ASX: VMM MARKET ANNOUNCEMENT

Colossus Maiden Mixed Rare Earth Carbonate ('MREC') Product

Maiden MREC produced via simple low-cost flowsheet, delivers world leading recoveries and lowest impurity product for an Ionic Adsorption Clay Project

ASX Release: 24 September 2024

Highlights

- **Delivery of Maiden Mixed Rare Earth Carbonate presents exceptional results to position Colossus as a world-leading Ionic Adsorption Clay ('IAC') Project.**

- **Viridis engaged the Australian Nuclear Science and Technology Organisation ('ANSTO') to execute a detailed work program to confirm and optimise conditions for a flowsheet design which produces an MREC product from a clay bulk composite from its Northern Concessions.**

- **ANSTO test work delivers the highest known recoveries for all the valuable Magnetic Rare Earth Oxides ('MREO') in an MREC product, using a low-cost ammonia-based flowsheet with leaching performed at pH4.5, 0.3M Ammonia Sulphate ('AMSUL'), room temperature and 30-minute residence time.**

- **MREC Precipitation from ore to the final product achieved exceptional MREO[A] recoveries:**
  - **Recovery of Praseodymium (Pr): 77%**
  - **Recovery of Neodymium (Nd): 76%**
  - **Recovery of Dysprosium (Dy): 67%**
  - **Recovery of Terbium (Tb): 71%**
  - **OVERALL MREO RECOVERIES FROM ORE TO MREC: 76%**

- **Unprecedented concentration of 60% Total Rare Earth Oxide ('TREO')[B] in the final MREC product, including the highest known MREO/TREO ratio of 39% for an IAC Project globally.**

- **The superior proportion of MREOs in the MREC product delivers a premium and high-quality basket value, whereby MREOs account for 93% of the overall value in the MREC.**

- **Exceptionally low levels of impurities (~1%) report to the MREC, supporting meaningful discussions with offtake partners.**

- **The phenomenal results from this MREC production campaign have Colossus on track to deliver a premium MREC product compared to peers and ranks it amongst the leading rare earth projects globally in multiple aspects:**
  - Highest known MREO recoveries (76%) to MREC with an exceptional 39% MREO/TREO ratio.
  - Superior basket value based on a simple and low OPEX and CAPEX flowsheet, demonstrated using a higher pH (4.5) and 40% lower Concentration (0.3M), significantly reducing reagent usage.
  - Low levels of radionuclides and gangue element impurities forming a superior MREC product.

[A] Magnetic Rare Earth Oxides ('MREO'): Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3

[B] Total Rare Earth Oxides ('TREO'): La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3+ Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3

Chief Executive Officer, Rafael Moreno commented:

"This is by far the most important result the Company has achieved to date and re-emphasises the remarkable asset we have on our hands. As the industry grapples with depressed rare earth prices, the combination of superior basket value, exceptional recoveries, and its low-cost flowsheet sets Colossus apart from its rare earth peers.

Having a high concentration of MREOs in your feed ore is one thing; another thing is to extract it efficiently and cheaply. Achieving best-in-class NdPr recoveries of 76% and DyTb of 68% with a flow sheet designed based on low cost, benign pH and readily available reagents, atmospheric temperature, and pressure, is unheard of in the rare earth space, and highlights the disruptive nature of true ionic clays and why Colossus has the potential to re-set the cost curve.

The extremely low levels of radionuclides and gangue elements in our MREC product bodes well for the ongoing offtake discussions being held, with low impurity levels paramount for the economic downstream processing of MREC into individual rare earth oxides.

The team won't be resting on their laurels, with plenty more critical milestones in the short-term pipeline, as we look to kick off the pre-feasibility study, issue an updated mineral resource estimate, produce our maiden MREC from our southern concessions and environmental permitting updates."

Figure 1: *Wet MREC filter cake product from Northern Concessions Bulk Sample*

Viridis Mining and Minerals Limited ('Viridis' or 'Company') is pleased to report the results of its maiden MREC metallurgical test work campaign, conducted on a bulk sample from the Northern Concessions within the Colossus IAC Project, **which has achieved the highest recoveries of TREO and MREO in an MREC product, using this form of low-cost flowsheet as the basis for the test work.**

ANSTO completed numerous metallurgical tests under different conditions with variables in reagent choice and concentration, slurry density, pH level, and residence time. The large array of test work has made a significant breakthrough in the metallurgical characteristics of the Northern Concessions, allowing recoveries to be maintained at a higher pH while reducing AMSUL consumption by 40%, drastically improving the economic implications and potential of the Colossus Project in terms of both CAPEX / OPEX and basket value.

MREC Metallurgy Testing Program

The test program conducted by ANSTO was based on a simple, low cost and proven flowsheet, as presented in Figure 2. The objective of the scope was to develop a flowsheet that mimics the practical and anticipated production profile for Colossus while considering optimal conditions for desorption, target REE recovery, reagent type and consumption, impurity dissolution, and potential impacts of conditions on the effectiveness of impurity removal efficiency and product quality.

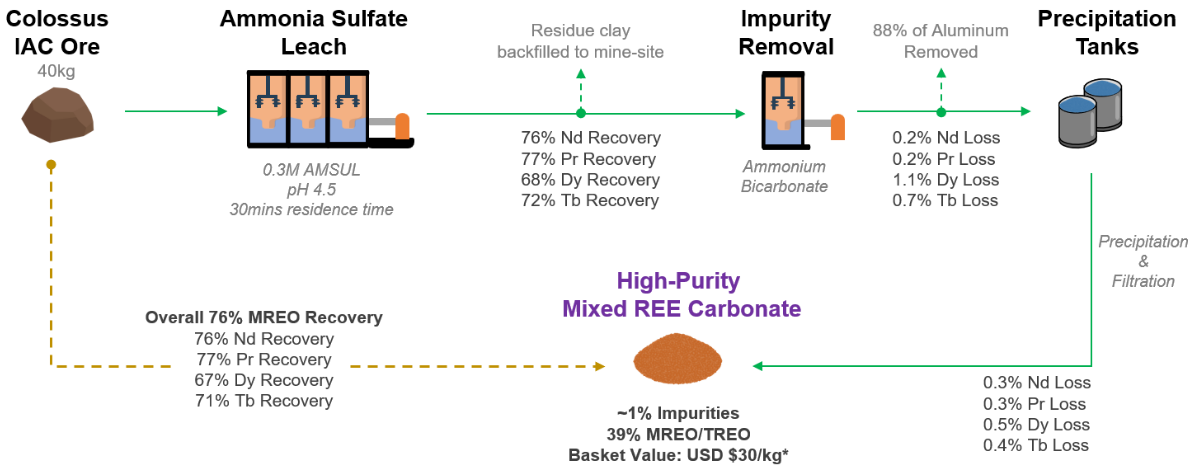

Figure 2: *Simplified, low-cost, proven Process Flowsheet based on ANSTO's true ionic adsorption clay metallurgy. *Basket value based on Shanghai Metals Market prices dated 23rd September 2024.*

The initial diagnostic leach test program results were presented in the Company's announcement on 17th July 2024. They provided clear guidance on the robustness of the front end of the flowsheet design with high recoveries recorded across all testing conditions, including exceptional recoveries using 40% less Ammonia Sulphate at a higher pH, which demonstrates the superior OPEX present in leaching Colossus ore through significantly lowering reagent consumption without compromising MREO recoveries[1].

ANSTO has completed an exhaustive testing program looking at various leach slurry test conditions to confirm desorption efficiency at realistic production slurry densities for the Colossus plant design. From there, best-performing conditions were used as the basis for the impurity removal to determine the appropriate conditions to maximise impurity precipitation whilst minimising rare earth element ('REE') losses. The final testing aspect was determining optimum conditions for MREC precipitation, including target pH, residence time and level of washing required.

The results exemplify the exceptional metallurgical characteristics of the Colossus ore, which appear unique to the Northern Concessions. These results re-affirm that Colossus remains a tier above all IAC Projects in terms of its recoveries and flowsheet efficiency and places the project in a unique position as the premier REE development asset globally:

- Highest MREO recoveries from Colossus Ore to final MREC of 76%.
- MREC produced using a leaching agent of pH4.5 and 0.3M AMSUL, supporting reduced OPEX and lower reagent consumption compared to all peers.
- Premium basket value and MREC product due to world-leading 39% MREO content with ~1% impurity.
- Exceptionally high and unparalleled leaching recoveries for Heavy Rare Earths Dy (68%) and Tb (72%).

Results

Head Assay Data

The Northern Concessions' 40kg bulk composite test completed by ANSTO had 3 random sub-samples prepared to test for head assay data. These returned an average of 4,472ppm TREO and 1,420ppm MREO[1] (Table 2), a testament to the overall higher MREO contents seen within the Colossus resource, leading to a more valuable MREC end-product.

Maiden MREC Final Results

The maiden MREC product at ANSTO delivered the highest known recoveries for all the valuable MREO (Nd, Pr, Dy, Tb) in an MREC product, using a low-cost ammonia-based flowsheet with leaching performed at pH4.5, 0.3M AMSUL, room temperature and a 30-minute residence time.

The impurity removal and MREC precipitation unit operations involve increasing the pH from 4.5 to 7.1 at room temperature and atmospheric pressure. This near-neutral, tight pH band and benign operating conditions have reduced the reagents required in the process design and support a very low OPEX operation. This is mainly due to the higher starting pH of 4.5 in the leaching step, which naturally leads to fewer impurities being desorbed into the solution while requiring fewer reagents to increase the pH for precipitation.

MREC precipitation from ore to the final MREC product achieved world-leading MREO recoveries of 76%, which is attributed to:

- **Recovery of Praseodymium (Pr): 77%**
- **Recovery of Neodymium (Nd): 76%**
- **Recovery of Dysprosium (Dy): 67%**
- **Recovery of Terbium (Tb): 71%**

Within the MREC, the contained TREO has an exceptional grade of 60%, with an even more impressive recovery of MREOs, which made up 39% of the TREO in the MREC, as shown in Table 1 below.

	Head Assay (ppm)	Leaching Recovery (%)	MREC Recovery (%)	MREC TREO Composition	Spot Price Assumption (USD $/kg)	Basket Value Distribution
	Composite Average	0.3M (NH4)2SO4 pH4.5 for 0.5hr	Ore to final MREC preciptation			
La2O3	1,693	76%	**75%**	44.5%	0.57	$0.25
CeO2	750	9%	**9%**	2.4%	1.03	$0.03
Pr6O11	317	77%	**77%**	8.3%	60.82	$5.07
Nd2O3	1,044	76%	**76%**	29.1%	60.82	$17.73
Sm2O3	131	73%	**73%**	3.2%	2.13	$0.07
Eu2O3	30	77%	**77%**	0.8%	27.65	$0.23
Gd2O3	83	75%	**74%**	2.1%	25.31	$0.53
Tb4O7	10	72%	**71%**	0.3%	827.23	$2.12
Dy2O3	49	68%	**67%**	1.2%	249.51	$2.95
Ho2O3	9	68%	**67%**	0.2%	74.07	$0.15
Er2O3	22	64%	**63%**	0.5%	43.95	$0.21
Tm2O3	3	58%	**55%**	0.1%	0.01	$0.00
Yb2O3	15	54%	**51%**	0.3%	14.18	$0.04
Lu2O3	2	54%	**51%**	0.0%	765.56	$0.28
Y2O3	315	66%	**65%**	6.9%	5.95	$0.41
TREO	**4,472**	**64%**	**64%**	**100%**	**Basket Value of MREC, USD $/kg**	**$30.06**
MREO	**32%**	**76%**	**76%**	**39%**		
MREO (ppm)	**1,420**					

Table 1: *Individual Rare Earth Element assays, rare earth oxide ('REO') recovery rates from Ore to MREC, distribution of REO in TREO in Northern Concessions MREC and theoretical basket value of MREC product based on current pricing. MREO = Nd, Pr, Dy, Tb Oxides. Spot Price assumption was based on Shanghai Metal Markets prices on 23 September 2024. Note: The MREC Recovery(%) column also includes any losses from impurity removal, washing and MREC precipitation.*

Most impressively, the table highlights that after the AMSUL leaching step, there are minimal losses of REEs throughout the entire flowsheet to produce a final saleable MREC product, which is groundbreaking.

Impurity Levels

The maiden MREC not only has superior TREO and MREO recoveries, but the benign pH levels and operating conditions have produced a high-purity MREC product, with impurity levels of ~1% as shown in Table 2.

These results were essentially achieved due to the unique characteristics of the Northern Concessions to maintain incredibly high leaching recoveries (including exceptionally high Dy and Tb recoveries) at a higher pH of 4.5 and lower concentration of 0.3M AMSUL – which results in less impurities being desorbed into the solution throughout the flowsheet.

These exceptional results demonstrate that MREC produced from the Northern Concessions is a league above IAC peers with world-leading impurity levels, and bodes well for the ongoing offtake discussions, with downstream refiners looking for MREC products with low impurity levels to reduce their costs when refining MREC into individual rare earth oxides.

	VMM	MEI
Leaching Agent	Ammonia Sulphate pH4.5	Ammonia Sulphate pH4
Impurity Removal Agent	Ammonium Bicarbonate	-
Precipitation Agent	Ammonium Bicarbonate	-
Impurities		
Calcium (Ca)	0.05%	0.55%
Aluminium (Al)	0.37%	0.36%
Nickel (Ni)	0.26%	0.29%
Zinc (Zn)	0.02%	0.19%
Silica (Si)	0.07%	0.14%
Iron (Fe)	0.01%	0.11%
Uranium (U)	0.0079%	0.0057%
Thorium (Th)	<0.001%	0.00004%
Magnesium (Mg)	<0.017%	-
Sodium (Na)	0.18%	-
Others	0.06%	0.40%
Total	**1.04%**	**2.00%**

Table 2: *Impurity composition by weight (%) in oxides within maiden MREC produced from Northern Concessions bulk sample compared with impurity levels reported by other ASX companies within their MREC. Note for VMM both Th and Mg impurity fell below detection limit, hence real impurity is ~1%. See references on page 10 of this announcement for full details.*

These results show that within the MREC, the TREO contains a grade of 60% of the overall MREC, with 99% pure TREO and a remarkable ~1% of impurities. The combination of 39% MREO content within the TREO and low impurities demonstrates Colossus's' potential to generate a substantially higher value and premium product with lower raw material input and lower CAPEX and places the project as the premier IAC development asset on the globe.

Industry Comparison

The MREC production through the entire flowsheet aims to replicate the initial production profile and practical plant operating conditions for Colossus. This groundbreaking work marks another important milestone for the Colossus project.

The results have shown numerous critical aspects where Colossus exceeds peers from start to finish of the flowsheet. These vital aspects, which are unique to the Colossus orebody, have been uncovered through systematic and detailed testing by ANSTO across a vast range of conditions, generating insights on breakthrough characteristics that will materially change the CAPEX and OPEX of the final flowsheet design, including:

- Using a higher pH and lower concentration leaching agent reduces reagent consumption and impurities while maintaining industry-leading REE leaching recoveries.
- Having superior recoveries of MREO (76%) from ore to MREC product for an IAC project.
- Having superior MREO content (39%) within the final basket of the MREC for an IAC project.
- Having the lowest known levels of impurities within the final MREC for an IAC project.

Colossus Basket Value

The recovered distribution of MREO in the MREC product has delivered a premium basket value attributable to negligible losses in Nd and Pr from leaching through to MREC precipitation, alongside exceptional leaching recoveries of Dy and Tb. Furthermore, this was achieved through using an environmentally friendly, low-cost ammonia-based flowsheet.

This maiden MREC testing program demonstrates the unique value proposition at Colossus of having an asset with high MREO grades and recoveries on the ultimate basket value. Table 3 below provides further detail on the current theoretical basket value for the Viridis' maiden MREC compared to IAC industry peers, with price assumptions for rare earth oxides taken from Shanghai Metals Market, dated 23 September 2024.

Peer Comparison of True ASX IAC Projects that have produced MREC (see references on page 10 of this announcement for further information):

		VMM	MEI	IXR
Head Grade TREO		4,472	4,439	848
Head Grade MREO		1,420	~1,015	213
Leaching	Agent	Ammonia Sulphate	Ammonia Sulphate	Ammonia Sulphate
	Time	30 minutes	30 minutes	-
	pH	4.5	4	2
	Molar	0.3	0.5	1
Mixed Rare Earth Carbonate MREO Recovery		**76%**	**73%**	**34%**
Price Assumption (USD $/kg) *SMM 23rd Sept 2024*		Final REO Contents of MREC		
0.57	La2O3	44.53%	57.60%	17.80%
1.03	CeO2	2.43%	1.40%	11.30%
60.82	**Pr6O11**	**8.33%**	**8.60%**	**5.00%**
60.82	**Nd2O3**	**29.15%**	**22.00%**	**21.20%**
2.13	Sm2O3	3.19%	2.40%	3.69%
27.65	Eu2O3	0.83%	0.60%	0.75%
25.31	Gd2O3	2.11%	1.50%	4.22%
827.23	**Tb4O7**	**0.26%**	**0.20%**	**0.62%**
249.51	**Dy2O3**	**1.18%**	**0.80%**	**3.82%**
74.07	Ho2O3	0.21%	0.10%	0.76%
43.95	Er2O3	0.47%	0.30%	2.23%
0.01	Tm2O3	0.05%	0.01%	0.27%
14.18	Yb2O3	0.29%	0.10%	1.63%
765.56	Lu2O3	0.04%	0.01%	0.25%
5.95	Y2O3	6.93%	4.50%	26.50%
MREO Content		**38.92%**	31.60%	30.64%
Basket Value (USD $/kg)		**$30.06**	$23.77	$37.43
Impurities		**1.04%**	2.00%	-

Table 3: *Individual Rare Earth Element assays, recovery rates and final REO distribution in the MREC product. The subsequent basket value of the MREC developed from the Northern Concessions was calculated using prices on the Shanghai Metals Market dated 23 September 2024. MREO = Nd, Pr, Dy, Tb Oxides.*

MEI reference – ASX: MEI announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira"). Note: The MREO head grade has been deduced based on MREO content and recoveries of final MREC product to back-solve original MREO head grade approximation.

IXR references – ASX: IXR announcements dated 4 August 2020 "Good Metallurgical Results from Makuutu Eastern Zone", 20 March 2023 "Makuutu Definitive Feasibility Study", 24 March 2023 "Clarification on Makuutu DFS".

The Northern Concessions MREC is a testament to the unique and exceptional qualities present at Colossus, enabling the project to exceed within the flowsheet design at each step: from head grades, MREO content, MREO leaching recoveries, usage of higher and more benign pH, usage of less raw materials, minimal REE losses, minimal impurities and high MREO basket value – all leading to a premium product. Given the low impurity level provided within the maiden MREC, this will pave the way to negotiate the potential for premium payabilities with offtake partners.

These breakthrough results will underpin the operating conditions used as the basis of the Prefeasibility Study. Based on these outstanding MREC results and proven flowsheet design generated by ANSTO, it means within the initial production profile at Colossus, **for each Million Tonne of ore that goes through the plant, the project has shown the technical capability to recover a net 1,079 Tonnes of Magnetic REE Oxides** – which constitutes **1,039 Tonnes of recovered Nd and Pr Oxide and 40 Tonnes of Dy and Tb Oxide**.

This demonstrates that the Colossus initial feed profile has the geological and technical capability to produce more Nd, Pr, Dy, and Tb Oxides (contained in an MREC) for each Tonne of ore processed than any known IAC project globally. This outlines the importance of these results in displaying the exceptional potential production profile at Colossus, on top of the ability to retain premium basket values due to low impurities and a world-leading MREO basket.

Note: Estimated Production TREO Tonnes per 1Mt processed = 1Mt x TREO Head Grade x TREO Recovery into MREC. Estimated Production of MREO Tonnes per 1Mt processed = 1Mt x MREO Head Grade x MREO Recovery into MREC. i.e. For Colossus this Estimated TREO Production from 1Mt processing is calculated = 1 x 4,472 x 64% = 2,862 Tonnes TREO i.e. For Colossus this Estimated MREO Production from 1Mt processing is calculated = 1 x 1,420 x 76% = 1,079 Tonnes MREO

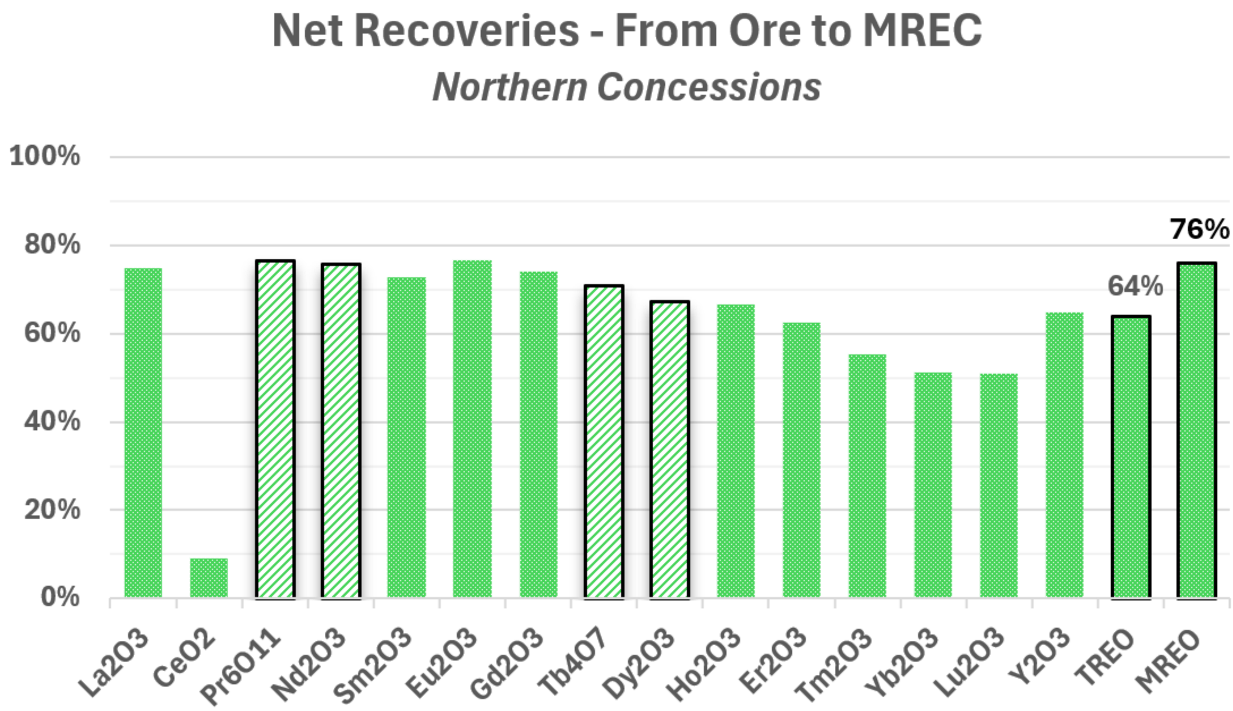

***Figure 4:** Graphic chart of net recoveries achieved from the MREC at Northern Concessions for each Rare Earth Element*

Northern Concessions Bulk Sample Details

The Bulk Composite Sample used to generate the final MREC was formed using 40kg of ionic clay from Northern Concessions. It consisted of 36 samples from 6 drill holes spanning a ~5km distance, with ~85% of the Bulk Sample material coming from diamond cores, which were previously untested metallurgically in the maiden bulk testing at Northern Concession[2].

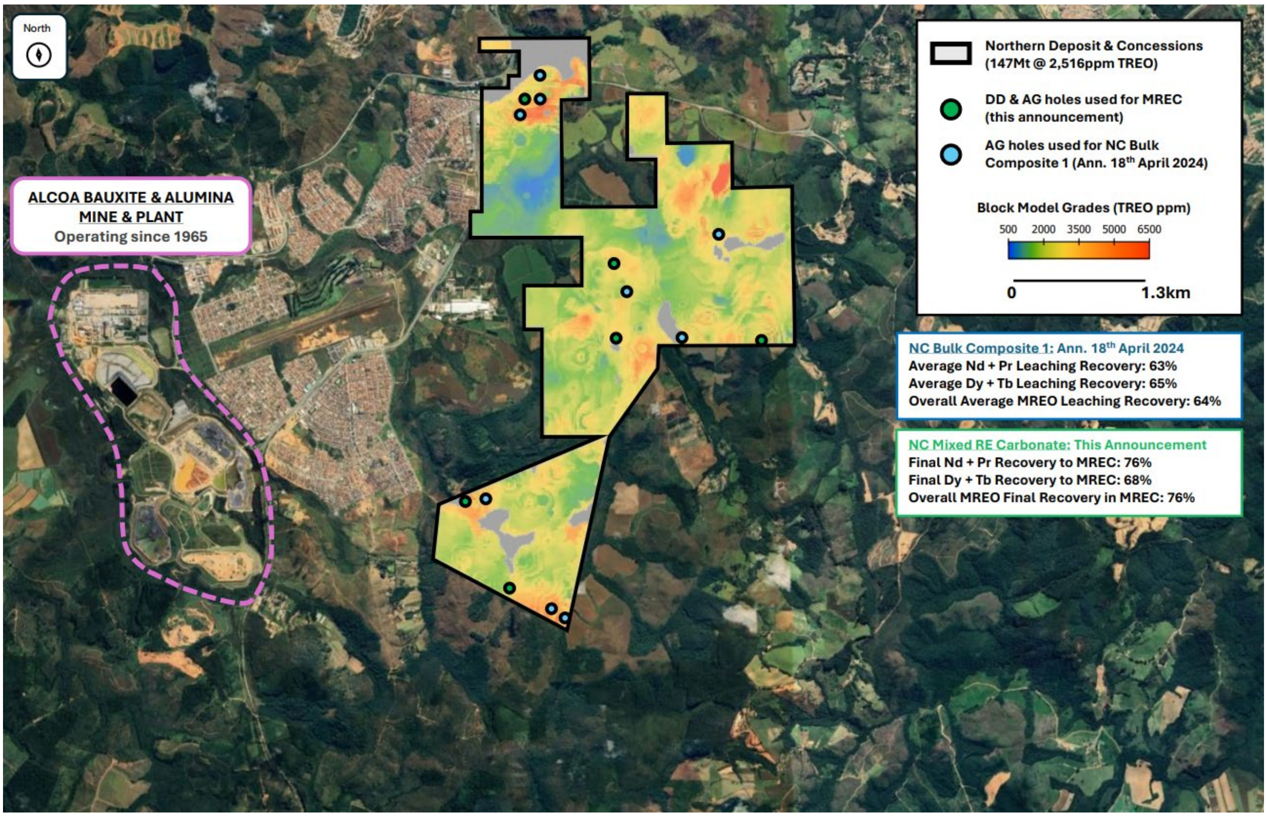

Figure 5: *Northern Concessions Bulk Composite Sample Location Map[2].*

Future Work

Having successfully completed the maiden MREC from the Northern Concessions, Viridis has commenced preparing a representative bulk sample of its Southern cluster of tenements to send to ANSTO to kick off its next phase of metallurgical testing. In parallel, 200m x 200m infill drilling continues at the Southern Concessions, critical environmental and regulatory permitting activities remain on track, and the Prefeasibility Study will commence in due course.

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

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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; and

Maiden Mineral Resource Estimate

Colossus Project Maiden 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
Indicated	Northern Concessions (NC)	50	2,511	145	441	5	25	616	25%
	Cupim South (CS)	10	3,014	204	612	6	31	853	28%
	Capao Da Onca (CDO)	2	2,481	152	414	4	22	592	24%
	Indicated Sub-Total	**62**	**2,590**	**154**	**467**	**5**	**26**	**653**	**25%**
Inferred	Northern Concessions (NC)	97	2,519	151	473	5	26	656	26%
	Cupim South (CS)	18	3,087	199	620	6	34	859	28%
	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	**139**	**2,591**	**158**	**486**	**5**	**27**	**675**	**26%**
GLOBAL RESOURCE (INDICATED & INFERRED)		**201**	**2,590**	**157**	**480**	**5**	**27**	**668**	**26%**

Table 4: *Maiden Mineral Resource Estimate for Colossus REE Project using 1,000ppm TREO Cut-Off Grade. The resource model excludes leached/soil clays, transitional horizon and material under 300ppm MREO[3].*

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 that all material assumptions and technical information referenced in the market announcement continue to apply and have not materially changed.
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. *ASX: VMM announcement dated 17 July 2024, "Significant Breakthrough in Colossus Metallurgical Testing"*
2. *ASX: VMM announcement dated 18 April 2024, "Colossus Achieves Highest Overall Bulk Ionic Recoveries"*
3. *ASX: VMM announcement dated 4 June 2024, "Globally Significant Maiden MRE for Colossus IAC Project"*

Table 2 References and Calculations:

1. *Head grade for VMM – ASX: VMM announcement dated 17 July 2024, "Significant Breakthrough in Colossus Metallurgical Testing", Table 2.*
2. *Note within VMM impurities, the levels of Thorium and Magnesium were below detection limit, hence the overall impurity based on those elements for Colossus is in reality is lower than 1.04%*
3. *Impurities for MEI – ASX: MEI announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira", refer to Table 2 on Page 5.*

Table 3 References and Calculations (also see references directly below Table 3 on page 6 of this announcement):

1. *The prices used to calculate the basket value were based on individual REO prices from Shanghai Metals Market dated 23rd September 2024.*
2. *The "Head Grade MREO" for the composite used to produce MEI's MREC has not been provided in the MEI announcement and was reverse approximated based on recovery figures provided as below:*
   a. *Head Grade of Composite = 4,439ppm TREO (ASX: MEI Announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira", refer to Page 6)*
   b. *TREO recovery into MREC = 53% (ASX: MEI announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira", refer to Table 1 on Page 4)*
   c. *Hence assumed TREO grade recovered into MREC = 4,439 x 0.53 = 2,353ppm TREO*
   d. *MREO/TREO ratio in MREC = 31.5% (ASX: MEI announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira")*
   e. *Hence assumed MREO grade in MREC = TREO*0.315 = 2,353*0.315 = 741ppm MREO*
   f. *Recovery of MREO into MREC = 73%*
   g. *Hence assumed Head Grade MREO = (MREO in MREC)/0.73 = 741/0.73 = ~1,015ppm MREO*
   h. *Note that these do not account for rounding errors and hence can only be taken as an approximation.*
3. *The "Impurities" for MEI were calculated by summing impurity figures from ASX: MEI announcement dated 29 February 2024, "First Mixed Rare Earth Carbonate (MREC) Produced at Caldeira." Refer to Table 2 on Page 5.*
4. *The Head Grades and recoveries for IXR were calculated from the average MREC distribution figures provided in the Stage 1 definitive feasibility study ('DFS') plan in ASX: IXR announcement dated 20 March 2023, "Makuutu Definitive Feasibility Study", refer to Figure 12 on page 17, and ASX: IXR announcement dated 24 March 2023, "Clarification on Makuutu DFS". Calculations have been provided below:*

IXR - Stage 1 DFS Average	Nd	Pr	Dy	Tb	TOTAL MREO	
Head Grade (ppm)	150	42	18	**3**	**213**	(A)
Recovery into MREC	33%	28%	49%	45%		
Recovered Grade (ppm) in MREC	50	12	9	1	**71**	(B)
			IXR - MREO recovery into MREC (B ÷ A)		**34%**	

5. *Molar concentration for IXR has been taken from the ASX: IXR announcement dated 4 August 2020, "Good Metallurgical Results from Makuutu Eastern Zone." It has been assumed that the Stage 1 DFS was done under similar molar concentration and pH2 (whereby the leaching pH has been provided within the DFS, as per the ASX: IXR announcement dated 20 March 2023, "Makuutu Definitive Feasibility Study", refer to Page 13).*

APPENDIX A: SAMPLES USED

Hole ID	Sample ID	From	To	Concession	EAST	NORTH
FZ-AG-0033	FZ-AG-33-11	10.00	11.00	Fazenda	342196.87	7583603.63
FZ-AG-0033	FZ-AG-33-12	11.00	12.00	Fazenda	342196.87	7583603.63
FZ-AG-0033	FZ-AG-33-13	12.00	13.00	Fazenda	342196.87	7583603.63
FZ-AG-0033	FZ-AG-33-14	13.00	14.00	Fazenda	342196.87	7583603.63
FZ-AG-0033	FZ-AG-33-15	14.00	15.00	Fazenda	342196.87	7583603.63
FZ-AG-0026	FZ-AG-26-5	4.00	5.00	Fazenda	340800.18	7583602.58
FZ-AG-0026	FZ-AG-26-6	5.00	6.00	Fazenda	340800.18	7583602.58
FZ-AG-0026	FZ-AG-26-7	6.00	7.00	Fazenda	340800.18	7583602.58
FZ-AG-0026	FZ-AG-26-8	7.00	8.00	Fazenda	340800.18	7583602.58
FZ-DDH-0006	FZ-DDH-006-028	22.69	23.69	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-029	23.69	24.69	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-030	24.69	26.04	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-032	26.04	27.04	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-033	27.04	28.04	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-034	28.04	29.04	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-035	29.04	29.54	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-036	29.54	30.54	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-037	30.54	31.98	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-038	31.98	32.49	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-039	32.49	33.30	Fazenda	340673.14	7584366.98
FZ-DDH-0006	FZ-DDH-006-041	33.30	34.30	Fazenda	340673.14	7584366.98
CJ-DDH-0002	CJ-DDH-002-025	23.32	24.32	Carijo	339870.92	7585996.46
CJ-DDH-0002	CJ-DDH-002-026	24.32	25.07	Carijo	339870.92	7585996.46
CDP-DDH-0010	CDP-DDH-010-010	6.06	6.70	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-011	6.70	7.70	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-012	7.70	8.70	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-015	9.32	10.49	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-016	10.49	11.49	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-017	11.49	12.76	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-018	12.76	13.76	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0010	CDP-DDH-010-020	15.25	16.25	Caminho das Pedras	339296.27	7581953.48
CDP-DDH-0008	CDP-DDH-008-015	11.71	12.71	Caminho das Pedras	339738.62	7581211.03
CDP-DDH-0008	CDP-DDH-008-016	12.71	13.71	Caminho das Pedras	339738.62	7581211.03
CDP-DDH-0008	CDP-DDH-008-018	13.71	14.71	Caminho das Pedras	339738.62	7581211.03
CDP-DDH-0008	CDP-DDH-008-019	14.71	15.71	Caminho das Pedras	339738.62	7581211.03
CDP-DDH-0008	CDP-DDH-008-020	15.71	16.71	Caminho das Pedras	339738.62	7581211.03

APPENDIX B: JORC Code, 2012 Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample retrospectivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	*The samples used for the bulk composite were taken using a powered auger drill machine (open hole), and a diamond drill machine.* ***Auger drill holes:*** • *Each drill site was cleaned, removing leaves and roots from the surface. Tarps were placed on either side of the hole, and samples of soil and saprolite were collected every 1m in advance. They were logged, photographed, and subsequently bagged in plastic bags, and each sample was identified.* ***Diamond drill holes:*** • *The intact drill cores are collected in plastic core trays, and depth markers record the depth at the end of each drill run (blocks).* • *Samples were collected at 1m intervals. In the unconsolidated zone, the core was halved with a metal spatula and bagged in plastic bags, while a powered SA halved the fresh rock, bagged, and each sample was identified.*
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diametre, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	***Powered Auger:*** • *Powered auger drilling employed a motorised post-hole digger with a 2 to 4-inch diameter. All holes were drilled vertically. The maximum depth achieved was 20 metres, the minimum was 2 metres, and the average was 9 metres, providing the hole did not encounter fragments of rocks/boulders within the weathered profile and/or excessive water. Final depths were recorded according to the length of rods in the hole.* ***Diamond Core:*** • *Diamond drilling was conducted vertically and sampled generally at intervals of 1.0m using a Maquesonda MACH 1210 Machine. The drilling used an HWL diamond core of 3.06-inch diameter in the unconsolidated portion, switching to an HQ diamond core 2.63 inches from the depth transitional zone. Drilling within each hole was conducted by the diamond core rig and terminated upon intercepting between 2 to 5 metres of hard-rock material, indicative of penetration into the fresh rock. Diamond drilling was predominantly used non-systematic to gain further lithological understanding and test high-priority auger targets.*
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures are taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	***Auger sample recovery:*** • *Estimated visually based on the sample recovered per 1m interval drilled. Recoveries generally ranged from 75% to 110%. If estimates dropped below 75% recovery in a 1m interval, the field crew aborted the drill hole and redrilled the hole.* ***Diamond drill hole recovery:*** • *Calculated after each run, comparing the length of core recovery vs. drill depth. Overall core recoveries are 97.4%, achieving 96.5% in the regolith target horizon, 98.1% in the transition zone (saprolite), and 99.4% in fresh rock.*
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant*	*Geological descriptions are made using a tablet with the MX Deposit system, which directly connects the geological descriptions to the database in the MX Deposit system managed by the Viridis geologist team.* ***Auger drilling:*** • *Material is described in a drilling bulletin every 1m and photographed. The description is made according to tactile-visual characteristics, such as material (soil, colluvium, saprolite, rock*

Criteria	JORC Code explanation	Commentary
	intersections logged.	*fragments), material colour, predominant particle size, presence of moisture, indicator minerals, and extra observations.* • *The chip trays of all drilled holes have a digital photographic record and are retained at the core facility in Pocos de Caldas.* ***Diamond drilling:*** • *Geological descriptions are made in a core facility, focused on the soil (humic) horizon, saprolite, transition zone, and fresh rock boundaries. The geological depth is honoured and described with downhole depth (not metre by metre). Parameters logged include grain size, texture, colour, mineralogy, magnetism, type of alterations (hydrothermal or weathering) and type of lithologic contact, which can help to identify the parent rock before weathering.* • *All drill holes are photographed and stored at the core facility in Poços de Caldas.*
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	*The bulk sample composite was formed from the composition of 36 samples taken from 6 drill holes, including 4 DDH and 2 auger holes. The weight of each sample ranged from 200g to 2.5kg, with an average weight of 1.2kg per sample. This homogenisation process was carried out at the ANSTO laboratory.* ***Powdered Auger Drilling:*** • *Collection and Labeling: Samples of regolith and saprolite were collected at 1m intervals, placed into clear plastic bags, sealed, and labelled.* • *Weighing and Lab Analysis: The samples were weighed and sent to SGS Geosol for analysis.* • *Sample Preparation (PRP102_E): Upon arrival at the lab, samples were dried at 105°C, crushed to 75% less than 3 mm, homogenised, and passed through a Jones riffle splitter.* ***Diamond Core Drilling:*** • *Collection and Labeling: Samples of diamond cores were taken at 0.5 to 1m intervals from regolith and saprolite. The cores were split longitudinally using a spatula for unconsolidated portions and a rock-cutting saw for hard rock. The samples were placed in labelled plastic bags and sent to ANSTO Laboratory in Australia.* ***ANSTO*** *The Bulk composite was dried at 60°C, homogenised and crushed to <1 mm to ensure sample representativity in subsequent sub-sampling.* *Portions of the bulk composite were split for diagnostic leach tests and head assays. ALS Brisbane took three 50g sub-samples and tested them for head assays (ICMPS). The average of these three results was used to determine the overall head assay for the Bulk Composite.* *For each diagnostic leach test, 80g sub-samples were split and tested under a 4% S/L ratio with ambient room temperature (~22°C). The final liquor was assayed using ICP-MS for rare earth elements ('REEs') by ALS Brisbane and ICP-OES for assaying impurities by ANSTO.*
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	*ANSTO conducted the assay data and laboratory tests for the Colossus Project, focusing on the production of a Mixed Rare Earth Carbonate (MREC). The primary objective of the work was to develop and optimise a low-cost, simple desorption process followed by a two-stage precipitation process to produce a marketable MREC from composite samples of ionic adsorption clay.* ***Flowsheet for MREC Production:*** *The process included the following key steps:* *1. Desorption: Leaching was performed using ammonium sulphate (0.3M) at pH 4.5, room temperature, and a 30-minute residence time.* *2. Impurity Removal: Using ammonium bicarbonate, a two-stage precipitation process increased the pH from 4.5 to 7.1 under ambient conditions.*

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>3. MREC Precipitation: Ammonium bicarbonate was used as a precipitating agent to produce the final MREC product.
Materials and Products Analyzed:
- Raw Material: Ionic clay composite samples from the Northern concessions of the Colossus Project.
- Final Product: MREC with 60% recovery of TREO containing 39% of MREO and impurity levels ~1%.
- Byproducts: Residual liquids from the desorption and precipitation stages were analysed to assess impurity removal efficiency.
Laboratories and Analytical Techniques:
- ANSTO: Conducted most of the process tests and analyses using the following techniques:
- XRF for major elements, including Al, Ca, Fe, K, Mg, Mn, Na, Si, and others.
- ICP-OES for in-house analysis of major elements.
- ICP-MS for rare earth elements, including Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, U, Y, and Yb.
- ALS Geochemistry Laboratory: Performed external analysis of rare earths and radionuclides using lithium tetraborate fusion digest followed by ICP-MS.
These tests confirmed the high quality of the MREC product, which recovers MREOs well, has low impurity levels, and complies with market requirements.</td></tr>
<tr><td>Verification of sampling and assaying</td><td>• The verification of significant intersections by either independent or alternative company personnel.
• The use of twinned holes.
• Documentation of primary data, data entry procedures, data verification, and data storage (physical and electronic) protocols.
• Discuss any adjustment to assay data.</td><td>The sampling and assaying procedures for the Colossus Project were independently verified through multiple stages of quality control. The verification process involved:
• Independent Review: All assay results from the ANSTO laboratory were cross-checked against industry standards. To ensure accuracy, the laboratory followed rigorous internal protocols for duplicate testing and cross-verification.
• Duplicate Sampling: Multiple duplicate samples were collected and assayed to verify consistency in results. Head assays and test work were replicated to confirm the reliability of REE content, showing minimal variance between samples.
• External Verification: In addition to internal ANSTO tests, some samples were sent to the ALS Geochemistry Laboratory for independent analysis using ICP-MS. The results from both laboratories showed a strong correlation, further confirming the reliability of the assay data.
• Reproducibility: Diagnostic leach tests and desorption assays were repeated under identical conditions to verify reproducibility. The consistency of the results across different stages of testing supports the accuracy of the sampling and assaying methods used.
• These verification measures confirm the reliability and integrity of the sampling and assaying processes for the Colossus Project.
The only adjustments to the data were made transforming the elemental values into the oxide values. The conversion factors used are included in the table below.
<table><tr><th>Element</th><th>Oxide</th><th>Factor</th></tr><tr><td>Ce</td><td>CeO_2</td><td>1.2284</td></tr><tr><td>La</td><td>La_2O_3</td><td>1.1728</td></tr><tr><td>Sm</td><td>Sm_2O_3</td><td>1.1596</td></tr><tr><td>Nd</td><td>Nd_2O_3</td><td>1.1664</td></tr><tr><td>Pr</td><td>Pr_6O_{11}</td><td>1.2082</td></tr><tr><td>Dy</td><td>Dy_2O_3</td><td>1.1477</td></tr><tr><td>Eu</td><td>Eu_2O_3</td><td>1.1579</td></tr><tr><td>Y</td><td>Y_2O_3</td><td>1.2699</td></tr><tr><td>Tb</td><td>Tb_4O_7</td><td>1.1762</td></tr></table></td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Gd Gd_2O_3 1.1526 Ho Ho_2O_3 1.1455 Er Er_2O_3 1.1435 Tm Tm_2O_3 1.1421 Yb Yb_2O_3 1.1387 Lu Lu_2O_3 1.1371 • *The TREO (Total Rare Earth Oxides) was determined by the sum of the following oxides: CeO_2, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, La_2O_3, Lu_2O_3, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Tb_4O_7, Tm_2O_3, Y_2O_3, Yb_2O_3. For the MREO (Magnetic Rare Earth Oxides), the following oxides were considered: Dy_2O_3, Nd_2O_3, Pr_6O1_1, and Tb_4O_7.*
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	***Diamond and auger collars*** • *The positioning of the drill has been achieved with high precision using a GPS RTK (Real-Time Kinematic) system CHC i73. This sophisticated GPS provides real-time corrections. The horizontal accuracy in RTK is 8 mm + 1 ppm RMS, and the Vertical accuracy is 15 mm + 1 ppm RMS, with a startup time of under 10 seconds and a Startup Reliability greater than 99.9%. The project's grid system is based on the SIRGAS 2000 UTM coordinate system. This universal grid system facilitates consistent data interpretation and integration with other geospatial datasets.* • *Benchmark and control points were established within the project area to ensure the quality and reliability of the topographic location data.*
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• *The auger drilling was conducted on a regular grid with 200 x 200 metres spacing. This grid spacing provides a detailed exploration framework suitable for the area of interest. It aims to assist in defining our initial resource and offer a foundational understanding of the geological and grade continuity in the targeted zone.* • *Diamond drilling, on the other hand, is not being conducted on a predefined exploration grid. Instead, exploratory boreholes are being drilled to provide insights into specific areas of interest and potential mineralisation zones. The exploratory nature of the diamond drilling further supports the overall geological understanding, although its data spacing is not predefined.* • *The sampling intervals for each drill hole are indicated in Appendix A.*
Orientation of data about geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of crucial mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• *All drill holes were vertically oriented, which is deemed appropriate given the nature of the deposit. The deposit in question is a supergene deposit with a much larger areal extent than the thickness of the mineralised body. This type of deposit tends to be horizontally extensive with relatively consistent thickness.* • *Given the vast area extent of the deposit and its relatively consistent thickness, vertical drilling is best suited to achieve unbiased sampling. This orientation allows for consistent intersecting of the horizontal mineralised zones and provides a representative view of the overall geology and mineralisation.* • *There is no indication that drilling orientation has introduced any sampling bias about the crucial mineralised structures. The drilling orientation aligns well with the deposit's known geology, ensuring accurate representation and unbiased sampling of the mineralised zones. Any potential bias due to drilling orientation is considered negligible in this context.*
Sample security	• *The measures taken to ensure sample security.*	• *All samples were collected by field personnel and carefully packed in labelled plastic bags. Once packaged, the samples were transported directly to the SGS-GEOSOL or ANSTO laboratories. The samples were secured during transportation to ensure no tampering, contamination, or loss. Chain of custody was maintained from the field to the laboratory, with proper documentation accompanying each batch of samples to ensure transparency and traceability of the entire sampling process. Using a reputable laboratory further reinforces the sample security and integrity of the assay results.*

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *As of the current reporting date, no external audits or reviews have been conducted on the sampling techniques, assay data, or results obtained from this work. However, internal processes and checks were carried out consistently to ensure the quality and reliability of the data.*

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• *All samples were acquired from tenements owned by Viridis Mining and Minerals Ltd, following an agreement from the Varginha Parties. Specifically:* *Fazenda Prospect:* • *ANM 009.031/1966* *Area: 446.66 hectares* *Status: Mining Licence* *Location: Northern Concessions* *Caminho das Pedras Prospect:* • *ANM 007.737/1959* *Area: 182.71 hectares* *Status: Mining Licence* *Location: Northern Concessions* *Carijo Prospect:* • *ANM 830.113/2006* *Area: 137.36 hectares* *Status: Mining Application* *Location: Northern Concessions*
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *Historical exploration in the area involved significant efforts by various entities, including the Colossus and Caldeira Projects, which share the same geological context. Varginha Mineração conducted regional drilling exercises using a powered auger drill rig, resulting in open holes. This historical data offers crucial context, supplementing current exploration endeavours in comprehending the region's geological potential.*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *The geology of the region where the deposit is located can be summarised as follows:* • *Deposit Nature: The deposit under study is recognised as an Ionic Adsorption Clay Rare Earth Element (REE) deposit. Its spatial positioning is within and adjacent to the renowned Poços De Caldas Alkaline massif complex.* • *Poços de Caldas Complex: This geological entity stands as one of the most extensive alkaline massif intrusions globally, enveloping an area of roughly 800 km². It stretches across the Brazilian states of São Paulo and Minas Gerais. From a macro perspective, it portrays a near-circular structure with an approximate diameter of 30 km. This formation resembles a collapsed caldera. Delving deeper, the dominant rocks within the alkaline complex encompass phonolite, nepheline syenites, sodalite syenites, and many volcanic rocks. This diverse geological setting has played a crucial role in dictating mineral occurrences and potential mining prospects.* • *REE Mineralisation: The specific REE mineralisation highlighted in this disclosure leans towards the Ionic Clay type. Evidence pointing to this is mainly derived from its occurrence within the saprolite/clay zone of the weathering profile of the Alkaline granite basement. The enriched MREO (Medium Rare Earth Oxides) composition also attests to this classification.*

Criteria	JORC Code explanation	Commentary
		• *Relevant Additional Information: The Ionic Adsorption Clay Rare Earth Element deposits, particularly in regions like Poços de Caldas, have recently gained significant attention due to the global demand surge for rare earth elements. These elements, especially the heavy rare earths, have vital applications in modern technologies such as renewable energy systems, electronics, and defence apparatus. The ability of these deposits to offer relatively environmentally friendly mining prospects compared to traditional hard rock REE mines further enhances their appeal.* • *Given the strategic importance of REEs in modern industries, a thorough understanding and exploration of such geologies becomes paramount. The unique geological setting of the Poços de Caldas complex presents both opportunities and challenges, making further detailed study and research essential for sustainable exploitation.*
Drill hole Information	• *A summary of all information material to the understanding of the exploration results, including a tabulation of the following information for all Material drill holes:* ○ *Easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *Dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	*The list of drill holes and samples considered in this work can be found in Appendix A.* • *Diamond Drilling:* *Total number of holes: 4* • *Auger Drilling:* *Total number of holes: 2*
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• *Data were compiled without selective exclusion. All analytical methods and aggregation were carried out according to industry best practices, as detailed in previous discussions.*
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• *The vertical drilling orientation is suitable for accurately representing the supergene deposit's mineralised zones, which have a larger areal extent than thickness. This orientation ensures unbiased sampling of the mineralisation. Due to the geometry of the mineralisation and the vertical drill holes, downhole lengths closely represent the true widths of the mineralised zones, though further studies would enhance precision. In cases of potential discrepancies between downhole lengths and true widths, they are noted as "downhole length, true width not known".*
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view*	*The data presented in this report helps readers better understand the information. Various diagrams and supplementary information are included in the document, enhancing the clarity and accessibility of the geological findings and exploration results.*

Criteria	JORC Code explanation	Commentary
	of drill hole collar locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• *The data presented in this report strives to provide a transparent and holistic view of the exploration activities and findings. All the information, ranging from sampling techniques, geological context, prior exploration work, and assay results, has been reported comprehensively. Where relevant, cross-references to previous announcements have been provided to ensure continuity and clarity. Including diagrams, such as geological maps and tables, supports a more in-depth understanding of the data. It's noteworthy to mention that while positive results have been highlighted, the nature of the samples, particularly their origin from either saprolitic clays or bauxite, has been distinctly reported to ensure a balanced view. In essence, this report faithfully represents the exploration activities and findings without any undue bias or omission.*
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• *There is no additional substantive exploration data to report currently.*
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• *Having successfully completed the maiden MREC from the Northern Concessions, Viridis has commenced preparing a representative bulk sample of its Southern cluster of tenements to send to ANSTO to kick off its next phase of metallurgical testing. In parallel, 200m x 200m infill drilling continues at the Southern Concessions, critical environmental and regulatory permitting activities remain on track, and the Prefeasibility Study will commence in due course.*