VIRIDIS
MINING & MINERALS

ASX: VMM MARKET ANNOUNCEMENT

Government Endorses Viridion to Establish Latin America's First Rare Earth Refining and Recycling Hub

Viridion Secures Land from Municipality to Construct the Centre for Rare Earth Refining, Recycling and Innovation in Poços de Caldas

ASX Release: 17 July 2025

Highlights

- **Viridis Mining and Minerals Limited ('Viridis' or 'the Company') is pleased to announce that Viridion Rare Earth Technologies Ltda. ('Viridion'), its Brazilian joint venture ('JV') with Ionic Rare Earths Ltd (ASX: IXR), has secured a key strategic land acquisition in the advancement of Latin America's first rare earth refining and recycling hub.**
- **The Municipality of Poços de Caldas, located in Minas Gerais, Brazil, has officially granted Viridion a 2,071m² industrial land parcel within the local Industrial District. This site will host the development of the Centre for Rare Earths Innovation, Technology and Recycling ('CRITR'), a cornerstone facility focused on refining, recycling, and innovation in rare earth processing. This milestone marks a critical step toward establishing a vertically integrated rare earth supply chain in Brazil, positioning Viridis and its JV with IXR at the forefront of the global energy transition.**
- **The Company received unanimous approval from the Poços de Caldas City Council for the land allocation request submitted by the Mayor, marking a definitive endorsement by the local government. This milestone reinforces the strong government support for the project, strengthening its strategic importance to the region. The CRITR is scheduled to commence operations in the second half of 2026.**
- **First facility of its kind in South America: The CRITR will host the continent's first demonstration plant-scale refining and recycling unit for high-purity separated rare earth oxides (Nd, Pr, Dy, Tb).**
- **This hub will process both the Mixed Rare Earth Carbonate ('MREC') from the Viridis Colossus Demonstration Plant and recycled magnets sourced from Brazil's growing industrial and e-waste streams, including partnerships with local recyclers, using IXR's proprietary magnet recycling and rare earth separation, and refining technology.**
- **Viridion is seeking funding from Brazilian federal authorities to support CRITR's establishment and technical team, with definition of the funding package expected to be finalised in the coming weeks.**

Managing Director, Rafael Moreno commented:

"From day one, we've recognised that strong alignment with local, state, and federal stakeholders is essential to advancing both the Colossus Project and the broader Viridion strategy. Global developments, such as the recent multi-billion-dollar partnership between MP Materials and the U.S. Department of Defense[1], reinforce the importance of sovereign backing in bringing critical mineral projects into production.

The Municipality of Poços de Caldas' initiative to allocate this strategically located land package marks a significant milestone in fast-tracking the CRITR facility, Latin America's first rare earth refining, recycling, and innovation centre. This development is fully aligned with Brazil's national agenda to establish a sovereign and sustainable rare earth supply chain.

We look forward to working in close partnership with IXR and all levels of government to accelerate delivery of this nationally strategic asset. Viridis and Viridion's recent selection for federal funding is a strong endorsement of our vision, and we anticipate finalising the funding structure in the coming weeks.

This critical support positions us to rapidly build out Brazil's first downstream rare earths capability, unlocking long-term value for shareholders through low-cost and high-margin MREC production through Colossus and technology-led industrial growth with Viridion."

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Viridis Mining and Minerals Limited (ASX: VMM) is pleased to report continued momentum in the advancement of Brazil's first integrated rare earth supply chain, with its JV company, Viridion Rare Earth Technologies Ltda., receiving additional local government backing.

The Municipality of Poços de Caldas, in the state of Minas Gerais, has formally granted 2,071m^2 of industrial land within a designated Industrial Zone for the construction of the CRITR. This key milestone, unanimously approved by the Poços de Caldas City Council and endorsed by the Mayor, represents a major step toward establishing Latin America's first rare earth refining and recycling hub, and aligns directly with Brazil's national industrial strategy. Subject to financing, operations at the CRITR facility are targeted to commence in the second half of 2026.

Viridis and Viridion were recently selected in the Public Call led by the Brazilian National Bank for Economic and Social Development ('BNDES') and the federal innovation funding agency ('FINEP'), as a recipient of funding under a landmark R$5 billion (~US$900 million) national program focused on accelerating leading critical mineral projects and downstream rare earth refining and magnet recycling infrastructure[2]. Commercial feasibility and long-term economic impact were key criteria in the funding selection.

As part of this program, Viridion has submitted a proposal to support the establishment of CRITR and build out a Brazil-based technical and engineering team. The definition of the funding instruments is expected in the coming weeks.

This federal and municipal support reinforces the strategic value of Viridis' position in Brazil's emerging rare earths sector, offering a clear pathway to value-added processing, job creation, and long-term shareholder returns.

Industrial Zone: Infrastructure and Strategic Location

The CRITR will be located in the Poços de Caldas industrial zone, nearby to the Colossus Northern Concessions resource. The CRITR will be developed on a 2,071m^2 site granted by the municipal government under Law No. 6/2025 and it will host Latin America's first demonstration-scale facility for rare earth separation and magnet recycling. This industrial zone benefits from robust municipal infrastructure, including paved access roads, reliable utility connections and proximity to key logistics corridors supporting efficient supply chain integration.

Figure 1: *Aerial photograph of the Poços de Caldas Industrial Zone highlighting the Viridion site (outlined in green), surrounding industrial facilities, main access roads, and infrastructure.*

The site allocation, appraised at R$1.04 million (~US$0.17 million), is governed by a set of binding commitments designed to secure long-term economic benefits for the region. Viridion will deploy R$51 million (~US$8.5 million) in two phases of development, focused on rare earth magnet recycling and MREC refining. In compliance with the legal framework, the Company is required to maintain continuous operations for a minimum of ten

years, generate local jobs across production and engineering, contribute R$100,000 (~US$16,667) to municipal programs, and provide annual compliance reports to the Economic Development Secretariat.

Figure 2: *Satellite image of the Industrial Zone in Poços de Caldas, highlighting the area designated for developing technology centres in partnership with the private sector.*

Demonstration Plant: Rare Earth Oxides ('REOs')

The CRITR will be the first demonstration-scale facility in Brazil and Latin America dedicated to rare earth recycling and refining. Developed by Viridion Rare Earth Technologies Ltda., a joint venture between Viridis and IXR, the CRITR will replicate the proven design and operating parameters of IXR's 100% owned subsidiary, Ionic Technologies' Belfast UK facility, with equivalent capacity and technical flowsheet.

The project introduces to Brazil advanced and patented technologies, including rare earth separation and refining via solvent extraction, enabling the local production of separated, high-purity REOs from MREC and recycled NdFeB magnet and alloy feedstocks.

The maturity of the technology was proven recently when Viridion delivered the first separated rare earth oxides to Latin America's only Magnet manufacturer. The end-of-life magnets, sourced from decommissioned magnetic resonance imaging ('MRI') machines and wind turbine generators in Brazil, were shipped to Ionic Technologies' facility in Belfast, where they underwent advanced hydrometallurgical separation to produce high-purity individual oxides. The resulting Nd, Pr, Dy, Tb oxides were transported back to Brazil and delivered to CIT SENAI ITR[3].

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Figure 3: *Delivery of high purity Nd, Pr, Dy, Tb oxides to Lab Fab Magnet Factory: from left to right, Ronaldo Barquette (Director at Invest Minas), Rafael Moreno (Viridis Managing Director), José Luciano (Manager of CIT SENAI ITR), Klaus Peterson (Viridis Brazilian Country Manager).*

This strategic facility will process both:

- MREC produced from the Colossus MREC Demonstration Plant; and
- NdFeB magnets sourced from Brazil's growing base of end-of-life industrial and electronic waste — including partnerships with local recyclers and advanced manufacturing partners.

CRITR will be the first facility in South America capable of:

- Producing separated REOs with purity ≥99.5%, including Nd, Pr, Dy, and Tb;
- Recycling permanent magnets from wind turbines, MRI machines, hard drives, and other end-of-life equipment, plus waste streams generated in the production of new NdFeB magnets, including materials produced by CIT SENAI ITR's facility in Lagoa Santa, Brazil; and
- Closing the rare earth loop in Latin America through a low-carbon, circular economy model, supplying REOs back to CIT SENAI ITR in order to progress new metal, alloy and magnet capacity in Brazil.

Key features of the recycling demonstration plant include:

- Feed capacity: up to 30 tonnes per annum of magnet and alloy feedstock.
- Processing steps:
    - Mechanical dismantling and demagnetisation
    - Acid digestion and impurity removal
    - Selective leaching of rare earth elements ('REEs')
    - Solvent extraction ('SX') for separation and purification
    - Oxalate precipitation and calcination
- Target outputs: High-purity separated REOs (Nd, Pr, Dy, Tb)
- Sustainability measures: Closed-loop reagent and water recovery systems, and environmentally compliant waste handling protocols.

Additionally, a refinery demonstration plant will be developed to process MREC from the Colossus Project's demonstration plant to separate and refine high-purity REOs, to support establishing refining capability in Brazil.

The land package for CRITR was granted through Municipal Law No. 6/2025, reinforcing Poços de Caldas' leadership in sustainable industrial development, clean technologies, and decarbonisation. Civil works are scheduled to begin end of 2025, with operations expected to commence end of 2026.

Viridion is more than a technological venture, it is a strategic pillar of Brazil's national policy for sovereignty over critical minerals. By combining a world-class ionic clay resource with cutting-edge refining and recycling technologies, the Company is laying the foundations for a secure, sustainable, and vertically integrated supply chain of rare earths, fully aligned with Brazil's ambitions for clean energy, industrial innovation, and decarbonisation.

Technology and Sustainability: Circular Economy and Low-Impact Refining

The CRITR is designed to integrate advanced refining and recycling technologies with sustainability practices across all operations. The facility will process both MREC produced from its demonstration plant and reclaimed magnet waste to deliver high-purity rare earth oxides, supporting Brazil's energy transition and technological independence.

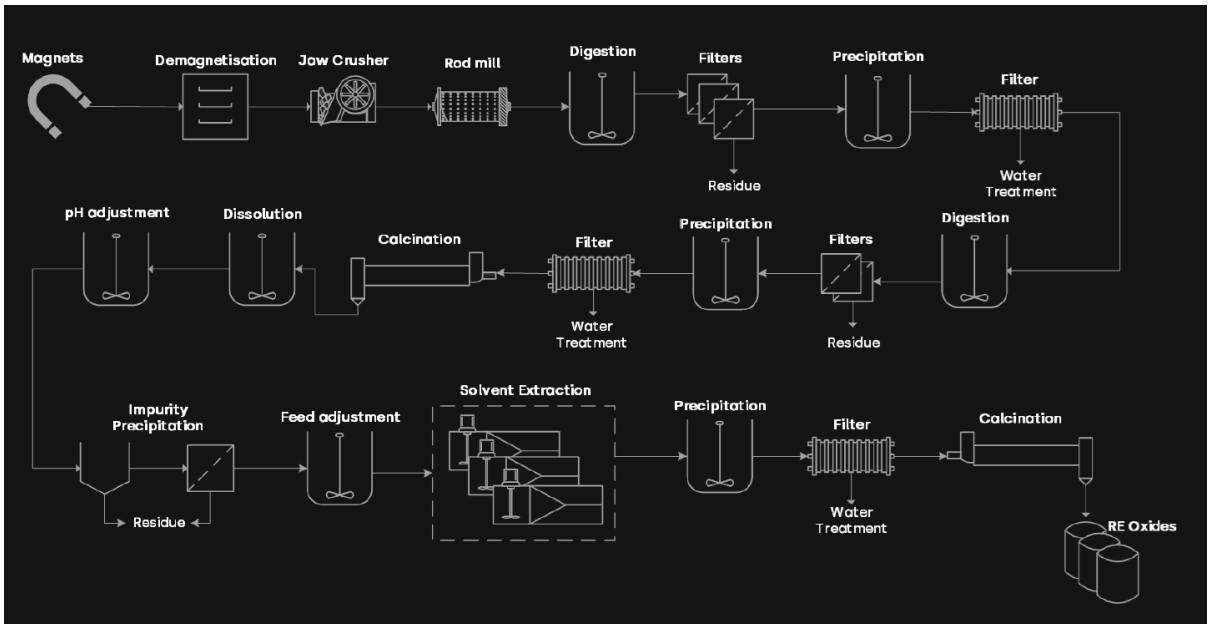

Figure 4: *Simplified process flowchart for magnet recycling at the CRITR demonstration facility.*

Key sustainability and innovation features include:

- Closed-loop water and reagent systems: The CRITR will implement advanced solvent extraction processes and closed-circuit water management to maximise resource efficiency and minimise consumption, reducing the environmental footprint of refining and recycling operations.
- Circular economy model: The facility will integrate magnet recycling streams, recovering neodymium, praseodymium, dysprosium and terbium, and other critical elements from end-of-life products. This approach supports the development of a permanent magnet value chain in Brazil while reducing dependency on imported raw materials.
- Non-radioactive and low-impact processing: All refining steps are designed to operate without radioactive residues or tailings dams, significantly lowering environmental and social risks compared to conventional processes.
- High-purity output: The refining circuit targets over 99.5% rare earth oxide purity, enabling downstream metallisation and magnet manufacturing for electric vehicles, renewable energy systems, and high-efficiency industrial motors.

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- Continuous innovation: Ongoing R&D activities will focus on optimising solvent extraction parameters, developing process automation, and advancing the reuse of reagents and secondary raw materials in line with Brazil's Nova Indústria Brasil policy objectives.

Pioneering Brazil's Green Industrial Future

The CRITR project is a flagship of Brazil's Neo-industrialization Agenda, integrating:

- In-house REO separation, refining and recycling expertise;
- Advanced materials prototyping (in partnership with SENAI LabFab, WEG, Stellantis);
- Circular economy strategies and ESG-aligned operations.

Backed by leading academic and technical institutions, the Viridion platform will enable:

- Domestic production of critical materials for green industries;
- A new generation of high-skilled jobs in rare earth metallurgy and clean tech;
- Enhanced technological sovereignty and export capabilities in a global market under supply-chain pressure.

FINEP/BNDES Public Calls: Funding for Critical Mineral Projects in Brazil

The FINEP/BNDES first Public Call (Notice Nº 001/2025), launched in January 2025, will allocate a total of R$5 billion (~US$880 million) to support business plans aimed at transforming strategic minerals in Brazil. The program seeks to establish sustainable domestic supply chains for critical minerals such as rare earth elements, which are essential for global energy transition and decarbonisation targets. This funding encompasses multiple financial mechanisms to support a wide range of projects, including industrial-scale plants, pilot facilities, demonstration units, and the necessary feasibility studies, depending on each project's technological maturity.

In addition to the **R$5 billion strategic minerals initiative, FINEP and BNDES launched a second Public Call in February 2025, allocating a further R$3 billion (~US$530 million) specifically to attract, implement, and expand Research, Development, and Innovation ('R&D&I') Centres across Brazil**. This program, launched under the New Industry Brazil (Nova Indústria Brasil) policy, focuses on vertical integration, technological sovereignty, and downstream value creation. The funding is directed to the construction of laboratories, demonstration plants, and other dedicated R&D&I infrastructure, reinforcing Brazil's scientific and industrial capabilities.

Viridion's CRITR is designed to align directly with these objectives. The facility will host Brazil's first rare earth refinery and advanced recycling demonstration unit, integrating proprietary magnet recycling and solvent extraction processes successfully demonstrated at Ionic Technologies' UK demonstration plant. This integrated approach aims to support domestic production of high-purity magnet-grade oxides and accelerate the development of a resilient, low-carbon supply chain for permanent magnets.

The potential funding available to develop the CRITR demonstration facility will fast-track the deployment of Brazil's first industrial-scale refining and recycling centre. The recent land grant in the Poços de Caldas Industrial Zone for Viridion Rare Earth Technologies Ltda., under the Avança Poços incentive program, is a testament to the strategic importance of Viridion's production capabilities and technology roadmap. The combination of local and federal government support, the proven hydrometallurgical and solvent extraction technologies, and the robust economic and sustainability metrics outlined in the Business Plan position Viridion to capitalise on the significant funding opportunities provided by the two FINEP/BNDES Public Calls.

Future Work

Viridis is progressing several key initiatives to advance the Colossus Project:

- **Environmental Permitting:** Regulatory advancement remains the Company's highest near-term priority. Following the submission of the Environmental Impact Assessment ('EIA') / Environmental Impact Report ('RIMA') in January 2025[4], approval of the Preliminary Licence is anticipated in the coming months. Our focus remains on the technical work required for the subsequent Installation

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Licence, ensuring momentum continues through the permitting process, as it remains the critical path to production.

- **Project Financing:**
  - Viridis is actively executing a multi-pronged financing strategy, targeting strategic investors, government support, and project-level capital from partners aligned with the global energy transition.
  - Early-stage engagement has been highly positive, with multiple parties expressing strong interest, including Brazilian government institutions[2], Export Credit Agencies and development banks across Europe, North America, South America, and Australasia.
  - The release of the Company's pre-feasibility study ('PFS') now serves as a key catalyst to advance these discussions into more formal negotiations, having meaningfully de-risked capital and operating cost assumptions[5].
- **Offtake Strategy:** Engagements with potential strategic offtake partners are progressing, supported by the low-impurity MREC product, compelling economics, and its status as an advanced rare earth development project in South America. These discussions have materially intensified following the release of the PFS.
- **Definitive Feasibility Study ('DFS') and Metallurgical Optimisation:** With process technology selection now better defined post-PFS, the Company is initiating a targeted metallurgical test program aimed at enhancing overall recoveries. This technical work will underpin the DFS, scheduled to commence in the coming months.
- **Mixed Rare Earth Carbonate ('MREC') Demonstration Plant:** The Company is in the process of completing its assessment of available options to house the Colossus MREC demonstration plant and will aim to select it preferred options in the coming months.

Approved for release by the Board of Viridis Mining and Minerals Ltd.

Contacts

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About Viridis Mining and Minerals

Viridis Mining and Minerals Limited is a resource exploration and development company with assets in Brazil, Canada and Australia. The Company's Projects comprise:

- The Colossus Project, which the Company considers to be prospective for Rare Earth Elements;
- The South Kitikmeot Project, which the Company considers to be prospective for gold;
- The Boddington West Project, which the Company considers to be prospective for gold;
- The Bindoon Project, which the Company considers to be prospective for nickel, copper and platinum group elements; and
- The Poochera and Smoky Projects, which the Company considers to be prospective for kaolin-halloysite.

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Maiden Mineral Resource Estimate

Colossus Project Updated Resource Estimate at 1,000pm Cut-Off

Category	License	Million Tonnes (Mt)	TREO (ppm)	Pr6O11 (ppm)	Nd2O3 (ppm)	Tb4O7 (ppm)	Dy2O3 (ppm)	MREO (ppm)	MREO/TREO
Measured	Northern Concessions (NC)	1	2,605	133	437	5	28	603	23%
	Measured Sub-Total	**1**	**2,605**	**133**	**437**	**5**	**28**	**603**	**23%**
Indicated	Northern Concessions (NC)	169	2,434	143	441	5	26	614	25%
	Southern Complex (SC)	157	2,947	169	502	6	30	708	24%
	Capao Da Onca (CDO)	2	2,481	152	414	4	22	592	24%
	Indicated Sub-Total	**329**	**2,680**	**156**	**470**	**5**	**28**	**659**	**25%**
Inferred	Northern Concessions (NC)	45	1,753	92	290	4	20	405	23%
	Southern Complex (SC)	77	2,122	104	295	4	21	424	20%
	Tamoyos (TM)	18	2,896	156	577	6	30	770	27%
	Ribeirao (RA)	19	2,544	159	455	4	24	642	25%
	Capao Da Onca (CDO)	5	2,393	132	358	4	22	517	22%
	Inferred Sub-Total	**163**	**2,162**	**114**	**345**	**4**	**22**	**485**	**22%**
	GLOBAL COLOSSUS TOTAL RESOURCE	**493**	**2,508**	**142**	**429**	**5**	**26**	**601**	**24%**

Table 1: *Updated Mineral Resource Estimate for Colossus rare earth elements Project using 1,000ppm TREO Cut-Off Grade. The resource model excludes leached/soil clays, transitional horizon under 330ppm MAG_REO*, and regolith material under 300ppm MAG_REO*[6]. The Measured and Indicated resources consist solely of regolith ore, while the Inferred resource includes both transitional and regolith ore.*

Competent Person Statement

Dr. José Marques Braga Júnior, the in-country Executive Director of Viridis' Brazilian subsidiary (Viridis Mineração Ltda), compiled and evaluated the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2024, 336416), accepted to report in accordance with ASX listing rules. Dr Braga has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting of Regulation, Exploration Results, Mineral Resources, and Ore Reserves. Dr Braga consents to including matters in the report based on information in the form and context in which it appears.

The Company confirms that it is unaware of any new information or data that materially affects the information included in the market announcements referred to in this release and in the case of estimates of Mineral Resources, Production Targets and forecast financial information that all material assumptions and technical parameters underpinning the estimates in the relevant referenced market announcements continue to apply and have not materially changed. To the extent disclosed above, the Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

All announcements referred to throughout can be found on the Company's website – viridismining.com.au.

Forward-Looking Statements

This announcement contains 'forward-looking information' based on the Company's expectations, estimates and projections as of the date the statements were made. This forward-looking information includes, among other things, statements concerning the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions and that the Company's results or performance may differ materially. 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 materially differ from those expressed or implied by such forward-looking information.

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References

1. *https://mpmaterials.com/news/mp-materials-announces-transformational-public-private-partnership-with-the-department-of-defense-to-accelerate-u-s-rare-earth-magnet-independence/*
2. *VMM ASX announcement dated 13 June 2025, 'Viridis Selected for BDNES and FINEP Strategic Mineral Funding'*
3. *VMM ASX announcement dated 27 May 2025, 'Viridion Delivers First Rare Earth Oxide to Latin America's Only Magnet Manufacturer'*
4. *VMM ASX announcement dated 28 January 2025, 'Viridis Achieves Key Environmental & Regulatory Milestones'*
5. *VMM ASX announcement dated 9 July 2025, 'Colossus PFS Unlocks World-Class Project Economics'*
6. VMM ASX announcement dated 22 January 2025, 'Colossus Hits Largest M&I and Highest-Grade MREO Resource'

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