

ASX Release / 8 April 2026

# Historical Metallurgical Results Support HREE Development at Mount Ridley

## Metallurgical coverage over HREE MRE highlights exceptional recoveries

### Highlights

- Historical metallurgical testwork confirms **highly encouraging heavy rare earth leach response across the Grass Patch Complex**, supporting the recently announced HREE Mineral Resource
- **Heavy rare earth recoveries up to 86.5%** achieved under conventional hydrochloric acid leach conditions
- Current HREE Mineral Resource contains 41% HREO, including high value heavy rare earths such as Dy, Tb and Y
- **Heavy rare earths leach more effectively than light rare earths at Mount Ridley**
- Consistent heavy rare earth extraction achieved across multiple Grass Patch Complex prospects, including Vincent, Jody and Winston
- **Metallurgical performance is strongest within the Grass Patch Complex**, associated with its mafic-dominated lithological setting, which differs from typical regolith-hosted REE systems
- Results demonstrate Mt Ridley mineralisation is **amenable to conventional hydrometallurgical processing**, providing a pathway for further development
- Testwork not originally designed for current HREE focus, results now considered highly relevant
- Excellent light magnetic rare earth (NdPr) **recoveries up to 85.2%**, with **Vincent averaging 76.9%** recovery under optimal conditions
- Initial beneficiation testwork achieved **upgrade factors of up to 202%**, demonstrating potential to significantly improve feed grade prior to leaching
- Results provide a **strong technical foundation for ongoing metallurgical optimisation and flowsheet development**, including potential scandium and gallium by-product recovery

Mount Ridley Mines Limited (ASX: MRD) ("Mount Ridley" or "the Company") is pleased to report that a review of historical metallurgical testwork has confirmed strong heavy rare earth leach response across the Grass Patch Complex, directly supporting the Company's recently defined HREE Inferred Mineral Resource at Keiths's (Block 1) and Winston's (Block 2).

Importantly, all of this testwork predates the Company's current focus on the Grass Patch Complex and was not originally designed to target heavy rare earth dominant mineralisation. The results are nonetheless considered directly relevant and demonstrate consistent heavy rare earth leach response, providing confidence that the historical dataset supports the current heavy rare earth mineral resource estimate. Potential for optimization of these results is now being investigated.

These historical programs provide a strong technical baseline, demonstrating that heavy rare earth elements within the Grass Patch Complex respond favourably to leaching, which aligns with the high HREO composition of the current Mineral Resource.

Testwork conducted across Vincent, Winstons and Jody confirms that key heavy rare earth elements, including dysprosium (Dy) and terbium (Tb) respond favourably to hydrochloric acid leaching, with extraction efficiencies increasing significantly under optimised conditions. Beneficiation and leach testwork also demonstrate encouraging metallurgical response, providing a strong foundation for further optimisation and flowsheet development.

The metallurgical program evaluated rare earth extraction behavior of rare earth elements using acid leaching testwork on representative samples from several prospects across the Grass Patch Complex including Vincent, Winstons, Jody. The results confirm that heavy rare earth elements (HREE) can be extracted from multiple mineralised zones using conventional hydrometallurgical techniques.

The testwork program was managed by Independent Metallurgical Operations Pty Ltd (IMO) and involved beneficiation and acid leach amenability testwork conducted by Simulus Laboratories, Metallurgy Pty Ltd and ANSTO.

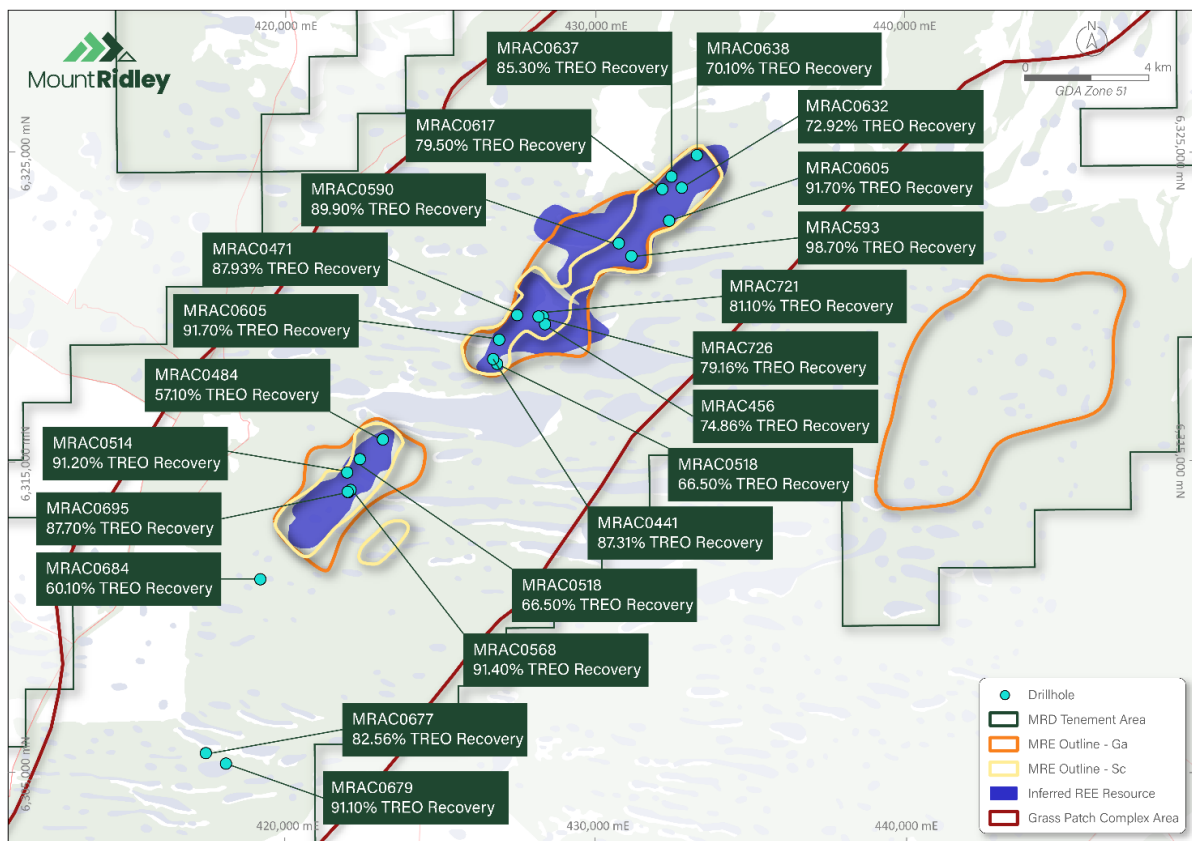
The historical metallurgical programs at Mount Ridley provide a strong foundation for further optimisation using advanced metallurgical approaches in collaboration with international partners.

The results provide further evidence supporting the Project's critical mineral potential, complementing the defined heavy rare earth resource and supporting the continued advancement of metallurgical optimization programs aimed defining a practical and scalable processing pathway for Grass Patch mineralisation, while reinforcing Mount Ridley's objective to develop a multi element critical minerals project capable of contributing to the emerging Australian and allied supply chain for strategic metals.

**Mount Ridley Managing Director & CEO, Mr Allister Caird commented:**

*"These historical metallurgical results clearly show a strong heavy rare earth response across the Grass Patch Complex. They weren't generated with our current focus on Keith's (Block 1) and Winston's (Block 2) in mind, but they've aged well and are directly relevant to where we are today.*

*The consistent leach performance of heavy rare earth elements is particularly important given the composition of our Mineral Resource. Importantly, this gives us a solid technical foundation to build from as we move into the next phase of metallurgical work, including our collaboration with Lawrence Livermore National Laboratory."*



**Figure 1 – Mount Ridley MRE Location Map highlighting drillholes with high Total Rare Earth Oxide (TREO) recoveries**

## Background Metallurgical Testwork from 2021 to 2023

During October 2021, Mt Ridley reported outstanding metallurgical recoveries utilising a weak aqua regia leach, confirming the highly favourable extractive characteristics of the mineralisation. Testwork results demonstrated consistently strong Total Rare Earth Oxide (TREO) recoveries across multiple drillholes, ranging from 57% to exceptional recoveries of up to 98.7%. Importantly most samples returned recoveries exceeding 80%, reinforcing the project's amenability to conventional processing techniques. Several standout drillholes, including MRAC0593 (98.7%), MRAC0605 (91.7%), MRAC0514 (91.2%) and MRAC0568 (91.4%) demonstrated consistent extraction performance across multiple zones (ASX Announcement, 21 October 2021, "Encouraging Rare Earth Extraction Results").

**Table 1** - Drill hole intersection grades when analysed by Fusion, with the modified aqua regia digestion (AR) technique result

Hole Id	Prospect	Sample Interval	Fusion	Aqua Regia	Recovery
MRAC0590	Winston's	MRAC0590: 24 to 36m	12m at 1,231 ppm TREO	12m at 1,107 ppm TREO	89.90%
MRAC0593	Winston's	MRAC0593: 24 to 30m	6m at 2,006 ppm TREO	6m at 1,980 ppm TREO	98.70%
MRAC0605	Winston's	MRAC0605: 36 to 47m	11m at 1,623 ppm TREO	11m at 1,488 ppm TREO	91.70%
MRAC0617	Winston's	MRAC0617: 24 to 36m	12m at 1,540 ppm TREO	12m at 1,224 ppm TREO	79.50%
MRAC0637	Winston's	MRAC0637: 16 to 23m	7m at 1,338 ppm TREO	7m at 1,141 ppm TREO	85.30%
MRAC0638	Winston's	MRAC0638: 24 to 40m	16m at 1,581 ppm TREO	16m at 1,109 ppm TREO	70.10%
MRAC0721	Winston's	MRAC0721: 52 to 68m	16m at 2,119 ppm TREO	16m at 1,718 ppm TREO	81.10%
MRAC0439	Winston's	MRAC0439: 40 to 48m	8m at 2,349 ppm TREO	8m at 1,871 ppm TREO	79.65%
MRAC0456	Winston's	MRAC0456: 28 to 38m	10m at 1,850 ppm TREO	10m at 1,385 ppm TREO	74.86%
MRAC0632	Winston's	MRAC0632: 4 to 17m	13m at 1,289 ppm TREO	13m at 940 ppm TREO	72.92%
MRAC0474	Winston's	MRAC0474: 32 to 50m	18m at 879 ppm TREO	18m at 788 ppm TREO	89.65%
MRAC0471	Winston's	MRAC0471: 28 to 39m	11m at 1,259 ppm TREO	11m at 1,107 ppm TREO	87.93%
MRAC0726	Winston's	MRAC0726: 40 to 47m	7m at 1,857 ppm TREO	7m at 1,470 ppm TREO	79.16%
MRAC0677	Winston's	MRAC0667: 36 to 40m	4m at 3,044 ppm TREO	4m at 2,513 ppm TREO	82.56%
MRAC0441	Winston's	MRAC0441: 20 to 25m	5m at 2,301 ppm TREO	5m at 2,009 ppm TREO	87.31%
MRAC0484	Keith's	MRAC0484: 32 to 40m	8m at 3,357 ppm TREO	8m at 1,916 ppm TREO	57.10%
MRAC0514	Keith's	MRAC0514: 16 to 21m	5m at 1,261 ppm TREO	5m at 1,150 ppm TREO	91.20%
MRAC0518	Keith's	MRAC0518: 16 to 21m	5m at 3,950 ppm TREO	5m at 2,627 ppm TREO	66.50%
MRAC0568	Keith's	MRAC0568: 32 to 38m	6m at 1,882 ppm TREO	6m at 1,720 ppm TREO	91.40%
MRAC0695	Keith's	MRAC0695: 24 to 40m	16m at 1,136 ppm TREO	16m at 996 ppm TREO	87.70%
MRAC0711	Keith's	MRAC0711: 16 to 24m	8m at 2,792 ppm TREO	8m at 2,215 ppm TREO	79.30%
MRAC0679	Marcellus	MRAC0679: 16 to 28m	12m at 914 ppm TREO	12m at 833 ppm TREO	91.10%
MRAC0684	Tyrrell's	MRAC0684: 24 to 31m	7m at 1,503 ppm TREO	7m at 903 ppm TREO	60.10%

In 2023, Independent Metallurgical Operations Pty Ltd (IMO) commenced further metallurgical testwork to advance the understanding of processing pathways for the project. This program included beneficiation testwork undertaken by Simulus Laboratories, alongside acid leach amenability testing conducted by Metallurgy Pty Ltd and the Australian Nuclear Science and Technology Organisation (ANSTO). Samples were collected from several deposits within the project area including Vincent, Winstons, Mia, Butch, Jody and Fabian prospects.

These results confirm the technical potential to upgrade and extract rare earth elements from Mt Ridley mineralisation, with heavy and magnetic rare earth elements demonstrating stronger leach response than light rare earth elements, supporting continued evaluation of processing pathways and advancement of development studies.

### Beneficiation Testing

Beneficiation testing was initiated following the return of very high silica assays from the various prospects hosted in clays with a felsic rock protolith. Beneficiation is a process which removes barren

minerals from mineralisation to achieve an improvement in grade. Screen beneficiation tests were undertaken by the Simulus Group on nineteen (19) samples from 13 drill holes (**Error! Reference source not found.2**). Samples were from 6 of the 11 prospects that form the Mount Ridley REE Project. A range of screens with apertures between 500 micron (µm) and 25 µm were used, with results showing that optimum beneficiation, being the relationship between mass rejected and REE recovered, was achieved by screening at 75 µm, indicating strong potential to improve the Mount Ridley feed grade prior to leaching.

Screen beneficiation results returned an excellent average upgrade of 164% from Mia and Jody Prospects with a maximum upgrade of 202% returned from a Vincent sample. Tests show that over 80% of the TREO is concentrated within 50% of the sample mass, allowing the remaining barren material to be rejected through simply screening at -75 microns (Table 2) (ASX Announcement, 6 July 2023 "Excellent Beneficiation Test Results Lift REE Grades")

Results for samples at -75 microns included:

- 172% upgrade (2,771 ppm to 4,759 ppm TREO) from Mia MRAC1180 - 9m to 17m.
- 140% upgrade (1,477 ppm to 2,062 ppm TREO) from Mia MRAC1184 - 30m to 59m.
- 156% upgrade (6,304 ppm to 9,848 ppm TREO) from Mia MRAC1188 - 69m to 74m.
- 151% upgrade (1,480 ppm to 2,229 ppm TREO) from Jody MRAC1162 - 18m to 53m.
- 162% upgrade (2,470 ppm to 4,003 ppm TREO) from Vincent MRDD0029 - 30m to 34m.
- 202% upgrade (498 ppm to 1,007 ppm TREO) from Vincent MRAC1109 - 39m to 56m.

**Table 2 - Summary of Screen Beneficiation Results at -75 Microns.**

Prospect	Drillhole Sample Id	Mass		Head	-75um Grade			-75um Recovery			Grade Upgrade		
		Recovery	Reject	TREO	HREO	LREO	TREO	HREO	LREO	TREO	HREO	LREO	TREO
		-75um %	+75um %	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Mia	MRDD044 29-36m	38.5	61.5	905	371	1406	1758	70%	76%	75%	181%	197%	194%
Mia	MRAC1180 9-17m	52.4	47.6	2771	576	4257	4759	88%	90%	90%	167%	172%	172%
Mia	MRAC1184 30-59m	63.8	36.2	1477	212	1885	2062	82%	90%	89%	129%	141%	140%
Mia	MRAC1186 45-66m	56.9	43.1	698	213	892	1093	91%	89%	89%	159%	156%	157%
Mia	MRAC1188 57-63m	46.5	53.5	6304	2462	7477	9848	69%	74%	73%	148%	159%	156%
		51.6	48.4					80%	84%	83%	157%	165%	164%
Jody	MRAC1146 33-44m	46.0	54.0	1033	554	1289	1834	71%	87%	82%	155%	190%	177%
Jody	MRAC1162 18-53m	49.0	51.0	1480	276	1987	2229	79%	73%	74%	160%	149%	151%
		47.5	52.5					75%	80%	78%	158%	169%	164%
Vincent	MRDD0029 30-34m	56.6	43.4	2470	1698	2299	4003	90%	93%	92%	159%	165%	162%
Vincent	MRDD0029 34-39m	66.8	33.2	1366	516	1246	1752	79%	89%	86%	118%	133%	128%
Vincent	MRAC1101 39-51m	68.0	32.0	1289	649	856	1506	79%	79%	79%	117%	117%	117%
Vincent	MRAC1109 39-56m	40.8	59.2	498	165	855	1007	80%	83%	83%	196%	203%	202%
		58.1	41.9					82%	86%	85%	148%	155%	152%
Winston	MRDD0036 41-51m	73.8	26.2	814	31	975	985	88%	89%	89%	119%	121%	121%
Winston	MRDD0036 51-52.6m	69.2	30.8	8952	1113	10854	11767	91%	91%	91%	131%	131%	131%
Winston	MRAC1209 24-39m	57.6	42.4	997	82	1339	1394	64%	82%	81%	110%	142%	140%
		66.9	33.1					81%	87%	87%	120%	132%	131%

<b>Butch</b>	MRDD0038 35-58m	31.4	68.6	1217	47	1386	1405	42%	36%	36%	133%	114%	115%
<b>Butch</b>	MRDD0038 62-70m	73.6	26.4	1600	61	1748	1772	78%	82%	81%	106%	111%	111%
<b>Butch</b>	MRDD0038 70-77m	56.0	44.0	2281	57	2937	2932	84%	72%	72%	149%	128%	129%
		53.6	46.4					68%	63%	63%	130%	118%	118%

### Acid Leach Test Results

The metallurgical testwork confirms that the Mount Ridley Project responds favourably to conventional hydrometallurgical extraction techniques (ASX Announcement, 21 September 2023. "Leach tests achieve up to 85% recovery of Magnet REE"). Very high extraction rates of rare earth elements (REE) were achieved using a simple hydrochloric acid leach under conventional processing conditions.

**Table 3 - Summary of Leach HREE and Magnet REE Results**

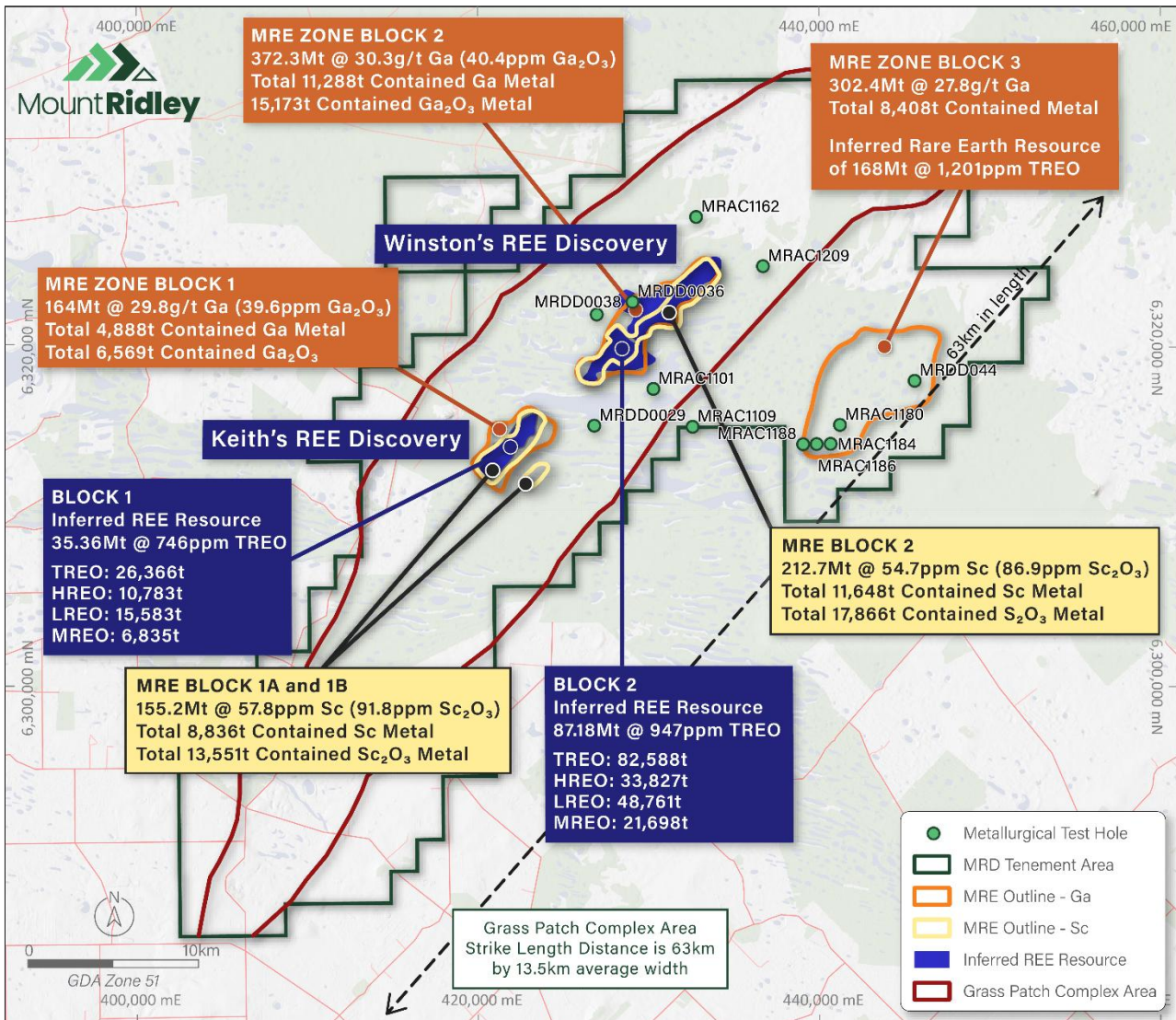
Prospect	Drillhole Sample Id	Leach Results (HREE Recovery %)	Leach Results (Magnet REE Recovery %)
<b>Mia</b>	MRAC1180	<b>62.26%</b>	<b>42.39%</b>
<b>Mia</b>	MRAC1184	<b>49.27%</b>	<b>28.85%</b>
<b>Mia</b>	MRAC1186	<b>56.74%</b>	<b>41.50%</b>
<b>Mia</b>	MRAC1188	<b>30.90%</b>	<b>76.90%</b>
<b>Vincent</b>	MRAC1101	<b>36.14%</b>	<b>68.85%</b>
<b>Vincent</b>	MRAC1109	<b>50.46%</b>	<b>74.73%</b>
<b>Vincent</b>	MRDD0029 30-34m	<b>32.88%</b>	<b>78.88%</b>
<b>Vincent</b>	MRDD0029 34-39.2m	<b>47.54%</b>	<b>85.24%</b>
<b>Winstons</b>	MRDD0036 41-51m	<b>86.55%</b>	<b>39.46%</b>
<b>Winstons</b>	MRDD0036 51-52.6m	<b>38.72%</b>	<b>26.73%</b>
<b>Winstons</b>	MRAC1209	<b>23.74%</b>	<b>14.87%</b>
<b>Jody</b>	MRAC1162	<b>26.34%</b>	<b>18.83%</b>

Table 3 demonstrates consistently encouraging rare earth leach recovery performance across multiple prospects supporting the strong development potential of the Mt Ridley Project. Heavy rare earth (HREE) leach recoveries average around **~50%** across the Jody, Mia and Winstons prospects, with individual results reaching up to **~86.5%**, indicating that a significant proportion of the valuable heavy rare earth elements can be effectively extracted through leaching.

Notably, the highest heavy rare earth leach response was achieved at Winstons (Block 2), which forms part of the current Mineral Resource, while results from other prospects were derived from areas outside the defined Mineral Resource footprint.

At the same time, several prospects also show **strong magnet recovery responses**, particularly at **Vincent where recoveries reach up to ~85%**, suggesting the presence of magnetically recoverable REE-bearing minerals that could support beneficiation pathways. Importantly, the dataset demonstrates **multiple metallurgical pathways across the project**, with some prospects showing strong leach performance while others display excellent magnetic recoveries. This is positive from a development perspective, as it demonstrates consistent underlying heavy rare earth behaviour while

providing flexibility to optimise processing approaches across different mineralisation zones, supporting the broader economic potential of the rare earth mineralisation.



**Figure 2 – Mount Ridley MRE Location Map highlighting some of the metallurgical drillhole testwork recoveries**

Importantly, magnet rare earth elements (Pr, Nd, Tb and Dy) recorded **very strong recoveries at Vincent**, averaging **76.9% extraction under optimal conditions**, with individual tests returning recoveries as high as **85.2%**.

These results demonstrate **substantial liberation and dissolution of key heavy rare earth elements**, particularly dysprosium and terbium which are critical for high-performance permanent magnets used in electric vehicles, wind turbines, defence technologies and advanced electronics. Global supply of heavy rare earths remains highly constrained, with production dominated by a limited number of non-Western allied jurisdictions.

### Strategic Plans and Forward Work

Mount Ridley's near-term objective is to incorporate scandium and gallium into the broader heavy rare earth development program as secondary minerals, providing potential upside to project

economics. The Company has commenced planning for a series of metallurgical studies aimed at evaluating combined recovery of rare earths and scandium through the production of a mixed rare-earth carbonate product with gallium-scandium and other critical minerals recovered as secondary outputs.

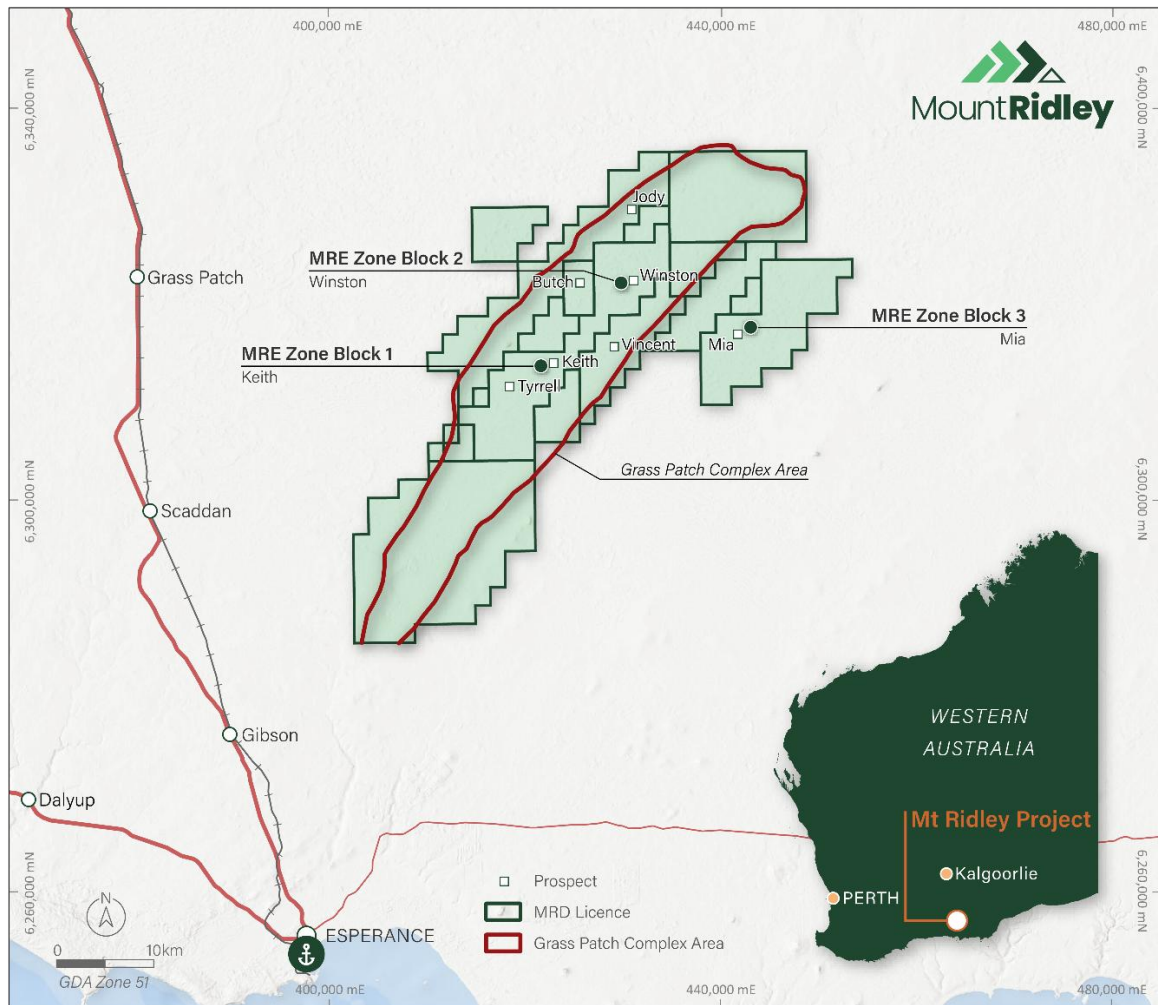
Initial discussions have begun with Australian and international research groups and processing specialists to design optimised extraction and purification pathways suitable for clay-hosted critical-mineral systems. Testwork will also investigate beneficiation options and hydrometallurgical processes such as solvent extraction and ion exchange for scandium recovery.

To support this next phase of development, Mount Ridley is expanding its technical and advisory capability. Discussions are well advanced with Australian and international experts in rare-earth processing, critical-minerals policy and the US – Australia strategic minerals partnership to support the Company's next phase of development.

The metallurgical results from the Mt Ridley Project highlight the potential for a Western Australian based heavy rare earth development opportunity.

**Mount Ridley Heavy Rare Earth-Scandium-Gallium-Project**

The Mount Ridley Project is approximately 55 km northeast of Esperance in the vicinity of Mount Ridley and Lake Halbert. Access to the tenement is via sealed roads and, within the project on good quality gravel roads and station tracks.



**Figure 3 – Regional Location Map showing the major Infrastructure such as Esperance Port, Road and Rail**

The elevation difference across the tenement is minimal and in the general range between 180 and 200 m RL. The land is mainly flat lying, except for small dune ridges. There are rare and isolated hills at least 50 meters above the drainage level occurring as erosional remnants.

**This ASX announcement has been authorised for release by the Board of Mount Ridley Mines Ltd.**

**-ENDS-**

For further information, please contact:

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### References

SGC2722 Maude, G. 2013. AXG Mining, Mount Ridley Project, 2013 VTEM Interpretation

GC2988 Maude, G. 2015. Mount Ridley Mines, 2015 R&D Submission, TEM Surveys Completed at the Mount Ridley Project

SGC3047 Maude, G. 2016. Mount Ridley Mines, Proposed Orientation AMT survey for Target 19

SGC3083 Maude, G. 2016. Mount Ridley Mines, 2016 R&D Submission, Geophysical Surveys Completed at the Mount Ridley Project

M. Cowin (2015) Mount Ridley Project, C12/2015 Combined Annual Mineral Exploration Report, Mount Ridley Mines Ltd, 1st September 2014 to 31st August 2015.

A. Maynard (2017) Mount Ridley Project, C12/2015 Combined Annual Mineral Exploration Report, Mount Ridley Mines Ltd, 1st September 2016 to 31st August 2017.

Scott Bishop (2004) First Combined (C104/2003) Annual Report for E63/816 Sheoak Hill East and E63/817 Sheoak Hill for the period ending 22 November 2003, Grass Patch Ni-Cu and PGE Project, Dundas Mineral Field, Esperance Si50-06, Western Australia, Report No. RPT03GPP007.

J. D. A. Clarke (1994) Evolution of the Lefroy and Cowan palaeo-drainage channels, Western Australia, Australian Journal of Earth Sciences: An International Geoscience Journal of the Geological Society of Australia, 41:1, 55-68.

S. Kerr (2022) Mount Ridley Project, C12/2015 Combined Annual Mineral Exploration Report, Mount Ridley Mines Ltd, 1st September 2021 to 31st August 2022.

S. Kerr (2023) Mount Ridley Project, C12/2015 Combined Annual Mineral Exploration Report, Mount Ridley Mines Ltd, 1st September 2022 to 31st August 2023.

S. Kerr (2024) Mount Ridley Project, E63/1617 Final Surrender Report, Mount Ridley Mines Ltd, 23rd September 2014 to 31st May 2024.

S. Kerr (2024) Mount Ridley Project, E63/2114 Voluntary Partial Surrender Report, Mount Ridley Mines Ltd, 15th March 2022 to 26th July 2024.

**For further information please refer to previous ASX announcement from Mount Ridley Mines Ltd:**

2 August 2021. "REE Potential Unveiled at Mount Ridley."

13 September 2021. "REE Targets Extended."

21 October 2021. "Encouraging Rare Earth Extraction Results."

3 August 2022. "Excellent Drilling Results Expand Rare Earth Mineralisation Footprint at the Mt Ridley Project."

6 October 2022. "Highest grades to date returned from Mt Ridley Rare Earth Project, Mineralised footprint extended to more than 1,200km<sup>2</sup>."

14 February 2023. "Thick, shallow and high grade REE mineralisation discovered at the new Jody and Marvin Prospects."

30 March 2023. "Resource drilling commences on 30km long Mia - Marvin Zone at the Mount Ridley REE Project."

10 May 2023. "Coincident High-Grade Rare Earth Elements and Geophysical Anomalies at Mia Prospect."

25 May 2023. "Drilling update for the Mia REE Prospect."

6 July 2023. "Excellent Beneficiation Test Results Lift REE Grades."

21 September 2023. "Leach tests achieve up to 85% recovery of Magnet REE."

11 October 2023. "Drilling confirms continuity at Mount Ridley REE Project."

5 December 2023. "Drilling returns wide, high-grade REE intersections at two new prospects at the Mount Ridley Project."

21 February 2024. "Results flow from Mia resource-focussed drilling at Mount Ridley Rare Earth Element Project"

22 May February 2024. "Maiden Inferred Mineral Resource Estimate for the Mia Prospect of 168Mt at 1,201ppm TREO"

28 October 2025. "838.7Mt Gallium Resource Estimate at Mt Ridley"

12 November 2025. "MRD Expands Rare Earth and Gallium Tenure"

25 November 2025. "33km of New REE-Gallium Targets Defined at Mt Ridley"

28 January 2026. "367.98Mt Scandium Resource Estimate at Mount Ridley"

24 March 2026. "Major Heavy Rare Earth Resource at Mount Ridley"

## Competent Persons Statement

The information in this report / ASX release that relates to Exploration Results, Exploration Targets and Mineral Resources is based on information compiled and reviewed by Mr. Alfred Gillman, Director of independent consulting firm, Odessa Resource Pty Ltd. Mr. Gillman, a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (the AusIMM) and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets and Mineral Resources. Mr Gillman is a full-time employee of Odessa Resource Pty Ltd, who specialises in mineral resource estimation, evaluation, and exploration. Neither Mr Gillman nor Odessa Resource Pty Ltd holds any interest in Mount Ridley Mines, its related parties, or in any of the mineral properties that are the subject of this announcement. Mr Gillman consents to the inclusion in this report / ASX release of the matters based on information in the form and context in which it appears. Additionally, Mr Gillman confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

The information in this report that relates to Exploration Targets and Exploration Results is based on historical information compiled by Pedro Kastellorizos. Mr. Kastellorizos is the technical advisor of Mount Ridley Mines Ltd and is a Member of the AusIMM of whom have sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Kastellorizos has verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears. Mr Kastellorizos has reviewed all relevant data for the aircore and diamond drilling program and reported the results accordingly.

## Forward Statement

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved."

Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial

and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development

expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward-looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

### About Mount Ridley Resource Estimations

Table 4 shows the Gallium Global JORC 2012 Resource Estimation tonnes/grade by Inferred category which currently stands at 838.7Mt @ 29.3 ppm Gallium. The MRE has been reported tabulating mineralisation above a 25 ppm Ga cut-off grade.

**Table 4:** Global Total Gallium Inferred Mineral Resource Estimation

Project	Mass t	Average Grade (ppm Ga)	Contained Ga Metal (t)	Average Grade (ppm Ga <sub>2</sub> O <sub>3</sub> )	Contained Ga <sub>2</sub> O <sub>3</sub> Metal (t)
<b>Blocks 1 to 3</b>	838,771,284	29.3	24,584	39.5	33,045

Table 5 shows the Scandium Global JORC 2012 Resource Estimation tonnes/grade by Inferred category which currently stands at 367.9Mt @ 57.3 ppm Scandium. The MRE has been reported tabulating mineralisation above a 25 ppm Sc cut-off grade.

**Table 5:** Global Total Scandium Inferred Mineral Resource Estimation

Project	Mass t	Average Grade (ppm Sc)	Contained Sc Metal (t)	Average Grade (ppm Sc <sub>2</sub> O <sub>3</sub> )	Contained Sc <sub>2</sub> O <sub>3</sub> Metal (t)
<b>Blocks 1A, 1B &amp; 2</b>	367,982,521	57.3	18,855	87.9	28,920

Table 6 shows the Rare Earth Oxide Global JORC 2012 Resource Estimation tonnes/grade by Inferred category which currently stands at 122.5Mt @ 889 ppm TREO for 108,954 tonnes contained TREO metal with 44,610t contained HREO reported at a 300 ppm TREO cut-off.

**Table 6:** Mount Ridley Global Rare Earth Oxide Deposits Inferred Mineral Resource Estimate

Block Id	Tonnage (t)	Average Grade (TREO ppm)	Average Grade (HREO ppm)	Average Grade (LREO ppm)	Average Grade (MREO ppm)
<b>Blocks 1 &amp; 2</b>	122,546,251	889	364	525	233

Table 7 shows the Global JORC 2012 Resource Estimation tonnes/grade by Inferred category which currently stands at 168Mt @ 1,201 ppm Total Rare Earth Oxide (TREO). The MRE for the central Mia Prospect has been reported tabulating mineralisation above a 750ppm TREO cut-off grade.

**Table 7: Global Total TREO Inferred Mineral Resource Estimation**

Project	Mass t	Pr <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	TREO ppm	MagREO ppm	MagREO/TREO ppm
<b>Block 3 Mia</b>	168,000,000	57	215	4	25	1201	301	25%

The Company is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters underpinning the Mineral Resources for all Projects continue to apply and have not materially changed.

**Appendix 1: Total Drill Collars for the 2021 Metallurgical Testwork**

Hole Id	Easting (GDA94)	Northing (GDA94)	RL (m)	Drill Type	Depth (m)	Azimuth	Dip
MRAC0590	430748	6322046	190.7	Aircore	47	0	-90
MRAC0593	431153	6321630	190.7	Aircore	31	0	-90
MRAC0605	432369	6322773	190.7	Aircore	48	0	-90
MRAC0617	432151	6323791	190.7	Aircore	45	0	-90
MRAC0637	432447	6324196	190.7	Aircore	24	0	-90
MRAC0638	433266	6324887	190.7	Aircore	41	0	-90
MRAC0721	428302	6319685	190.7	Aircore	68	0	-90
MRAC0439	426826	6318157	190.7	Aircore	48	0	-90
MRAC0456	428370	6319437	190.7	Aircore	38	0	-90
MRAC0632	432777	6323836	190.7	Aircore	17	0	-90
MRAC0474	426892	6318937	190.7	Aircore	51	0	-90
MRAC0471	427472	6319730	190.7	Aircore	39	0	-90
MRAC0726	428160	6319685	190.7	Aircore	47	0	-90
MRAC0677	417437	6305607	190.7	Aircore	56	0	-90
MRAC0441	426698	6318310	190.7	Aircore	25	0	-90
MRAC0484	423143	6315720	190.7	Aircore	45	0	-90
MRAC0514	421992	6314657	190.7	Aircore	22	0	-90
MRAC0518	422403	6315086	190.7	Aircore	21	0	-90
MRAC0568	422026	6314018	190.7	Aircore	38	0	-90
MRAC0695	422103	6314092	190.7	Aircore	41	0	-90
MRAC0711	422009	6314033	190.7	Aircore	24	0	-90
MRAC0679	418085	6305269	190.7	Aircore	29	0	-90
MRAC0684	419193	6311213	190.7	Aircore	32	0	-90

**Appendix 2: Total Drill Collars for the 2023 Metallurgical Testwork**

Hole Id	Easting (GDA94)	Northing (GDA94)	RL (m)	Drill Type	Total Depth (m)	Azimuth	Dip
MRAC1180	441230	6315374	186.62	Aircore	17	0	-90
MRAC1184	440683	6314263	182.5	Aircore	59	0	-90
MRAC1188	439070	6314239	180.13	Aircore	63	0	-90
MRAC1101	430295.7	6317481	180.93	Aircore	51	0	-90
MRAC1109	432595.4	6315262	181.81	Aircore	56	0	-90
MRDD0029	426832.5	6315327	179.89	Diamond	46.4	0	-90

Hole Id	Easting (GDA94)	Northing (GDA94)	RL (m)	Drill Type	Total Depth (m)	Azimuth	Dip
MRDD0036	429073.2	6322574	189.73	Diamond	58.6	0	-90
MRAC1209	436719.4	6324666	187.35	Aircore	40	0	-90
MRAC1146	429813	6334831	210	Aircore	45	0	-90
MRAC1162	432800	6327551	200.12	Aircore	53	0	-90
MRDD044	445607	6317954	204.37	Diamond	45.6	0	-90
MRDD0038	426976.1	6321837	201.91	Diamond	89.6	0	-90

**JORC Code, 2012 Edition – Table 1 report**
**Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling technique	<p><i>Nature and quality of sampling (eg 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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>Areas were sampled using Aircore (“AC”) and diamond (“DDH”) drilling by Mount Ridley Mines Ltd from 2014 to 2018 on a nominal 500m by 100m grid within Blocks 1 and 2.</p> <p>Block 1 Drilling was completed on a nominal 500m x 100m grid, with infill drilling to a 100m x 20m grid within the central zone.</p> <p>Block 2 Drilling was conducted on a nominal 500m x 100m grid, with infill drilling to a 100m x 25m grid within the southern portion of the MRE area.</p> <p>In total of 395 holes were completed totalling 14,329.3m over the current tenure area. Holes were drilled vertical to optimally intersect the mineralised zones.</p> <p>Diamond (DDH) was completed over 8 holes, totalling 437.3m diamond drilling, sampled between 1m in the barren zones and between 0.6 to 1 metre within the ore zones. Every sample weighted between 1 and 2kgs.</p> <p>All holes were drilled vertically to refusal, terminating in basement rocks aimed to locate coarse-grained, mineralised gabbroic rocks of intrusive mafic-ultramafic origin and identify contacts.</p> <p>Drill holes were located just off existing tracks and drilled to blade refusal into basement rocks.</p> <p>All drill hole collars in the supplied database have been accurately located with coordinates in GDA94, Zone 51 grid system. Down hole surveys have not been taken as drill holes are all vertical. All drill samples were</p>

Criteria	JORC Code explanation	Commentary
		<p>collected at 1m intervals. Whole samples were taken when sample return was less than 2kg.</p> <p>Samples of drill chips drilled using a conventional aircore drilling rig were collected through a cyclone as 1m piles laid out consecutively on the ground then sampled as between 1m and 3m composite spear samples. Samples were analysed at an accredited laboratory using techniques generally used when investigating clay-hosted Sc mineralisation. Diamond core holes (MRDD043 and MRDD044) were completed for SG and metallurgy study.</p> <p>A twin riffle splitter was used for samples weighing more than 2kg, with one split collected in a calico bag for analysis and the remainder dropped on the ground. Sampling and QAQC procedures were carried out to industry standards.</p> <p>Analyses reported herein by ALS Laboratory's ME-MS61 with ICP-MS finish.</p>
<i>Drilling techniques</i>	<i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, 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).</i>	<p>Q Exploration Pty Ltd conducted aircore drilling using an Edson 100 with a 250/400 PSI on-board compressor mounted on an Isuzu 750 4x4 truck. Challenge Drilling using an RA150 truck mounted drill rig completed the Aircore (AC) drilling program.</p> <p>Aircore. A type of reverse circulation drilling using slim rods and a 100mm blade bit drilled to refusal (saprock to fresh rock).</p> <p>Samples of drill chips drilled using a conventional aircore drilling rig were collected through a cyclone as 1m piles laid out consecutively on the ground then sampled as between 1m and 3m composite spear samples.</p> <p>Diamond drilling was completed by standard DDH Drilling techniques with Warman 600 Diamond Drill Rig with the hole size used NQ<sup>3</sup> drill core diameter.</p>
<i>Drill sample recovery</i>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>	<p>All samples were weighed. This provides an indirect record of sample recovery.</p> <p>All diamond and Aircore samples were visually checked for recovery, moisture and contamination and no recovery problems were encountered. Geologists commented when recovery was poor or wet ground conditions.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	<p>Drilling has been with rigs of sufficient capacity to provide dry chip samples. Chip sample recovery was generally not logged.</p> <p>No relationships between sample recovery and grades exist.</p>
Logging	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>Logging has been completed for all DDH &amp; AC drilling including rock type, grain size, texture, colour, foliation, mineralogy, alteration, sulphide and veining, with a detailed description written for many intervals.</p> <p>All logging was of a level sufficient in detail to support resource estimation.</p> <p>Holes have been logged at 1m intervals to record weathering, regolith, rock type, colour, alteration, mineralisation and texture and any other notable features.</p> <p>Logging was qualitative, however the geologists often recorded quantitative mineral percentage ranges for the Scandium-REE minerals present.</p>
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>DDH and AC samples for each 1 metre of drilling were split once through a riffle splitter and collected into a calico bag at the drill site.</p> <p>All samples were dry. 1m samples or up to 3m composite samples were 'speared' from the sample piles for an approximately 2.5 - 3.5kg sample. Sample composite length is determined by geology.</p> <p>Certified reference material (CRM) routinely inserted within the sampling sequence at a rate of 3% each. Field duplicates taken at pre-specified intervals at the time of drilling at the rate of 3%</p> <p>Samples were submitted to ALS in Perth with analysis of samples (included drying and pulverising to 85% passing 75um). Analysed for a full digest by ICP-MS (ALS code - ME-MS61) Aqua Regia Digestion with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) finish.</p> <p>Laboratory standards taken at the pulverizing stage and selective repeats conducted at the laboratory's discretion.</p> <p>Field QC procedures involved the use of coarse standards, and field duplicates. The field duplicates were collected at a rate of 1:100 and have accurately</p>

Criteria	JORC Code explanation	Commentary
		<p>reflected the original assay. A recognised laboratory has been used for analysis of samples. The standards are not certified and have no expected value, but the material was homogeneous and produced repeatable results.</p> <p>Sample sizes were considered appropriate to correctly represent the bulk tonnage mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Scandium.</p> <p>Sample sizes were considered appropriate to correctly represent the bulk tonnage mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for scandium.</p>
<p><i>Quality of assay data and laboratory test</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</i></p>	<p>Analysis of AC samples was undertaken by ALS Laboratory in Perth and analysed for a full digest by ICP-MS (ALS code - ME-MS61) Aqua Regia Digestion with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) finish.</p> <p>Assays included Ag (ppm), Al (%), Ag (ppm), As (ppm), B (ppm), Ba (ppm), Be (ppm), Bi (ppm), Ca (%), Cd (ppm), Ce (ppm), Co (ppm), Cr (ppm), Cs (ppm), Cu (ppm), Dy (ppm), Er (ppm), Eu (ppm), Fe (%), Ga (ppm), Ge (ppm), Gd (ppm), Hf (ppm), Ho (ppm), In (ppm), K (%), La (ppm), Li (ppm), Mg (%), Lu (ppm), Mn (ppm), Mo (ppm), Na (%), Nb (ppm), Nd (ppm), Ni (ppm), P (ppm), Pb (ppm), Pr (ppm), Rb (ppm) Re (ppm), S (%), Sb (ppm), Sc (ppm), Se (ppm), Sm (ppm), Sn (ppm) Sr (ppm), Ta (ppm), Tb (ppm), Te (ppm), Th (ppm), Ti (%) Tl (ppm), U (ppm), V (ppm), W (ppm), Y (ppm), Zn (ppm) and Zr (ppm)</p> <p>Each batch was sorted, dried and pulverised. Each sample was routinely assayed in two ways: gold by fire assay; and multi-elements using a mixed acid digest / ICP-OES.</p> <p>Gold analyses consisted of pulverising &lt;3.0kg to 90% passing 75um (PR303); and 40g fire assay / AAS finish LLD – 0.01ppm Au. Multi element analyses consisted of 0.2g mixed acid digest (4 acid digest).</p> <p>No geophysical tools were used to determine any element concentrations used in this resource estimate.</p>

Criteria	JORC Code explanation	Commentary
		<p>Laboratory QAQC includes the use of internal standards using certified reference material, laboratory duplicates and pulp repeats. The field duplicates have accurately reflected the original assay.</p> <p>The QAQC results confirm the suitability of the drilling data for use in the Mineral Resource estimation.</p>
<p><i>Verification of sampling and assaying</i></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>There have been no twinned holes drilled at this point, although there is very closely spaced drill grade control at the same orientations drilling that confirmed the continuity of mineralisation.</p> <p>Recovered samples were generally composed of gravel, pisolites, or clay and no visual distinction can consistently be made between scandium mineralisation and barren material. All assay results returned in digital files from ALS laboratory which confirmed the mineralised intersections recorded in the Mt Ridley database.</p> <p>Geologists logged all drill samples at the rig, with a minimum logging interval of 1m. All logging data was captured directly into laptops to ensure consistency of coding and minimise data entry errors. Logging was described using the MRD Logging Codes preloaded into the data logger.</p> <p>Assay results were loaded electronically, directly from the assay laboratory. All drillhole data was visually validated prior to resource estimation.</p> <p>All drillhole information was stored graphically and digitally in MS excel and MS access formats.</p> <p>No adjustments have been made to assay data.</p>
<p><i>Location of data points</i></p>	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>Down hole surveys have not been taken only in the diamond drillholes as drill holes and all AC holes were drilled vertically through the predominantly flat lying laterite.</p> <p>Topographic surface based on Landsat topography series containing 5m contour data. This was supplemented by using RTK surveyed points and drillhole collars recorded by BRL.</p> <p>All rock chip locations were recorded with a handheld GPS with +/- 5m accuracy.</p> <p>All data used in this report are in:</p>

Criteria	JORC Code explanation	Commentary
		Datum: Geodetic Datum of Australia 94 (GDA94) Projection: Map Grid of Australia (MSC), Zone 51.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is 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.</i>	The nominal drill hole spacing is 500m by 100m or 400m.  The mineralised domains have demonstrated sufficient continuity in both geological and grade continuity to support the estimation of Mineral Resource, and the classifications applied under the 2012 JORC Code.  Drill hole sampling was at even 0.5m lengths so no compositing was carried out.  All previously reported sample/intercept composites have been length weighted.
<i>Orientation of data in relation to geological structure</i>	<i>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 key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Drill holes are drilled vertical, which was approximately perpendicular to the orientation of the flat-lying mineralisation.  No orientation-based sampling bias has been identified in the data.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	The chain of custody was managed by company representatives and was considered appropriate. The laboratory receipts received samples against the sample dispatch documents and issued a reconciliation report for every sample batch.
<i>Audits or review</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques are consistent with industry standards.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships,</i>	Tenements E63/1547, E63/1564, E63/2111 & E63/2112 are key tenements within the Company's Mt Ridley Project and are the subject of this Mineral Resource Statement. The Prospect is located 55km NE of Esperance, Western Australia. The Registered Holder is Mount Ridley Mines Limited (Company) (100%).

Criteria	JORC Code explanation	Commentary
	<p><i>overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>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.</i></p>	<p>There are no overriding royalties other than the standard government royalties for the relevant minerals. There are no other material issues affecting the tenements at this stage.</p>
<p><i>Exploration done by other parties</i></p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Historically several large companies such as BHP, RGC, Iluka and Western Mining have completed large regional appraisals of the district going back many years. These programs were mainly for mineral sands, gold, uranium and base metals. More recently and locally, exploration for lignite and brown coals in the Tertiary overburden (mainly Miocene - aged) was common in the 1990s. Several coal mining leases were taken out in the eastern part of the project area.</p> <p>During the mid-1970's Central Norsemen Gold Corporation explored an area to the northwest of Dingo Rocks for precious and base metals. They considered the terrane to be prospective for high grade metamorphic Au deposits, Broken Hill-Type Zn-Pb-Cu deposits, magmatic Ni-Cu sulphides and Fe-Ti magnetite deposits. Aerial radiometric anomalies associated with a cluster of playa lakes suggested potential for uranium mineralisation.</p> <p>Exploration activities included geological mapping, ground radiometric surveys, auger drilling, RC drilling, diamond drilling and petrology.</p> <p>In late 1979 Western Collieries Ltd (now Wesfarmers) and Mokey Pty Ltd exploration of the Grass Patch region for Tertiary (Eocene) lignite deposits. Regional airborne INPUT EM surveying was used to identify the location of Tertiary palaeochannels that host the Eocene lignite deposits. The Scadden lignite deposit, containing 607 million tonnes, was discovered in mid-1980.</p> <p>BHP explored a tenement in the Dingo Rocks area for gold in 1985 without success.</p> <p>From the mid 1990's and up to 2001 Pan Australian Exploration Pty Ltd (PAE), a subsidiary of Pan Australian Resources NL, explored the Grass Patch region for base metals using a "Grenville-aged" Broken Hill-Type Zn-Pb-Cu-Ag exploration model. Much of PAE's exploration activities utilised a variety of consultant companies, the main one being Etheridge Henley and Williams Pty Ltd (EHW). In later years PAE established a joint venture with BHP Minerals (BHPM) on selected tenements in the area with BHPM as exploration managers.</p> <p>BHP Minerals (BHPM) acquired tenement in the Grass Patch area in the late 1990's and in 1999 established a joint venture with Pan Australia Resources</p>

Criteria	JORC Code explanation	Commentary
		<p>over selected tenements. In the period 1999-2000, BHPM explored the area for BHT Zn-Pb deposits using the same model utilised by PAE.</p> <p>Bishop was the first to research and champion the potential of Grass Patch, interpreted as a large, crudely layered, amphibolite-gabbro complex beneath shallow cover sediments. The mafic complex is considered to have the potential to host nickel-copper sulphide deposits and PGE deposits.</p> <p>Bishop undertook the previously mentioned comprehensive prior-data review, detailed litho-geochemistry interpretation from 'best available' end of hole assays, development of a geological map based on this information. Additional drilling tested the models but didn't return assays of commercial consequence.</p> <p>Ridley Resources</p> <p>Targeted the circular geophysical signature interpreted to be a layered gabbroic mafic intrusion (Bishop's Scadden Complex) with one drillhole in 2009. Nearby lignite locations were aircore drilled in 2010-2011, returning poorly developed lignite intersections.</p> <p>Early-stage exploration was focused on locating the source of mineralization at these locations.</p> <p>Exploration work for the 2014-2015 reporting period included:</p> <ul style="list-style-type: none"> <li>• Detailed low-level airborne aeromagnetic surveying</li> <li>• Orientation ground-based EM surveying</li> <li>• Aircore Drilling (308 holes for 14,102 metres)</li> <li>• Diamond Drilling (4 holes for 1,571 metres)</li> <li>• Regional airborne VTEM surveying using the VTEM max time-domain system</li> <li>• Targeted ground-based EM surveying</li> <li>• Detailed gravity surveying</li> </ul> <p>Exploration work for the 2015-2016 combined reporting period included:</p> <ul style="list-style-type: none"> <li>• Geophysical Audio Magnetotelluric (AMT) Survey</li> <li>• Geophysical Audio Magnetotelluric (AMT) Modelling</li> <li>• Ground EM Surveying (FLEM)</li> <li>• Geophysical Magnetic Survey</li> <li>• Air Core Drilling (354 holes for 16,385 metres)</li> <li>• Diamond Drilling (10 holes for 4,211 metres)</li> </ul> <p>Work Completed 2016 – 2017 combined reporting period included:</p> <ul style="list-style-type: none"> <li>• T19 Diamond Drilling &amp; Down Hole EM</li> <li>• CSA Review Key Findings:</li> <li>• Ground Gravity completion</li> </ul>

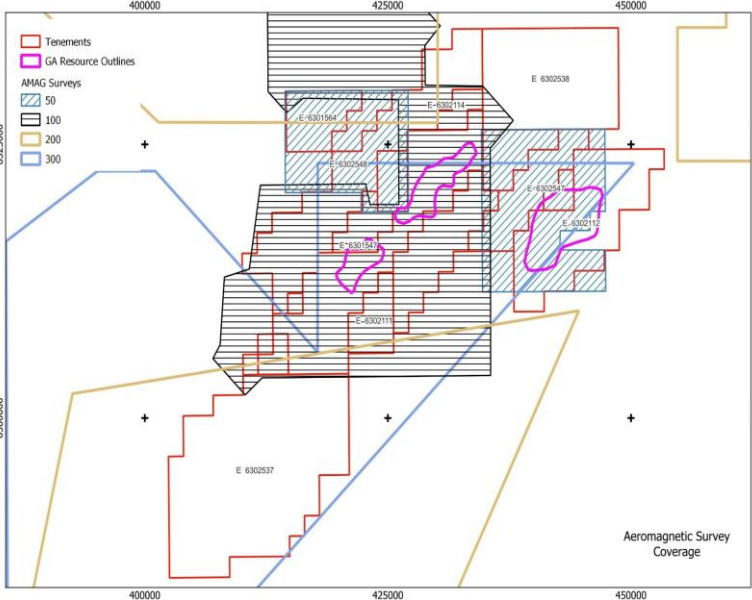
Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• High Powered Moving Loop (SAMSON) Time Domain</li> <li>• Electromagnetics (HP MLTEM)</li> <li>• Air core geochemistry Drilling</li> <li>• Auger geochemistry</li> <li>• RC and Diamond Drilling targeting apparent HP MLTEM</li> <li>• conductors &amp; Down Hole EM</li> </ul> <p>Substantial programmes of auger, aircore and diamond drilling all previously reported.</p> <p>Historically, most exploration programs in the district were ineffective or incomplete. Commonly, regional AC programs did not penetrate through the transported overburden (many holes were less than 20 m deep). Surface geochemistry is known to be ineffective in areas of significant overburden.</p> <p>In the early 2000's, Pan Australian Resources and Western Platinum/ BHP Minerals recognised the significance of a 60 x 15 km coincident gravity-magnetic feature known as the Mount Ridley, discovered during the 1960's by the Bureau of Mineral Resources (now Geoscience Australia). Collectively they explored the region using a "Grenville-aged" Broken Hill-type Zn-Pb-Cu-Ag exploration model but never drilled a hole into the Mount Ridley. Bishop (2002) was the first to research and champion the potential of Mount Ridley for a new, large layered mafic intrusion with the potential to host nickel-copper sulphide deposits and PGE deposits, well before the discovery of Nova.</p> <p>The true potential of the area has been historically untested, and has remained untested until most recently, in light of a magmatic sulphide model, post the modern discovery of Nova- Bollinger.</p> <p>In more recent times, a circular geophysical signature identified in the southwest of E63/1547, was interpreted to be layered gabbroic mafic intrusion and was tested by Ridley Resources in 2009. An RC drill hole RRC001, was drilled vertically into the eastern part of the anomaly down to 136 m. Logging described a mixture of metamorphosed mafic rocks, possibly leuco- Gabbro occurring with granitic gneisses. These rocks also contained magnetite, epidote, garnet and pyrite. Peak values encountered were 0.007 ppm Au, 0.003 ppm Pd, 3.2 ppm Ag, 34 ppm Cu and 56 ppm Ni. It must be noted however, that this is only one hole and the strike length of the anomaly is 9 kilometres.</p> <p>The first helicopter-borne electromagnetic survey (VTEM) was completed in March 2013 by AXG Mining Ltd, the precursor to Mt Ridley Mines, to investigate further, this geophysical feature thought to represent a layered mafic intrusion. Interpretation of the results and identification of follow-up targets was completed by SGC in October 2014 and discussed in the Annual Report Mt Ridley Mines Ltd E63/1547 Feb 2014 – Feb 2015.</p>

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		<p>Ridley Resources Ltd also conducted follow-up work on identified lignite locations in 2010 /11 conducting a small drilling program comprising 12 aircore holes (RRAC001 to RRAC012) along existing tracks. The holes achieved a maximum depth of 36 m and various lignite intersections were identified. Ongoing exploration could not be justified due to thin intersections and poor lignite grades.</p> <p>Previous exploration completed by Mt Ridley Mines</p> <p>A review of the regional gravity data indicates the Albany-Fraser Province is clearly underlain by prominent NE-trending corridors of higher density material which is interpreted to represent igneous, mafic-ultramafic rock types and probably the source of the mineralising magmas.</p> <p>Mt Ridley Mines has recognized similarly, the presence of a significant gravity anomaly inside its tenements that may indicate the presence of denser, nearer-surface, igneous intrusive rocks. Initial work to investigate this anomaly included data review, field inspection and an airborne magnetic/radiometric geophysical survey to identify both potential magnetic and non- magnetic intrusive targets. This was followed by limited ground-based geophysics, reconnaissance and infill aircore drilling, and targeted diamond drilling to physically identify the geological and geochemical nature of the priority intrusive targets and conductive targets.</p> <p>In the 2014-2015 and 2015-2016 reporting periods, Mt Ridley Mines identified through geophysics and deep drilling, three priority intrusive targets, Targets 2, 19 &amp; 20. It was confirmed that Targets 2, 19 &amp; 20 contain intrusive olivine-rich igneous rocks which are known to be associated with sulphides rich in nickel and copper as revealed in the Nova deposit.</p> <p>Aircore holes at these targets have been shown to be anomalous in both nickel and copper mineralisation.</p> <p>Ground-based electromagnetic, intrusive Target 2 has a coincident FLTEM anomaly and air core drilling has also identified sulphides associated with it.</p>
Geology	<i>Deposit type, geological setting, and style of mineralisation.</i>	<p>E63/1547 is the central tenement in the Mt Ridley Project, situated on the 1:250,000 scale GSWA sheet Esperance SI51-06 and the 1:100,000 scale GSWA sheet Burdett 3331.</p> <p>The Mt Ridley project is located in the Albany-Fraser Mobile Belt on the south-eastern edge of the Yilgarn Craton in south-east WA. Surface geology is dominated by Cretaceous to Tertiary alluvial, sand and lacustrine cover deposits, some of which are large saline playa lakes such as Lake Halbert. Bedrock geology consists of Archaean to MesoProterozoic gneisses and granites, some intermixed with mafic and ultramafic rocks.</p> <p>The project is mainly underlain by Archaean to Meso-Proterozoic gneisses and granites, some intermixed with mafic and ultramafic rocks. The</p>

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		<p>Geological Survey of WA recognise the following units in the project area (from north to south):</p> <p>In the northern west: The Munglinup Gneiss - a granitic Neo-Archaean to Meso-Proterozoic gneiss.</p> <p>Large area in the central portion of the tenement: Dalyup Gneiss dating from the Palaeo-Proterozoic and comprising gneissic granites, gneisses and possible mafics lithologies.</p> <p>In the SE: Recherche Granite of Meso-Proterozoic age and consisting of recrystallized and/or porphyritic granites, probably intrusive in nature.</p> <p>In the far southeastern corner Coramup Gneiss ranging in age from Palaeo-Proterozoic to Meso-Proterozoic and comprising orthogneiss, quartzites and granitic gneisses.</p>
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level)</li> <li>○ elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> <p><i>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.</i></p>	<p>The drill hole information has been inserted and tabulated within Appendix 1.</p> <p>Easting and Northing coordinates are all referenced to GDA94, MGA projection, Zone 51.</p>
Data aggregation method	<p><i>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.</i></p>	<p>Aggregate intercepts are not incorporated. All sampling intervals are at even 1m intervals.</p> <p>Metal equivalent values are not being reported.</p> <p>These stoichiometric conversion factors are stated in the table below and can be referenced in appropriate publicly available technical data.</p> <p>Rare earth oxide (REO) is the industry accepted form for reporting rare earths.</p>

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	<p><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregate should be stated and some typical examples of such aggregate should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Total rare earth oxide (TREO) values were derived by the simple addition of grades for lanthanum (La<sub>2</sub>O<sub>3</sub>), cerium (CeO<sub>2</sub>), praseodymium (Pr<sub>6</sub>O<sub>11</sub>), neodymium (Nd<sub>2</sub>O<sub>3</sub>), samarium (Sm<sub>2</sub>O<sub>3</sub>), europium (Eu<sub>2</sub>O<sub>3</sub>), gadolinium (Gd<sub>2</sub>O<sub>3</sub>), terbium (Tb<sub>4</sub>O<sub>7</sub>), dysprosium (Dy<sub>2</sub>O<sub>3</sub>), holmium (Ho<sub>2</sub>O<sub>3</sub>), erbium (Er<sub>2</sub>O<sub>3</sub>), thulium (Tm<sub>2</sub>O<sub>3</sub>), ytterbium (Yb<sub>2</sub>O<sub>3</sub>), lutetium (Lu<sub>2</sub>O<sub>3</sub>) and yttrium (Y<sub>2</sub>O<sub>3</sub>).</p> <p>Nd+Pr REO (NdPr) grade includes Nd<sub>2</sub>O<sub>3</sub> and Pr<sub>6</sub>O<sub>11</sub>. Reported as percentage of TREO.</p> <table border="1"> <thead> <tr> <th>Element</th> <th>Conversion Factor</th> <th>Oxide Form</th> </tr> </thead> <tbody> <tr><td>Ce</td><td>1.2284</td><td>CeO<sub>2</sub></td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Er</td><td>1.1435</td><td>Er<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>La</td><td>1.1728</td><td>La<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Lu</td><td>1.1372</td><td>Lu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Nb</td><td>1.4305</td><td>Nb<sub>2</sub>O<sub>5</sub></td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr<sub>6</sub>O<sub>11</sub></td></tr> <tr><td>Sc</td><td>1.5338</td><td>Sc<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb<sub>4</sub>O<sub>7</sub></td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Y</td><td>1.2699</td><td>Y<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb<sub>2</sub>O<sub>3</sub></td></tr> </tbody> </table>	Element	Conversion Factor	Oxide Form	Ce	1.2284	CeO <sub>2</sub>	Dy	1.1477	Dy <sub>2</sub> O <sub>3</sub>	Er	1.1435	Er <sub>2</sub> O <sub>3</sub>	Eu	1.1579	Eu <sub>2</sub> O <sub>3</sub>	Gd	1.1526	Gd <sub>2</sub> O <sub>3</sub>	Ho	1.1455	Ho <sub>2</sub> O <sub>3</sub>	La	1.1728	La <sub>2</sub> O <sub>3</sub>	Lu	1.1372	Lu <sub>2</sub> O <sub>3</sub>	Nb	1.4305	Nb <sub>2</sub> O <sub>5</sub>	Nd	1.1664	Nd <sub>2</sub> O <sub>3</sub>	Pr	1.2082	Pr <sub>6</sub> O <sub>11</sub>	Sc	1.5338	Sc <sub>2</sub> O <sub>3</sub>	Sm	1.1596	Sm <sub>2</sub> O <sub>3</sub>	Tb	1.1762	Tb <sub>4</sub> O <sub>7</sub>	Tm	1.1421	Tm <sub>2</sub> O <sub>3</sub>	Y	1.2699	Y <sub>2</sub> O <sub>3</sub>	Yb	1.1387	Yb <sub>2</sub> O <sub>3</sub>
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<p><i>Relationship between mineralisation widths and intercept length</i></p>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<p>All drill holes were vertical and intersected the mineralisation orthogonally</p> <p>The Scandium lodes were flat lying following the profile of the gently undulating topography.</p> <p>The vertical drill holes through the horizontal Scandium-REE mineralisation results in true widths being recorded.</p>																																																						
<p><i>Diagrams</i></p>	<p><i>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</i></p>	<p>Refer to figures in the current announcement</p>																																																						

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	<i>of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<i>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.</i>	All significant results above the stated reporting criteria have previously been reported, not just the higher-grade intercepts.
<i>Other substantive exploration data</i>	<i>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.</i>	<p><u>Airborne Electromagnetic Surveys</u></p> <p>AEM surveys over the project include a 2007 Tempest survey with 400m line spacing flown by Bronzewing Gold exploring for lignite hosted uranium, a 2013 VTEM survey with 250m line spacing flown by XTL Energy and 2015 VTEM survey with 400m/100m line spacing flown by Mount Ridley Mines both for nickel exploration.</p> <p>Of these platforms the Tempest provides better shallow resolution and discrimination, with the VTEM designed to detect deeper basement conductors.</p> <p>The datasets were obtained from DEMIRS and MRM noting that they included contractor supplied inversions with the Tempest as conductivity inversions and VTEM resistivity as inversions. Channel imagery were generated along with Conductivity/Resistivity Depth Sections for flight lines corresponding to significant gallium intersections for analysis.</p>

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		<p><u>Gravity Surveys</u></p> <p>Ground gravity has been completed over a number of programs in 2015 and 2016. The surveys were undertaken with various station spacings with semi regional 400m x 200m to higher resolution 100m x 100m.</p> <p>The datasets were obtained from MRM and were gridded and processed to highlight geological features of interest using various filtering techniques.</p> <p>The Channel imagery was generated along with Conductivity/Resistivity Depth Sections for flight lines corresponding to significant gallium intersections for analysis.</p> <p><u>Aeromagnetic Survey</u></p> <p>The project has good high resolution aeromagnetic coverage with 50m and 100m line spaced over the majority of the tenements. The new tenement application in the southeast (E63/2537) only has 200m coverage with E63/2538 in the northeast only 400m.</p> <p>The datasets (magnetics and radiometrics) were obtained from DEMIRS, compiled and merged together before processing and filtering to generate a suite of imagery.</p>  <p><u>Metallurgical Studies</u></p> <p>Beneficiation work was carried out using a range of screens with apertures between 500 micron (<math>\mu\text{m}</math>) and 25 <math>\mu\text{m}</math> used. Results are showing that optimum beneficiation, being the relationship between mass rejected and REE recovered, was achieved by screening at 75 <math>\mu\text{m}</math>.</p> <p>Acid leach testing was carried out on 12 composite samples from the Mia, Jody, Winstons and Vincent Prospects. Samples were the products of the</p>

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		<p>earlier screen beneficiation testing that were screened to -25 µm. Hydrochloric acid leach testing was supervised by Independent Metallurgical Operations Pty Ltd (IMO) with work undertaken by Metallurgy Pty Ltd. Samples were leached with hydrochloric acid at three strengths: 3.6g/l HCl (pH 1), 10g/l HCl and 25g/l HCl; and at a range of times from 6 hours to 24 hours.</p> <p>ANSTO carried out twenty-eight (28) diagnostic leach tests were carried out from 14 head samples (-25 µm fraction) under two different sets of conditions.</p> <table border="1" data-bbox="675 680 1517 884"> <thead> <tr> <th data-bbox="675 680 1075 714">Condition 1:</th> <th data-bbox="1078 680 1517 714">Condition 2:</th> </tr> </thead> <tbody> <tr> <td data-bbox="675 714 1075 748">1.5 M NaCl at 25 g/L HCl</td> <td data-bbox="1078 714 1517 748">1.5 M NaCl at pH 1 (Cl Matrix)</td> </tr> <tr> <td data-bbox="675 748 1075 781">24 h</td> <td data-bbox="1078 748 1517 781">24 h</td> </tr> <tr> <td data-bbox="675 781 1075 815">30 °C</td> <td data-bbox="1078 781 1517 815">30 °C</td> </tr> <tr> <td data-bbox="675 815 1075 848">4 wt% solids</td> <td data-bbox="1078 815 1517 848">4 wt% solids</td> </tr> <tr> <td data-bbox="675 848 1075 884">6, 12 and 24 h samples</td> <td data-bbox="1078 848 1517 884">6, 12 and 24 h samples</td> </tr> </tbody> </table> <p>Short Wave Infrared Spectroscopy (SWIR) and Portable X-ray Fluorescence Analysis (pXRF)</p> <p>Infrared spectroscopy on samples was carried out by Portable Spectral Services (PSS) and was applied for rapid identification and characterisation of minerals using an ASD TerraSpec 4 Hi-Res Mineral Spectrometer. Three thousand nine hundred and fifty-three (3,953) samples in total were analysed. The Spectral Geologist™ (TSG) software version 8.1.0.5 (May, 2022) was used to process collected VNIR-SWIR data.</p> <p>Portable x-ray fluorescence (pXRF) was also carried out on drill sample pulps using a Bruker S1-Titan instrument. This was done in conjunction to SWIR on four thousand four hundred and eighty-four (4,484) samples in total which includes 648 diamond drilling samples.</p> <p>Micro X-ray Fluorescence Spectroscopy (µXRF)</p> <p>Three hundred and eighty-eight 388 end of hole samples (EOH) for lithochemical mapping of mainly fresh rock – saprock were analysed by Portable Spectral Services using a Bruker M4 Tornado Plus instrument. This is a rapid and non-destructive technique to quickly acquire qualitative and quantitative geochemical data at high resolution (µm scale). The AMICS software was used to identify the minerals reported.</p> <p>Metallurgical results showed very poor REE recovery was achieved under low acid (pH 4) suggesting that the mineralisation style at the sample sites is not ionic adsorbed clay (IAC). Emphasis has been put on understanding the protolith which is key to understanding the types of clay species. Diagnostic leach tests at pH 1 for 6 h at 30 °C yielded low total RE extractions (&lt; 20%) with a few exceptions, where the 6 h liquor extractions were between 31 and 47%, For these tests, the extractions of the HREs were greater than the LREs. Efficacy of beneficiation by staged removal of decreasing size fractions show</p>	Condition 1:	Condition 2:	1.5 M NaCl at 25 g/L HCl	1.5 M NaCl at pH 1 (Cl Matrix)	24 h	24 h	30 °C	30 °C	4 wt% solids	4 wt% solids	6, 12 and 24 h samples	6, 12 and 24 h samples
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		<p>that rare earth elements can be significantly concentrated into a -25 µm fraction by sizing alone, without the need for more complex mineral processing techniques such as gravity or flotation. Leachability and recovery of REE, including from different clay types, using sulphuric acid under elevated pressure and temperature conditions (PAL) generally showed low concentrations of Nd and Pr taken into solution.</p> <p>Additional control tests, including H<sub>2</sub>SO<sub>4</sub>, by Independent Metallurgical Operations (IMO) had varied results, however best results were achieved from clays derived from felsic rocks. Some very high extraction rates, up to 72% of REE, were achieved using the hydrochloric acid leach at an acid concentration of 25g/l HCl within a leaching period of 24 hours, albeit that samples tested were very dilute. H<sub>2</sub>SO<sub>4</sub> failed to provide satisfactory recovery of key elements Nd and Pr. ANSTO's testing of leachability and recovery of REE, including from different clay types from beneficiated samples, using hydrochloric acid under (near) ambient pressure and temperature is agreeable with the work carried out by IMO</p>
Further work	<p><i>The nature and scale of planned further work (eg., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Planned further work includes additional drilling and metallurgical testwork to test Blocks 1 and 2 portion of the Gallium-Scandium/REE areas previously untested.</p>