

Viridis Targets U.S. Expansion with Rare Earth Refinery Amid Global Supply Chain Shift

Viridion Positions for Growth as Demand for Rare Earths and Strategic Interest Surge

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Highlights

- ▶ Viridis ('Viridis' or 'the Company') and its joint venture entity Viridion Pty Ltd ('Viridion')^{1,2}, looking to expand their footprint to include a potential U.S.-based rare earth refinery after delivering Brazilian refining and recycling capabilities.
- ▶ An existing scoping study, initially prepared by Viridion's joint venture partner Ionic Rare Earths Ltd ('IXR') for a U.S.-based rare earth oxide ('REO') refinery using IXR's subsidiary Ionic Technologies' proprietary separation technology, will be updated under Viridion to support refining strategies in both Brazil and the U.S. and ongoing engagement with strategic U.S. stakeholders.
- ▶ The updated scoping study will assess the processing of Mixed Rare Earth Carbonate ('MREC') from the Company's flagship Colossus Project in Brazil, with completion targeted for H2 2025.
- ▶ Colossus MREC presents an attractive, premium-grade feedstock for global refineries, offering strong project economics, negligible impurities and radionuclides, and the robustness to perform across market cycles³.
- ▶ Backed by the recent strong Brazilian Government support⁴, Viridis is well-positioned to fast-track the establishment of a globally integrated downstream processing capability.
- ▶ Viridis and Viridion aim to build a sovereign, multi-asset rare earth supply chain through coordinated Brazilian and U.S. operations, contributing to the development of a sustainable and independent supply chain outside China.

Chief Executive Officer, Rafael Moreno commented:

"Viridion's rapid progress underscores the strength of our partnership and the strategic significance of our work. The successful delivery of Brazil's first locally sourced recycled magnet rare earth oxides, combined with strong support from the Brazilian Government, highlights our ability to lead in this critical sector.

As the United States accelerates its efforts to secure an independent rare earth supply chain, Viridion is exceptionally well-positioned to play a pivotal role. By leveraging proven refining technology and early-stage success in Brazil, we are building the foundations for a sovereign, sustainable U.S. refining solution.

Our flagship Colossus Project remains the priority for Viridis and is uniquely placed as the only Western rare earth development capable of delivering strong returns even in today's low-price environment. It will serve as the cornerstone of a globally integrated, ex-China supply chain spanning Brazil and North America."

Viridis Mining and Minerals Ltd (ASX: VMM) is pleased to announce an expansion of its Viridion Joint Venture with Ionic Rare Earths Ltd (ASX: IXR), with a focus on developing rare earth refining capacity in the United States. Following strong progress on refining and recycling capabilities in Brazil, Viridion is now assessing the establishment of a U.S. based facility. This development responds to heightened interest from U.S. stakeholders seeking secure, non-Chinese sources of separated magnet REOs.

Advancing an Ex-China Rare Earth Supply Chain

The proposed U.S. refinery would process MREC feedstock from Viridis' high-grade Colossus Project in Brazil. The facility would utilise IXR's proprietary refining technology developed by its 100%-owned U.K. subsidiary, Ionic Technologies.

This move positions Viridion to play a central role in supplying critical rare earth materials to the U.S. manufacturing base, particularly in automotive, defence, and renewable energy sectors, where demand for sustainable, traceable REOs is growing.

The Viridion JV will seek to 'fast-track' initial studies on rare earth refining for the purposes of U.S. engagement to complement the strong Brazilian support to date and a mechanism for financing Viridis' downstream ambitions.

Viridion's selection under Brazil's recent US \$1.4 billion Strategic Minerals Program, led by Brazilian National Bank for Economic and Social Development ('BNDES') and the Federal Agency for Funding Authority for Studies and Projects ('FINEP'), has bolstered the JV's standing on the world stage and enabled progress toward the construction of local refining and recycling assets. This also sets the scene for exporting trialled and proven technology with the same feed source to a future U.S. facility.

Viridion recently delivered Brazil's first recycled magnet REOs and continues to evaluate pilot plant sites for both refining and recycling operations.

Viridion will play a strategic role in near-term substitution for disrupted critical minerals, with the Company on track to progress the development of a fully integrated rare earth supply chain, based on recycling end-of-life ('EOL') magnets and swarf into high purity separated REOs as the early facilitator of supply from Brazil.

Updated U.S. Refinery Scoping Study

IXR completed an internal scoping study in 2023 assessing the development of a dedicated U.S. based rare earth refinery. This proposed facility would process MREC sourced from IXR's Makuutu Rare Earths Project in Uganda.

IXR's proposed facility, with a nominal location in Tennessee, positioned near potential strategic partners, was designed to produce approximately 4,000 tonnes per annum of separated REOs. This includes initial output of separated magnet REOs and select heavy REOs, notably those featured in China's export restrictions effective April 2025⁵.

Viridis is now working alongside IXR to revise the refinery scope, to accommodate the Colossus MREC as feedstock and to assess other higher-value MREC options comprising medium and heavy rare earth elements post-group separation.

An updated scoping study, expected to be finalised in the second half of 2025, will support planning for the development of a pilot-scale refining and technical facility. Discussions are currently advanced regarding a site in Brazil to validate the design and processing methodology.



Figure 1: Continuous rare earth separation test work (left), and refinery Solvent Extraction test work samples used to develop Ionic Technologies' flowsheet and process model for U.S. Refinery (right) based on the Makuutu Project MREC.

Viridion JV

Formed in April 2024, the 50/50 Viridion JV brings together feedstock from Viridis' Colossus Project and IXR's patented separation and recycling technology. It holds exclusive global rights (excluding Asia and Uganda) to Ionic Technologies' intellectual property for MREC refining and magnet recycling.

With active support from both the Brazilian and U.S. markets, Viridion is advancing its goal to become a major producer of separated rare earths across multiple jurisdictions, establishing a resilient, vertically integrated supply chain outside China.

Future Work

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

- **Progress Pre-Feasibility Study ('PFS'):** Viridis continues to progress the detailed pre-feasibility study with Hatch, which is on track to be completed end of Q2 2025.
- **Environmental Installation License:** Following the successful submission of the Environmental Impact Assessment ('EIA') / Environmental Impact Report ('RIMA') for the Preliminary Environmental License in January 2025⁶, the Company is progressing all technical assessments for the Installation License, which is required before project construction can commence.
- **Continued Focus on Project Financing and Offtake discussions:** With the completion of the PFS imminent, a key study required to de-risk the technical design, CAPEX and OPEX estimates, Viridis continues to progress important discussions with potential strategic off-takers, project financing institutions and strategic partners.

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.

Competent Person Statement

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.

References

1. VMM ASX announcement dated 3 April 2024, 'Viridis Enters Joint Venture for Separation, Refining and Recycling of Rare Earths'
2. VMM ASX announcement dated 6 November 2024, 'Viridis Progresses Downstream Rare Earth Oxide Refining, Magnet Manufacturing and Recycling Partnerships'
3. VMM ASX announcement dated 25 February 2025, 'Colossus Scoping Study Highlights Outstanding Economics'
4. VMM ASX announcement dated 13 June 2025, 'Viridis Selected for BNDES and FINEP Strategic Mineral Funding'

5. *IXR ASX announcement dated 9 August 2021, 'Ionic to evaluate standalone downstream heavy rare earth separation and refining asset'*
6. *VMM ASX announcement dated 28 January 2025, 'Viridis Achieves Key Environmental & Regulatory Milestones'*