

QUARTERLY ACTIVITIES REPORT

For the period ending 30th September 2025

Highlights

- **First field trial REEs successfully** recovered under real-world conditions: Rare earth elements have **been leached, extracted, and precipitated directly** from the Ema deposit using in-situ recovery (ISR) methods
- **Exceptionally high-grade pregnant leach solution (PLS)** recovered from ISR holes in field pilot trials
- **Composition of the Magnet elements (MREO) within the (TREO) averaged 40-44%** across all holes reported, defining the Ema project as one of the richest MREO deposits supporting a premium basket price
- **ISR field trials continue to deliver exceptional results**, with pregnant leach solution (PLS) grades reaching up to **7,800 ppm TREO**, more than **14x higher** than in-situ mineralised grades
- **Super high-grade MREO grades peak above 3,500 ppm**, averaging **1,151 ppm** sustained across 24 days
- **Critical heavy rare earths (Dy + Tb)** exceed **100 ppm** in places
- **Samarium concentrations up to 397 ppm**, averaging over 5% of TREO — significant given samarium–cobalt magnets are the most widely used in defense and aerospace
- State and the local municipality have indicated strong support for the Ema project and would like to accelerate construction once all permits are secured
- Second engagement with **Mr Gustavo Picanço the President of Amazonas Environmental Protection Institute (IPAAM)** regarding the Ema project to provide an update on field trial outcomes
- Further separate engagements with multiple **Amazonian State Secretaries, including;**
 - State secretary of Mines: **Mr Ronney Peixoto**
 - State Secretary of Development, Science, Technology and Innovation (SEDECTI): **Mr Serafim Corrêa**
 - State Secretary SEMA (Environmental Secretary): **Mr Eduardo Taveira**
 - Secretary of the Military House: **Mr Fabiano Do**

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- A separate meeting was convened with **Wilson Lima, the Governor of the State of Amazonas**
- In Apuí, updating meetings were held with the **Mayor Mr Antônio Marcos Maciel Fernandes and Vice Mayor Dra Dilma Lira Porto Botton**
- **Altris Engineering:** appointed as Lead Engineer for the Ema rare earth bankable feasibility study
- Cash and cash equivalents as of 30 September 2025 of **A\$2.46M**

Brazilian Critical Minerals Limited (**ASX: BCM**) ("**BCM**" or the "**Company**") is pleased to provide detailed activities during the quarter ended 30 September 2025 in the Apuí region of Brazil (Figure 1).



Figure 1. Precipitated solids directly in the field after in-situ leaching. Small amounts of reagent added to rare earth rich solution causing the rare earths and impurities to precipitate (cloudy material) in a beaker directly adjacent to extraction wells.

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Field Leaching Trials Hugely Successful

Since the commencement of field trials in late May, the Company has successfully;

- Injected a low strength (0.5M) MgSO₄ solution;
- Very fast decrease the pH of the clay zone to the target zone required to leach rare earths over short distances of leaching;
- Fast reactivity of the reagent to the leaching of the rare earths into solution; and
- High PLS grade from leaching only a small test area;
- Maintained a constant flow of solution through the clays, indicating strong permeability;
- Has seen a steady and elevated rise in solution levels indicative that a solid impermeable basement exists;
- Extracted and precipitated the rare earths from solution.

Magnesium sulfate has successfully leached rare earth elements into solution via ionic exchange during the ongoing in-situ recovery field trials at the Ema Project. This marks a critical technical milestone and validates the transition from laboratory to field conditions.

Rare earth-bearing solution has now been extracted from monitoring wells positioned downslope of the injection points, closely simulating the layout and flow dynamics anticipated in future operational phases. The extracted PLS underwent initial on-site analysis, with subsequent laboratory confirmation of initial results.

The results announced represent the full phase of leaching over the field trial locality. As observed in lab-scale tests, there is an expected initial lag phase during which MgSO₄ saturates the clay-rich horizon and progressively lowers the in-situ pH to below the target threshold of 4. Only after this pH transition do REEs begin to mobilize and enter solution in measurable concentrations.

The PLS solution extracted was assayed for total rare earth oxides (TREO), as well as the key individual magnet elements Nd,Pr,Dy,Tb which represent some 90% of potential revenues. PLS have be sent to ANSTO to remove impurities and precipitate the rare earths as a MREC over the coming weeks.

Two field locations were subjected to MgSO₄ injection. The primary objective was not to complete a full leaching cycle, but rather to gather permeability and hydrological performance data critical to ISR system design and collect sufficient REE-enriched PLS to produce a representative mixed rare earth carbonate (MREC) sample for downstream processing assessment.

The injection of magnesium sulphate (MgSO₄) has been completed in the first of two field pilot trials, with the water-wash flushing phase now well underway. Final laboratory assays confirm high-tenor grades across all holes from which PLS was extracted (Table 1 &2). Notably, the TREO grades feature an exceptional concentration of magnet rare earth elements (MREO), averaging 40-44% across all leaching results.

This unusually high proportion of magnet elements, coupled with strong leaching efficiency and elevated rare earth concentrations in the PLS, has enabled the achievement of extremely high-grade MREO values, with some leaching periods exceeding 1,000 ppm. These results match or surpass MREO grades from projects operating with up to five times higher in-situ head grades—yet often with CAPEX requirements many times greater.

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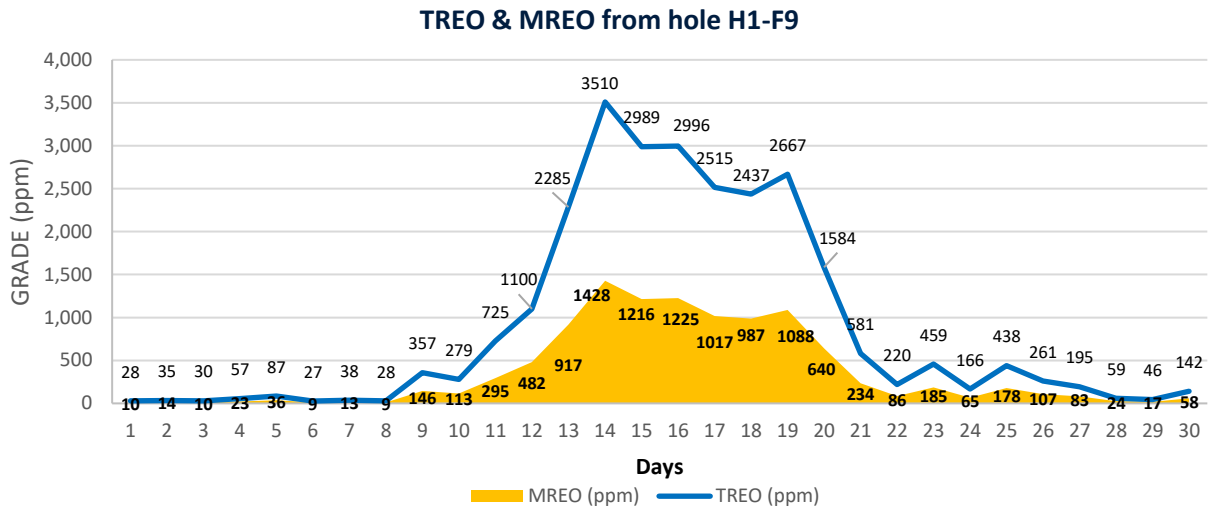


Figure 2. Pregnant liquor solution (PLS) grades extracted from monitoring hole H1-F9 located in the optimal path of solution flow from the field trial. MREO grades average 40% of the TREO values.

Table 1. Data Comparison of Field Trial ISR vs ANSTO ISR Column Test TREO and MREO values.

Hole ID	Day (from)	Day (to)	No. Days	Avg MREO (ppm)	Avg TREO (ppm)	MREO:TREO %
H1-F9	9	27	19	552	1,356	41%
including	12	20	10	929	2,281	41%
H1-F8	11	35	25	114	293	37%
including	18	24	7	262	657	39%
H1-F7	12	34	23	280	672	41%
including	16	25	10	408	959	42%
H1-F6	35	47	13	669	1,538	43%
including	37	47	11	737	1,639	43%
ANSTO	6	13	7	855	2,382	36%

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TREO & MREO grades from hole H1-F6

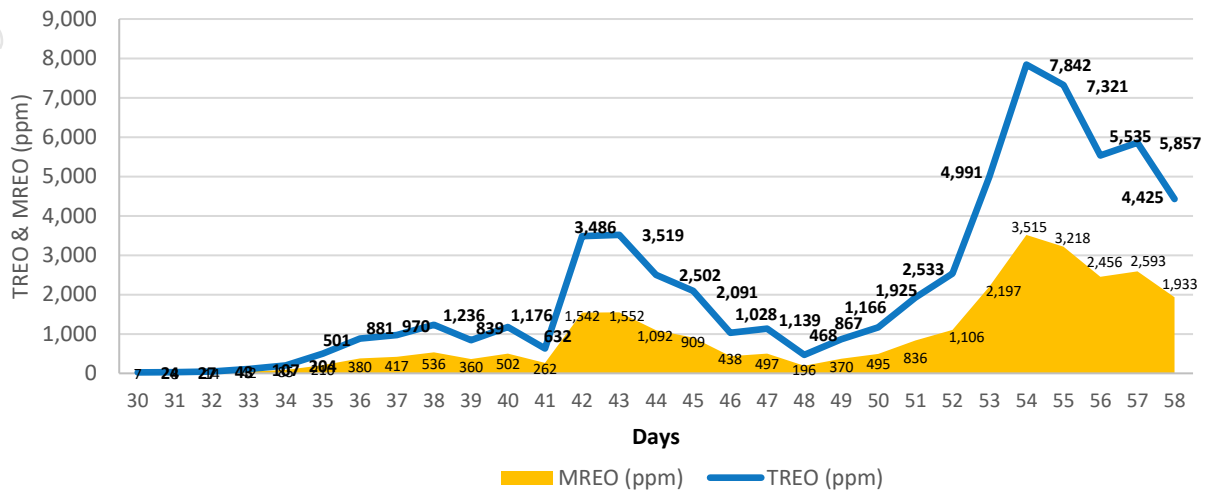


Figure 3. Pregnant liquor solution (PLS) grades extracted from monitoring hole H1-F6 over the period in which 0.5M Magnesium Sulphate was injected into the mineralised horizon. Yellow range represents composition of MREO inside the TREO values ranging from 42-45%.

Hole H1-F6 is located on the edge of the defined field trial area. Leaching of rare earths from H1-F6 commenced on day 33 or 34 (Figure 3), in comparison to hole H1-F9, which the Company previously stated was in a better position to capture early lixiviant primarily as a result of topographical and slope control which affects hydrological control, started leaching rare earths much earlier on day 9 (**ASX: 18 Aug**).

As a result of the slightly slower migration of solution towards H1-F6, the lixiviant has had additional contact time with the rare earth elements connected to the clay particles resulting in a higher level of ionic exchange and significantly higher concentration of rare earths in solution.

To date, PLS has only been extracted through pumping from wide spaced vertical extraction holes (**ASX: 2 Jul 2025**). More than 2,600 litres of high grade PLS has been extracted from the field trials. This system is designed only to be able to collect a small representative sample of the PLS for TREO analysis.

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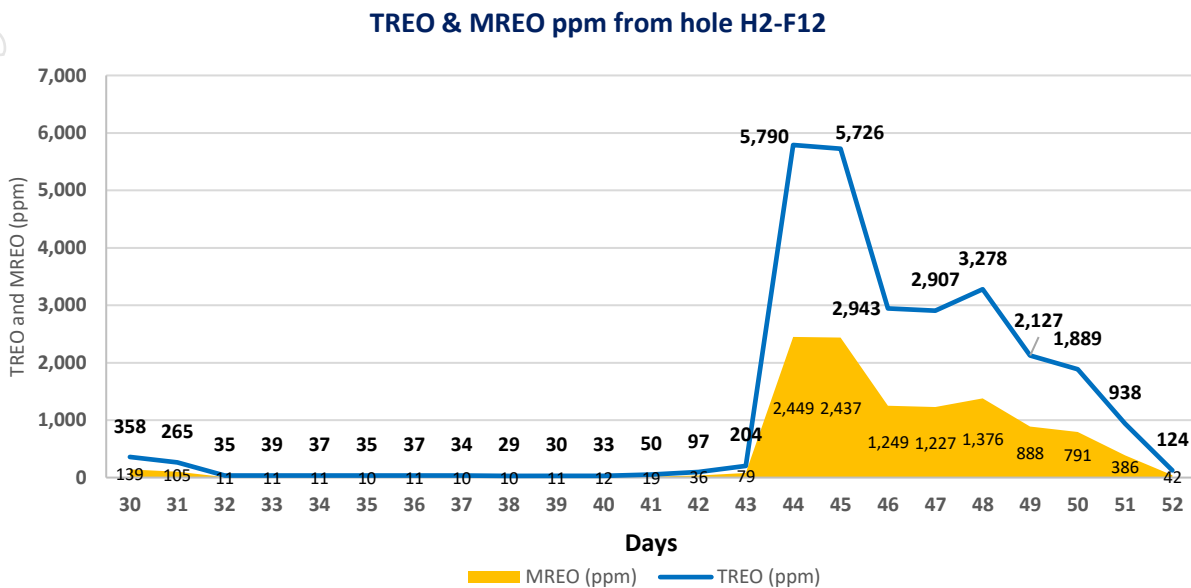


Figure 4. Pregnant liquor solution (PLS) grades extracted from monitoring hole H2-F12 over the period in which 0.5M Magnesium Sulphate was injected into the mineralised horizon. Yellow range represents composition of MREO inside the TREO values averaging 41% over the 10-day leaching period.

Table 2. PLS solution grades averaged over the leaching cycle from hole H2-F10, H2-F11 and H2-F12.

Hole ID	Day (from)	Day (to)	No. Days	Avg MREO (ppm)	Avg TREO (ppm)	MREO:TREO %
H2-F12	34	43	10	1,093	2,593	41%
H2-F11	13	37	25	269	714	37%
H2-F10	2	11	10	90	274	33%

Comments on Results

The hole array for extraction was designed specifically for the purpose of measuring solution permeability timing but subsequently retrofitted for PLS extraction. The vertical extraction hole design only captures a small proportion of the PLS and was never contemplated for scale up commercialisation as it is not the method employed in any ISR rare earth operation. Final extraction of the PLS upon production will occur at the base of the leached hills captured by an efficient containment system which will funnel the solution back to the process plant.

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Permitting Update

The focus was on presenting the Ema rare earth project in Apui and explaining the in-situ recovery (ISR) extraction process in detail, which is the most suitable extraction methodology for the region, due to its high ESG compliance in achieving 3 things critical to Brazilian regulations;

1. **Zero additional deforestation:** no conventional open pit mining eliminating serious impacts to hundreds of hectares of land (**ASX: 28 July 2025**)
2. **Zero Tailings Dams:** small volumes of waste products not required to be housed or stored in long term, life of mine, engineered facilities, and
3. **High local social engagement** with 100% positive survey responses.

The meeting in Apui with the presence of the State Governor, Mayor and Vice Mayor of Apui, as well as other state secretaries, it was agreed to establish and commence closer ties between the company the state and municipal environmental and mining departments.

The State and the municipality have indicated strong vocal support would like to see the start of construction as soon as practical once all permits have been received.



Figure 5. Cassio Roberto, Marcos da Macil (Mayor), Wilson Lima (State Governor), Antonio de Castro (BCM Exploration manager), Aldemir Moreira (Ema Project Manager), Dilma Botton (Vice Mayor), Eduardo Taveira

Bankable Feasibility Study

Altris were selected as the Engineering Services firm to complete the Ema bankable feasibility study. The Altris team—**formerly of Primero Group Ltd**—comprises highly qualified study and project managers, engineers, and designers across all key disciplines: process, mechanical, piping, civil/structural, electrical, and instrumentation.

Collectively, the team has delivered multiple scoping, prefeasibility, and feasibility studies, and has led EPC and EPCM project execution for battery and critical minerals projects across multiple global jurisdictions.

With strong experience in project delivery, Altris is recognised for producing fit-for-purpose designs that minimise capital expenditure while maintaining high standards of operability and safety.

- **ANSTO:** to undertake advanced process flow sheet optimisation test work from extracted pregnant liquor solution as part of the Ema field trials
- **WSP:** to conducted detailed hydrogeological modelling from Ema field trial data and final design and quantities of materials for the setup of injection and leaching of Magnesium Sulfate reagents

Corporate

For the purpose of Section 6 of the Appendix 5B, all payments made to related parties have been paid in relation to director fees.

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

Enquiries

For more information please contact:

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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 km² 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 commenced a bankable feasibility study due for completion in Q1 2026, is engaging with regulators regarding permitting approvals and has commenced a resource extension drilling program which will inform the BFS economic analysis.



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
Total	500	943	716	168	16	184	26

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, 17th Feb 2025, 26th Feb 2025, 10th March 2025, 13th March 2025, 28th April 2025, 27th May 2025, 28th May, 13 June 2025, 01 July 2025, 18 August 2025, 01 Sep 2025, 22 Sep 2025 and 20 Oct 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 and CONTINUES TO APPLY and have not materially changed in accordance with listing Rule 5.23.2.

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Competent Person Statement

The information in this announcement that relates to exploration results 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. de 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 person as defined in the 2012 Edition of the Joint Ore Reserves 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.

Additional Information required under Listing Rule 5.3.3

Tenements held at the end of the quarter	Area (Ha)	Percentage ownership
ANM Permit Number 880.107/08 Location Brazil (Ema)	9,839.91	100% Exploration Licence
ANM Permit 880.184/16 Location Brazil (Ema East)	9,034.00	100% Exploration Licence
ANM Permit Number 880.090.08 Location Brazil (Três Estados)	8,172.25	100% Exploration Licence
ANM Permit Number 880.025/2023 Location Brazil (Apuí iREE)	2,417.00	100% Exploration Licence
ANM Permit Number 880.026/2023 Location Brazil (Apuí iREE)	6,591.90	100% Exploration Licence
ANM Permit Number 880.027/2023 Location Brazil (Apuí iREE)	5,856.00	100% Exploration Licence
ANM Permit Number 880.259/2020 Location Brazil (Apuí iREE)	9,092.01	100% Exploration Licence
ANM Permit Number 880.149/2017 Location Brazil (Apuí iREE)	9,815.15	100% Exploration License
ANM Permit Number 880.076/2023 Location Brazil (Apuí ENE iREE)	8,475.30	100% Exploration application
ANM Permit Number 880.077/2023 Location Brazil (Apuí ENE iREE)	8,856.84	100% Exploration application

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