



## REE DRILLING AND EXPLORATION ACTIVITIES UPDATE

Magnum Mining and Exploration Limited (ASX:MGU, OTCQB: MGUFF) (Magnum, or the Company) is pleased to provide an update on its ongoing active drilling activities at the Company's highly prospective Palmares and Azimuth rare earth element (REE) Projects in Brazil.

### HIGHLIGHTS

- Drilling activities at the Palmares and Azimuth 125 Projects resumed on 5 January following a planned operational shutdown over the Brazilian Recesso Period (20<sup>th</sup> Dec to 5<sup>th</sup> Jan).
- **At Palmares, 15 RC drill holes for 225m** have been completed to date over the **high-grade and near-surface Feirinha Prospect**, with initial rig access delays caused by rainfall.
- **Planned 24-hour drilling at Palmares** will be supported by two RC drilling crews operating in alternating 12-hour shifts, which is expected to accelerate drilling progress.
- The first batch of Feirinha samples are **prepared and ready for dispatch for assaying**, with **results expected by the end of January**.
- The Feirinha Prospect has previously returned trench samples of up to **1.69% (16,884ppm) TREO** and rock samples of up to **1.31% TREO**.<sup>1</sup>
- The two rig RC drill program at Feirinha is focused on **targeting mineralisation at or near-surface**, providing a pathway to a **potential low-cost REE discovery**.<sup>2</sup>
- **13 auger holes totalling 155m** have been completed at Azimuth, with average drill hole depths increasing **from 5m to 12m**. Drilling was extended where **visual soil characteristics indicated prospective horizons** consistent with clay layers that are **regionally associated with rare earth mineralisation**.
- **Drilling at Azimuth has focused on the high priority Piracanjuba prospect and is now complete**. The first batch of assays have been received by ALS Laboratory for analysis and results are expected **by the end of January**.
- **The pace of drilling at Azimuth is expected to accelerate** following the mobilisation and commencement of full time operations of a second auger drill rig, in line with the planned drilling program.<sup>3</sup>
- The Palmares and Azimuth drill programs **both remain under budget** and are being advanced by **experienced in-country manager and major Magnum shareholder, Antonio Vitor**.

### PALMARES PROJECT - FEIRINHA REE PROSPECT

Shallow RC drilling at the Feirinha REE project has progressed (Figure 1) with the resumption of drilling activities on 5 January following a planned Recesso period. To date, 15 holes for 225m have been completed out of a planned 143 holes for 2,145m. The speed of the drilling program to date has been impacted by seasonal rain, which affected access to planned drilling locations. The drilling program is planned to be undertaken on a 24-hour basis with 2 RC rigs operating in alternating 12-hour shifts and

<sup>1</sup> Refer to ASX release, "Palmares Delivers Up To 1.69% TREO Grades (Revised)", 20 December 2024

<sup>2</sup> Refer to ASX release, "Two Rig Drill Program Commences at High-Grade REE Prospect", 1 December 2025

<sup>3</sup> Refer to ASX release, "Drilling Underway on High-Priority REE Prospects", 14 November 2025

is expected to accelerate drilling progress. The program remains under budget to date and drilling activities are expected to continue advancing as seasonal rainfall permits.

The drilling program at Feirinha is designed to assess the high levels of REE in previous surface and trench samples<sup>4</sup>, by testing for lateral continuity and depth extent. The first batch of samples have been prepared for dispatch at Magnum's operation base and will be sent to ALS Brazil for assay, with first results expected by the end of January.



**Figure 1** – Left: RC drilling on the Palmares REE Project, at the Feirinha Prospect. Right: Field technicians preparing RC drill samples from Feirinha.

The Feirinha REE Prospect has previously returned trench samples up to **1.69% (16,884ppm) Total Rare Earth Oxides (TREO)** and rock samples of up to **1.31% TREO** (13,082ppm) from mapped pegmatite swarms (Figure 3).<sup>5</sup> Significantly, the samples have high levels of Terbium (Tb) and Dysprosium (Dy), elements that are essential for many high-tech applications and for which global supply is dominated by China.<sup>6</sup> Anomalous Cerium (Ce) up to 6,507ppm suggests the mineralisation is similar to other ionic clay deposits in the district.

<sup>4</sup> Refer to ASX release, "Two Rig Drill Program Commences at High-Grade REE Prospect", 1 December 2025

<sup>5</sup> Refer to ASX release, "Palmares Delivers Up To 1.69% TREO Grades (Revised)", 20 December 2024

<sup>6</sup> Refer to ASX: BRE release, "Brazil Rare Earth Projects – Presentation", 6 May 2025

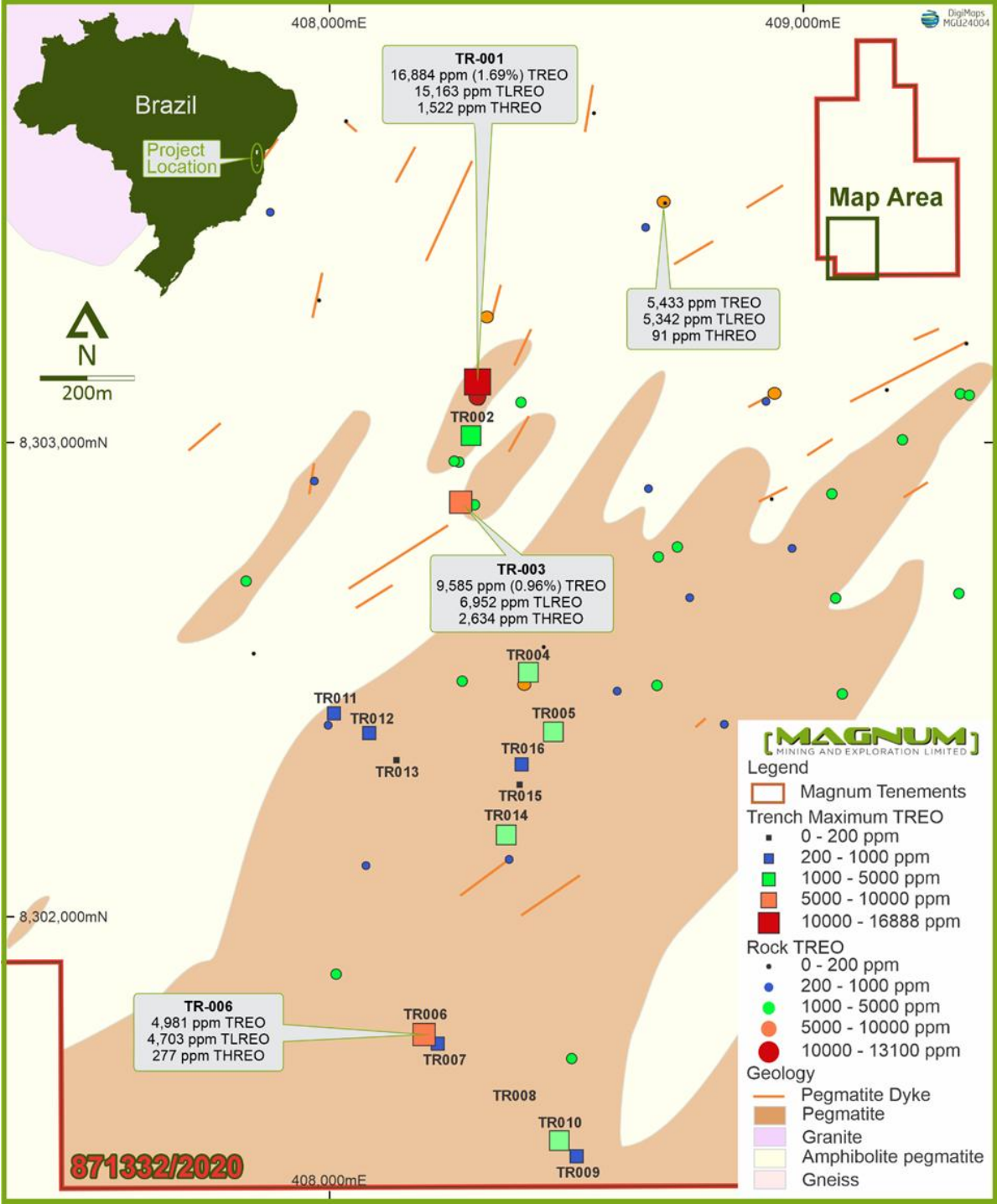
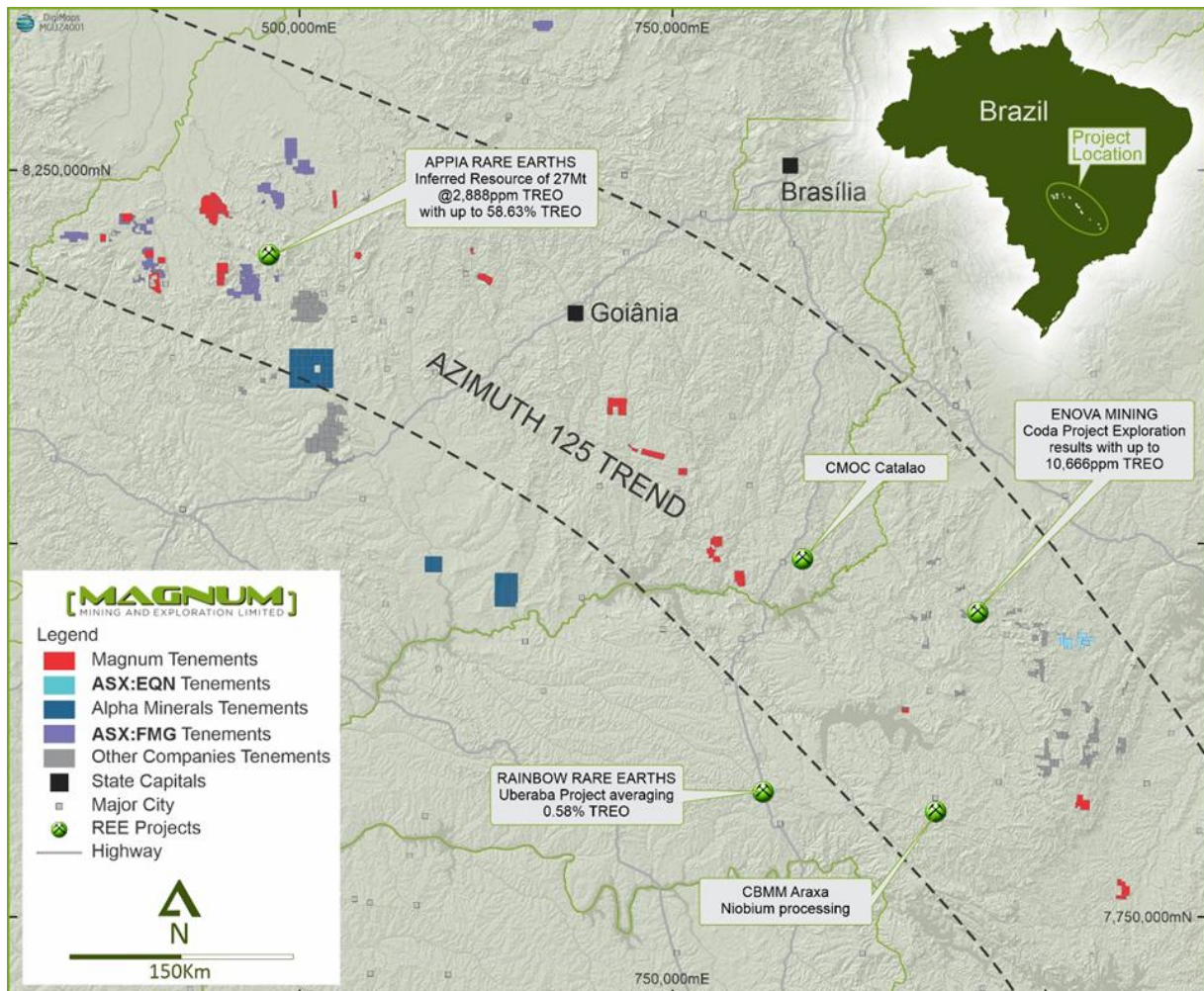


Figure 2 - Summary of geochemistry results from the Feirinha Prospect. "TR" designation shows trench locations.



## AZIMUTH REE PROJECT

The reconnaissance auger drilling programme is progressing over Magnum's Azimuth REE Project, which extends 900km over the highly prospective Azimuth 125° lineament (Figure 3). Drilling activities resumed on 5 January following a planned Recesso period.



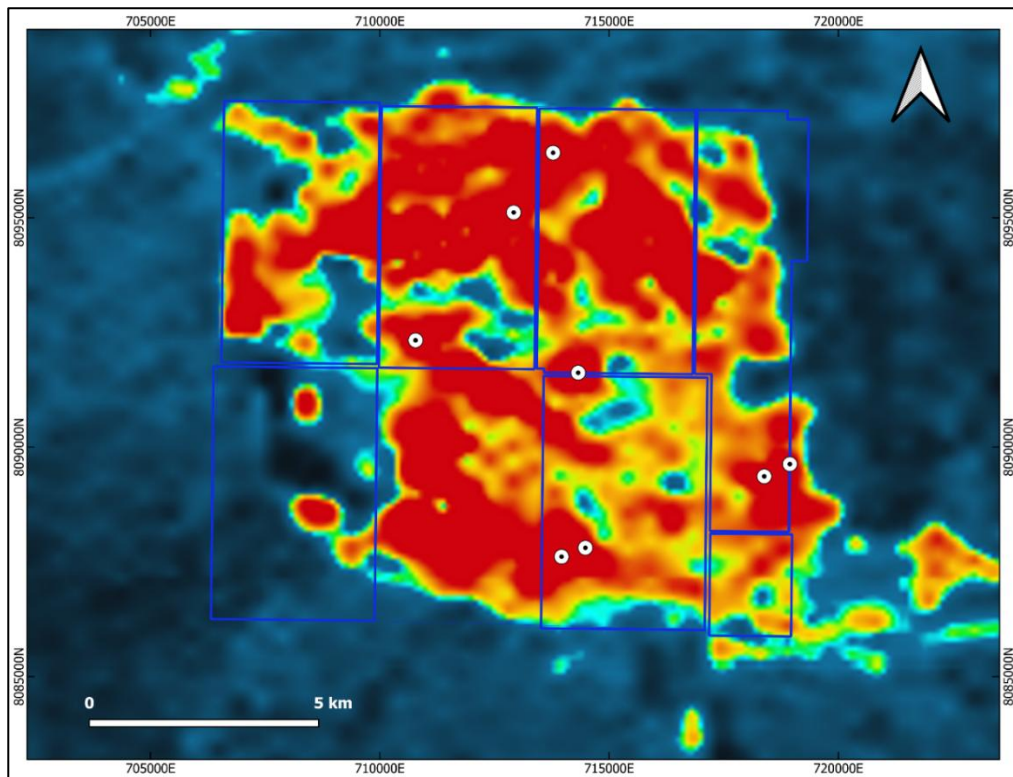
**Figure 3** - The Azimuth REE Project is centred on the Azimuth 125° Lineament, a NW-SE structural corridor recognised as a major source of mineralisation with highly prospective geological features. The lineament is associated with significant REE mineralisation, with Appia Rare Earths, Enova Mining and Rainbow Rare Earths announcing exploration success. The tenements straddle the NNE trending Transbrasilian Lineament, further enhancing the prospectivity of the area.

To date, a total of 155m of the planned 1,665m program has been completed. The rate of progress has been impacted due to a delay in the mobilisation and commencement of full-time operation of a second auger drill rig. Future drilling activities are planned to be supported by two auger rigs operating concurrently in line with the planned auger drilling program,<sup>7</sup> which is expected to accelerate drilling progress. The auger drilling program at Azimuth completed to date remains under budget, and further measures to improve drill rig productivity and schedule advancement are being reviewed.

Drilling completed to date has targeted ionic clay hosted REE prospects, and has focused on the high-priority Piracanjuba target (Figure 4). Initial indications are that thick sequences of clays from surface exist. Average drill depths have increased from the previously planned 5m to 12m over Piracanjuba, with drilling extended where visual soil characteristics indicated prospective horizons consistent with clay

<sup>7</sup> Refer to ASX release, "Drilling Underway on High-Priority REE Prospects", 14 November 2025

layers that are regionally associated with rare earth mineralisation. The first batch of REE samples from Piracanjuba have been delivered to ALS Lab in Brazil and are currently being processed for assay (Figure 5), with further samples from Azimuth 125 expected to be dispatched as the program continues to advance. The first assay results from the program are expected by the end of January.



**Figure 4** - Piracanjuba, Piracanjuba North, and Piracanjuba East REE targets. Auger drill hole locations on the image is the thorium channel from an airborne radiometric survey (**Note the scale bar**).



**Figure 5** – Samples arrived at ALS Lab in Brazil from the high-priority Piracanjuba target.

## **NEXT STEPS**

### **Feirinha REE Prospect (Palmares Project)**

- Drilling to be undertaken on a 24-hour basis with 2 RC rigs operating on alternating 12-hour shifts.
- Assay results are expected by the end of January, providing important clarity on the mineralisation potential.
- Assaying will be undertaken by an ALS Laboratory based in Brazil.
- RC drilling will continue into Q1 CY2026, as seasonal weather permits.

### **Azimuth REE Project**

- Two auger crews utilising two auger drill rigs are expected to undertake near surface drilling of priority REE targets into Q1 CY2026, as seasonal weather permits.
- Assay results are expected by the end of January, providing important clarity on the mineralisation potential.
- Further samples will be sent to ALS Brazil-based lab for assaying.



## COMPETENT PERSON'S STATEMENT

The information in this announcement is based on information compiled by Mr Marcus Flis, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of Rountree Pty Ltd. Mr Flis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves." Mr Flis consents to the inclusion of the matters outlined in this announcement the form and context in which they appear.

The information in this announcement as footnoted throughout the release and as noted below relates to exploration results that have been released previously on the ASX. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that, all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's finding is presented have not been materially modified from the original market announcements.

## ASX ANNOUNCEMENTS REFERENCED DIRECTLY IN THIS RELEASE

- *"Palmares Delivers Up To 1.69% TREO Grades (Revised)"*, released on the ASX on the 20<sup>th</sup> December 2024 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>
- *"Two Rig Drill Program Commences at High-Grade REE Prospect"*, released on the ASX on the 1<sup>st</sup> December 2025 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>
- *"Drilling Underway on High-Priority REE Prospects"*, released on the ASX on the 14<sup>th</sup> November 2025 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>

## FORWARD LOOKING STATEMENTS

This release contains "forward-looking information" that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to studies, the Company's business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current development activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of metals; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

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