

## EMA ISR FIELD TRIAL ACHEIVES FIRST MAJOR PERMEABILITY HURDLE

### Highlights

- Injected solution recorded in all downslope monitoring holes after only 72 hours, exceeding internal expectations
- Injection test has validated hydraulic connectivity in the test wells within the mineralised zone
- Solution breakthrough, measured water levels and pressure readings within the mineralised zone provides evidence of the deposit's hydraulic conditions and is indicative of the potential for the movement of mining solution in an ISR mining operation
- Previous ANSTO testwork suggests soft, friable, quartz rich nature of Ema mineralisation results in high recoveries of key magnet rare earth elements over short leaching duration periods
- ISR trial will include completion of multiple injection scenarios and include final water washing and clay rehabilitation testwork

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#### **Andrew Reid, Managing Director, commented:**

"The Ema field trial has a number of planned objectives, the most important is to assess the hydraulic permeability of the rare earth rich clay horizon. We are absolutely thrilled that within 72 hours post the commencement of solution injection we can already measure that solution in all of the extraction holes installed.

These results are an enormous step for the project towards commercialisation, and the results are considered by the company to be extremely encouraging and show that sustainable solution flow should be achievable with the application of ISR leaching techniques with the data and results to date better than expected.

The company continues to assess data as it is returned and detailed permeability measurements are being collected daily as we move through the field trial scenarios."

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Brazilian Critical Minerals Limited (**ASX: BCM**) (“**BCM**” or the “**Company**”) is pleased to announce that it has completed the first significant step of its Ema pilot field trial in Brazil.

BCM has commenced a series of ISR field trials at the Ema rare earths project which will allow the Company to assess the hydrogeological conditions, obtain valuable information on the leach characteristics of the rare earths, whilst collecting solutions rich in rare earths able to generate a final mixed rare earth carbonate product.

The trial includes the installation of injection and extraction holes drilled a set distance apart, and the time taken for the solution to be recorded in the extraction holes is used to determine and calculate the hydraulic permeability.

After only 72hrs of commencement of the first injection trial, all the extraction holes recorded significant influx of solution demonstrating the suitability of the chosen method for leaching at the Ema deposit. The Company will continue with solution injection as it continues to define and validate various deposit-specific characteristics of the Ema rare earths deposit.



Figure 1. view of the water storage tanks piped to injection holes designed and drilled to optimise and test solution permeability.



Figure 2. aerial view of the ISR setup, injection and extraction holes and associated infrastructure.

This announcement has been authorised for release by the Board of Directors.

## Enquiries

For more information please contact:

**Andrew Reid**

*Managing Director*

*Brazilian Critical Minerals Limited*

[Andrew.reid@braziliancriticalminerals.com](mailto:Andrew.reid@braziliancriticalminerals.com)



Brazilian Critical Minerals Limited (BCM) is a mineral exploration company listed on the Australian Securities Exchange.

Its 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 and adjacent sediments.

BCM has defined an indicated and inferred MRE of 943Mt of REE's with metallurgical recoveries averaging 68% MREO, representing some of the highest for these types of deposits anywhere in the world.

The Company has converted the MRE central portion from Inferred into the Indicated category with an extensive drill program during 2024 which has underpinned the scoping study and economic analysis released in February 2025.



*Ema REE Global Mineral Resource Estimate @COG 500ppm TREO*

| JORC Category | cut-off ppm TREO | Tonnes Mt  | TREO ppm   | NdPr ppm   | DyTb ppm  | MREO ppm   | MREO: TREO % |
|---------------|------------------|------------|------------|------------|-----------|------------|--------------|
| Indicated     | 500              | 248        | 759        | 176        | 16        | 192        | 25           |
| Inferred      | 500              | 695        | 701        | 165        | 16        | 181        | 26           |
| <b>Total</b>  | <b>500</b>       | <b>943</b> | <b>716</b> | <b>168</b> | <b>16</b> | <b>184</b> | <b>26</b>    |

The information in this announcement relates to previously reported exploration results and mineral resource estimates for the Ema Project released by the Company to 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, 17<sup>th</sup> Feb 2025, 26<sup>th</sup> Feb 2025, 10<sup>th</sup> March 2025, 13<sup>th</sup> March 2025 and 28<sup>th</sup> April 2025. The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases.