

# **Brazilian Critical Minerals Limited**

ABN 82 089 221 634

**Interim Report - 31 December 2024** 

Brazilian Critical Minerals Limited	
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# Brazilian Critical Minerals Limited Corporate directory 31 December 2024



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Stock exchange listing Brazilian Critical Minerals Limited shares are listed on the Australian Securities Exchange

(ASX code: BCM)

Website www.braziliancriticalminerals.com





Figure 1. Location of the Ema Project, Brazil.

Brazilian Critical Minerals (BCM or the Company) progressed with an aggressive multi-pronged approach to the Ema project development during the half-year ended 31 December 2024.

The EMA ionic REE project is unique amongst Brazilian REE projects in that it shares almost identical characteristics with the ionic REE deposits developed over felsic volcanic rocks in southwest China, the world's largest known ionic clay region, where a substantial portion of the world's Total Rare Earth Oxides (TREO) raw material production is currently being mined.

### **Infill Resource Drilling**

Exploration drilling was conducted with hand-held auger drills, which offer the advantage of low-cost, rapid deployment and mobility. One key constraint of auger drilling is the depth limitation, with the deepest holes, generally containing the highest-grade results, drilled to no more than 20m depth. Most of the exploration to date has been conducted on widely spaced (800m) drill centres, with infill drilling to 400m centres in the central resource area which is the current drilling focus.

BCM embarked on a 270-hole auger drilling program which was completed during Q4 2024. The primary aim of the drilling is to convert sufficient tonnage of material from the JORC Inferred category to Indicated which will support the initial mining/treatment operations currently being considered and an updated Mineral Resource Estimate (MRE) which will form the foundation of the Scoping Study.

First assays from 45 holes received from the Mineral Resource infill drilling program showed grades and thicknesses that were consistent with earlier drilling programs, validating the reliability of the resource model.

Persistent high NdPr grades were observed in the lower horizon (10-20m below surface), indicating a robust zone of mineralisation that could enhance the project's economic viability. Several exceptional high-grade intercepts were identified, warranting further investigation to define priority zones for In Situ Recovery (ISR) extraction methods. These high-grade zones have the potential to significantly impact resource extraction strategies. The majority of the drilling program was completed by the end of November.



The high priority area, red dashed line area (Figure 2) comprises approximately 24% of the previously drilled MRE area. Drilling commenced on the western portion of this area (Figures 2 and 3) with initial assays received for 45 holes on the western margin of the infill-drilled area (Figure 3).

Assays returned over 500 ppm TREO across multiple holes, generally over widths of 5-10 meters, confirming the consistency of mineralisation across broad areas. Results indicate a strong increase in grade towards the base of the weathering profile, with notable concentrations of magnet rare earth oxides (MREO's) located deeper within the profile.

Several holes encountered water at the bottom of holes, preventing the obtaining of samples through the high-grade zone.

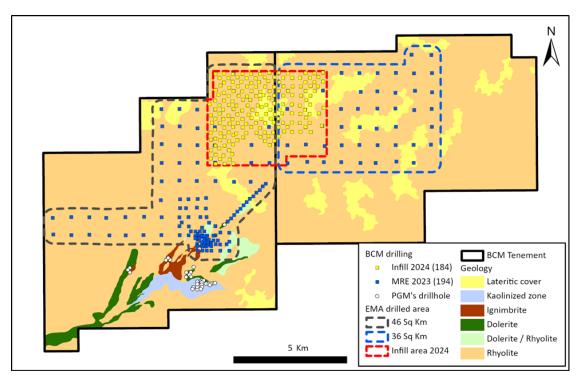


Figure 1 - Ema REE project – Mineral Resource covering 82 km2 with auger holes on 800m spacing and infill auger holes on 400m centres over 20 sq km.

## Significant results1:

- 9.3m@1,347ppm TREO from 4m (EMA-TR-196), ending in 891ppm TREO
- 6m@1,103ppm TREO from 8m (EMA-TR-182), ending in 1,767ppm TREO
- 8m@1,026ppm TREO from 2m (EMA-TR-192), ending in 1,418ppm TREO
- 9m@931ppm TREO from 1m (EMA-TR-172), ending in 1,193ppm TREO
- 10m@1,103ppm TREO from 10m (EMA-TR-236), ending in 1,817ppm TREO
- 9.7m@1,081ppm TREO from 2m (EMA-TR-229), ending in 1,398ppm TREO
- 10m@1,086ppm TREO from 8m (EMA-TR-258), ending in 1,765ppm TREO
- 9.6m@1,149ppm TREO from 5m (EMA-TR-245), ending in 837ppm TREO
- 9.8m@1,107ppm TREO from 3m (EMA-TR-238), ending in 771ppm TREO
- 9.3m@1,347ppm TREO from 4m (EMA-TR-196), ending in 891ppm TREO
- 6m@1,103ppm TREO from 8m (EMA-TR-182), ending in 1,767ppm TREO



- 8m@1,026ppm TREO from 2m (EMA-TR-192), ending in 1,418ppm TREO
- 9m@931ppm TREO from 1m (EMA-TR-172), ending in 1,193ppm TREO
- 9m@**725ppm TREO** from 3m (EMa-TR-186), ending in **1,180ppm** TREO

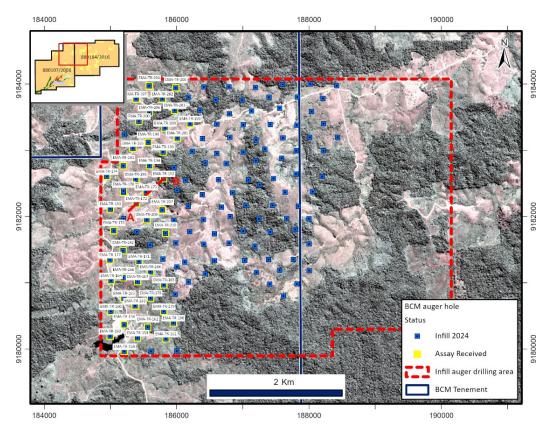


Figure 2 - Location map of the auger infill holes with assay results received to date.

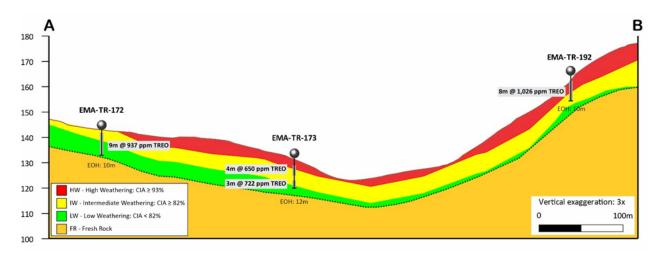


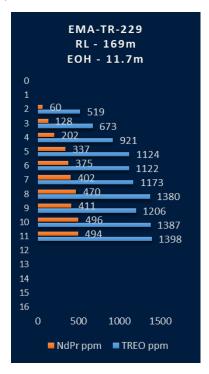
Figure 3 - Cross section from EMA-172 to 192

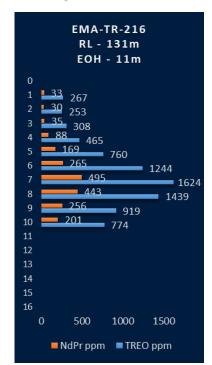
Despite the variability in collar elevations of the drilled holes, the typical enrichment of Neodymium (Nd) and Praseodymium (Pr) is consistently encountered at a similar depth within the lower saprolite zone, located just above the fresh rock. The enriched zone generally measures around 10 meters in thickness indicating a continuous mineralised horizon. This widespread occurrence strongly suggests the presence of continuous high-grade zones across the project area.



The TREO grade exhibits a marked increase with depth, ranging from approximately 500ppm near the top of the enriched zone to values reaching up to 1,880ppm at greater depths. Importantly, the proportion of valuable heavy rare earth elements (HREEs) increases to over 31% at the end of the holes, highlighting the economic potential of the lower saprolite zones.

Holes EMA-TR-172, 173 and 196 (Figure 4) are examples of the lower enrichment zone with the presence of high NdPr grades at the base of drilling in the lowest weathering zone. It is anticipated that this enrichment will be present in all holes in which the low weathering horizon is intersected.





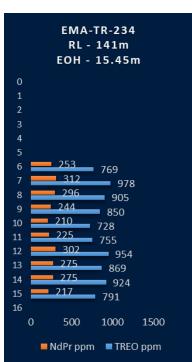


Figure 4 - Drill-hole profiles showing typical enrichment zone with high NdPr grades close to the fresh rock interface.

# **Scoping Study**

In April 2024 the Company announced a large Mineral Resource Estimate<sup>2</sup> and subsequently very high rates of economic recovery<sup>3</sup>, with the Board approving a formal Scoping Study on the technical and economic development of the Ema project which will examine the potential for a standalone low capital treatment/development pathway for the project.

The company has now engaged several specialist companies to commence activities with respect to the Ema rare earth scoping study. The team members all have extensive experience in rare earths. The study will cover project aspects including heritage, environmental, metallurgy, mining engineering, geology and hydrogeology.

The scoping study will assess potential in-situ leach processing of the Ema project. The bulk of the hydrology-related data gathering was concluded by year's end

- Ausenco: to provide engineering services for high-level scoping engineering outputs;
- WSP: to demonstrate the suitability of ISR and to gather hydraulic data (aquifer properties, pumping/injection rates to assess ISR feasibility and to provide information for the development of a numerical groundwater model based on field trials).
- GE21: to complete an updated mineral resource estimate based on JORC 2012 Code standards; and
- CERN: to conduct baseline environmental assessment with a view to preparation of Environmental Studies report for submission of a preliminary license application.

The final scoping report was delivered post year end.



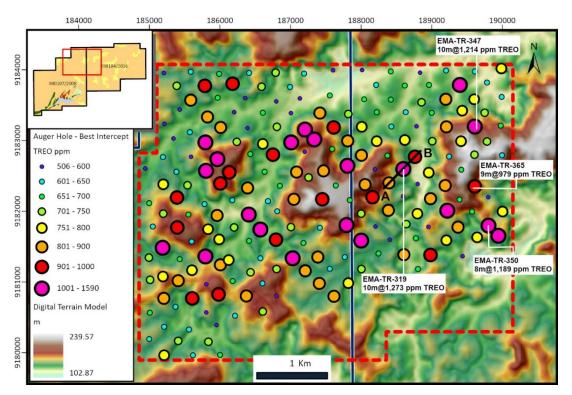


Figure 6 – Location map of the auger infill holes with assay results received to date, with cross section A-B.

# **ANSTO Metallurgical Test Work**

Work being undertaken by ANSTO over the last several months has resulted in very high recoveries of NdPr<sup>4</sup>.

### **IMPURITY LEVELS**

Impurities affect REE recovery and precipitation efficiencies and are a vital component of the process to understand. Control of the most troublesome impurities (AI, Fe, Th, U) depends on their concentration and the degree of purity required in the MREC.

ANSTO reported the final slurry leach test results which confirm very low concentrations of deleterious or impurity elements for the Ema material.

Table 1. Impurity values following optimised testing and leaching of Ema master composite sample.

	Uranium	Thorium	Aluminum	Iron	Calcium	Silica
mg/l	0.2	0.02	73	<1	11	6



Figure 7. Key steps in the process flow sheet for ionic clay MREC production. REE Leaching section highlighted represents stage of processing where results from Table 1. above were sourced.

The Company is now confident that these low uranium and thorium values can be removed through simple pH adjustment during the next stage of impurity removal leading to a final MREC product that meets European, North American and Asian offtake partners for specification testing to advance discussions regarding commercial offtake.



## **HEAP LEACH TEST WORK SUMMARY**

ANSTO investigated a heap leaching option through column testing (Table 2 and Figure 7). Two 50mm diameter columns were operated with a bed height of 1.14m, with the following specifications to test two reagents:

Table 2. Column testing setup specifications

	0.3M Ammonium Sulfate	0.5M Magnesium Sulfate
Bed Height	1.14 m	1.14 m
Column Diameter	50 mm	50 mm
Ore mass	2,970 g	2,970 g
Reagent	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	MgSO <sub>4</sub>
Concentration	0.3 M	0.5 M
рН	4.5	4.5
Binding Addition	300 g/t	300 g/t
Irrigation Rate	5 L/m²/hr	5 L/m²/hr

This heap leach test work is a key part of the Company's ongoing strategy to grow and progress the Ema Inferred Mineral Resource towards development, which currently sits at **1.02Bt @ 793ppm<sup>2</sup>**. The final calculated leach liquor and residue recovery of **63%** was materially in line with previously announced slurry recovery results<sup>2</sup>.

Column leach liquor results using magnesium sulfate returned recovery values\*:

Time Period	Nd (%)	Pr (%)	Dy (%)	Tb (%)
4 days	42	41	30	34
6 days	52	51	36	41
11 days	57	55	40	45

<sup>\*</sup>Calculated based on head assay and leach liquor analysis

Final recovery based on head assay and residue analysis after 18 days of leaching followed by washing recorded;

Combined 63% MREO (Nd/Pr/Dy/Tb) Recovery	_	63%	MREO (Nd/Pr/Dy/Tb)	
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- The ore agglomerated readily in the test liquor (no additional acid was required) and the agglomerated ore remained competent in the column test
- Permeability of the column bed was good, with minimal bed slump of 1% calculated
- Test conditions involved REE desorption utilising 0.5 M magnesium sulfate (MgSO<sub>4</sub>) or 0.3 M ammonium sulfate (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, ambient temperature at pH of 4.5
- Acid consumption was calculated to be < 1 kg/t</li>



These results have given the Company confidence that there is an increased likelihood that in-situ leaching of the rare earths is now possible. This is largely feasible due to the mineralogy of the Ema mineralisation which is almost 50% quartz and hence this sandy clay material allows for good percolation and fluid flow at rates which could be economic.

Agglomeration of clay ores does not produce typical agglomerates, rather it is required to wet the ore and bind the fines together. A small amount of binding solution was added followed by the test lixiviant solution (at pH 4.5) to a target moisture content of ~23 wt% (Figure 8).

The two column tests were run in transparent PVC columns of  $1.2 \text{ m} \times 50 \text{ mm}$  (ID). A bed height of just over 1 m was obtained by loading agglomerated ore (~3 kg dry) into the column and curing for 24 hours. Both columns were run concurrently and were operated at room temperature.

The lixiviant solution was fed to the top of the column by peristaltic pump, with an initial target irrigation rate of  $^{\sim}5$  L/h/m2.

Irrigation was stopped on day 18 and draining commenced, this was followed by 2 days of washing using tap water.







Figure 8 - Column setup and agglomeration of ore at the ANSTO facility in Sydney.

# Field permeability and lab testing for In-situ Leaching

A series of preliminary controlled field experiments (slug tests) performed by the BCM team was completed on 10 dry drill holes (Figure 9). These tests estimate the hydraulic properties of aquifers, in which the water level in a controlled open dry drill hole is caused to rise suddenly and the subsequent water-level response (change from static) is measured through time at regular intervals.



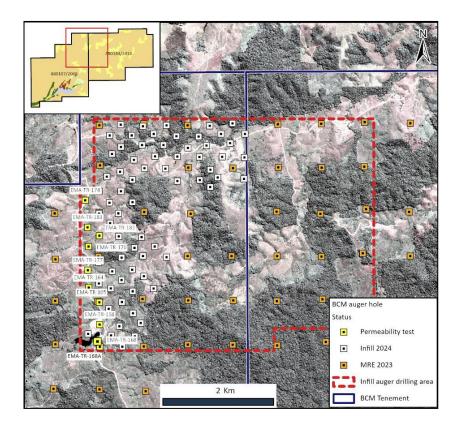


Figure 9. Location map of the 10 drill holes which were tested for permeability.

The slug tests were designed as a rising-head test, in which a measured volume of 50l of water was placed into 10 holes, instantaneously raising the water level in the well by a known amount.

The goal of a slug test is to estimate the hydraulic properties of an aquifer system such as hydraulic conductivity.

Percolation data shows that the majority of the water inserted into each hole was lost or permeated into the surrounding walls within the first 60 minutes (Figure 10). The second phase is the stable percolation stage, where the water adsorption nears completion, and the percolation rate gradually decreases.



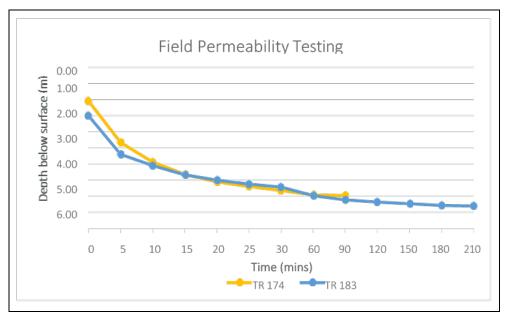


Figure 10. Hydraulic conductivity results from drill holes (TR174 & TR183). Tests show a rapid fall in water level over the first 60 minutes post the water insertion. Data from the 10 holes is collated in table 3.

Percolation rates varied from 0.98m/hr to 2.34m/hr and show that there is a **high degree** of permeability within the clay horizons containing the rare earths. ield pumping trials are scheduled to commence during the first half of 2025.

The percolation characteristics of clay minerals are influenced by multiple factors, including ore composition, pore structure, permeability, and the properties of the leaching solution.

Table 3. Hydraulic conductivity results from the 10 dry drill holes tested. Tests show a rapid fall in water level (in metres) over the first 60 mins post the water insertion.

Time (mins)	TR 158	TR 168	TR 168A	TR 164	TR 165	TR 177	TR 170	TR 181	TR 174	TR 183
0	4.42	7.35	5.95	5.40	5.82	9.92	0.70	0.35	2.09	3.00
30	9.00	10.94	6.58	8.55	10.63	9.95	4.84	5.40	7.63	7.43
60	9.52	12.13	7.90	8.77	11.32		5.06	5.82	7.90	7.96
90	9.82	12.46	8.18	8.80	11.64		5.20	5.98	7.95	8.22
120	9.94	12.58	8.35	8.86	11.78		5.26	6.09		8.36
150	9.98	12.70	8.39		11.88			6.12		8.46
180					11.97					8.57
210										8.60
Static Water level (m)	9.98	12.70	dry	8.86	12.30	9.95	dry	dry	7.95	8.60
Percolation m/hr	2.22	2.14	0.98	1.73	2.05	n/a	2.28	2.31	2.34	2.24
Hole Depth (m)	12.00	19.80	8.39	12.00	15.00	13.00	5.26	6.50	12.00	19.80



# **Lab Diffusion Testing**

Agitated elution tests allow rapid access of reagent to the mineral surface and thus rapid desorption of the eluted species, however, in an in-situ scenario this access is limited by solution flow through discrete channels in the ore bed and diffusion through interstitial spaces.

While macroscopic solution flow in in-situ operations can be modelled with hydrological models based on field observations, the local transport reaction kinetics of the elution process needs to be tested separately.

A series of diffusion tests were conducted in a stagnant bed leach apparatus developed by Petersen [1] as shown in Figure 11. A bed of 100 g of clay mineralisation was carefully moulded into the bottom of a beaker to a height of about 10 mm, and 200 mL of lixiviant (0.5 M and 0.1 M MgSO<sub>4</sub>) was very carefully poured on top of the bed so to not stir up solids. The solution was gently agitated with an overhead stirrer. Liquid samples (3–5 mL) were taken every day for 30 days. The samples were analyzed by ICP- MS.

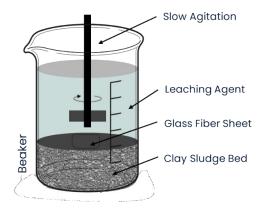


Figure 11. Stagnant bed diffusion test developed by Petersen.

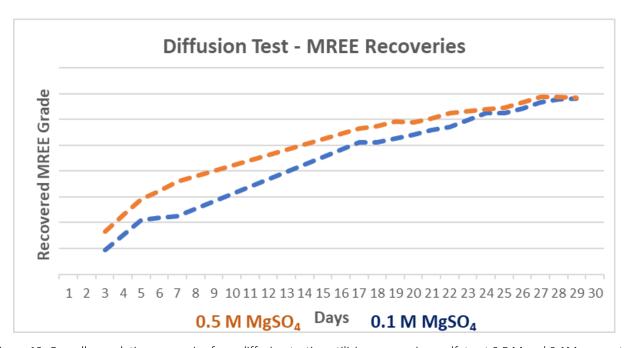


Figure 12. Overall cumulative recoveries from diffusion testing utilizing magnesium sulfate at 0.5 M and 0.1M concentrations over 30 days.



The results of the stagnant bed diffusion test are shown in Figure 12. All of the magnet rare earth elements leached in significant quantities; (Nd, Pr, Dy, Tb) are shown. The curves show the characteristic profiles for a diffusion-governed process, reaching equilibrium extraction (that is the extraction to be expected if solid and liquid were perfectly mixed) over 30 days.

ISR is a proven cost effective and environmentally acceptable extraction process, which accounts for approximately 57% of world uranium mined, and is used in Australia, USA, Kazakhstan, and Uzbekistan.

#### **MREC Production**

The Mixed Rare Earth Carbonate (MREC) produced from the test work contained 55.3% rare earth oxides (REO) and only ~2.0% impurities based on test work conducted using a 41kg sample from the Ema 2 master composite sample. Through the impurity removal and carbonate precipitation process steps, approximately 33.2 grams of high-quality MREC was generated, Figure 6.



Figure 13. Simple 4 step process flow sheet for ionic clay MREC production at Ema Project

This result highlights the efficiency of the magnesium sulfate process on the Ema material in producing a high-grade, low-impurity MREC product, which is critical for meeting industry standards and optimizing the economic viability of the project at the same time as generating outstanding revenue potential through the basket price calculation (Figure 14). The purity level of the MREC positions this product as highly competitive in the market, further validating the potential path taken to process the Ema material.

The composition of the magnet elements in the final MREC and recoveries achieved through the processing steps in testwork result in an exceptionally high basket price despite the significantly lower head grade of the tested samples relative to our peers, and when combined with a potentially low-cost mining and processing flow sheet, has the potential to place the project in a good position to tap into the rapidly growing demand. The table below compares the final MREC products of BCM, with our key Brazilian peers, Viridis Mining and Minerals Ltd (VMM), and Meteoric Resources NL (MEI).



FINAL MREC			всм			VMM <sup>1</sup>			MEI <sup>1</sup>		
	Head	d Grade (ppm)		965		4	,472		4,439		
		Agent	Magnes	ium S	ulfate	Ammon	ium Sı	ulfate	Ammor	ium :	Sulfate
		Time	30 1	Minut	es	30 N	∕linute	es	30	Minut	es .
		pH		4.5			4.5			4.5	
		Molar		0.3			0.3			0.5	
Oxide	Pric	e (01.11.24) USD/kg	%	Ва	asket \$	%	В	asket \$	%	В	asket \$
La2O3	\$	0.56	34.7	\$	0.19	44.5	\$	0.25	57.6	\$	0.32
CeO2	\$	1.01	8.9	\$	0.09	2.4	\$	0.02	1.4	\$	0.01
Pr6011		60.45				8.3			8.6		5.17
Nd2O3		60.45	29.1		17.61	29.2		17.62	22.0		13.30
Sm2O3	\$	2.10	4.6	\$	0.10	3.2	\$	0.07	2.4	\$	0.05
Eu2O3	\$	27.35	0.5	\$	0.15	0.8	\$	0.23	0.6	\$	0.16
Gd2O3	\$	24.68	2.9	\$	0.71	2.1	\$	0.52	1.5	\$	0.37
Tb407		839.95				0.3			0.2		1.68
Dy203	\$	247.42	1.4	\$	3.39	1.2	\$	2.92	0.8	\$	1.98
Ho2O3	\$	72.54	0.2	\$	0.18	0.2	\$	0.15	0.1	\$	0.07
Er2O3	\$	42.60	0.7	\$	0.30	0.5	\$	0.20	0.3	\$	0.13
Tm2O3	\$	113.31	0.1	\$	0.11	0.1	\$	0.06	0.0	\$	0.01
Yb2O3	\$	14.06	0.6	\$	0.08	0.3	\$	0.04	0.1	\$	0.01
Lu2O3	\$	759.12	0.1	\$	0.64	0.0	\$	0.30	0.0	\$	0.08
Y2O3	\$	5.90	8.7	\$	0.51	6.9	\$	0.41	4.5	\$	0.27
Bask	et Pric	e (TREO)	\$		30.66	\$		30.01		\$	23.61
Basket	Price (	NdPrDyTb)	\$		27.59	\$		27.76	\$		22.12
	MREC	0 %	37.9			38.9			31.6		
	TREC	1 %	100.0			100.0			100.0		

Figure 14. Basket Price calculation and comparison showing high value MREC product relative to Brazilian peers. Spot price assumptions https://giti.sg/markets/markets\_files. 1 Viridis Mining and Minerals (ASX:VMM) ASX Announcement "Colossus Maiden Mixed Rare Earth Carbonate (MREC) Product 24.09.24





Figure 8. Final Mixed rare earth carbonate product, 33.2 grams, produced at the ANSTO facilities in Sydney.

# Impurity Removal (MREC)

The presence of impurities in REE-containing solutions has an enormous impact on not only the final REE products (MREC), but also on the efficiency of processing. Removal of impurities like aluminium and iron are vital as they can be detrimental to further downstream solvent extraction separation circuits.



Figure 15. Step 2 of impurity removal in the simple 4 step process flow sheet to produce an MREC.



A target pH was determined based on results of the Process Development Program, with freshly prepared ~20 wt% magnesium oxide slurry added to achieve the impurity removal target pH. A total residence time of 30 minutes at the target pH was maintained.

The testwork revealed that pH played a significant role in the selective removal of Fe impurities and resulted in the production of high-purity, industry-grade REEs. Through this method the precipitated solid primarily contained residual aluminium, silica, and magnesium, with minimal loss of REEs. The method achieved a high purity level of ~98% with the remaining ~2.0% containing elements listed below (Figure 16).

BCM (Impurities in MREC)							
Impurity	Oxide	Value %					
Alumiumium	Al2O3	0.52					
Calcium	CaO	0.05					
Cobalt	CoO	<0.001					
Copper	CuO	<0.001					
Iron	Fe2O3	0.06					
Potassium	K2O	0.05					
Magnesium	MgO	0.52					
Manganese	MnO	0.03					
Sodium	Na2O	0.08					
Nickel	NiO	0.24					
Lead	PbO	0.01					
Silica	SiO2	<0.2					
Zinc	ZnO	0.07					
Thorium	Th	<0.001					
Uranium	U	0.01					

Figure 16. Percentage of impurities carried through to final mixed rare earth carbonate. Impurities totalled ~2.0%.

# **Logistics Routes Identified**

The Company identified logistics route involving trucking 130kms from Ema project to Prainha where regularly serviced 600t barges take cargo to Port of Chibatão. Route involves direct barging to one of Latin America's largest private ports where Panamax sized vessels dock (Port of Chibatão) (Figure 17).

Inspections and discussions have confirmed the suitability of the Port of Prainha, 130kms by road from the Ema Project, then barging to the Port of Chibatão, with capacity to handle Panamax sized vessels. Several alternative routes to port have also been identified.

The transport review confirmed that the quality of the road access between the site and port was of a high standard and suitable for transporting bulk materials at the required rate all year round. The river access from the Port of Prainha to the Port of Chibatão (Figure 11) takes approximately 5-6 days and can carry cargos up to 600t, significantly more than the project's requirements for construction and operating purposes.

Commercial discussions have been initiated, relating to a proposed solution for the storage and ship loading of the Mixed Rare Earth Carbonate (MREC) final product.



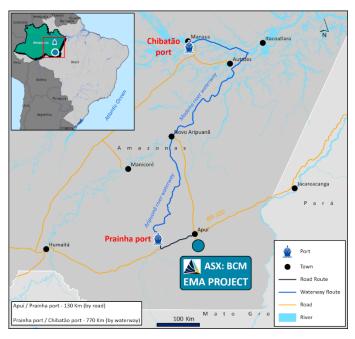


Figure 17. Logistics Route from Ema Project to Port of Chibatão.

# **Update on Environmental Baseline Assessment**

Environmental Baseline Data Collection continuation and expansion of the collection of certain environmental baseline data to support the Ema Environmental Impact Assessment which is being conducted by CERN has been focusing on:

- Basic Engineering: The basic construction and waste engineering, for the preparation of the environmental impact assessment
- In-depth analysis of potential environmental impacts due to the construction and operation of the production facility, particularly focusing on the construction of evaporation ponds.
- Mitigation Strategies: Development of comprehensive plans to mitigate any identified environmental and social impacts, including water management plans and habitat restoration initiatives.
- Stakeholder Engagement: Continued engagement with local communities and stakeholders to ensure transparency and address any concerns.

### **Permeability Field Trials 2025**

As part of the feasibility study (FS) planned for 2025, additional field work is required to increase confidence and reduce risk associated with the application of the ISR mining method at Ema.

Previous field and laboratory testing, completed as part of the scoping study, indicated that flow of mining solution through the mineralised zone is expected to be viable at rates envisaged for the planned rate of production. The field work planned for 2025 is focused on in-situ testing in the mineralisation using water and/or a lixiviant to evaluate hydraulic conditions that can be used to assess mining solution flow between a series of test wells.

To date, all of the wells have been drilled, cased and cemented in ground (Figure 18) and water storage tanks purchased and mobilised to site.



The information collected through this process is expected to increase the overall confidence of the application of ISR and facilitate detailed mine planning as part of a FS. BCM engaged WSP Adelaide to facilitate the design and implementation of ISR field testing at Ema. WSP Brazil has now been engaged to oversee and operate the well system as it comes online during the latter stages of Q1.

WSP Adelaide specializes in technical evaluation and field operations regarding subsurface fluid flow and injection projects, with experience ranging from feasibility studies to operations. The firm has substantial experience in the ISR uranium mining industry and currently provides consulting services to several ISR projects.

BCM and WSP have designed an ISR field testing program specific to the unique geological characteristics of the Ema deposit.



Figure 18. Ema permeability field trial setup. White squares are the concreted collars of the drill holes which will be injected with water and/or lixiviant pumped from the blue storage tanks. Two separate test zones have been developed, one with shallow holes drilled to 5.7m depth (adjacent to car) and test zone 2 with both injection and extraction holes drilled to 10m depth adjacent to the 2 10,000 litre water storage tanks.

The testing program aims to provide hydrogeological testing within the central start zone covering the Indicated Mineral Resource estimated for the deposit.

Data acquired from the ISR field testing program will be utilised to create an integrated hydrogeological model, which will form the basis for ISR wellfield necessary for the FS and to support the EIA process.

# **Mou Signed with Brazilian Permanent Magnet Producer**

The Company signed a five-year non-binding Memorandum of Understanding (MoU) with SENAI Regional Department of Minas Gerais, owner of the permanent magnet facility unit Lab Fab (CIT SENAI ITR) (Lab Fab)

Lab Fab is developing the first permanent magnet manufacturing facility in Latin America and the two parties will cooperate in the technological development of rare earth magnet manufacturing processes.



Lab Fab is a permanent magnet technology developer, aiming to advance the rare earths industrial chain in Brazil and produce a range of high-end technology products suited for a range of electric motor industries requiring rare earth magnets.

The facility plans to commence operation later this year and the Federation of Industries of Minas Gerais plans to grow production to 200 tonnes of magnets annually.

The non-binding MoU will establish the bases for cooperation between BCM and SENAI Regional Department moving forward, with a view to jointly develop research, development and innovation for the demonstrative production of rare earth magnets at Lab Fab, in Lagoa Santa, Minas Gerais, by identifying activities of mutual interest.

## **Appointment of non-executive director**

The company appointed Mr Ben Donovan as a Non-Executive Director. Mr Donovan currently acts as Company Secretary and has been appointed as an interim non-executive director as the Company commences a search to fulfil the non-executive director role. Mr Donovan is the principal of Argus Corporate Partners Pty Ltd which provides corporate advisory, IPO and consultancy services to companies. He is currently company secretary of several ASX listed and public unlisted companies and has experience across resources, agritech, biotech, media and technology industries. Mr Donovan is a member of the Governance Institute of Australia and has extensive experience in listing rules compliance and corporate governance, having served as a Senior Adviser at the ASX in Perth for nearly 3 years, where he managed the listing of nearly 100 companies on the ASX.

The information in this report that relates to exploration results released by the Company to the ASX on 22 May 2023, 17 July 2023, 19 July 2023, 31 July 2023, 13 Sep 2023, 19 Oct 2023, 06 Dec 2023, 06 Feb 2024, 22 Feb 2024, 13 Mar 2024, 02 Apr 2024, 08 Oct 2024, 19 Nov 2024, 21 Jan 2025, and 17th Feb 2025, is based on information compiled by Mr. Antonio de Castro, BSc (Hons), Member of AusIMM, CREA, who acts as BCM's Senior Consulting Geologist through the consultancy firm, ADC Geologia Ltda. Mr. Castro has sufficient experience which is relevant to the type of deposit under consideration and to the reporting of exploration results and analytical and metallurgical test work to qualify as a Competent Persons as defined in the 2012 Edition of the Joint Ore Reserve Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Castro consents to the report being issued in the form and context in which it appears.

The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned relevant market announcements, that all material assumptions and technical parameters underpinning the estimates in the relevant market announces continue to apply and have not materially changed

# Brazilian Critical Minerals Limited Directors' report 31 December 2024



The directors present their report, together with the financial statements, on the consolidated entity (referred to hereafter as the 'Group or BCM') consisting of Brazilian Critical Minerals Limited (referred to hereafter as the 'Company' or 'parent entity') and the entities it controlled at the end of, or during, the half-year ended 31 December 2024.

#### **Directors**

The following persons were Directors of Brazilian Critical Minerals Limited during the whole of the financial period and up to the date of this report, unless otherwise stated:

- Mr Jeremy Robinson Non-Executive Chairman
- Mr Andrew Reid Managing Director
- Mr Ben Donovan Non-Executive Director (appointed 28 November 2024)
- Ms Abby Smith Non-Executive Director (resigned 28 November 2024)

#### **Principal activities**

Brazilian Critical Minerals Limited ('BCM') is a unique mineral exploration company listed on the Australian Securities Exchange. The Group's major exploration focus is Brazil, in the Apuí region, where BCM has discovered a world class Ionic Adsorbed Clay (IAC) Rare Earth Elements deposit. The Ema IAC project is contained within the 781 km<sup>2</sup> of exploration tenements within the Colider Group.

#### **Review of operations**

The loss for the Group for the half year ended 31 December 2024 amounted to \$2,932,430 (restated 31 December 2023: \$3,886,210).

#### Significant changes in the state of affairs

The Company issued a total of 212,219,163 fully paid ordinary shares at an issue price of \$0.01 each raising a total of \$2,122,192, before costs, during the half-year.

On 28 November 2024 Ben Donovan was appointed as Non-Executive Director following Abby Smith retiring as Non-Executive Director.

Following approval at the Company's AGM on 28 November 2024, Director Andrew Reid was issued 7,500,000 fully paid ordinary shares and 22,500,000 Performance Rights with the following vesting conditions:

Class	Number issued	<b>Grant date</b>	Expiry date	Vesting conditions
Α	7,500,000	28/11/2024	31/12/2025	The Company's 15 day volume weighted average share price being equal to or greater than \$0.10.
В	7,500,000	28/11/2024	30/09/2026	The Company completing a positive scoping study on the Ema and/or Apui REE Projects.
C	7,500,000	28/11/2024	31/12/2027	The Company securing letters of support for offtake agreements for greater than 50% of nominal nameplate capacity underpinning funding for construction at the Ema and/or Apui REE Project.

## 22,500,000

All performance rights will expire on the holder ceasing to an officer (and employee, if applicable) unless otherwise determined the Board at its absolute discretion.

The following options were issued during the half-year:

- 20,000,000 listed options were issued to Drake Private Investments LLC. on 21 August 2024 exercisable at \$0.05 each on or before 11 January 2026 in consideration for ad hoc marketing services and assistance; and
- 86,100,000 options exercisable at \$0.018 on or before 23 December 2027 following shareholder approval were issued to Euroz Hartleys.

# Brazilian Critical Minerals Limited Directors' report 31 December 2024



There were no other significant changes in the state of affairs of the Group during the financial half-year.

## Matters subsequent to the end of the financial half-year

The Company announced on 16 January 2025 that they have executed a variation to the Converting Loan Agreement with Drake Special Situations LLC (now Drake Private Investments LLC.) ('Drake'), originally announced on 19 December 2019 with the material varied key terms being:

- \* Issue price means the lower of:
- (i) a 10% discount to the Recent Raising Price, being the price paid for Shares in the most recent capital raising undertake by the Company prior to Drake exercising its conversion rights or where the most recent capital raising was by way of alternative financing, the effective price that otherwise would be paid for shares;
- (ii) a 10% discount to the 5-day VWAP for the trading of Shares on ASX ending on the day prior to Drake providing conversion election; and
- (iii) 2.00 cents
- \* The term has been extended to 15 December 2026 or as otherwise agreed to by the parties.
- \* Interest rate of 10% per annum.

Under the terms of the variation Drake has also agreed to provide an additional advance of \$300,000 on or before 20 December 2025, but in any event after 31 March 2025 ('2025 Advance'). On 3 February 2025, in return for the 2025 Advance, the Company issued 50,000,000 options exercisable at \$0.0175 on or before 15 December 2028 to Drake.

12,500,000 fully paid ordinary shares were issued at an issue price of \$0.01 each raising \$125,000 on 6 February 2025. 3,125,000 options exercisable at \$0.0175 each on or before 23 December 2027 were also issued to the lead manager as approved at the Companies AGM.

2,000,000 performance rights lapsed on 10 February 2025.

No other matter or circumstance has arisen since 31 December 2024 that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.

#### Auditor's independence declaration

A copy of the auditor's independence declaration as required under section 307C of the Corporations Act 2001 is set out immediately after this Directors' report.

This report is made in accordance with a resolution of Directors, pursuant to section 306(3)(a) of the Corporations Act 2001.

On behalf of the Directors

Andrew Reid Managing Director

14 March 2025



# Lead Auditor's Independence Declaration under Section 307C of the Corporations Act 2001

# To the directors of Brazilian Critical Minerals Limited

As lead auditor for the review of Brazilian Critical Minerals Limited for the half-year ended 31 December 2024, I declare that, to the best of my knowledge and belief, there have been:

- no contraventions of the auditor independence requirements as set out in the Corporations Act 2001 in relation to the review; and
- no contraventions of any applicable code of professional conduct in relation to the review.

This declaration is in respect of Brazilian Critical Minerals Limited and the entities it controlled during the period.

William Buck Audit (WA) Pty Ltd
ABN 67 125 012 124

Amar Nathwani Director

Dated this 14th day of March 2025

Amar Nathwani



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# Brazilian Critical Minerals Limited Consolidated statement of profit or loss and other comprehensive income For the half-year ended 31 December 2024



	Note	Dec 2024	Restated* Dec 2023
		\$	\$
Revenue			
Other income		5,864	5,628
Expenses			
Employee benefits		(231,683)	(256,158)
Corporate and administration	6	(350,960)	(700,936)
Depreciation expense		(15,138)	(11,874)
Exploration and evaluation		(1,805,371)	(1,492,854)
Share-based payments	18	(234,153)	(75,126)
Foreign currency (loss)/gain		(3,105)	9,966
Finance costs	4, 9	(297,884)	(1,364,856)
Loss for the half-year attributable to the owners of Brazilian Critical Minerals Limited	i	(2,932,430)	(3,886,210)
Other comprehensive loss			
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations	11	(31,425)	(31,842)
		• • • • •	<u> </u>
Other comprehensive loss for the half-year		(31,425)	(31,842)
Total comprehensive loss for the half-year attributable to the owners of Brazilian			
Critical Minerals Limited		(2,963,855)	(3,918,052)
Critical Milicrais Elimica		(2,303,033)	(3,310,032)
		Cents	Cents
Basic loss per share		(0.34)	(0.66)
Diluted earnings per share		(0.34)	(0.66)

Refer to note 4 for detailed information on Restatement of comparatives.

# Brazilian Critical Minerals Limited Consolidated statement of financial position As at 31 December 2024



	Note	Dec 2024 \$	Jun 2024 \$
Assets		·	•
Current assets			
Cash and cash equivalents		1,675,521	2,066,508
Trade and other receivables		16,223	11,067
Other		47,660	3,854
Total current assets		1,739,404	2,081,429
Non-current assets			
Property, plant and equipment	7	195,633	208,369
Exploration and evaluation	8	209,943	188,612
Total non-current assets		405,576	396,981
Total assets		2,144,980	2,478,410
Liabilities			
Current liabilities			
Trade and other payables		356,245	183,079
Financial liabilities	9	920,531	622,647
Provisions		13,602	6,898
Total current liabilities		1,290,378	812,624
Total liabilities		1,290,378	812,624
Net assets		854,602	1,665,786
Equity			
Issued capital	10	41,114,712	39,720,559
Reserves	11	2,495,647	1,768,554
Accumulated losses	12	(42,755,757)	(39,823,327)
	12	( .2,, 33,, 37)	(00,020,021)
Total equity		854,602	1,665,786

# Brazilian Critical Minerals Limited Consolidated statement of changes in equity For the half-year ended 31 December 2024



	Restated* Issued capital \$	Share-based payments reserve \$	Foreign currency translation reserve \$	Other reserves \$	Restated* Accumulated losses \$	Restated* Total equity \$
Balance at 1 July 2023	32,202,307	2,209,683	(1,338,059)	310,958	(33,775,113)	(390,224)
Loss for the half-year - restated Other comprehensive loss for the half-year	-	-	(31,842)	-	(3,886,210)	(3,886,210)
Total comprehensive loss for the half-year  Transactions with owners in their capacity as owners:	-	-	(31,842)	-	(3,886,210)	(3,918,052)
Contributions of equity, net of transaction costs Share-based payments (note 18) Performance rights forfeited	5,281,235 -	- 1,028,620	- -	- -	- -	5,281,235 1,028,620
during the half-year Lind initial shares	-	(170,196)	-	- (310,958)	-	(170,196) (310,958)
Balance at 31 December 2023	37,483,542	3,068,107	(1,369,901)	-	(37,661,323)	1,520,425
	Issued capital \$	Share-based payments reserve \$	Foreign currency translation reserve \$	Other reserves \$	Accumulated losses \$	Total equity \$
Balance at 1 July 2024	39,720,559	3,198,829	(1,430,275)	-	(39,823,327)	1,665,786
Loss for the half-year Other comprehensive loss for the half-year	-	-	(31,425)	-	(2,932,430)	(2,932,430) (31,425)
Total comprehensive loss for the half-year	-	-	(31,425)	-	(2,932,430)	(2,963,855)
Transactions with owners in their capacity as owners: Contributions of equity, net of transaction costs (note 10) Share-based payments (note 11	1,311,653	-	-	-	-	1,311,653
and note 18)	82,500	758,518		-		841,018
Balance at 31 December 2024	41,114,712	3,957,347	(1,461,700)	-	(42,755,757)	854,602

<sup>\*</sup> Refer to note 4 for detailed information on Restatement of comparatives.

# Brazilian Critical Minerals Limited Consolidated statement of cash flows For the half-year ended 31 December 2024



	Note	Dec 2024 \$	Dec 2023 \$
Cash flows from operating activities			
Interest received		5,522	6,902
Payments to suppliers and employees		(640,525)	(960,263)
Interest and borrowing costs paid		-	(1,609)
Payments for exploration and evaluation expenditure		(1,616,240)	(1,508,690)
Net cash used in operating activities		(2,251,243)	(2,463,660)
Cash flows from investing activities			
Payments for property, plant and equipment	7	(7,500)	(15,046)
Payments for exploration acquisitions	8	(26,596)	(31,150)
Net cash used in investing activities		(34,096)	(46,196)
Cash flows from financing activities			
Proceeds from issue of shares	10	2,122,192	6,000,000
Share issue transaction costs		(203,673)	(420,457)
Repayment of borrowings		-	(2,940,000)
Repayment received from Lind for initial shares		_	314,990
Net cash from financing activities		1,918,519	2,954,533
Net increase/(decrease) in cash and cash equivalents		(366,820)	444,677
Cash and cash equivalents at the beginning of the financial half-year		2,066,508	1,664,162
Effects of exchange rate changes on cash and cash equivalents		(24,167)	(6,131)
Cash and cash equivalents at the end of the financial half-year		1,675,521	2,102,708



#### Note 1. General information

The consolidated financial statements cover Brazilian Critical Minerals Limited as a Group consisting of Brazilian Critical Minerals Limited and the entities it controlled at the end of, or during, the half-year. The financial statements are presented in Australian dollars, which is Brazilian Critical Minerals Limited's functional and presentation currency.

Brazilian Critical Minerals Limited is a listed public company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business is:

Level 28, AMP Tower 140 St Georges Terrace Perth WA 6000 T: +61 8 6383 7820

The financial statements were authorised for issue, in accordance with a resolution of Directors, on 14 March 2025.

Note 2. Material accounting policy information

New or amended Accounting Standards and Interpretations adopted

The Group has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

These general purpose consolidated financial statements for the interim half-year reporting period ended 31 December 2024 have been prepared in accordance with Australian Accounting Standard AASB 134 'Interim Financial Reporting' and the Corporations Act 2001, as appropriate for for-profit oriented entities. Compliance with AASB 134 ensures compliance with International Financial Reporting Standard IAS 34 'Interim Financial Reporting'.

These general purpose consolidated financial statements do not include all the notes of the type normally included in annual financial statements. Accordingly, these consolidated financial statements are to be read in conjunction with the annual report for the year ended 30 June 2024 and any public announcements made by the Company during the interim reporting period in accordance with the continuous disclosure requirements of the Corporations Act 2001.

The accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, unless otherwise stated.

#### Going concern

The consolidated financial statements have been prepared on a going concern basis which contemplates the realisation of assets and settlement of liabilities in the ordinary course of business.

The Group incurred a loss after tax in the half-year of \$2,932,430 (HY 2023 restated loss: \$3,886,210) and used \$2,251,243 (HY 2023: \$2,463,660) of net cash in operations including payments for exploration activities. The Group has current assets of \$1,739,404 (30 June 2024: \$2,081,429) of which cash at bank balance was \$1,675,521 (30 June 2024: \$2,066,508) and current liabilities amounting to \$1,290,378 (30 June 2024: \$812,624). At balance date, the Group had net assets of \$854,602 (30 June 2024: net assets of \$1,665,786).

Included in the current liabilities at 31 December 2024 was \$920,531 relating to a convertible note facility with Drake Special Situations LLC which had a maturity date of 17 December 2024. In January 2025, the term of the note was extended to 15 December 2026. In addition, Drake agreed to provide an additional advance of \$300,000 under the revised agreement.



## Note 2. Material accounting policy information (continued)

The Group's ability to meet its operational obligations are principally dependent on capital raising. If such funding is not achieved, and if necessary, the Group can delay exploration expenditures and directors can also institute cost saving measures to further reduce corporate and administrative costs or explore divestment opportunities. These circumstances give rise to the existence of a material uncertainty that may cast significant doubt on the Group's ability to continue as a going concern and therefore whether it will be able to realise its assets and extinguish its liabilities in the normal course of business and at the amounts stated in the financial report.

The financial report does not include adjustments relating to the recoverability and classification of recorded asset amounts nor to the amounts and classification of liabilities that might be necessary should the Group not continue as a going concern.

Subsequent to balance date the Company raised \$125,000 via the issue of shares.

After considering the above factors, the directors consider it appropriate to prepare the financial report on the going concern basis.

## Note 3. Critical accounting judgements, estimates and assumptions

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses. Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities (refer to the respective notes) within the next financial year are discussed below.

## Share-based payment transactions

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. The fair value is determined using an appropriate model taking into account the terms and conditions, management assumptions and estimates upon which the instruments were granted. Refer note 18 for details.

#### Valuation of derivative liability

The Company has entered into loan agreements which contain a conversion feature whereby the value of the loan, or a portion thereof, can be converted into shares in the Company upon the occurrence of various conversion trigger events or upon the election of the lender (or borrower). To derive the fair value of the embedded derivative liability component of the loans, a number of assumptions have been made. These assumptions, as well as key terms of the loan agreements, are outlined in Note 9.

### Note 4. Restatement of comparatives

#### Correction of error

There was an error in the classification of the finance facility entered into with Lind Global Fund II LP ('Lind') on 31 March 2023. During the year ended 30 June 2024, it was also determined that the Lind Facility should be accounted for as a hybrid financial instrument. The comparative statement of profit or loss and other comprehensive income for the half-year ended 31 December 2023 has been restated to reflect this.



Note 4. Restatement of comparatives (continued)

During the year ended 30 June 2024, it was also determined that the Drake convertible loan facility should be accounted for as a hybrid financial instrument. The comparative statement of profit or loss and other comprehensive income for the half-year ended 31 December 2023 has been restated to reflect this

	31 December	31 December		31 December	
	2023	Lind	Drake	2023	
	Reported \$	Adjustment \$	Adjustment \$	Restated \$	
Finance costs	(31,856)	(900,768)	(432,232)	(1,364,856)	

The restatement of the prior year comparative as at 30 June 2023 have been previously discussed in the Company's annual financial report for the year ended 30 June 2024.

Statement of profit or loss and other comprehensive income

	Dec 2023 \$	\$	Dec 2023 \$
Extract	Reported	Adjustment	Restated
Expenses			
Finance costs	(31,856)	(1,333,000)	(1,364,856)
Loss for the half-year attributable to the owners of Brazilian Critical Minerals			
Limited	(2,553,210)	(1,333,000)	(3,886,210)
Other comprehensive loss for the half-year	(31,842)	-	(31,842)
Total comprehensive loss for the half-year attributable to the owners of			
Brazilian Critical Minerals Limited	(2,585,052)	(1,333,000)	(3,918,052)
	Cents Reported	Cents Adjustment	Cents Restated
Basic loss per share	(0.44)	(0.22)	(0.66)
Diluted earnings per share	(0.44)	(0.22)	(0.66)

Note 5. Operating segments

The Group has identified its operating segments based on internal reports that are reviewed by the Board and management. The Group operated in one business segment during the year, being mineral exploration and in two geographical areas, being Australia and Brazil.



812,624

Note 5. Operating segments (continued)

Operating segment information

	Brazil	Australia	Total
Dec 2024	\$	\$	\$
Segment revenue	342	5,522	5,864
Other expenses	(1,918,052)	(1,020,242)	(2,938,294)
Loss	(1,917,710)	(1,014,720)	(2,932,430)
Assets			
Segment assets	578,404	1,566,576	2,144,980
Total assets			2,144,980
Liabilities			
Segment liabilities	99,472	1,190,906	1,290,378
Total liabilities			1,290,378
	Brazil	Australia	Total
Restated*			
Dec 2023	\$	\$	\$
Segment revenue	-	5,628	5,628
Other expenses	(1,514,217)	(2,377,621)	(3,891,838)
Loss	(1,514,217)	(2,371,993)	(3,886,210)
Jun 2024			
Assets			
Segment assets	489,838	1,988,572	2,478,410
Total assets			2,478,410
Liabilities			

<sup>\*</sup> Refer to note 4 for detailed information on Restatement of comparatives.

# Note 6. Corporate and administration

**Total liabilities** 

	Dec 2024 \$	Dec 2023 \$
Corporate compliance costs	43,331	75,962
Contractors and consultancy	122,803	379,085
Legal fees	57,470	91,462
Insurance	35,751	29,962
Investor relations	34,905	66,704
Travel costs	32,496	23,427
Other	24,204	34,334
	350,960	700,936



Note 7. Property, plant and equipment

	Dec 2024 \$	Jun 2024 \$
Non-current assets		
Plant and equipment - at cost	294,909	294,964
Less: Accumulated depreciation	(99,276)	(86,595)
	195,633	208,369

# Reconciliations

Reconciliations of the written down values at the beginning and end of the current financial half-year and prior financial year are set out below:

\$
239,077
33,067
(34,564)
(29,211)
208,369
7,500
(5,098)
(15,138)
195,633

Note 8. Exploration and evaluation

Note 8. Exploration and evaluation	Dec 2024 \$	Jun 2024 \$
Non-current assets		
Exploration and evaluation	209,943	188,612

## Reconciliations

Reconciliations of the written down values at the beginning and end of the current financial half-year and previous financial year are set out below:

	\$
Balance at 1 July 2023	189,083
Additions	30,505
Exchange differences	(30,976)
Balance at 30 June 2024	188,612
Additions	26,596
Exchange differences	(5,265)
Balance at 31 December 2024	209,943



Note 9. Financial liabilities

	Dec 2024 \$	Jun 2024 \$
Current liabilities		
Convertible notes payable - Drake	920,531	622,647
	Dec 2024 \$	Jun 2024 \$
Derivative liability measured at fair value		
Convertible notes payable – Drake	53,654	39,988
Debt liability measured at amortised cost		
Convertible notes payable – Drake	866,877	582,659
	920,531	622,647

### Convertible notes - Drake

The Company entered into a convertible loan facility on 19 December 2019 with Drake Special Situations LLC ('Drake'), on 11 January 2023 it was announced that the facility has been extended for a further period to 17 December 2024 with the following terms:

- Election: The Company to repay the loan/convertible note facility by cash or through the issue of fully paid ordinary shares at the lender's election.
- Shareholder Approval: Convertible Note conversion is subject to shareholder approval.
- Maturity Date: 17 December 2024.
- Interest: 8% per annum payable at maturity
- Conversion price: the lower of:
  - (i) a 10% discount to the recent raising price;
  - (ii) a 10% discount to the 5-day VWAP for the trading of Share on ASX ending on the day prior to a Conversion Election; and
  - (iii) 7.00 cents

The Company has drawn down \$750,000 out of a \$4,500,000 facility, the maturity date was further extended through to 17 December 2024.

Subsequent to year end the Company announced on 16 January 2025 that they have executed a variation to the Converting Loan Agreement with Drake refer to note 17.

### Movement of the Drake loan is a follows:

	Dec 2024 \$	Jun 2024 \$
Opening balance at the beginning of the year	622,647	423,867
Change in the fair value of embedded derivative and interest expense	297,705	198,780
Closing balance at the end of the year	920,352	622,647

## Fair value measurement

The derivative liability component of the convertible note is measured and disclosed at fair value, using a three level hierarchy, based on the lowest level of input that is significant to the entire fair value measurement. The derivative liability has been categorised a level 2 in the fair value hierarchy and the fair value as at 31 December 2024 was measured as \$53,654 (30 June 2024: \$39,988).

Capital raising

Capital raising

Capital raising

Capital raising

**Balance** 

Issue of shares to Managing Director (note 18)

Less: Transaction costs arising on issue

# Brazilian Critical Minerals Limited Notes to the consolidated financial statements 31 December 2024



Note 9. Financial liabilities (continued)

# Valuation model assumptions:

A valuation of the derivative liability has been undertaken at 31 December 2024 using a Monte Carlo simulation model with the following assumptions:

Principal	\$750,000			
Valuation date	31 December 202	4		
Interest rate	3.77%			
Share price at valuation date	\$0.009			
Volatility	85%			
Fixed price	\$0.07			
Date of maturity	17 December 202	4		
			Dec 2024 \$	Jun 2024 \$
Reconciliation of movement in Level 2 derivative liabil	ity			
Opening balance	•		39,988	159,753
Loss/(gain) recognised in profit or loss			13,666	(119,765)
			53,654	39,988
Note 10. Issued capital				
	Dec 2024 Shares	Jun 2024 Shares	Dec 2024 \$	Jun 2024 \$
	Silates	Silaies	Ą	Ą
Ordinary shares - fully paid	1,050,458,588	830,739,425	41,114,712	39,720,559
Movements in ordinary share capital				
Details	Date	Shares	Issue price	\$
Balance	1 July 2023	512,250,722		32,202,307
Issue of shares under Lind agreement	1 September 2023	5,483,871	\$0.031	170,000
Capital raising	4 October 2023	112,517,251	\$0.027	3,037,966
Capital raising	7 December 2023	107,071,080	\$0.027	2,890,919
Capital raising	19 December 2023	2,633,891	\$0.027	71,115
Conversion of performance rights	29 April 2024	6,000,000	\$0.026	156,000
Capital raising	28 May 2024	84,782,610	\$0.023	1,950,000
Repayment from Lind for initial shares	•	-	-	314,990
Reversal of other reserve on termination of the Lind				•
facility		-	_	310,958
Less: Transaction costs arising on issue		-	-	(1,383,696)
Balance	30 June 2024	830,739,425		39,720,559
Datatice	30 Julie 2024	030,733,423		39,720,339

18 October 2024

11 November 2024

9 December 2024

19 December 2024

23 December 2024

31 December 2024

38,451,909

19,319,163

11,548,091

7,500,000

142,900,000

1,050,458,588

\$0.010

\$0.010

\$0.010

\$0.010

\$0.011

384,519

193,192

115,481

82,500

(810,539)

41,114,712

1,429,000



# Note 10. Issued capital (continued)

#### Ordinary shares

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the Company in proportion to the number of and amounts paid on the shares held. The fully paid ordinary shares have no par value and the Company does not have a limited amount of authorised capital.

Every member present at a meeting in person or by proxy shall have one vote and upon a poll each share shall have one vote.

# Share buy-back

There is no current on-market share buy-back.

Note 11. Reserves

	Dec 2024 \$	Jun 2024 \$
Foreign currency reserve	(1,461,700)	(1,430,275)
Share-based payments reserve	3,957,347	3,198,829
	2,495,647	1,768,554

## Foreign currency reserve

The reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Australian dollars.

## Share-based payments reserve

The reserve is used to recognise the value of equity benefits provided to employees and Directors as part of their remuneration, and other parties as part of their compensation for services.

#### Movements in reserves

Movements in each class of reserve during the current financial half-year are set out below:

	Foreign		
	currency	Share-based	
	translation	payments	
	reserve	reserve	Total
	\$	\$	\$
Balance at 1 July 2024	(1,430,275)	3,198,829	1,768,554
Foreign currency translation	(31,425)	-	(31,425)
Amortisation of performance rights (note 18)	-	47,039	47,039
Options issued - capital raising costs (note 18)	-	606,865	606,865
Amortisation of options (note 18)	-	10,067	10,067
Options issued to advisors (note 18)	-	94,547	94,547
Balance at 31 December 2024	(1,461,700)	3,957,347	2,495,647



#### Note 12. Accumulated losses

	Dec 2024 \$	Jun 2024 \$
Accumulated losses at the beginning of the financial half-year/year Loss for the half-year	(39,823,327) (2,932,430)	(33,775,113) (6,048,214)
Accumulated losses at the end of the financial half-year/year	(42,755,757)	(39,823,327)

Note 13. Dividends

There were no dividends paid, recommended or declared during the current or previous financial half-year.

Note 14. Commitments and contingencies

The Group has following contingent liabilities as at 31 December 2024.

(a) Exploration

	Dec 2024 \$	Jun 2024 \$
Committed at the reporting date but not recognised as liabilities, payable:  Exploration and evaluation - lease payments	108,299	57,373

The Group can exit any of the leases without any further commitments. Further expenditure for exploration and mining is at the discretion of the directors of the company.

- (b) The subsidiary company received 2 infraction notices in January 2023 from the Institute of Environment Protection Authority arguing that the company has cleared certain areas of the native forest without seeking authorisation from the Authority. The company has contested both notices and is awaiting on a decision on this matter as at the date of this report. Accordingly, no provision has been made in the financial report.
- (c) The subsidiary company in Brazil entered into a licence agreement with EcoBiome Metals LLC ('EcoBiome') for the use of their proprietary technology of bacterial leaching. The company has not been able to replicate in Brazil the results that were being generated by EcoBiome at their facilities in Texas. Notice was provided to EcoBiome to terminate the contract during June 2024, the company received an invoice from EcoBiome on 12 May 2024 for USD \$350,000 which the company does not deem to be payable due to the termination of the contract. Accordingly, no accrual has been made in relation to the invoice.
- (d) The subsidiary company in Brazil has received labour lawsuits from contractors in relation to work health safety after their contracts were terminated during the period. Reconciliation hearings have already been held, and the case is currently adjourned pending an outcome from the appointed expert for a work and health safety assessment before the hearing is to be continued with the Supreme Court. Management is unable to reliably determine the damages and accordingly no accrual has been made as at reporting date.

Note 15. Related party transactions

Parent entity

Brazilian Critical Minerals Limited is the parent entity.

**Subsidiaries** 

Interests in subsidiaries are set out in note 16.



Note 15. Related party transactions (continued)

Transactions with related parties

The following transactions occurred with related parties:

Dec 2024	Dec 2023
Ś	Ś

### Payment for other expenses:

Company Secretary fees paid to Argus Corporate Partners Pty Ltd\*

5,000

\* Argus Corporate Partners Pty Ltd provided Company Secretary services to the company, which is an entity related to Director Ben Donovan. Costs reported are from appointment date as a Director.

## Receivable from and payable to related parties

There were no trade receivables from or trade payables to related parties at the current and previous reporting date.

#### Loans to/from related parties

There were no loans to or from related parties at the current and previous reporting date.

## Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

Note 16. Interests in subsidiaries

The consolidated financial statements incorporate the assets, liabilities and results of the following subsidiaries in accordance with the accounting policy described in note 2:

		Ownership interest		
Name	Country of incorporation	Dec 2024 %	Jun 2024 %	
Mineração BBX do Brasil LTDA	Brazil	100%	100%	
BBX Peru SAC (dormant entities)	Peru	100%	100%	
BBX Lucanas SAC (dormant entities)	Peru	100%	100%	

# Note 17. Events after the reporting period

The Company announced on 16 January 2025 that they have executed a variation to the Converting Loan Agreement with Drake Special Situations LLC (now Drake Private Investments LLC.) ('Drake'), originally announced on 19 December 2019 with the material varied key terms being:

- \* Issue price means the lower of:
- (i) a 10% discount to the Recent Raising Price, being the price paid for Shares in the most recent capital raising undertake by the Company prior to Drake exercising its conversion rights or where the most recent capital raising was by way of alternative financing, the effective price that otherwise would be paid for shares;
- (ii) a 10% discount to the 5-day VWAP for the trading of Shares on ASX ending on the day prior to Drake providing conversion election; and
- (iii) 2.00 cents
- \* The term has been extended to 15 December 2026 or as otherwise agreed to by the parties.
- \* Interest rate of 10% per annum.



## Note 17. Events after the reporting period (continued)

Under the terms of the variation Drake has also agreed to provide an additional advance of \$300,000 on or before 20 December 2025, but in any event after 31 March 2025 ('2025 Advance'). On 3 February 2025, in return for the 2025 Advance, the Company issued 50,000,000 options exercisable at \$0.0175 on or before 15 December 2028 to Drake.

12,500,000 fully paid ordinary shares were issued at an issue price of \$0.01 each raising \$125,000 on 6 February 2025. 3,125,000 options exercisable at \$0.0175 each on or before 23 December 2027 were also issued to the lead manager as approved at the Companies AGM.

2,000,000 performance rights lapsed on 10 February 2025.

No other matter or circumstance has arisen since 31 December 2024 that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.

#### Note 18. Share-based payments

### **Ordinary shares**

7,500,000 ordinary shares were issued to Director Andrew Reid on 23 December 2024, following approval at the Company's AGM on 28 November 2024. The shares were valued at \$0.011 per share and an amount of a \$82,500 was expensed as share-based payment expense.

#### **Options**

20,000,000 listed options were issued to Drake on 21 August 2024 exercisable at \$0.05 each on or before 11 January 2026 in consideration for ad hoc marketing services and assistance. The options were valued using a Black-Scholes model, an amount of a \$94,547 was expensed as a share-based payment expense.

86,100,000 options exercisable at \$0.018 on or before 23 December 2027 were issued to Euroz Hartleys and were approved by shareholders at the Company AGM on 28 November 2024. The options were valued using a Black-Scholes model, an amount of a \$606,865 was recognised in relation to the options as capital raising costs.

For the options granted during the current financial half-year, the valuation model inputs used to determine the fair value at the grant date, are as follows:

	Drake options	Euroz Hartleys options
Number of options	20,000,000	86,100,000
Valuation date	3 June 2024	28 November 2024
Expiry date	11 January 2026	23 December 2027
Exercise price	\$0.050	\$0.018
Share price at valuation date	\$0.022	\$0.011
Volatility	87%	117%
Dividend yield	0%	0%
Risk-free interest rate	4.08%	3.91%
Fair value at valuation date	\$0.005	\$0.007
Valuation	\$94,547	\$606,865

## **Performance Rights**

An Employee Incentive Securities Plan has been established by the Company, whereby the Company may, at the discretion of the Board, grant performance rights over ordinary shares in the Company to certain key management personnel, employees and contractors of the Company.



Note 18. Share-based payments (continued)

Following shareholder approval at the Company's AGM on 28 November 2024, 22,500,000 Performance Rights were issued to Director Andrew Reid, during the half-year as follows:

Class	Number issued	Grant date	Expiry date	Vesting conditions
Α	7,500,000	28/11/2024	31/12/2025	The Company's 15 day volume weighted average share price being equal to or greater than \$0.10.
В	7,500,000	28/11/2024	30/09/2026	The Company completing a positive scoping study on the Ema and/or Apui REE Projects.
C	7,500,000	28/11/2024	31/12/2027	The Company securing letters of support for offtake agreements for greater than 50% of nominal nameplate capacity underpinning funding for construction at the Ema and/or Apui REE Project.

22,500,000

All performance rights will expire on the holder ceasing to an officer (and employee, if applicable) unless otherwise determined the Board at its absolute discretion.

These performance rights were valued, using a valuation methodology based on the guidelines set out in AASB 2 *Share based payment*.

The probabilities of Class B & C rights vesting will need to be reassessed at every reporting period for the Performance Rights with performance conditions which are non-market based.

Valuation assumptions:

Class	Α	В	C
Number Valuation / grant date Expiry date VWAP hurdle Risk free interest rate	7,500,000 28 November 2024 31 December 2025 \$0.100 3.86%	7,500,000 28 November 2024 30 September 2026 nil 3.86%	7,500,000 28 November 2024 31 December 2027 nil 3.86%
Volatility	85%	85%	85%
Share price at valuation date  Value per performance	\$0.011 \$0.0003	\$0.011 \$0.011	\$0.011 \$0.011
right Fair value at valuation date	\$2,118	\$82,500	\$82,500

The value of Performance Rights on issue are being expensed over the vesting period of the Rights. During the period \$47,039 (HY 2023: \$230,058) was recognised as an expense in relation to performance rights.



Note 18. Share-based payments (continued)

	Dec 2024 \$	Dec 2023 \$
Share-based payments expense:		
Performance rights amortisation	47,039	230,058
7,500,000 ordinary shares issued to Director Andrew Reid	82,500	, -
Forfeiture of 4,700,000 Performance rights	· -	(170,196)
3,000,000 options exercisable at \$0.05 each on or before 21 December 2026 issued to Director		
Jeremy Robinson	10,067	15,264
20,000,000 options exercisable at \$0.05 each on or before 11 January 2026 issued to Drake	94,547	-
	234,153	75,126
Capital raising costs:		
75,000,000 options exercisable at \$0.05 each on or before 11 January 2026	-	783,298
86,100,000 options exercisable at \$0.018 each on or before 23 December 2027	606,865	-
·	606,865	783,298
	841.018	858.424

# Brazilian Critical Minerals Limited Directors' declaration 31 December 2024



In the Directors' opinion:

- the attached consolidated financial statements and notes comply with the Corporations Act 2001, Australian Accounting Standard AASB 134 'Interim Financial Reporting', the Corporations Regulations 2001 and other mandatory professional reporting requirements;
- the attached consolidated financial statements and notes give a true and fair view of the Group's financial position as at 31 December 2024 and of its performance for the financial half-year ended on that date; and
- there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of Directors made pursuant to section 303(5)(a) of the Corporations Act 2001.

On behalf of the Directors

Andrew Reid Managing Director

14 March 2025



# Independent auditor's review report to the members of Brazilian Critical Minerals Limited

# Report on the half-year financial report



# Our conclusion

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the accompanying half-year financial report of Brazilian Critical Minerals Limited (the Company), and its subsidiaries (the Group) does not comply with the *Corporations Act 2001*, including:

- giving a true and fair view of the Group's financial position as at 31 December 2024 and of its financial performance for the half-year then ended; and
- complying with Accounting Standard AASB 134 Interim Financial Reporting and the Corporations Regulations 2001.

# What was reviewed?

We have reviewed the accompanying half-year financial report of the Group, which comprises:

- the consolidated statement of financial position as at 31 December 2024,
- the consolidated statement of profit or loss and other comprehensive income for the half-year then ended,
- the consolidated statement of changes in equity for the half-year then ended,
- the consolidated statement of cash flows for the half-year then ended,
- notes to the financial statements, including material accounting policy information, and
- the directors' declaration.

# **Basis for conclusion**

We conducted our review in accordance with ASRE 2410 Review of a Financial Report Performed by the Independent Auditor of the Entity. Our responsibilities are further described in the Auditor's responsibilities for the review of the financial report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards) (the Code) that are relevant to our audit of the annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.







# Material uncertainty related to going concern

We draw attention to Note 2 in the half-year financial report, which indicates that the Group incurred a net loss of \$2,932,430 and net operating cash out flows of \$2,251,243 during the half-year ended 31 December 2024. As stated in Note 2 these events or conditions, along with other matters set forth in Note 2, indicate that a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Our review conclusion is not modified in respect of this matter.

# Other matter

The financial report of the Group for the half-year ended 31 December 2023 was reviewed by another auditor who expressed an unmodified review conclusion on that financial report on 15 March 2024.

# Responsibilities of the directors for the financial report

The directors of the Company are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the half-year financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

# Auditor's responsibilities for the review of the financial report

Our responsibility is to express a conclusion on the half-year financial report based on our review. ASRE 2410 requires us to conclude whether we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the *Corporations Act 2001* including giving a true and fair view of the Group's financial position as at 31 December 2024 and its performance for the half-year ended on that date, and complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Willian Buck

William Buck Audit (WA) Pty Ltd

Amar Nathwani

ABN 67 125 012 124

Amar Nathwani

Director

Dated this 14th day of March 2025