alex Stewart International laboratory in Santos, Brazil. The results confirm a high-value mineral assemblage dominated by Monazite (LREE phosphate), with indications of Xenotime (HREE phosphate) and Zircon (Table 1; Appendix 1).

### *Key Observations<sup>1</sup>:*

- The combined Neodymium and Praseodymium (NdPr) content accounts for approximately 19.8% of the Total Rare Earth Oxides (TREO). This is comparable to premier global deposits such as Mount Weld, indicating a high-value feedstock for the permanent magnet industry.
- The elevated Yttrium (1.46%  $Y_2O_3$ ) serves as a proxy for Heavy Rare Earths (HREEs). In monazite systems, Yttrium often correlates with Xenotime ( $YPO_4$ ), the primary source of Dysprosium (Dy) and Terbium (Tb).

These interpretations are preliminary and based solely on mineralogical signatures and do not imply continuity, scale, or grade.

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<sup>1</sup> The observations are calculated from a single sample and are not indicative of overall project ratios.

**Table 1: Key Oxide Assay Results (Sample 0085/25: WGS 84/UTM Z24/763,148 mE 9,151,133 mN)**

Element / Oxide	Grade (%)	Strategic Significance
<b>CeO<sub>2</sub></b>	12.985%	Base REE load.
<b>La<sub>2</sub>O<sub>3</sub></b>	5.984%	Used in battery alloys and optics.
<b>Nd<sub>2</sub>O<sub>3</sub></b>	4.685%	Critical Magnet Metal. High grade drives basket value.
<b>Pr<sub>2</sub>O<sub>3</sub></b>	0.558%	Critical Magnet Metal.
<b>P<sub>2</sub>O<sub>5</sub></b>	9.254%	Confirms Phosphate mineralogy (Monazite/Xenotime).
<b>Y<sub>2</sub>O<sub>3</sub></b>	1.460%	HREE Indicator. Suggests presence of Xenotime (Dy/Tb source).
<b>U</b>	0.353%	By-product potential / NORM compliance required.
<b>TiO<sub>2</sub></b>	1.132%	Rutile/Ilmenite (associated mineralisation).

Source: Alex Stewart International Report 0085/25 (Appendix 1).

### Next Steps

The Company is immediately implementing a systematic exploration program to replicate the success of the Cameroon analogue:

1. A high-resolution drone- or helicopter-borne radiometric survey will be flown over the 120 km<sup>2</sup> tenure to map thorium anomalies.
2. Radiometrics will be ground-truthed and mapped to delineate the extent of weathered granite and colluvial wash.
3. A shallow auger drilling program (5m – 15m) will test the regolith profile to determine the grade and volume of the secondary "blanket" mineralisation, consistent with the strategy employed at Minta Est.<sup>1</sup>

**END**

*The announcement was authorised for release by the Board of Liberty Metals Ltd.*

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## **DISCLAIMERS**

### **Competent Persons Statement**

The information in this announcement relating to Exploration Results is based on, and fairly represents, information compiled by Mr Jonathan King, a Member of the Australian Institute of Geoscientists (AIG) and a Director of Geoimpact Pty Ltd, with whom Liberty Metals Ltd engages. Mr King has sufficient experience relevant to the style of mineralisation, type of deposit, and activities being undertaken to qualify as a Competent Person under the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr King consents to the inclusion of matters based on his information in this announcement, in the form and context in which they appear.

The CP has not reviewed any metallurgical or processing assumptions.

### **Forward Looking Statements**

This report contains forward-looking statements that involve several risks and uncertainties. These forward-looking statements are made in good faith and are believed to have a reasonable basis. They reflect current expectations, intentions or strategies regarding the future and are based on currently available information. Should one or more risks or uncertainties materialise, or underlying assumptions prove incorrect, actual results may differ from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward-looking statements if these beliefs, opinions and estimates change or to reflect other future developments.

**APPENDIX 1: Analytical Results**

<b>N° Amostra: 0085/25 - AMOSTRA MONAZITA PB</b>	
<b>Tipo de Amostra:</b>	<b>Minerio em Geral</b>
<b>N° O.S .:</b>	<b>OS0038-25</b>
<b>Resultados Analiticos</b>	
<b>Varredura Multielementar via XRF (Qualitativo) + Umidade</b>	
<b>Análise</b>	<b>Resultado</b>
Ac	0.018 %
Ag20	0.755 %
Al203	2.672%
At	0.004 %
BaO	0.01%
CaO	4.154%
CdO	4,431 ppm
CeO2	12.985%
Cs20	0.01%
Dy2O3	0.049 %
Er203	0.016 %
Fe203	7.060%
HfO2	0.037 %
In203	6,785 ppm
K20	0.079 %
La203	5.984%
Nd203	4.685%
P205	9.254%
Pa	0.005 %
PbO	0.115 %
PdO	1,408 ppm
Pr203	0.558 %
Rb2O	0.004 %
Rh	0.01%
RuO2	0,028 %
Sb203	0,021 %
SiO2	12.787%
SnO2	0.084 %
SrC	0.004 %
TeO2	0.07%
ThO2	5.299%
TiO2	1.132%



U	0.353 %
Umidade	0.225 %
V2O5	0.311 %
WO3	0.069 %
Y2O3	1.460%
Yb2O3	0.061 %
ZnO	0.009 %
ZrO2	1.959%

**APPENDIX 2: 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	Nature and quality of sampling (e.g. cut 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.	<ul style="list-style-type: none"> <li>The sample reported (0085/25) is a reconnaissance grab sample of heavy mineral concentrate derived from surface prospecting. It is not a drill core or systematic channel sample.</li> <li>The sample was collected to confirm the presence and grade of heavy mineral species in the project area.</li> </ul>
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	<ul style="list-style-type: none"> <li>No drilling is being reported in this announcement.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	<ul style="list-style-type: none"> <li>Not applicable as no drilling was undertaken.</li> </ul>
	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.	
Logging	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.	<ul style="list-style-type: none"> <li>The sample was visually inspected and described as a heavy mineral concentrate before submission for assay.</li> <li>Detailed geological logging of the parent rock has not yet been conducted at this stage of the reconnaissance.</li> </ul>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	

Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	<ul style="list-style-type: none"> <li>The sample was submitted to Alex Stewart International (ASI) in Santos, Brazil.</li> <li>The sample was dried and pulverised according to standard laboratory protocols for XRF analysis.</li> </ul>
	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.	<ul style="list-style-type: none"> <li>Lower level of detection for the chosen method = 1 ppm</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul style="list-style-type: none"> <li>No information on Quality Control (QC) procedures for sub-sampling is available.</li> </ul>
	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.	<ul style="list-style-type: none"> <li>No information is available on field duplicates or other measures to ensure representivity.</li> <li>The samples are acknowledged to be selective grab samples.</li> </ul>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul style="list-style-type: none"> <li>Information not available.</li> </ul>
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<ul style="list-style-type: none"> <li>Analysis was performed using X-Ray Fluorescence (XRF) spectrometry (Method: Varredura Multielementar via XRF).</li> <li>This is an industry-standard method for determining total element concentrations in refractory minerals like Monazite and Rutile.</li> <li>The technique is considered a "total" analysis for the oxides reported (CeO<sub>2</sub>, La<sub>2</sub>O<sub>3</sub>, ThO<sub>2</sub>, etc.).</li> </ul>
	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.	<ul style="list-style-type: none"> <li>No geophysical tools or PXRF used during the sampling program.</li> </ul>
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	<ul style="list-style-type: none"> <li>No details on the use of standards, blanks, or duplicates were included in the documents.</li> <li>Formal QA/QC protocols, including certified reference materials, blanks and field duplicates, will be</li> </ul>

Criteria	JORC Code explanation	Commentary
		implemented in all future programs.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	<ul style="list-style-type: none"> <li>No independent verification or twin sampling has been performed at this early reconnaissance stage.</li> </ul>
	The use of twinned holes.	<ul style="list-style-type: none"> <li>Not applicable as no drilling.</li> </ul>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul style="list-style-type: none"> <li>Lab results are presented in formal laboratory reports from Alex Stewart International.</li> </ul>
	Discuss any adjustment to assay data.	<ul style="list-style-type: none"> <li>No adjustments to assay data were reported.</li> </ul>
Location of data points	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.	<ul style="list-style-type: none"> <li>GPS coordinates for the sample location were provided as 36°36'52.56"W 7°40'22.37"S</li> <li>Recorded with a handheld GPS with +/- 5m accuracy.</li> </ul>
	Quality and adequacy of topographic control.	<ul style="list-style-type: none"> <li>Topographic control is not detailed.</li> </ul>
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<ul style="list-style-type: none"> <li>The sample is a point source (grab sample) and does not represent a grid or systematic spacing sufficient for Mineral Resource estimation.</li> </ul>
	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.	<ul style="list-style-type: none"> <li>No. The data is from early-stage prospecting only.</li> </ul>
	Whether sample compositing has been applied.	<ul style="list-style-type: none"> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul style="list-style-type: none"> <li>As a reconnaissance grab sample of concentrate, orientation is not applicable in the same context as drill core.</li> <li>The sample is intended to indicate the potential grade of the source material.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul style="list-style-type: none"> <li>Standard chain of custody procedures was followed for sample transport to the Asi Laboratory</li> </ul>

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"> <li>No audits or reviews of the sampling techniques or data have been documented.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	<ul style="list-style-type: none"> <li>The Paraiba Project consists of mineral tenements held 100% by Liberty Metals Ltd via its Brazilian subsidiary.</li> <li>All tenements are in good standing with the National Mining Agency (ANM).</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul style="list-style-type: none"> <li>Historical exploration in the region has focused on artisanal mining for tantalum and coloured gemstones.</li> <li>The previous owners identified high-grade rutile potential.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul style="list-style-type: none"> <li>The project is located within the Alto Moxotó Terrane of the Borborema Province.</li> <li>The deposit model is a "Monazite-Enriched Granite" system (analogous to Minta Est, Cameroon) that intrudes high-grade metasediments of the Sertânia Complex.</li> <li>Mineralisation occurs as primary disseminations and in veins within the granite/pegmatites, and as secondary accumulations in the regolith/colluvium.</li> </ul>
Drill hole Information	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:   • easting and northing of the drill hole collar   • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar   • dip and azimuth of the hole   • down hole length and interception depth   • hole length.	<ul style="list-style-type: none"> <li>Not applicable as no drilling is being reported.</li> </ul>
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	<ul style="list-style-type: none"> <li>No data aggregation or top-cutting was applied.</li> <li>Results are reported as received from the laboratory.</li> </ul>
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	<ul style="list-style-type: none"> <li>Not applicable for grab samples.</li> </ul>

Criteria	JORC Code explanation	Commentary
Diagrams	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.	<ul style="list-style-type: none"> <li>Refer to the body of the announcement for descriptions of the geological model and assay tables.</li> </ul>
Balanced reporting	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.	<ul style="list-style-type: none"> <li>The announcement reports the full suite of significant oxides from the sample, including deleterious elements (ThO<sub>2</sub>, U) and gangue (SiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>), to provide a complete and balanced picture of the concentrate quality.</li> <li>It is crucial to consider that the exploration results contained in this announcement are derived from a single reconnaissance grab sample. The Company advises that grab samples are <b>selective in nature</b> and are not necessarily representative of the general mineralisation or average grade of the deposit.</li> </ul>
Other substantive exploration data	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.	<ul style="list-style-type: none"> <li>The report references the geological analogy with the Minta Est Project in Cameroon (Lion Rock Minerals), based on the shared pre-drift geology of the Borborema Province and the Central African Fold Belt. This analogy is used to guide exploration strategy (radiometrics).</li> <li>The Company has identified Thorium (Th) as a significant component of the mineral assemblage. Based on the 5.30% ThO<sub>2</sub> result, the mineralisation is classified as radiogenic. Thorium is considered a deleterious element in standard rare earth processing; however, the Company's preferred downstream pathway (Acid Baking / SX) is specifically engineered to recover Thorium as a high-purity byproduct for potential medical or nuclear applications, rather than treating it as a waste stream.</li> </ul>
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul style="list-style-type: none"> <li>Planned work includes a high-resolution airborne radiometric survey to map thorium anomalies, followed by ground-truthing and a shallow auger drilling program to define regolith-hosted mineralisation.</li> </ul>
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The Project Map shows the sample location relative to the concessions and documents where future work will be focused.