ACQUISITION OF THREE HIGHLY PROSPECTIVE BRAZILIAN HEAVY MINERAL SANDS & MONAZITE RARE EARTH PROJECTS

HIGHLIGHTS

- Strategic acquisition of three highly prospective, district-scale critical mineral projects in Brazil, establishing a significant footprint in a Tier 1 mining jurisdiction.
- The Paraiba Project: A unique, high-grade, hard-rock rutile project covering 120 km^2 in the mining-friendly state of Paraíba.
    - Exceptional initial lab results from proximal rutile crystals confirm high-purity mineralisation, with multiple samples grading >90% TiO_2, including peak results of **93.6% TiO_2** and **94.7% TiO_2.**
    - XRD analysis of two samples (PB4 and 8) confirmed that the mineralogy is rutile dominant, at **62.5%** and **81.9% rutile,** respectively, with lesser ilmenite (35.4% and 15.7%).
    - Located in the Borborema geological province, which has a measured state-wide reserve of 1.14 million tonnes of rutile and hosts existing titanium operations, including the Tronox Paraíba Mine.[1]
    - The Borborema geological province closely resembles Cameroon's emerging rutile province; both regions, once part of the same tectonic system, share similar high-grade, kyanite-rich source rocks, indicating comparable potential for major hard rock rutile deposits.
- The Rio Grande Project: A major heavy mineral sands (HMS) opportunity covering 234 km² in the state of Rio Grande do Sul, highly prospective for ilmenite, rutile, and zircon.
    - Project is located immediately adjacent to the advanced South Atlantic Project (owned by Rio Grande Mineração; RGM), which hosts a JORC 2012-compliant (Inferred + Indicated) Mineral Resource of 771 million tonnes @ 3.0% Total Heavy Mineral (THM).[2]
    - The geology is a direct analogue to the South Atlantic Project, which is advancing towards a pre-feasibility study, providing a clear, de-risked exploration model.
    - The South Atlantic Project has just obtained the Environment Licence to build its processing plant.
    - Sheffield Resources (ASX: SFX) secured an option to acquire up to 20% of RGM's heavy mineral sands project for US$15M in 2023.
- The Alcobaca Project: A strategic heavy mineral sands (HMS) venture spanning 55 km² in Bahia, with strong potential for titanium, zircon, and notably, monazite-hosted Rare Earth Elements (REEs).
    - The project is located directly next to the Bahia Project, which was bought by major US critical minerals producer Energy Fuels (NYSE: UUUU) for US$27.5 million, providing strong validation of the district's REE potential[3].
- Multi-Asset Strategy: The acquisition offers three complementary development pathways: a high-grade, high-value primary rutile project; a large-tonnage, simple-geology HMS project; and a high-impact, strategic REE project.

[1] http://mineralis.cetem.gov.br/bitstream/cetem/1141/1/37._Minerais_de_Tit%C3%A2nio_revisado.pdf
[2] https://www.sheffieldresources.com.au/site/pdf/e7f3e258-ed0d-4bbc-8c9e-877f3fd56b2c/South-Atlantic-Project-Mineral-Resource-Licence-Grant.pdf?Platform=ListPage
[3] https://investors.energyfuels.com/2023-02-13-Energy-Fuels-Completes-Acquisition-of-Rare-Earth-and-Heavy-Mineral-Project-in-Brazil?

- Favourable Market Dynamics: The acquisition provides exposure to the high-value titanium and rare earth markets, with both rutile and key REEs classified as critical minerals by the US, EU, and Australia, and facing significant supply constraints from traditional sources.

Liberty Metals Ltd (ASX: LIB) (Liberty or the Company) is pleased to announce that it has entered into a binding option agreement to acquire a 100% interest in three highly prospective critical mineral projects in Brazil: the Paraiba Hard Rock Rutile Project in the state of Paraíba, the Rio Grande Heavy Mineral Sands (HMS) Project in the state of Rio Grande do Sul, and the Alcobaca Heavy Mineral Sands & Rare Earths Project in the state of Bahia (together, the **Projects**) (Figure 1).

This acquisition represents a strategic move into Brazil, a globally recognised Tier 1 mining jurisdiction with a stable mining code, excellent infrastructure, and a skilled workforce. The transaction ensures the Company has a significant and diverse presence in the global critical minerals sector. The portfolio targets titanium, a commodity group vital for the aerospace, defence, and green energy sectors, and rare earth elements, which are indispensable for the manufacturing of high-performance magnets used in electric vehicles and wind turbines.

Figure 1: Locations for the Paraiba, Rio Grande and Alcobaca Projects in Brazil.

The acquisition is structured around a complementary, multi-asset strategy:

1. Paraiba Project (Hard Rock Rutile): A high-grade, high-value opportunity targeting primary rutile mineralisation capable of producing a premium feedstock for the titanium market.
2. Rio Grande Project (HMS): A large-scale, simple-geology exploration play targeting a bulk-tonnage resource of rutile, ilmenite, and zircon. Its direct proximity to a world-class resource provides a high degree of confidence in the exploration model.
3. Alcobaca Project (HMS & REE): A strategic exploration opportunity focused on a conventional heavy mineral sands suite with the added potential of monazite-hosted rare earths. Its proximity to a major project being developed by a leading US producer de-risks the exploration concept and underscores the district's strategic value.

This multi-pronged approach diversifies geological risk and provides multiple pathways to development and value creation for shareholders.

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

"This acquisition marks a transformative step, establishing Liberty's footprint across Brazil's leading mineral provinces with three high-value critical mineral projects.

Paraiba Project is a genuinely unique, high-grade, hard-rock rutile find. The initial lab results, with grades surpassing 94% TiO_2, indicating potential for a premium titanium product.

Rio Grande Project, offers a rare opportunity to explore a district-scale heavy mineral sands system closely related to a neighbouring 771-million-tonne resource. The proven geology and shallow, near-surface deposits provide a straightforward, low-cost path to defining a significant resource comprising rutile, ilmenite and zircon.

Alcobaca Project in Bahia is a strategic entry into the highly sought-after rare earths market. This project is not only promising for titanium and zircon but also, importantly, for monazite, which contains the magnet metals vital for the global energy shift. The recent investment of US$27.5 million by a major US company, Energy Fuels, to acquire the surrounding land provides a strong third-party endorsement of this emerging critical minerals district.

Collectively these assets create a diversified platform across titanium and rare earths within a Tier 1 jurisdiction increasingly aligned with the United States' critical-minerals strategy to strengthen secure, transparent supply chains. We look forward to commencing exploration and advancing this exceptional Brazilian portfolio."

Paraiba Hard Rock Rutile Project

The Paraiba Project is a primary, hard-rock rutile project located in the state of Paraíba in northeastern Brazil (Figure 2). This project comprises six concessions (Appendix 2) and covers an area of 120 km². It is distinct from typical HMS deposits and represents a unique opportunity to explore for high-grade, in-situ rutile mineralisation. The state of Paraíba is a known producer of titanium minerals, with established infrastructure and a measured reserve of 1,137,000 tonnes of rutile[4].

Geological Setting

The project is situated within the Borborema Province, a geological area that was once part of the Gondwana supercontinent, linked to what is now Cameroon, Africa (Figure 3)[5]. This shared geology is important because both regions have high-grade metamorphic rocks known for primary rutile mineralisation.

The rutile mineralisation is hosted within Paleoproterozoic to Mesoproterozoic high-grade metamorphic rocks, specifically the Sertânia Complex and the Camalaú Granitic Suite. The formation of rutile occurred under high-pressure and high-temperature conditions (amphibolite to granulite facies), associated with the

[4] http://mineralis.cetem.gov.br/bitstream/cetem/1141/1/37._Minerais_de_Tit%C3%A2nio_revisado.pdf
[5] https://pdfs.semanticscholar.org/81b2/c3ba59e07a0cf6a63c046eb0cc3c2573df07.pdf

Pan-African-Brasiliano mountain-building events that facilitated the recrystallisation and concentration of titanium into economic deposits.

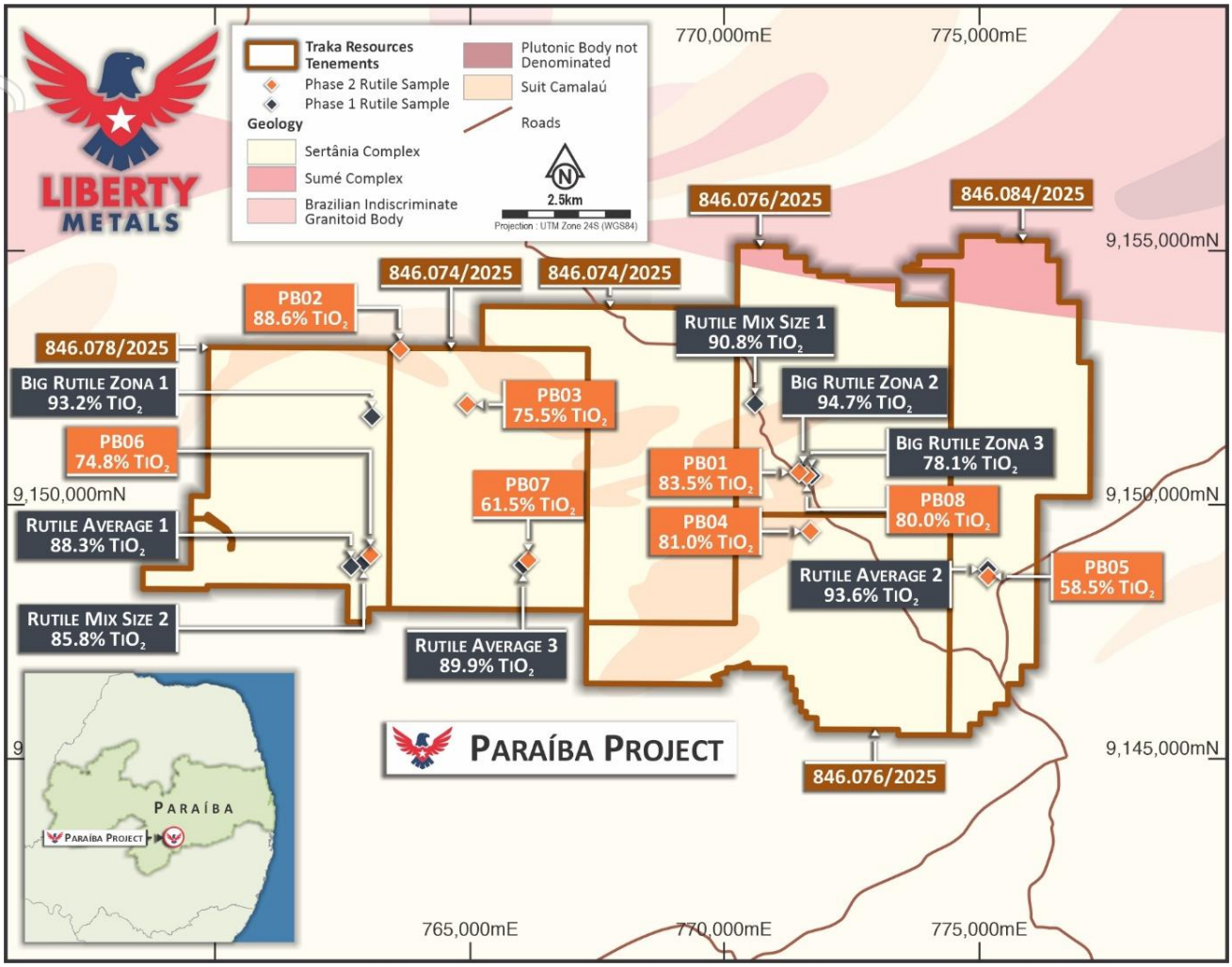

Figure 2: Project location, concessions and reconnaissance lag sampling with rutile purity on geology, Paraiba Rutile Project.

Cameroon Analogue Highlights Untapped Rutile Potential in Paraíba

Recent exploration success in Central Cameroon, led by ASX-listed companies Lion Rock Minerals (ASX: LRM)[6] and DY6 Metals (ASX: DY6)[7], has identified a new, globally significant rutile province. This breakthrough confirms a geological model that closely parallels the Borborema Province in Paraíba, Brazil.

The source of the high-purity, premium-grade rutile mineralisation being delineated across the Minta and Central Rutile projects in Cameroon is consistently linked to a specific type of high-grade metamorphic basement rock: kyanite-bearing schists and gneisses. The work by Lion Rock Minerals and DY6 Metals demonstrates that this geological setting can host world-class rutile deposits.

This host rock geology is widely documented throughout Paraíba. The state's high-grade metamorphic terranes, particularly the Alto Moxotó Terrane and the Sertânia Complex, are well recognised to consist of kyanite- and garnet-bearing schists and gneisses, which are the main source rocks for heavy mineral deposits, including rutile (Figure 3).

[6]https://clients3.weblink.com.au/pdf/PUA/02882918.pdf & https://clients3.weblink.com.au/pdf/PUA/02977437.pdf
[7] https://investors.dy6metals.com/announcements/7155976 & https://investors.dy6metals.com/announcements/7120516

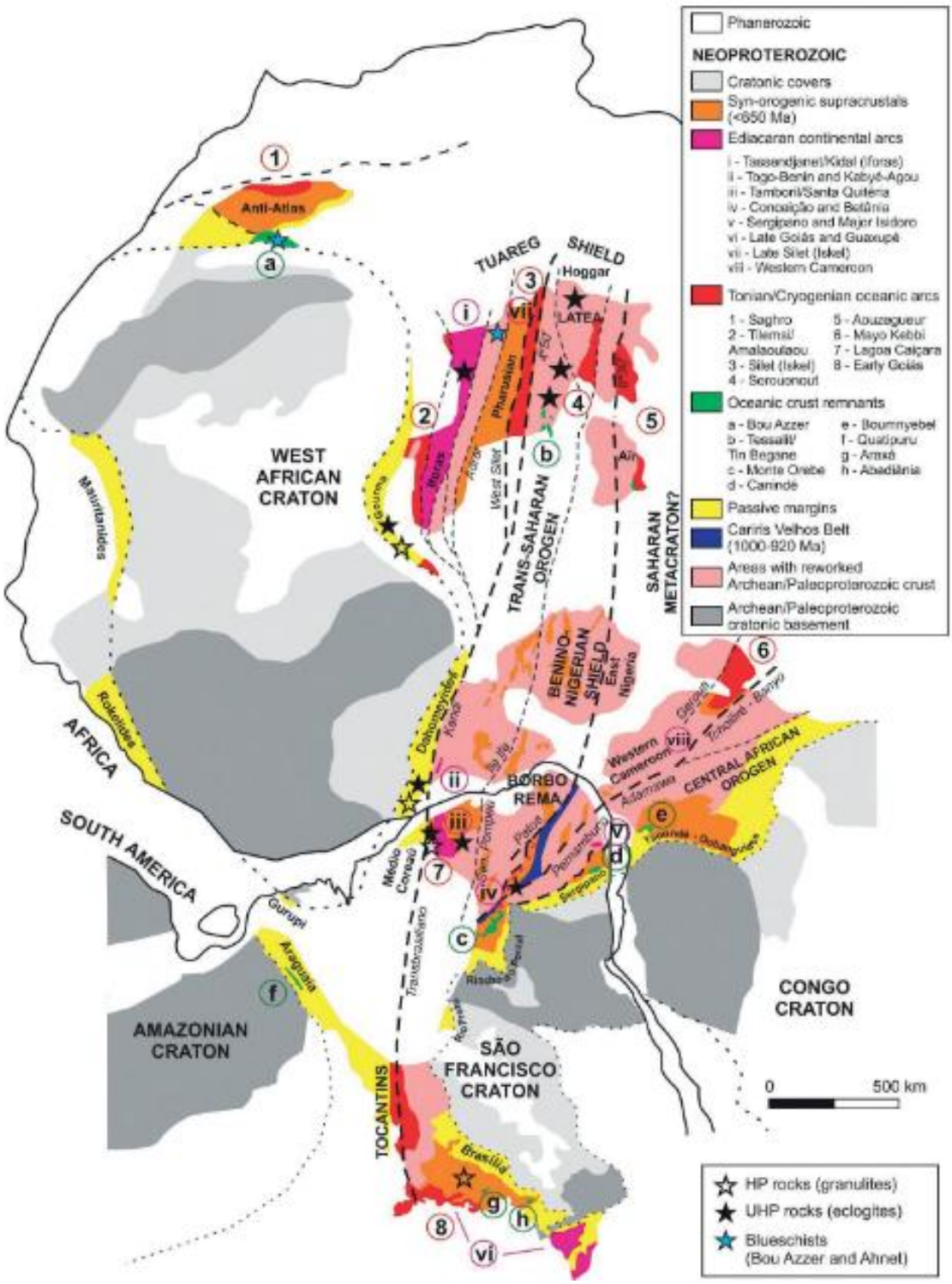

Figure 3: Simplified geological features of NE Brazil and NW and central Africa.

The successful validation of this geological model in Cameroon provides a solid basis for comparison with what might be possible in Paraíba. It clearly shows that the state has the right geological conditions for similar large-scale, high-value rutile mineralisation, revealing significant and underexplored opportunities.

High-Grade Laboratory Results

Initial reconnaissance and sampling of in-situ rutile crystals from the Paraiba project have returned exceptionally high-grade results, confirming the presence of very high-purity mineralisation. X-ray Fluorescence (XRF) analysis yielded the following outstanding results (Figure 4; Table 1; Appendix 1):

Figure 4: Hand-selected high-quality rutile specimens, Sample 2 (Table 1), Paraiba Rutile Project

Table 1: Selected High-Purity Rutile Sample Results

Sample No.	TiO_2 (%)	Fe_2O_3 (%)
SAMPLE 1	94.7	3.2
SAMPLE 2	93.6	3.5
SAMPLE 3	93.2	4.5
SAMPLE 4	90.8	7.0
SAMPLE 5	89.9	7.3

These results, with several samples exceeding 90% TiO_2, demonstrate the project's potential to produce a premium, high-value rutile product.

X-ray Diffraction (XRD) analysis of two samples (PB4 and PB8) confirms a mineralogy dominated by rutile, comprising 62.5% of the crystalline phases in PB4 and 81.9% in PB8. Ilmenite appears at lower levels, with 35.4% in PB4 and 15.7% in PB8, accompanied by only minor residual phases, including quartz at 2.1% and 2.4%, providing the balance. Overall, the results indicate a rutile-rich heavy-mineral assemblage (especially in PB8), supporting the potential for a rutile-focused product stream with ilmenite as a secondary product, subject to further metallurgical and size-fraction tests.

Rio Grande Heavy Mineral Sands Project

The Rio Grande Project includes twelve neighbouring tenements covering 234 km² in the Mostardas municipality, on the coastal plain of Rio Grande do Sul, Brazil's southernmost state (Figure 5). Ideally situated, the project is directly next to Rio Grande Mineração's South Atlantic Project. In 2023, Sheffield Resources (ASX: SFX) signed an option agreement to acquire up to 20% of the project for US$15 million, arranged through staged payments and funding.[8]

Geology and Prospectivity

The project is located in the Rio Grande do Sul Coastal Plain, a large geological area renowned for its rich mineral deposits. The mineralisation model shows a typical coastal placer deposit, formed naturally when heavy minerals such as rutile, ilmenite, and zircon were eroded from the ancient igneous and metamorphic rocks of the Sul-Riograndense Shield. Rivers transport these sediments to the coast, where wave action, tides, and currents sort and concentrate the denser minerals along both ancient and current shorelines.

[8] https://www.sheffieldresources.com.au/site/about-us/company-overview

The resulting deposits are located near the surface, extend laterally, and have straightforward geology, making them highly suitable for low-cost, traditional open-cut mining methods, such as dredging.

Figure 5: Project location relative to Sheffield's South Atlantic

The South Atlantic Project Analogue

The prospectivity of the Rio Grande Project is supported by the success of the nearby South Atlantic Project, which underwent extensive modern exploration, resulting in the delineation of a significant JORC 2012-compliant Mineral Resource in June 2025[9].

- Total Mineral Resource: 771 million tonnes (Mt) @ 3.0% Total Heavy Mineral (THM).
- Retiro Deposit Resource: 429 Mt @ 3.1% THM.
- Bujuru Deposit Resource: 343 Mt @ 2.8% THM.
- Valuable Mineral Assemblage (Retiro): The concentrate consists of 41% ilmenite, 11% altered ilmenite, 6% zircon, and 3% rutile.

The extensive work carried out by RGM and Sheffield, which is now advancing the South Atlantic Project through a pre-feasibility study, provides a strong and highly relevant blueprint for exploring and potentially developing the Rio Grande Project (Figure 6).

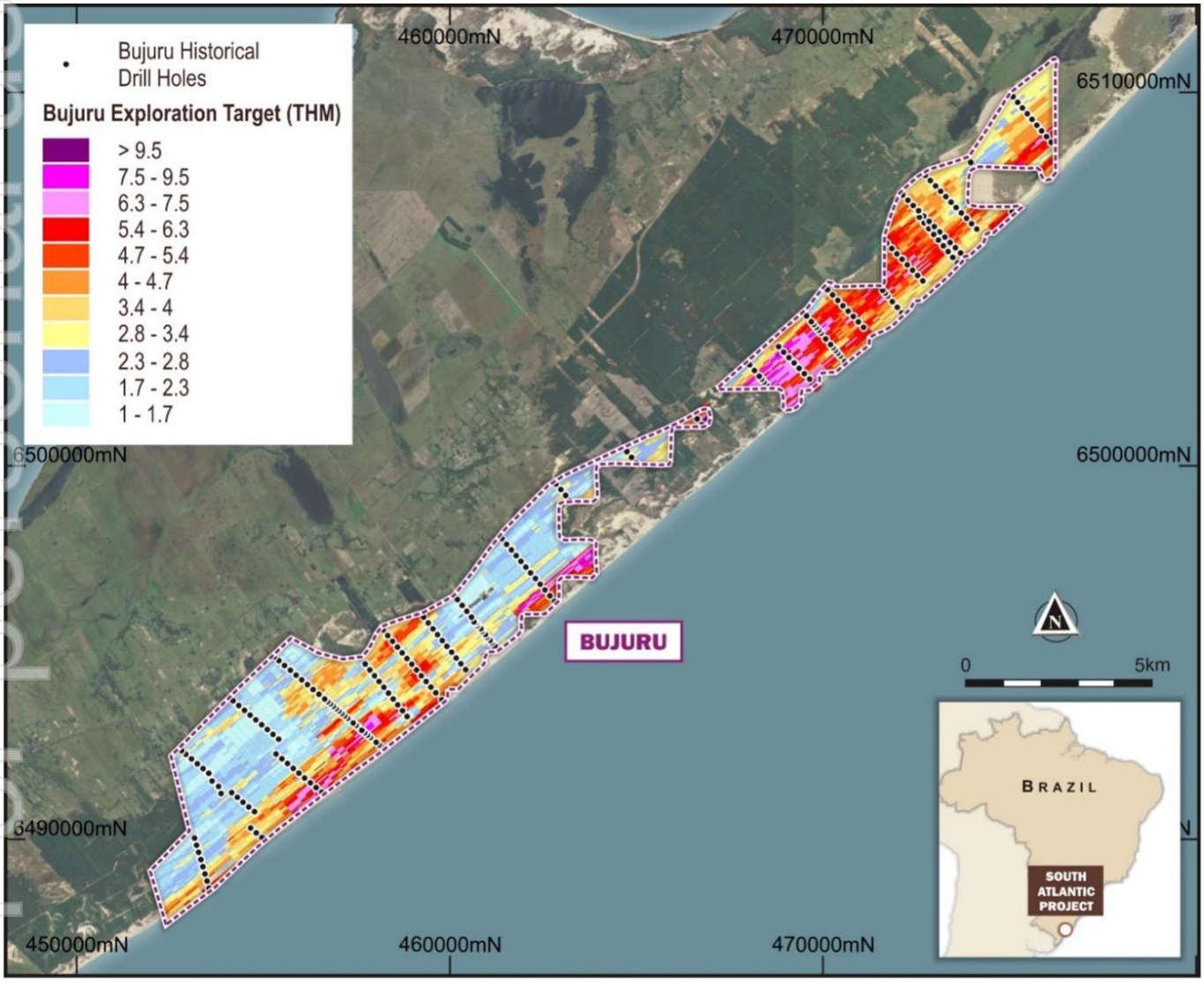

Figure 6: Sheffield's Bujuru Exploration Target located immediately southwest of Liberty's Rio Grande HMS Project (source: https://www.sheffieldresources.com.au/site/projects/south-atlantic-project).

9 https://www.sheffieldresources.com.au/site/pdf/e7f3e258-ed0d-4bbc-8c9e-877f3fd56b2c/South-Atlantic-Project-Mineral-Resource-Licence-Grant.pdf?Platform=ListPage

Alcobaca Heavy Mineral Sands & Rare Earths Project

The Alcobaca Project covers three contiguous tenements spanning 55 km² in the municipality of Alcobaça, situated on the coast of Bahia state (Figure 7). The project demonstrates strong potential for a variety of heavy minerals, including ilmenite, rutile, zircon, and particularly monazite, which is a major source of valuable rare earth elements.

Geology and Prospectivity

The project lies within a well-understood and highly prospective geological setting for world-class HMS deposits. A classic two-stage process defines the geology.

- The Tertiary-age Barreiras Formation, a widespread geological unit known for being rich in a mature suite of durable and economically valuable heavy minerals, acts as the main source rock.
- Subsequent marine transgressions during the Quaternary period supplied the high-energy coastal processes needed to erode these source rocks and concentrate the heavy minerals, mainly ilmenite, rutile, zircon, and monazite, forming extensive, near-surface deposits.

Figure 7: Liberty's Alcobaca HMS Project situated next to Energy Fuels' Bahia HMS Project.

The primary strategic driver for the Alcobaca Project is its potential to contain substantial deposits of monazite, which includes the "magnet metals" (Neodymium, Praseodymium, Dysprosium, and Terbium) essential for manufacturing permanent magnets used in electric vehicles and wind turbines.

Strategic Analogue – The Energy Fuels Bahia Project

The prospectivity of the Alcobaca Project is strongly supported by the activities of Energy Fuels Inc. (NYSE: UUUU), a major US-based critical minerals company, on its nearby Bahia Project.

- In February 2023, Energy Fuels acquired the 151 km² Bahia Project, which abuts Liberty's Alcobaca tenements, for a total consideration of US$27.5 million.[10]
- Energy Fuels' stated goal is to secure a long-term, large-scale supply of monazite to feed its White Mesa Mill in Utah, USA, as part of its strategy to build a non-Chinese REE supply chain.
- Energy Fuels is pursuing an aggressive, modern exploration program on the Bahia Project, including extensive sonic drilling, with the aim of publishing a compliant mineral resource estimate.

This substantial corporate investment and advanced exploration by a major international firm act as strong market validation of the district's economic potential, reducing the risk for nearby tenure holders like the Alcobaca Project.

Next Steps

The company has planned systematic, cost-efficient exploration programs across its Brazilian portfolio, aimed at quickly establishing initial resources for each project.

At the Paraiba Project, the program will include detailed property-wide geological and structural mapping to identify the factors controlling high-grade rutile mineralisation. This will be followed by structured trenching and channel sampling across identified mineralised zones to confirm continuity and surface grade potential. A targeted drilling campaign is also planned to evaluate the depth, shape, and extent of the rutile-bearing metamorphic units.

The Rio Grande Project will begin by collecting and reviewing all available historical exploration data for the area. Ground-Penetrating Radar (GPR) surveys will then be conducted to map the subsurface structures of the coastal plain and identify potential heavy mineral trap sites. This will be supported by an initial program of shallow auger and/or aircore drilling to evaluate the thickness, grade, and continuity of mineralisation across the most promising concession areas, to define an initial JORC resource.

Similarly, the Alcobaca Project will begin with a thorough review of regional geological and geophysical datasets. GPR surveys will be used to identify potential heavy mineral trap sites, followed by shallow auger and/or aircore drilling. The drilling program will assess mineralisation thickness, grade, and continuity, with particular focus on quantifying monazite content to help define a maiden JORC resource.

[10] https://investors.energyfuels.com/2023-02-13-Energy-Fuels-Completes-Acquisition-of-Rare-Earth-and-Heavy-Mineral-Project-in-Brazil?

Transaction Summary

The acquisition will be effected via a binding option agreement (the ***Option Agreement***) between Liberty Metals and RTB Geologia E Mineração Ltda and Mineração Paranaí Ltda (together, the *Vendors*).

The material terms of the Option Agreement are as follows:

- RTB Geologia E Mineração Ltda and Mineração Paranaí Ltda (together, the **Vendors**) have granted the Company an exclusive option to acquire 100% interest in the Projects (**Option**);
- the Option is subject to a 60-day due diligence option period commencing from the execution of the Option Agreement until 13 December 2025 or if shareholder approval is not obtained at the general meeting for the issue of the Consideration Securities (defined below), 5 business days following the general meeting (**Due Diligence Period**);
- prior to the expiry of the Due Diligence Period, the Company may elect to exercise the Option. If the Option is not exercised before the expiry of the Due Diligence Period, the Option Agreement is immediately terminated;
- on exercise of the Option, the Company will issue, in equal proportion, A$1,450,000 worth of Shares (at a deemed issue price of A$0.0007 per Share) and 1 free attaching option for every 4 Shares (exercisable at $0.0025 on or before 4 years from date of issue 2029), being the price and option ratio from the Company's August 2025 Placement (**Consideration Securities**); and
- the Option Agreement is subject to standard conditions precedent, including all necessary legal and regulatory approvals being obtained, as well as shareholder approval under Listing Rule 7.1 for the issue of the Consideration Securities and issue of securities under the second tranche of Liberty's August Placement.

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 Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the previous public report, and that all material assumptions and technical parameters underpinning the Exploration Results in the earlier report continue to apply and have not materially changed. This statement is made in accordance with ASX Listing Rule 5.23**.**

Forward Looking Statements

This report contains forward-looking statements that involve several risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or underlying assumptions prove incorrect, actual results may vary 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 should change or to reflect other future developments.

APPENDIX 1: GRAB SAMPLE GEOCHEMISTRY

Sampling: First Round

Sample Name	Latitude	Longitude	TiO_2 (%)	Fe_2O_3 (%)	SiO_2 (%)	SO_3 (%)	Al_2O_3 (%)	MnO (%)	NbO (%)	WO_3 (%)	Cr_2O_3 (%)	MgO (%)
RUTILE MIX SIZE 1	7°39'53.48" S	36°32'49.63" W	90.8	7	0.5	0.3	0.4	0.5	-	0.2	0.1	0.2
BIG RUTILE ZONA 1	7°40'3.07"S	36°36'55.08" W	93.2	4.5	0.5	0.5	0.4	-	0.2	0.2	0.2	0.2
BIG RUTILE ZONA 2	7°40'36.88" S	36°32'18.71" W	94.7	3.2	0.4	0.6	0.4	0.1	0.2	0.2	0.1	-
RUTILE AVERAGE 1	7°41'35.99" S	36°36'59.86" W	88.3	8.2	0.8	0.7	0.5	0.4	0.6	0.2	0.1	0.1
RUTILE AVERAGE 2	7°41'38.09" S	36°30'19.80" W	93.6	3.5	0.7	0.7	0.5	0.2	0.3	0.2	0.1	0.1
RUTILE MIX SIZE 2	7°41'38.76" S	36°37'8.07"W	85.8	11.6	0.7	0.3	0.4	0.4	0.3	0.3	0.1	-
BIG RUTILE ZONA 1	7°40'39.19" S	36°32'13.32" W	78.1	17.3	1.2	0.7	0.6	0.2	0.5	0.2	0.1	1
RUTILE AVERAGE 3	7°41'37.33" S	36°35'17.70" W	89.9	7.3	0.8	0.5	0.5	0.3	0.3	0.2	0.1	-

Sampling: Second Round (Sirgas 2000 UTM)

Assay point	Nome	Easting_Z24	Northing_Z24	TiO2 (%)
PB 01	BIG RUTILO 10	771468	9150636	83.5
PB 02	RUTILO 1 - 2	763621	9153050	88.6
PB 03	RUTILO 5-6-7	764942	9151967	75.5
PB 04	RUTILO 14	771690	9149476	81.0
PB 05	RUTILO AVARAGE 2	775180	9148592	58.5
PB 06	RUTILO AVARAGE 1	763044	9149012	74.8
PB 07	RUTILO 18 E AVARAGE 2	766141	9148913	61.5
PB 08	BIG RUTILO ZONA 1	771619	9150577	80.0

APPENDIX 2: CLAIM SCHEDULE

Project	Ownership	Mineral	Concessions	Area (ha)	Location	Status
Bahia	Rtb Geologia e Mineracao Ltda	Ilmenita, Rutilo e Monazita	870.055/2025	1,831.29	Alcobaca	Granted
Bahia	Rtb Geologia e Mineracao Ltda	Ilmenita, Rutilo e Monazita	870.056/2025	1,979.45	Alcobaca	Pending
Bahia	Rtb Geologia e Mineracao Ltda	Ilmenita, Rutilo e Monazita	870.057/2025	1,698.01	Alcobaca	Pending
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.074/2025	1,986.07	Coxixola	Granted
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.078/2025	1,812.50	Coxixola	Pending
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.075/2025	1,982.44	Coxixola	Pending
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.076/2025	1,979.94	Coxixola	Pending
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.077/2025	1,976.84	Coxixola	Pending
Paraiba Rutile	Rtb Geologia e Mineracao Ltda	Ilmenita e Rutilo	846.084/2025	1,983.31	Coxixola	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.357/2025	1,966.45	Mostardas	Granted
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.358/2025	1,987.68	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.359/2025	1,949.35	Mostardas	Granted
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.360/2025	1,936.52	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.361/2025	1,982.05	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.362/2025	1,978.73	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.386/2025	1,993.51	Mostardas	Granted
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.364/2025	1,992.19	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.365/2025	1,982.12	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.366/2025	1,893.24	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.367/2025	1,914.70	Mostardas	Pending
Rio Grande	Mineracao Paranai Ltda	Ilmenita, Rutilo e Zircao	810.370/2025	1,904.36	Mostardas	Pending

APPENDIX 3: 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.	Paraiba Rutile Project: • Sampling was restricted to collecting surface rock chip and float samples of visible, in-situ rutile crystals. • The samples are described as "BIG RUTILE," "RUTILE AVERAGE," and "RUTILE MIX SIZE," indicating they are selective grab samples and do not represent the overall grade of the host rock. • The purpose of the sampling was for initial reconnaissance to verify the presence of high-purity rutile. Rio Grande HMS Project: • The Company has not conducted any sampling on the concessions. • All exploration data, including drilling and resource estimates, refer to the adjacent South Atlantic Project, owned by Rio Grande Mineração (RGM). Alcobaca HMS & REE Project: • The Company has not conducted any sampling on the concessions. • All prospectivity is based on regional geological models and exploration results from the adjacent Bahia Project, owned by Energy Fuels Inc.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Paraiba Project: • The samples are inherently selective and do not represent the overall mineralisation. They were gathered to assess the purity of the rutile crystals themselves, not the deposit's grade. • No details on the calibration of laboratory XRF equipment were provided, although the lab states an absolute error of approximately 3% for the semi-quantitative method used. Rio Grande & Alcobaca Projects: • Not applicable as no sampling was undertaken.

Criteria	JORC Code explanation	Commentary
	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.	Paraiba Project: • Samples were collected as rock chips/crystals from surface outcrops. • Samples were analysed at the ATECEL laboratory, affiliated with the Federal University of Campina Grande, using X-ray Fluorescence (XRF) to determine the elemental composition in oxide form. • This is a primary, hard-rock style of rutile mineralisation hosted in high-grade metamorphic rocks, which is different from typical heavy mineral sand deposits. Rio Grande & Alcobaca Projects: • Not applicable as no sampling was undertaken.
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.).	No drilling has been conducted on either the Paraiba Project, the Rio Grande Project, or the Alcobaca Project.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable.
	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.	Not applicable.
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.	Not applicable as no drilling was undertaken. The grab samples from Paraiba were noted as being from specific geological units (Sertânia Complex and Camalaú Granitic Suite), but no formal logging is documented.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Not applicable.
	The total length and percentage of the relevant intersections logged.	Not applicable.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Paraiba Project: • The submitted documents lack details on the sub-sampling or sample preparation methods

Criteria	JORC Code explanation	Commentary
		used prior to laboratory analysis. This area needs clarification. Rio Grande & Alcobaca Projects: Not applicable.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Information not available. This is an area requiring confirmation.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No information on Quality Control (QC) procedures for sub-sampling is available.
	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.	No information is available on field duplicates or other measures to ensure representivity. The samples are acknowledged to be selective grab samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Information not available.
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.	Paraiba Project: • XRF analysed samples at the ATECEL laboratory, a technical-scientific association supporting the Federal University of Campina Grande. • The lab reports state the analysis is a "semi-quantitative determination" of elements present in oxide form. • XRF is a suitable method for this type of mineralisation. • X-ray diffraction (XRD) mineralogical analyses were completed on two samples (PB4 and PB8). The XRD results indicate that modal mineral abundances are dominated by rutile at 62.5% (PB4) and 81.9% (PB8), with ilmenite at 35.4% (PB4) and 15.7% (PB8); the balance comprises minor/trace phases below the principal reporting thresholds. • XRD determines modal mineralogy (phase proportions) rather than chemical grade; values should not be construed as head grade or product specification. • Samples were submitted to SGS Geosol for analysis using the powder method, an Aeris X-ray diffractometer, Cu Kα source, Ni K-β filter, and Pixcel 1D detector. • Standard laboratory procedures for XRD were employed (phase identification by pattern matching; quantitative phase estimation). • No external grade standards apply to XRD modal reporting; the laboratory monitored instrument performance and fit quality. Rio Grande & Alcobaca Projects: Not applicable.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument	Paraiba Project:

Criteria	JORC Code explanation	Commentary
	make and model, reading times, calibrations factors applied and their derivation, etc.	• The instrument employed was a Shimadzu EDX 720 model. • The manufacturer states an absolute error of roughly 3% when operating in semi-quantitative mode. No other parameters are specified. Rio Grande & Alcobaca Projects: Not applicable.
	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.	Paraiba Project: • No details on the use of standards, blanks, or duplicates were included in the documents. • Implementing formal QA/QC procedures will be necessary for future exploration programs. Rio Grande & Alcobaca Projects: Not applicable.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Paraiba Project: • No independent verification of the sampling or assaying has been documented. • Mineralogical results are laboratory-derived XRD outputs. The Company has applied no adjustments or calibrations. • The results are consistent with field observations of a rutile-rich heavy mineral assemblage.
	The use of twinned holes.	Not applicable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Lab results are presented in formal laboratory reports from ATECEL. No other data management protocols are described.
	Discuss any adjustment to assay data.	No adjustments to assay data were reported.
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.	Paraiba Project: • GPS coordinates for sample locations are provided on images of the lab reports (e.g., 36°32'49.63"W 7°39'53.48"S). • These have been converted to Sirgas 2000 UTM Z24 for reporting. • The coordinate system and accuracy are not specified. Rio Grande & Alcobaca Projects: Not applicable
	Specification of the grid system used.	The grid system for the Coxixola sample points is in latitude and longitude and Sirgas 2000 UTM Z24. Maps of the Rio Grande project use SIRGAS 2000 UTM Z22.
	Quality and adequacy of topographic control.	Topographic control is not detailed.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Paraiba Project: • Sample spacing is irregular and corresponds to a first-pass reconnaissance program. The data is not sufficient for Mineral Resource estimation. • Not material to this disclosure; XRD results are reported for two discrete samples (PB4, PB8) only and are not sufficient to define geological or grade continuity. Rio Grande & Alcobaca Projects: Not applicable.
	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.	No. The data is from early-stage prospecting only.
	Whether sample compositing has been applied.	No sample compositing has been applied.
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.	Paraiba Project: • Samples are selective surface grab samples. • Their relationship to the orientation of the mineralised metamorphic host rocks has not been systematically determined. • This introduces a sampling bias, as sampling may have been focused on more resistant, higher-grade material. • Not applicable for XRD mineralogy on discrete samples. Rio Grande & Alcobaca Projects: Not applicable.
	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.	Not applicable.
Sample security	The measures taken to ensure sample security.	Samples were submitted directly to an accredited laboratory. Chain-of-custody procedures were followed from collection to dispatch (receipt records held by the Company).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Paraiba Project: • No audits or reviews of the sampling techniques or data have been documented. • No external audit of the XRD datasets has been undertaken at this stage. • Internal technical review has confirmed the suitability of XRD for reconnaissance-level mineralogical characterisation.

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.	Paraiba Project: • Located in the state of Paraíba, Brazil. • Project area is approximately 100 km². Maps show concession numbers (e.g., 19-82-44, 19-79-94, etc.), but a comprehensive list is not provided. • The Company reports it has entered into a binding agreement to acquire a 100% interest. Rio Grande Project: • Located in the municipality of Mostardas, state of Rio Grande do Sul, Brazil. • Consists of twelve contiguous tenements covering a total area of 234 km². A complete list of concession numbers (e.g., 810.357/2025) and their areas is included. • The Company states that it has entered into a binding agreement to acquire a 100% stake. • It is assumed the concessions are in good standing, but this requires independent verification. Alcobaca Project: • Located in the municipality of Alcobaça, state of Bahia, Brazil. • Consists of three contiguous tenements (870.055/2025, 870.056/2025, 870.057/2025) covering a total area of 55.09 km².
	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.	Security of tenure is not detailed but is assumed to be secure pending completion of the acquisition. The states of Paraíba, Rio Grande do Sul, Bahia, and Brazil are generally described as mining-friendly jurisdictions with stable mining codes.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Paraiba Project: • The state of Paraíba is an established producer of titanium minerals. The nearby Tronox Paraíba Mine is a major coastal HMS operation. • The Brazilian National Department of Mineral Production (DNPM) reported measured state-wide reserves in 2006, including 1,137,000 tonnes of rutile.

Criteria	JORC Code explanation	Commentary
		Rio Grande Project: • All substantive exploration data for the area comes from the adjacent South Atlantic Project, owned by RGM and Sheffield Resources (ASX:SFX). • This work includes historical drilling by RTZ Mineracao Ltda in 1988, bulk sampling, and extensive modern exploration by RGM, including RC/AC drilling (2014), sonic drilling (2022), and infill RC drilling (2024), which supported a maiden JORC Mineral Resource estimate. Alcobaca Project: • Energy Fuels Inc is actively exploring the adjacent Bahia Project. This work includes over 3,300 historical auger holes and an ongoing, modern sonic drilling program designed to delineate a compliant mineral resource.
Geology	Deposit type, geological setting and style of mineralisation.	Paraiba Project: • The deposit type is primary, hard-rock rutile mineralisation hosted within high-grade metamorphic rocks. • The project lies in the Borborema Province, which was part of the Gondwana supercontinent, geologically connected to Cameroon. • Mineralisation is hosted in the Paleoproterozoic Sertânia Complex (muscovite-bearing gneisses, quartzites) and the Mesoproterozoic Camalaú Granitic Suite. • Rutile formation is associated with high-pressure, high-temperature metamorphism (amphibolite to granulite facies) during the Pan-African-Brasiliano orogeny. Rio Grande Project: • The deposit type is a classic coastal placer heavy mineral sand (HMS) deposit. • The project is situated on the Rio Grande do Sul Coastal Plain. • Heavy minerals (ilmenite, rutile, zircon) were eroded from the Sul-Riograndense Shield, transported by rivers, and concentrated by coastal wave and wind action along ancient and modern shorelines. Alcobaca Project: • The deposit type is a classic coastal placer heavy mineral sand (HMS) deposit.

Criteria	JORC Code explanation	Commentary
		• The project is situated on the southern Bahia Coastal Plain. • Heavy minerals (ilmenite, rutile, zircon, and monazite) were eroded from the Tertiary-age Barreiras Formation and concentrated by Quaternary-age coastal processes.
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.	Not applicable. No drilling was undertaken.
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.	Not applicable.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable.
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.	The provided documents include suitable maps showing concession locations, regional geology, and sample locations for the Paraiba Project. Maps showing the location of the Rio Grande and Alcobaca Projects concessions relative to the adjacent ground are also provided.
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.	Paraiba Project: • The reported assay results for the Paraiba Project are from selective, high-grade grab samples and are not representative of the overall grade of the host rock. The TiO_2 results range from 78.1% to 94.7%. This is stated in the commentary. • Two XRD determinations (PB4, PB8) are reported. The Company considers these results indicative only and not representative of the broader deposit without additional, systematically collected samples. For the Rio Grande and Alcobaca Projects, it is clearly stated that there are no exploration results from the projects themselves, and all data are from adjacent, analogous projects.
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	Paraiba Project:

Criteria	JORC Code explanation	Commentary
	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Laboratory results indicate the presence of other oxides, including Fe_2O_3, NbO, and WO_3. • The XRD results indicate a rutile-dominant heavy-mineral assemblage, particularly in PB8, with ilmenite as a subordinate phase. These findings support a potential rutile-focused product stream with ilmenite as a secondary product, pending confirmation through additional mineralogical (e.g., MLA/QEMSCAN), size-fraction, and metallurgical test work. Rio Grande Project: • The project's prospectivity is entirely based on its analogy to the adjacent South Atlantic Project. • The South Atlantic Project has a JORC-compliant Mineral Resource (Indicated & Inferred) of 771 million tonnes @ 3.0% Total Heavy Mineral (THM). • The valuable mineral assemblage for the adjacent Retiro deposit is reported as 41% ilmenite, 11% altered ilmenite, 6% zircon, and 3% rutile. • Historical metallurgical work on the adjacent project indicated the ore is amenable to standard processing. Alcobaca Project: • The project's prospectivity is based on its analogy to the adjacent Bahia Project, acquired by Energy Fuels for US$27.5M. • The Bahia Project is being explored to supply monazite for REE production, along with titanium and zircon products.
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).	Paraiba Project: • Planned work includes detailed geological and structural mapping, systematic trenching and channel sampling, and a targeted drilling program. • Planned work includes: (i) systematic, grid-based sampling to establish representativity; (ii) particle-size distribution and fraction-specific mineralogy; (iii) quantitative SEM-based mineral liberation analysis; (iv) chemical assays to relate modal mineralogy to TiO_2 content; and (v) preliminary metallurgical test work to assess recoveries and product quality. Rio Grande Project:

Criteria	JORC Code explanation	Commentary
		Planned work includes a review of historical data, Ground Penetrating Radar (GPR) surveys, and a program of shallow auger and/or aircore drilling to define a maiden resource. Alcobaca Project: Planned work includes a review of historical data, Ground Penetrating Radar (GPR) surveys, and a program of shallow auger and/or aircore drilling to define a maiden resource with a focus on REE-bearing monazite.
	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 tenement maps provided in the documents show the project areas where future work will be focused.