8 July 2024

Latest Testwork Affirms Low Capex Development for Koppamurra

Highlights:

- **Consistent Recoveries Across Varied Conditions:** Ongoing heap leach testwork shows consistent recoveries for Magnet Rare Earths (MRE), ranging from 29% to 74% across various ore conditions and locations within the Koppamurra Project (the Project) area.

- **Accelerated Recovery Time:** Achieving these consistent results in significantly shorter periods than traditional heap leaching boosts confidence in employing short-term heaps near the mine pit, facilitating rapid site rehabilitation.

- **Scalable Commercial Potential:** Positive physical and chemical characteristics from a 4-meter column test suggest potential for scaling up heap heights to commercially viable geometries.

- **Economic Sustainability:** The low ratio of gangue/impurities to rare earth content in the solution supports the heap leach method as a cost-effective and sustainable development strategy.

- Click here to watch a short video on this from our MD, Travis Beinke, or ask us any questions.

Australian Rare Earths Limited (ASX: AR3) is pleased to announce significant progress in the metallurgical testwork for its Koppamurra rare earths project in South Australia. These new results have boosted confidence in the proposed development pathway involving progressive heap leaching and rapid rehabilitation.

The completion of four additional heap leach column tests on high-grade mineralised clays from Koppamurra has demonstrated consistent physical and metallurgical responses across various ore types, and spatially diverse source locations within the Project area. This validation strengthens the improved approach for efficient extraction of MRE's, with short-term heap leach positioned adjacent to the mine pit.

The Australian Nuclear Science and Technology Organisation (ANSTO), Australia's leading laboratory in ionic clay leaching, is assisting AR3 with its ongoing process flowsheet development.

AR3 Chief Executive Travis Beinke said:

"I am pleased to report an update on the significant progress our team has made in the first half of this year regarding the metallurgical testwork for the Koppamurra project.

Building on the initial heap leach testwork, the latest results have continued to demonstrate impressive recoveries of Magnet Rare Earths (MRE), with results ranging from 29% to 74% across a variety of ore conditions and locations. These consistent results, achieved in significantly shorter periods compared to traditional heap leaching, provide us with increased confidence in the viability of using short-term heaps near the mine pit.

We've identified several potential advantages of a progressive heap leach development approach. These include potentially lower initial capital and operating costs, and improvements to the project's environmental credentials, including reduced water and power consumption. Importantly, this approach is also expected to enhance the clay's handling characteristics, consistent with sustainable, rapid, and progressive rehabilitation of the land after mining to return it to its former use.

The positive physical and chemical characteristics observed in our recent 4-meter column test indicate strong potential for scaling up to commercial heap geometries. This is a critical milestone, as it paves the way for the development of economically viable and scalable extraction processes. Additionally, the low ratio of gangue and impurities to rare earth content in our solutions further supports the heap leach method as a cost-effective and sustainable approach for the Koppamurra project.

These results are extremely encouraging as they are unoptimised. Future testwork will focus on work to further optimise the process and understand the optimal conditions to maximise recoveries while minimising impurities with the aim to increase the value of the Project.

These achievements are a testament to the dedication and expertise of our team, and they mark a significant step forward in our journey towards efficient and sustainable rare earth extraction. We remain committed to advancing our development pathway and unlocking the full potential of the Koppamurra project."

ANSTO Metallurgical Column Leach Testwork

Metallurgical column leach testwork commenced at ANSTO in December 2023. The Koppamurra ore material generated from the Bulk Sample Pit operations[1] and from composite 'variability' samples responded positively to agglomeration and percolation techniques. Both techniques could be applied at larger scales in a progressive heap leach application and taken forward as a development pathway for the environmentally and economically sustainable multi-generational production of rare earths from the Koppamurra rare earths province.

The material, after column leaching, has shown favorable geochemical and geotechnical characteristics for the rapid and sustainable progressive rehabilitation techniques planned for Koppamurra rare earth production. Detailed materials handling and geochemical stability assessments are being made of the material from these current tests.

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[1] Refer to ASX release 11 April 2022 "Mining Trial Commences at Koppamurra"

Since the initiation of metallurgical column leach testwork undertaken at ANSTO in December 2023, six distinct Koppamurra ore samples have been tested in ten column heap leach tests. The samples, sourced from Bulk Sample Pit operations and diverse 'variability' composites across the Project area, have consistently demonstrated suitability for agglomeration and heap leaching. This success has been crucial in demonstrating the uniform physical characteristics and metallurgical recoveries of the Koppamurra ore using the progressive heap leach approach.

Past ore variability testing in slurry leach by AR3 has shown a strong correlation between acid consumption, gangue dissolution, rare earth recovery, and calcium content. With the current program, we are progressing to establish a similar correlation for heap leaching, alongside commencing investigation into the optimal operating conditions. In this initial phase of heap leach column test work, both the physical characteristics and metallurgical recoveries of the ore were evaluated over a range of operating conditions, ore characteristics, and spatially diverse locations within the Project area, as follows:

Operating Conditions:

- **Acid added in Agglomeration** – A low acid addition rate of ~25 kg/t H2SO4 in the ore agglomeration was applied in Column 3 compared to the average rate of ~44 kg/t H2SO4 applied to the nine other columns.
- **Irrigation solution pH** – A low lixiviant irrigation solution pH of 1.5 was applied to Column 1, compared to a pH 2.2 solution applied to the nine other columns.
- **Heap Stack Height** – Column 10 was stacked to a height of 4 m compared to the 2 m height of the nine other columns.

Ore Characteristics and Spatial Diversity:

- Columns 1, 2, 3 and 10 utilised ore from the 2023 Bulk Sample Pit operations.
- Columns 4, 5, 6, 7, 8 and 9 utilised 'variability' composite samples, of varying lithology and grade, derived from 1 m drill hole intervals. Each column was subjected to the same operating conditions.

Composite drill hole cuttings masses totaled as follows:

CP3a	100kg
CP4a	40kg
CP5a	70kg
CP6a	30kg
CP10a	40kg
CP10b	20kg

The individual samples making up the Composites, CP's 3a, 4a, 5a, 6a and 10a/10b are listed in Appendix II. The CP locations are illustrated in Figure 1 with respect to the Mineral Resource categories and AR3's proposed Mine Lease Application boundary.

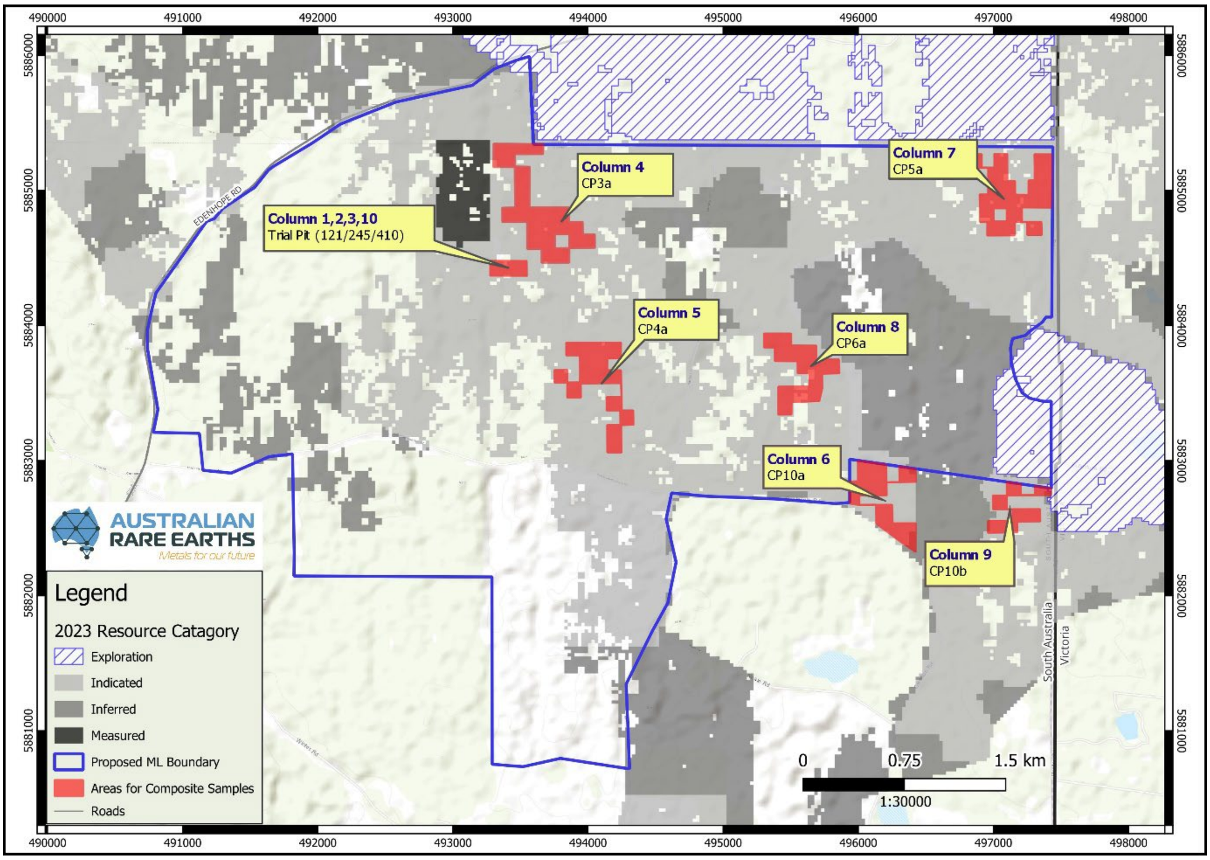

Figure 1: *Composite sample locations for Column leach test work, with Column ID's C1 through C6 (blue)*

Testwork Results

The results from the recently completed columns 3, 7, 8, 9, and 10 have demonstrated consistent recoveries of MRE, ranging from 29% to 74%, across various ore conditions and spatially diverse locations within the project area. Additionally, these columns exhibited uniformity in achieving consistent MRE recoveries in significantly shorter time frames compared to traditional heap leach operations. The duration of irrigation spanned from as short as 22 days for Column 8, up to 72 days for Column 3 where a low acid addition rate was applied in the ore agglomeration stage. This enhances confidence in using heap leach to facilitate rapid MRE recovery and rehabilitation of the utilised land.

The heap leach Pregnant Liquor Solution (PLS) has consistently shown low gangue/impurity profiles compared to slurry leach operations. This suggests the potential for more economically sustainable downstream processing conditions to produce a rare earth product.

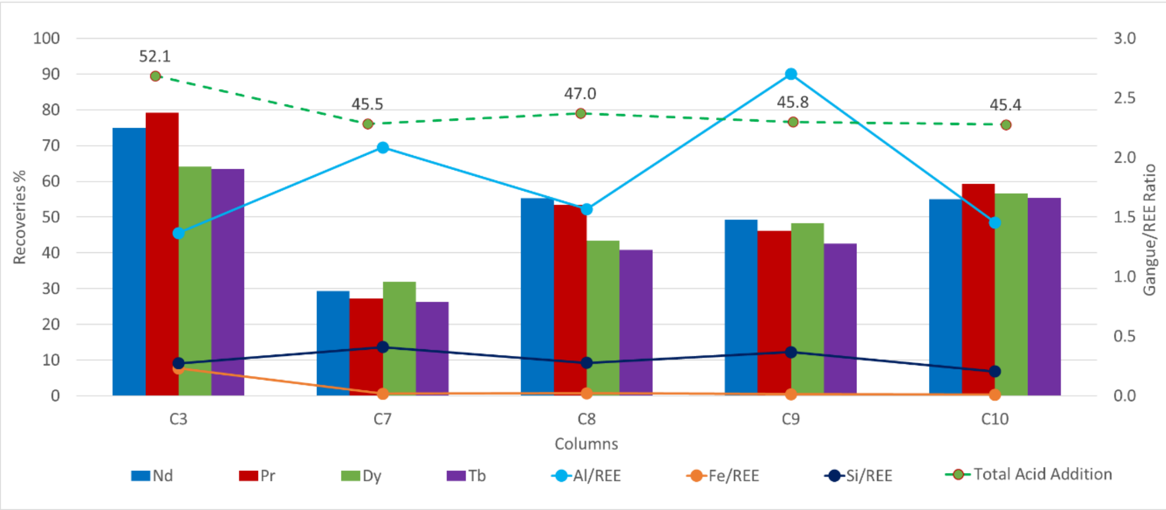

Figure 2: *Rare earth recoveries for Columns 3, 7, 8, 9 and 10, showing gangue dissolution characteristics (Al / Fe / Si) with respect to ore variability at constant pH. Notable here is the decreased extraction for C7 ore which had greater calcium concentration, aiding in understanding the target ore characteristics for mining*

A notable achievement from the recent additional tests was the heap leach column test conducted at a lift height of 4 m, which resulted in positive physical and chemical performance akin to columns 1, 2 and 3 which utilised the same ore sample material. As illustrated in Table 1, the bulk density and porosity of the leached ore, prior to washing, is very similar for the 4 m column (Column 10) compared to the average of the four 2 m columns (columns 3, 7, 8 and 9). This indicated that despite the added height the ore had not compacted during the irrigation period. This success has provided an early indication of the feasibility of increasing the heap height to potential commercial geometries, which could result in reduced heap footprint and capital costs.

Table 1: *Basic hydrodynamic data for columns 3, 7, 8, 9, 10 on last day of draining after lixiviant irrigation.*

Column / Sample	Drained Bulk Density	Drained Porosity	Total Lixiviant Volume Per Tonne of Dry Ore
	kg/m^3	v/v %	m^3/t
C3 - Trial Pit (121/345/410)	876	67	6.6
C7 - Resource Composite CP05A	864	67	1.8
C8 - Resource Composite CP06A	834	69	1.6
C9 - Resource Composite CP10B	684	74	2.2
C10 - Trial Pit (121/345/410)	867	67	2.0

A key insight from the continued operation of Column 3 (previously reported as at day 32[2]) is the impact of applying a low acid addition rate during the ore agglomeration phase on the gangue profile of the PLS. Column 3 received approximately half the acid during agglomeration compared to both Column 1 and Column 2, all of which utilised the same feed ore sample material. Column 3 was subsequently irrigated with a pH 2.2 lixiviant solution until day 40, at which point the lixiviant pH was decreased to 1.0. As a result, the ratio of aluminum dissolution to rare earths was significantly lower compared to both Column 1 and Column 2. Additionally, the ratio of iron dissolution to rare earths was lower in Column 3 compared to Column 1, and similar to Column 2. Despite this low acid addition rate in agglomeration and lower gangue dissolution, Column 3 still impressively achieved approximately 4% greater MRE recoveries than both Column 1 and Column 2. This was achieved while applying a lower total acid addition than Column 1 and a similar total acid addition to Column 2.

Figure 3: *ANSTO Facilities, Column C10 at 4m height, and displaying positive agglomeration and 'heaping' characteristics*

These additional tests have also enabled the collection of substantial volumes of liquors extracted from the columns for evaluating membrane filtration technology. The membrane filtration evaluation aims to capture and treat both leach reagents and water for reuse in the heap leach process. This has the potential to offer significant operating cost savings and capital cost savings by reducing the volumes of downstream processing. Importantly, this also has the potential to reduce water and reagent use. The significant volumes of liquor obtained through the heap leach testwork will also facilitate impurity removal tests and the preparation of additional mixed rare earth carbonate (MREC) for customer assessment.

AR3 continues to work closely with NEO Performance Materials Inc. ("Neo"), a world-leader in the production of rare earth permanent magnets and other rare earth products and whom with AR3 has a non-binding Memorandum of Understanding that provides for an offtake agreement for initial production of a MREC from Koppamurra. Importantly, Neo operates several rare earth production facilities around the world, and is one of the few western separation plants that

[2] Refer to ASX release 2 April 2024 "Flowsheet Update for Koppamurra"

source MREC from third-party producers. Neo's experience in providing input to MREC supply continues to be invaluable to AR3.

The material, after column heap leach, has shown favourable geochemical and geotechnical characteristics for the environmentally sustainable, rapid, progressive rehabilitation techniques planned for Koppamurra rare earth production. Various heap washing regimes were trialed across columns C7 through C9, with washing currently continuing on C10. The trialed washing regimes provided positive first pass results for understanding wash impact on neutrality and remaining free acid. Detailed heap leach washing, materials handling and geochemical stability assessments are planned for subsequent tests to ensure an environmentally sustainable operation at Koppamurra can be achieved.

Table 2: *Column Leach Summary*

Column / Sample	Head Grade TREO + Y_2O_3	Recovery					Gangue Dissolution (Gangue / REE ratio)			Target Feed pH	Total H_2SO_4 Acid Addition	Irrigation Duration	General Characterisation		
		Nd	Pr	Dy	Tb	Magnet Rare Earths (MRE)	Al:REE	Fe:REE	Si:REE				wt. % > 75 micron	Assay Ca % wt.	Smectite Index (1)
	ppm	%	%	%	%	%					kg/t	Days	%	%	m2/g
C3 - Trial Pit (121/345/410)	1967	74.9	79.2	64.1	63.4	74.4	1.37	0.23	0.27	2.2	52.1	72	9.1	1.3	296
C7 - Resource Composite CP05A	1119	29.3	27.2	31.9	26.3	29.2	2.08	0.02	0.41	2.2	45.5	26	30.4	2.3	301
C8 - Resource Composite CP06A	1435	55.3	53.4	43.3	40.9	53.3	1.57	0.02	0.28	2.2	47.0	22	22.4	1.8	337
C9 - Resource Composite CP10B	1425	49.2	46.2	48.4	42.5	48.5	2.70	0.01	0.37	2.2	45.8	26	27.1	1.6	326
C10 - Trial Pit (121/345/410)	1566	55.0	59.3	56.5	55.4	55.9	1.46	0.01	0.21	2.2	45.4	56	n/a	1.5	n/a

(1) Methylene Blue Surface Area - assuming all smectite dominating methylene blue surface area is in the <45 micron fraction [m2/g < 45 micron basis]

Next Steps

Water Treatment/Recycling

Water treatment processes applied to the leach solutions and for the recycle of water and reagents is being assessed at desktop level and will ultimately be tested through the application of reverse osmosis, nano filtration and ultra filtration in a comprehensive test work program to evaluate and select a process for the economic recovery of rare earth elements from the clay hosted deposit at Koppamurra.

Impurity Removal

Following the leaching program, impurity removal optimisations will be performed to improve the rejection of deleterious elements such as aluminium, iron, silica, whilst maximising the recovery of the rare earths. The testwork will aim to evaluate impurity removal conditions including pH, alkali type, temperature, and residence time.

Previous successful impurity removal testwork undertaken by AR3 will now be applied to the much higher-grade rare earths in solution derived from the column leaches which also have lower impurity to REE in solution ratios. Impurity removal steps in the production of marketable mixed rare earth concentrates are further enhanced by lower gangue/REE ratios and can generate lower REE loses through that process.

Rare Earth Precipitation

Following the impurity removal program, rare earth precipitation tests will be performed to generate a saleable rare earth product. The testwork will evaluate the type of precipitation agent, pH, temperature, residence time, % solids and solid liquid separation performance.

Progressive heap leach, high grade rare earths pathway

Additional drilling, assay results[3] and resources modelling undertaken at Koppamurra have allowed for the identification of a high-grade rare earth subset of the broader Koppamurra resources. These high-grade ore zones, and the application of temporary heap leaching production pathways, will allow for scalable, efficient production of rare earths with staged satellite developments enhancing the favorable environmental outcomes from a development of this type.

A conceptual project process flowsheet is provided at Figure 4. Some of the design features and resulting advantages for the Koppamurra project with a progressive heap leach pathway compared to a slurry leach are as follows:

Design Features:

- High-grade satellite mine sites with temporary heap pads located at the edge of the satellite mine void;
- Top soil and overburden material temporarily set aside ready to be placed back in the mine void after rare earths have been harvested from the clay and the clay has been washed allowing for rapid and progressive rehabilitation of the land;
- Water treatment equipment located proximate to the temporary heap pads to facilitate recycling and reuse of water and reagents.

Design advantages include:

- Potential for a significantly lower capital cost and reduced operating cost project;
- Opportunity to easily expand and scale up production over time across the multi-generational province;
- Enables improved environmentally sustainable characteristics with;
    - Very low water consumption
    - Reduced power consumption
    - Materials handling characteristics enabling environmentally sustainable, rapid, progressive rehabilitation techniques
- Testwork also indicates lower gangue/impurity profile with higher rare earth in solution characteristics through column leach resulting in lower capital and operating cost.

[3] Refer to ASX release 30 January 2024 "Additional high grade, shallow mineralisation at Koppamurra" and ASX release 26 February 2024 "High-Grade mineralisation discovered North of Koppamurra MRE"

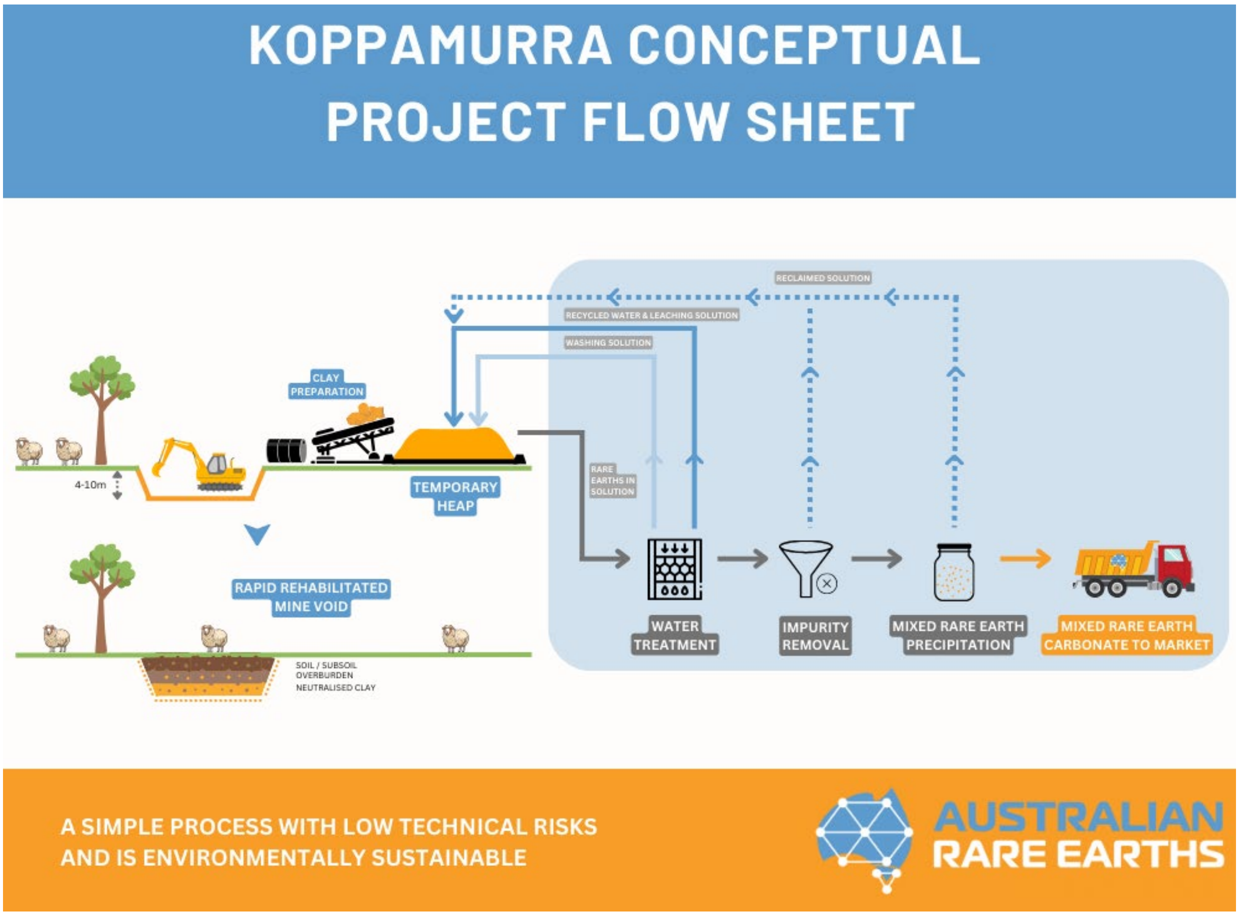

Figure 4: *Koppamurra conceptual project flow sheet*

The announcement has been authorised for release by the Board of Australian Rare Earths Limited.

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Engage and Contribute at the AR3 investor hub: https://investorhub.ar3.com.au/

Competent Person's Statement

The information in this report that relates to metallurgical results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Jon Weir who is the Technical Director of Wallbridge Gilbert Aztec and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Weir has sufficient experience that is relevant to the metallurgical testing which was undertaken 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 Weir consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Rick Pobjoy who is the Chief Technical Officer of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities undertaken 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 Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

About Australian Rare Earths Limited

Australian Rare Earths is committed to the timely exploration and development of its 100% owned, flagship Koppamurra Project, located in the new Koppamurra rare earths Province in southeastern South Australia and western Victoria. Koppamurra is a prospective ionic clay hosted rare earth deposit, uniquely rich in all the elements required in the manufacture of rare earth permanent magnets which are essential components in electric vehicles, wind turbines and domestic appliances. In addition, AR3 is actively reviewing other potential prospective areas which may also host uranium and ionic clay hosted rare earth deposits throughout Australia.

The Company is focused on executing a growth strategy that will ensure AR3 is positioned to become an independent and sustainable source of energy transition metals, playing a pivotal role in the global transition to a green economy.

https://investorhub.ar3.com.au/link/aP3kwP

APPENDIX I – JORC TABLE 1 & 2

JORC Table 1 – Section 1

Section 1 Sampling Techniques and Data		
Criteria	**Explanation**	**Comment**
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 representivity 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.*	*RC Aircore drilling methods were used obtain samples from the October-December 2021, February-April 2022, September-December 2022 February- June 2023, and October-December 2023 drilling programs.* *The following information covers the sampling process:* • *All air core samples were collected from the rotary splitter mounted at the bottom of the cyclone using a pre-numbered calico bag and plastic UV sample bag. The samples were geologically logged at 1 m intervals using the marked calico sample which averaged ~1.5 kg in mass.* • *A handheld Olympus Vanta XFR Analyser was used to assess the geochemistry of the air core samples in the field. The XRF analysis provided a full suite of mineral elements for characterising the lithological units.* • *XRF readings were downloaded from the XRF Analyser at the end of each day and uploaded to the Australian Rare Earths Azure Data Studio database.* • *Field duplicates were taken at a rate of* • *~1:34 and inserted blindly into the sample batches.* • *At the laboratory, the samples were oven dried at 105 degrees for a minimum of 24 hours and secondary crushed to 3 mm fraction and then pulverised to 90% passing 75 µm. Excess residue was maintained for storage while the rest of the sample placed in 8x4 packets and sent to the central weighing laboratory. The samples were submitted for analysis using XRF-ICP-MS method.* • *A laboratory repeat was taken at ~ 1 in 21 samples;* • *Commercially obtained standards were inserted by the laboratory at a rate of ~ 1 in 9 into the sample sequence.* *Mechanical excavation techniques were applied to the recovery of samples from the area of AR3's Trial Pit. Trial Pit samples were taken from a number of discrete locations within the pit, nominally 1m wide x 1m long x 0.5m deep. Material from these locations were loaded into a dump truck by an excavator and taken to a laydown site for assessment.*

Section 1 Sampling Techniques and Data		
Criteria	**Explanation**	**Comment**
		Up to 5 x dump truck piles of material from each discrete location were dumped on the laydown. Up to 12 x bulka bags were filled from those (up to) 5 x piles of material and each was provided a unique Bulka Bag # which referenced a Location and sample pile number. Eg C2L1aP3 (C2 - cut bench 2, L1a – location 1a, P3 – pile 3). *Samples provided for column leach testwork were sourced from Trial Pit Locations;* *C2L1aP3, Bulka Bag #146* *C2L3P2, Bulka Bag #121* *C4L4P5, Bulka Bag #410* *C4L4P2, Bulka Bag #345* *Samples were collected from the Bulka bags and placed into 20 litre buckets for transfer to ANSTO for testwork.*

APPENDIX I – JORC TABLE 1 & 2

Criteria	Explanation	Comment
Drilling techniques	*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).*	• *Drilling was completed using a Mcleod or Wallis air ore drill rig (Landcruiser 6x6 or similar) for the drilling.* • *Aircore drilling is a form of reverse circulation drilling where the sample is collected at the face and returned inside the inner tube. The drill cuttings are removed by injection of compressed air into the hole via the annular area between the inner tube and the drill rod.* • *Aircore drill rods used were 3 m long.* • *NQ diameter (76 mm) drill bits and rods were used.* • *All aircore drill holes were vertical with depths varying between 2 m and 36 m.*
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures 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.*	• *Drill sample recovery for aircore is monitored by recording sample condition descriptions where 'Poor' to 'Very Poor' were used to identify any samples recovered which were potentially not representative of the interval drilled.* • *A comment was included where water injection was required to recover the sample from a particular interval. The use of water injection can potentially bias a sample and very little water injection was required during this drilling program.* • *No significant loses of samples were observed due to the shallow drilling depths (<36 m).* • *The rotary splitter was set to an approximate 20% split, which produced approximately 1.5 kg sample for each meter interval.* • *The 1.5 kg sample was collected in a pre-numbered calico bags and the remaining 80% (5 kg to 8 kg) was collected in plastic UV bags labelled with the hole number and sample interval.* • *At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes and cyclone.* • *No relationship exists between sample recovery and grade.*

Criteria	Explanation	Comment
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 intersections logged.*	• *All aircore samples collected in calico bags were logged for lithology, colour, cement type, hardness, percentage rock estimate, sorting, and any relevant comments such as moisture, sample condition, or vegetation.* • *Geological logging data for all drill holes was qualitatively logged onto Microsoft Excel spreadsheet using a Panasonic Toughbook with validation rules built into the spreadsheet including specific drop- down menus for each variable. The data was uploaded to the Australian Rare Earths Azure Data Studio database.* • *Every drill hole was logged in full and logging was undertaken with reference to a drilling template with codes prescribed and guidance to ensure consistent and systematic data collection.*
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all cores 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.*	• *1 m aircore sample interval were homogenised within the cyclone and the rotary splitter was set to an approximate 20% split producing around 1.5 kg sample for each metre interval.* • *The 1.5 kg sample was collected in a pre-numbered calico bag and the 80% (5 kg to 8 kg) portion was collected in plastic UV bags labelled with hole identity and interval.* • *Duplicates were generally taken within the clay lithologies above the basement as this is the likely zone of REE enrichment. These duplicate samples were normally collected by using a second calico bag and placing it under the rotary splitter collecting a 20% split but due to the difficulties of placing a second calico bag under the rotary splitter during sample collection, some duplicates were collected by hand from the plastic UV bags which captured the other 80% of the material recovered from any particular interval.* • *The material in the plastic UV bags was mixed up and every attempt to take as representative sample of the material as possible by hand was made and then placed in a pre-numbered calico bag.* • *The 1.5 kg sample collected in the calico bag was logged by the geologist onsite. The logged samples were placed in polyweave bags and sent to Naracoorte base at the end of each day. The polyweave bags were then placed on pallets and dispatched to Bureau Veritas laboratory in Adelaide in Bulka Bags.*

Criteria	Explanation	Comment
		• *The remaining 80% split from the aircore interval was stored for future reference.* • *Field duplicates of all the samples were completed at a frequency of ~1 in 34 samples. Field standards were inserted into the sample sequence at a frequency of ~1:57. Standard reference Material (SRM) samples were inserted into the sample batches at a frequency rate of 1 per 10 samples by the laboratory and a repeat sample was taken at a rate of 1 per 21 samples.* • *A rig geologist oversaw the sampling and logging process while a second geologist selected samples for analysis based on the logging descriptions and pXRF analysis. Clay rich sample and those adjacent to the limestone basement contact were selected for assay. REEs are known to be contained within the clay component of the sediment package based on analysis of XRF data and previous exploration work.* *Samples received by ANSTO* for column leach testing *were air-dried to reduce moisture content to ~15-18% to allow for processing. The samples were passed through a 10 mm screen and the oversize gently crushed and recombined with the undersize. The sample was then passed through a 4.75 mm screen, and the oversize again gently crushed and recombined so the sample is 100% passing 4.75 mm. The sample was then rotary split into 10 kg portions ready for agglomeration and column testing.*
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, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their*	• *The detailed geological logging of samples provides lithology (clay component) and proximity to the limestone basement which is sufficient for the purpose of determining the mineralised zone.* • *The 1.5 kg aircore samples were assayed by Bureau Veritas laboratory in Wingfield, Adelaide, South Australia, which is considered the Primary laboratory.* • *The samples provided to ANSTO were subsampled and assayed at by a combination of XRF (in-house - ANSTO) and the Multiple Elements Fusion/Mixed Acid Digest analytical method at ALS, Brisbane* • *The samples were initially oven dried at 105 degrees Celsius for 24 hours. Samples were secondary crushed to 3 mm fraction and the weight recorded. The sample was then pulverised to 90% passing 75 µm. Excess*

Criteria	Explanation	Comment
		residue was maintained for storage while the rest of the sample placed in 8x4 packets and sent to the central weighing laboratory.

Criteria	Explanation	Comment
	derivation, etc. *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.*	• *All weighed samples were then analysed using the Multiple Elements Fusion/Mixed Acid Digest analytical method;* • *ICP Scan (Mixed Acid Digest – Lithium Borate Fusion) Samples are digested using a mixed acid digest and also fused with Lithium Borate to ensure all elements are brought into solution. The digests are then analysed for the following elements (detection Limits shown): Al (100) As (1) Ba (1) Be (0.5) Ca(100) Ce (0.1) Co (1) Cr (10) Dy (0.05) Er (0.05) Eu(0.05) Fe(100) Gd (0.2) Ho (0.02) K (100) La (0.5) Lu (0.02) Mg (100) Mn (2) Na (100) Nd (0.05) Ni (2) Pr (0.2) S (50) Sc (1) Si (100) Sm(0.05) Sr (0.5) Th (0.1) Ti (50) Tm (0.2) U (0.1) V (5) Y (0.1) Yb (0.05) Zr (1)* • *Field duplicates were collected and submitted at a frequency of ~1 per 34 samples.* • *Bureau Veritas completed its own internal QA/QC checks that included a Laboratory repeat every 21st sample and a standard reference sample every 9th sample prior to the results being released.* • *Analysis of QA/QC samples show the laboratory data to be of acceptable accuracy and precision;* • Australian Rare Earths submitted field standards at a frequency of ~1:57 samples. • Australian Rare Earths requested BV insert blank washes at a frequency of 1:40 samples. These blank washes were inserted in the sample sequence behind samples which were thought to be mineralized to ensure that no contamination from higher grade samples was occurring. Frequency of blank samples totaled 1 in 24 samples. *The adopted QA/QC protocols are acceptable for this stage of test work. The sample preparation and assay techniques used are industry standard and provide a total analysis.*

Criteria	Explanation	Comment
Verification of sampling and assaying	*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, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	• *All results are checked by the company's Technical Director.* • *Field based geological logging for drill holes was entered directly into an Excel spreadsheet format with validation rules built into the spreadsheet including specific drop-down menus for each variable. This digital data was then uploaded to the Australian Rare Earths Azure Data Studio database.* • *Assay data was received in digital format from the laboratory and was uploaded Australian Rare Earths Azure Data Studio database.* • *Field and laboratory duplicate data pairs of each batch are plotted to identify potential quality control issues.* • *Standard Reference Material sample results are checked from each sample batch to ensure they are within tolerance (<3SD) and that there is no bias.* • *The field and laboratory data was exported and imported into Datamine by IHC Robbins which is appropriate for this stage in the program. Data validation criteria are included to check for overlapping sample intervals, end of hole match between 'Lithology', 'Sample', 'Survey' files and other common errors.* • *Assay data yielding elemental concentrations for rare earths (REE) within the sample are converted to their stoichiometric oxides (REO) in a calculation performed within the database using the conversion factors in the below table.* • *Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations have been used for reporting throughout this report:* • *Note that Y2O3 is included in the TREO, HREO and CREO calculation.* ***TREO*** *= La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3+ Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3+ Y2O3* ***CREO*** *=* ***LREO*** *= La2O3 + CeO2 + Pr6O11 + Nd2O3* ***HREO*** *= Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3+ Lu2O3 + Y2O3 NdPr = Nd2O3 + Pr6O11* ***TREO-Ce*** *= TREO - CeO2* ***NdPr*** *= Nd + Pr* *Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3*

APPENDIX I – JORC TABLE 1 & 2

<table>
<tr><th>Criteria</th><th>Explanation</th><th>Comment</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Element Oxide</th><th>Oxide Factor</th></tr>
<tr><td>CeO_2</td><td>1.2284</td></tr>
<tr><td>Dy_2O_3</td><td>1.1477</td></tr>
<tr><td>Er_2O_3</td><td>1.1435</td></tr>
<tr><td>Eu_2O_3</td><td>1.1579</td></tr>
<tr><td>Gd_2O_3</td><td>1.1526</td></tr>
<tr><td>Ho_2O_3</td><td>1.1455</td></tr>
<tr><td>La_2O_3</td><td>1.1728</td></tr>
<tr><td>Lu_2O_3</td><td>1.1371</td></tr>
<tr><td>Nd_2O_3</td><td>1.1664</td></tr>
<tr><td>Pr_6O_{11}</td><td>1.2082</td></tr>
<tr><td>Sc_2O_3</td><td>1.5338</td></tr>
<tr><td>Sm_2O_3</td><td>1.1596</td></tr>
<tr><td>Tb_4O_7</td><td>1.1762</td></tr>
<tr><td>ThO_2</td><td>1.1379</td></tr>
<tr><td>Tm_2O_3</td><td>1.1421</td></tr>
<tr><td>U_3O_8</td><td>1.1793</td></tr>
<tr><td>Y_2O_3</td><td>1.2699</td></tr>
<tr><td>Yb_2O_3</td><td>1.1387</td></tr>
</table>
</td></tr>
<tr><td>Location of data points</td><td>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.</td><td>
• Down hole surveys for shallow vertical aircore drill holes are not required.
• The drill hole collars were located using a GPS unit to identify the positions of the drill holes in the field. The handheld GPS has an accuracy of ±5m in the horizontal.
• The datum used is GDA2020/MGA Zone 54.
• Topographic data over the southern area of the resource (including all Inferred/Indicated/Measured resource areas) is derived from a fixed wing LiDAR survey flown in May 2022 by Aerometrex using their RIEGL VQ-780ii sensor. The
• LiDAR survey data was captured at a minimum 25 points per meter and flown at a height of 591m to ensure ~10cm vertical accuracy.
• Topographic DTM surface over the northern area of the resource (Frances Exploration Target area) is derived from DGPS drill collar positions at this stage of exploration and the RL has been corrected using An Australian wide SRTM. The 1 second SRTM Level 2 Derived Smoothed Digital Elevation Model (DEM-S) is derived from the 2000 SRTM. The DEM-S has a ~30m grid which has been adaptively smoothed to improve the representation of the surface shape and is the preferred method for shape and vertical accuracy from STRM products. The smoothing process estimated typical improvements in the order of 2-3 m. This would make the DEM-S accuracy to be of approximately 5 m.
• The accuracy of the locations is sufficient for this stage of exploration.
</td></tr>
</table>

Criteria	Explanation	Comment
Data spacing and distribution	*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.*	• *The holes were largely drilled at between 100m and 400m spacings along accessible road verges.* • *Drill spacing within paddocks and forested areas was largely completed at 100m to 120m spacings, with a small portion of holes drilled at 60m spacings.* • *The drilling of aircore holes was conducted to determine the regional prospectivity of the wider Koppamurra Project area and for the purposes of generating a mineral resource estimate.* • *No sample compositing has been applied.*
Orientation of data in relation to 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 key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• *The Koppamurra mineralisation is interpreted to be hosted in flat lying clays that are horizontal. Undulation of the clay unit is influenced by the weathered limestone basement below.* • *All drill holes are vertical which is appropriate for horizontal bedding and regolith profile.* • *The Koppamurra drilling was oriented perpendicular to the strike of mineralisation defined by previous exploration and current geological interpretation.* • *The strike of the mineralisation is north south, and the high grades follow a northwest-southeast trend.* • *All drill holes were vertical, and the orientation of the mineralisation is relatively horizontal.* • *The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralisation without any bias.*

Criteria	Explanation	Comment
Sample security	*The measures taken to ensure sample security.*	• *After logging, the samples in calico bags were tied and placed into polyweave bags, labelled with the drill hole and sample numbers contained within the polyweave and transported to the base of operations, Naracoorte, at the end of each day.* • *The samples were then placed on pallets ready for transport and remained in a secure compound until transport had been arranged. Pallets were labelled and then 'shrink-wrapped' by the transport contractor prior to departure from the Naracoorte base to the analytical laboratory.* • *Samples for analysis were logged against pallet identifiers and a chain of custody form created.* • *Transport to the analytical laboratory was undertaken by an agent for the TOLL Logistics Group, and consignment numbers were logged against the chain of custody forms.* • *The laboratory inspected the packages and did not report tampering of the samples and provided a sample reconciliation report for each sample dispatch.*
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• *Internal reviews were undertaken by AR3's Exploration Manager and Technical Director during the drilling, sampling, and geological logging process and throughout the sample collection and dispatch process to ensure AR3's protocols were followed.* • *A review of the database was also undertaken by Wallbridge Gilbert Aztec (WGA) – Consulting Engineers.* • *A review of the Metallurgical Column Test Work and results was undertaken by Wallbridge Gilbert Aztec (WGA) – Consulting Engineers – Jon Weir is CP for Metallurgical Column Test Work.*

APPENDIX I – JORC TABLE 1 & 2

Appendix I - JORC Table 1 - Section 2, Reporting of Exploration Results

Section 2 Reporting of Exploration Results		
Criteria	**Explanation**	**Comment**
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.*	• *Koppamurra Project comprises of a granted South Australian Exploration Licences (EL), EL6509, EL6613, EL6690, EL6691, EL6942, and EL6943 along with Victorian EL007254 and EL007719 covering a combined area of ~6,300 km^2 which is in good standing.* • *EL6509 is within 100m of a Glen Roy Conservation Park and the Naracoorte Caves National Park, the latter of which is excised from the tenement. The License area contains several small Extractive Mineral Leases (EML) held by others, Native Vegetation Heritage Agreement areas, as well as the Deadman's Swamp Wetlands which are wetlands of national importance.* • *A Native Title Claim by the First Nations of the South East #1 has been registered but is yet to be determined. The claim area includes the areas covered by EL's 6509, 6613, 6690, 6691, 6942, and 6943.* • *The exploration work was completed on the tenement EL 6509 which is 100% owned by the company Australian Rare Earths Ltd.* • *The Exploration License EL6509 original date of grant was 15/09/2020 with an expiry date of 14/09/2028.* • *Details regarding royalties are discussed in chapter 3.4 of Australian Rare Earths Prospectus dated 7 May 2021.*

Criteria	Explanation	Comment
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• *Exploration activities by other exploration companies in the area have not previously targeted or identified REE mineralisation.* • *Historical exploration activities in the vicinity of Koppamurra include investigations for coal, gold and base metals, uranium, and heavy mineral sands.* • *Historical exploration by other parties is detailed in Chapter 7 of Australian Rare Earths Prospectus dated 7 May 2021.*
Geology	*Deposit type, geological setting and style of mineralisation.*	• *The Koppamurra deposit is interpreted to contain analogies to ion adsorption ionic clay REE deposits. REE mineralisation at Koppamurra is hosted by clayey sediments interpreted to have been deposited onto a limestone base (Gambier Limestone) and accumulated in an interdunal, lagoonal or estuarine environment.* • *A dedicated research program investigating the source of the REE at Koppamurra is ongoing, with no definitive source of the REE confirmed to date although preliminary results of this study have ruled out the alkali volcanics in south- eastern Australia which was originally considered.* • *Mineralogical test work previously conducted on clay samples from the project area established that the dominant clay minerals are smectite and kaolin, and that the few REE-rich minerals detected during the SEM investigation are considered consistent with the suggestion that a significant proportion of REE are distributed in the material as adsorbed elements on clay and iron oxide surfaces.* • *There are several known types of regolith hosted REE deposits, including: ion adsorption clay deposits, alluvial and placer deposits. Whilst Koppamurra shares similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also several differences, highlighting the need for further work before a genetic model for REE mineralisation at Koppamurra can be confirmed.* • *There is insufficient geological work undertaken to determine any geological disruptions, such as faults or dykes, that may cause variability in the mineralisation.*

Criteria	Explanation	Comment
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 material information for drill holes relating to this report are contained within Appendices of this release (Appendix II).*
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.*	• *No metal equivalents have been used.*

Criteria	Explanation	Comment
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 (eg 'down hole length, true width not known').*	• *All intercepts reported are down hole lengths.* • *The mineralisation is interpreted to be flat lying. Morphology of the mineralised unit is influenced by the morphology of the undulating limestone basement below.* • *Drilling is vertical perpendicular to mineralisation. Any internal variations to REE distribution within the horizontal layering was not defined, therefore the true width is considered 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 of drill hole collar locations and appropriate sectional views.*	• *Diagrams are included in the body of this release.*
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.*	• *This release contains all drilling results that are consistent with the JORC guidelines.* • *Where data may have been excluded, it is considered not material.*

Criteria	Explanation	Comment
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.*	• *AR3 has completed tank leach test work at ANSTO (ASX release: Highly successful metallurgical tests point to significantly lower processing costs, 16 May 2023).* • *AR3 has produced MREC at ANSTO from the tank leach test work (ASX release: First Mixed Rare Earth Carbonate (MREC) produced, 09 March 2023).* • *AR3 has completed column test work at ANSTO investigating the agglomeration, percolation and recoveries from columns to simulate the use of heap leach as a potential component of the process flowsheet (this ASX release).* • *AR3 column leach tests carried out at ANSTO have investigated lixiviant composition in columns C1, C2 and C3 using samples sourced from various locations and bench heights within the Trial Pit (location identified in diagram in the body of this release) and variability sample testing in columns C4, C5 and C6 from samples sourced from the drilling cuttings composites (CP03a, CP04a and CP10a) selected as examples of variability across the orebody (this ASX release).* • *Composite drill hole cuttings masses totaled as follows:* CP3a: 100kg CP4a: 40kg CP5a: 70kg CP6a: 30kg CP10a: 40kg CP10b: 20kg • *Individual drill holes making up the composites are listed in Appendix II and their locations listed in Appendix III* • *All known relevant exploration data and metallurgical test results have been reported*

Criteria	Explanation	Comment
		in this release.

Further work	*The nature and scale of planned further work (eg 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.*	• *AR3 intends to continue to define the Koppamurra resource during 2024. This will include (but not limited to) drilling, assay, ground based geophysical surveys and further metallurgical testwork.*
		• *Metallurgical test work next steps are:*
		  • *column leach test work: specifically in areas of further variability samples in columns C7-C9 (CP05a, CP06a and CP10b, detailed in Appendix II) and investigation of increased height of column (C10, using bulk sample sourced from trial pit) on recoveries;*
		  • *Water treatment testwork, impurity removal and rare earth collection in solution from the pregnant liquor solution from columns; and*
		  • *investigations into the precipitation of impurities and recovered rare earths from solution.*

APPENDIX II – LIST OF DRILLHOLE INTERVALS FOR COMPOSITE SAMPLES

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM0946	CP03a	6	7	668666
KM0946	CP03a	8	9	668668
KM0947	CP03a	10	11	668681
KM1075	CP03a	6	7	669746
KM1075	CP03a	9	10	669749
KM1075	CP03a	10	11	669750
KM1075	CP03a	11	12	669751
KM1076	CP03a	11	12	669765
KM1077	CP03a	9	10	669778
KM1078	CP03a	4	5	669785
KM1078	CP03a	5	6	669786
KM1079	CP03a	4	5	669793
KM1079	CP03a	8	9	669797
KM1080	CP03a	8	9	669806
KM1082	CP03a	7	8	669827
KM1083	CP03a	3	4	669832
KM1096	CP03a	4	5	669965
KM1096	CP03a	5	6	669966
KM1097	CP03a	14	15	669983
KM1098	CP03a	8	9	669992
KM1099	CP03a	2	3	669996
KM1103	CP03a	9	10	670033
KM1103	CP03a	13	14	670038
KM1103	CP03a	14	15	670039
KM1103	CP03a	15	16	670040
KM1108	CP03a	0	1	670093
KM1108	CP03a	3	4	670096
KM1108	CP03a	4	5	670097
KM1108	CP03a	2	3	670095
KM1113	CP03a	0	1	670144
KM1113	CP03a	2	3	670146
KM1116	CP03a	8	9	670182
KM1116	CP03a	7	8	670181
KM1117	CP03a	3	4	670188
KM1117	CP03a	6	7	670191
KM1117	CP03a	9	10	670194
KM1122	CP03a	4	5	670242
KM1122	CP03a	5	6	670243
KM1124	CP03a	5	6	670259
KM1125	CP03a	2	3	670267
KM1125	CP03a	3	4	670268
KM0946	CP03a	7	8	668667
KM0947	CP03a	9	10	668680
KM1075	CP03a	4	5	669744
KM1075	CP03a	5	6	669745
KM1076	CP03a	9	10	669763
KM1076	CP03a	10	11	669764
KM1077	CP03a	8	9	669777
KM1079	CP03a	5	6	669794
KM1079	CP03a	6	7	669795
KM1080	CP03a	7	8	669805
KM1082	CP03a	6	7	669826
KM1083	CP03a	2	3	669831
KM1096	CP03a	1	2	669961
KM1096	CP03a	2	3	669962

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM1096	CP03a	3	4	669963
KM1097	CP03a	11	12	669980
KM1097	CP03a	12	13	669981
KM1097	CP03a	13	14	669982
KM1098	CP03a	6	7	669990
KM1098	CP03a	7	8	669991
KM1099	CP03a	1	2	669995
KM1100	CP03a	2	3	670001
KM1103	CP03a	10	11	670034
KM1103	CP03a	11	12	670035
KM1103	CP03a	12	13	670036
KM1108	CP03a	1	2	670094
KM1113	CP03a	1	2	670145
KM1116	CP03a	6	7	670180
KM1117	CP03a	4	5	670189
KM1117	CP03a	5	6	670190
KM1122	CP03a	1	2	670239
KM1122	CP03a	2	3	670240
KM1122	CP03a	3	4	670241
KM1123	CP03a	3	4	670249
KM1123	CP03a	4	5	670250
KM1124	CP03a	3	4	670257
KM1124	CP03a	4	5	670258
KM1125	CP03a	1	2	670265
KM0881	CP04a	6	7	668223
KM0881	CP04a	7	8	668224
KM0881	CP04a	8	9	668225
KM0881	CP04a	9	10	668226
KM0881	CP04a	5	6	668222
KM0882	CP04a	0	1	668229
KM0883	CP04a	2	3	668234
KM0883	CP04a	1	2	668233
KM0884	CP04a	1	2	668237
KM0884	CP04a	9	10	668245
KM0884	CP04a	5	6	668241
KM0884	CP04a	6	7	668242
KM0884	CP04a	7	8	668243
KM0884	CP04a	8	9	668244
KM0897	CP04a	1	2	668326
KM0897	CP04a	2	3	668327
KM0898	CP04a	1	2	668332
KM0909	CP04a	0	1	668406
KM0909	CP04a	1	2	668407
KM0910	CP04a	0	1	668412
KM0911	CP04a	3	4	668418
KM0911	CP04a	4	5	668419
KM0972	CP04a	6	7	668938
KM0973	CP04a	0	1	668940
KM0973	CP04a	1	2	668941
KM0974	CP04a	4	5	668947
KM0975	CP04a	6	7	668955
KM0976	CP04a	8	9	668969
KM0976	CP04a	9	10	668970
KM0976	CP04a	10	11	668971
KM0976	CP04a	11	12	668972
KM0976	CP04a	12	13	668973
KM0976	CP04a	13	14	668974

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM0978	CP04a	2	3	668992
KM0978	CP04a	3	4	668993
KM0980	CP04a	2	3	669011
KM0981	CP04a	4	5	669018
KM0981	CP04a	7	8	669021
KM0982	CP04a	4	5	669027
KM0983	CP04a	3	4	669032
KM0983	CP04a	4	5	669033
KM1676	CP04a	3	4	676233
KM1676	CP04a	4	5	676234
KM1676	CP04a	5	6	676235
KM1676	CP04a	6	7	676236
KM1676	CP04a	7	8	676237
KM0898	CP04a	3	4	668334
KM0898	CP04a	5	6	668336
KM0907	CP04a	1	2	668401
KM0911	CP04a	2	3	668417
KM0884	CP04a	2	3	668238
KM0884	CP04a	3	4	668239
KM0884	CP04a	4	5	668240
KM0898	CP04a	2	3	668333
KM0909	CP04a	2	3	668408
KM0911	CP04a	1	2	668416
KM0912	CP04a	5	6	668426
KM0912	CP04a	6	7	668427
KM0972	CP04a	4	5	668936
KM0972	CP04a	5	6	668937
KM0974	CP04a	3	4	668946
KM0975	CP04a	7	8	668956
KM0975	CP04a	8	9	668957
KM0976	CP04a	6	7	668967
KM0976	CP04a	7	8	668968
KM0980	CP04a	1	2	669010
KM0981	CP04a	5	6	669019
KM0981	CP04a	6	7	669020
KM0982	CP04a	3	4	669026
KM0983	CP04a	5	6	669034
KM0983	CP04a	6	7	669035
KM0983	CP04a	7	8	669036
KM0983	CP04a	8	9	669037
KM0989	CP04a	5	6	669074
KM0989	CP04a	6	7	669075
KM0739	CP05a	2	3	666686
KM0740	CP05a	9	10	666698
KM0741	CP05a	3	4	666703
KM0741	CP05a	4	5	666704
KM0742	CP05a	4	5	666710
KM0762	CP05a	17	18	666897
KM0762	CP05a	18	19	666898
KM0763	CP05a	4	5	666905
KM0764	CP05a	7	8	666915
KM0784	CP05a	13	14	667116
KM0784	CP05a	14	15	667117
KM0784	CP05a	11	12	667114
KM0784	CP05a	12	13	667115
KM0784	CP05a	10	11	667113
KM0785	CP05a	8	9	667127

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM0785	CP05a	9	10	667129
KM0788	CP05a	6	7	667156
KM1168	CP05a	5	6	670694
KM1168	CP05a	7	8	670696
KM1168	CP05a	8	9	670697
KM1170	CP05a	4	5	670714
KM1170	CP05a	5	6	670715
KM1171	CP05a	2	3	670721
KM1171	CP05a	1	2	670720
KM1171	CP05a	3	4	670722
KM1363	CP05a	11	12	673184
KM1363	CP05a	12	13	673185
KM1363	CP05a	13	14	673186
KM1364	CP05a	0	1	673193
KM1364	CP05a	1	2	673194
KM1364	CP05a	2	3	673195
KM1365	CP05a	8	9	673207
KM1366	CP05a	16	17	673225
KM1366	CP05a	17	18	673226
KM1367	CP05a	4	5	673231
KM1367	CP05a	5	6	673232
KM1368	CP05a	7	8	673243
KM1369	CP05a	3	4	673248
KM1369	CP05a	7	8	673252
KM1389	CP05a	4	5	673471
KM1390	CP05a	6	7	673482
KM1391	CP05a	1	2	673486
KM1391	CP05a	2	3	673487
KM1392	CP05a	4	5	673499
KM1393	CP05a	7	8	673511
KM1365	CP05a	7	8	673206
KM1366	CP05a	11	12	673219
KM1366	CP05a	12	13	673220
KM1366	CP05a	13	14	673222
KM1366	CP05a	14	15	673223
KM1366	CP05a	15	16	673224
KM1369	CP05a	4	5	673249
KM0739	CP05a	1	2	666685
KM0741	CP05a	2	3	666702
KM0742	CP05a	3	4	666709
KM0760	CP05a	1	2	666869
KM0760	CP05a	2	3	666870
KM0761	CP05a	3	4	666877
KM0762	CP05a	12	13	666892
KM0762	CP05a	13	14	666893
KM0762	CP05a	14	15	666894
KM0762	CP05a	15	16	666895
KM0762	CP05a	16	17	666896
KM0763	CP05a	3	4	666904
KM0764	CP05a	6	7	666914
KM0785	CP05a	7	8	667126
KM0788	CP05a	4	5	667154
KM0788	CP05a	5	6	667155
KM1168	CP05a	6	7	670695
KM1170	CP05a	3	4	670713
KM1363	CP05a	10	11	673183
KM1366	CP05a	9	10	673217

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM1366	CP05a	10	11	673218
KM1368	CP05a	3	4	673239
KM1368	CP05a	4	5	673240
KM1368	CP05a	5	6	673241
KM1368	CP05a	6	7	673242
KM1389	CP05a	5	6	673472
KM1390	CP05a	5	6	673481
KM1392	CP05a	5	6	673500
KM1393	CP05a	6	7	673510
KM1424	CP06a	4	5	673857
KM1425	CP06a	4	5	673863
KM1425	CP06a	5	6	673864
KM1426	CP06a	1	2	673866
KM1431	CP06a	3	4	673904
KM1432	CP06a	7	8	673914
KM1432	CP06a	8	9	673915
KM1433	CP06a	3	4	673919
KM1439	CP06a	2	3	673974
KM1441	CP06a	3	4	673987
KM1444	CP06a	2	3	674022
KM1448	CP06a	0	1	674049
KM1448	CP06a	1	2	674050
KM1450	CP06a	0	1	674058
KM1450	CP06a	1	2	674059
KM1451	CP06a	0	1	674061
KM1451	CP06a	1	2	674062
KM1452	CP06a	7	8	674073
KM1453	CP06a	6	7	674087
KM1455	CP06a	3	4	674108
KM1455	CP06a	4	5	674109
KM1455	CP06a	5	6	674110
KM1456	CP06a	1	2	674112
KM1456	CP06a	5	6	674116
KM1455	CP06a	2	3	674107
KM1424	CP06a	2	3	673855
KM1424	CP06a	3	4	673856
KM1431	CP06a	4	5	673905
KM1432	CP06a	6	7	673913
KM1433	CP06a	2	3	673918
KM1437	CP06a	5	6	673962
KM1438	CP06a	4	5	673970
KM1439	CP06a	1	2	673973
KM1440	CP06a	2	3	673980
KM1444	CP06a	1	2	674021
KM1452	CP06a	6	7	674072
KM1452	CP06a	8	9	674074
KM1453	CP06a	5	6	674086
KM1455	CP06a	1	2	674106
KM1456	CP06a	2	3	674113
KM1456	CP06a	3	4	674114
KM1456	CP06a	4	5	674115
KM1605	CP10a	3	4	675629
KM1606	CP10a	2	3	675634
KM1606	CP10a	3	4	675635
KM1612	CP10a	8	9	675697
KM1613	CP10a	8	9	675708
KM1613	CP10a	11	12	675711

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM1614	CP10a	5	6	675720
KM1617	CP10a	10	11	675749
KM1618	CP10a	9	10	675766
KM1618	CP10a	10	11	675767
KM1618	CP10a	11	12	675768
KM1618	CP10a	12	13	675769
KM1619	CP10a	11	12	675786
KM1620	CP10a	3	4	675793
KM1620	CP10a	4	5	675794
KM1621	CP10a	7	8	675803
KM1624	CP10a	4	5	675829
KM1624	CP10a	5	6	675830
KM1624	CP10a	7	8	675832
KM1624	CP10a	8	9	675833
KM1624	CP10a	9	10	675834
KM1625	CP10a	5	6	675842
KM1626	CP10a	6	7	675849
KM1605	CP10a	2	3	675628
KM1612	CP10a	5	6	675694
KM1612	CP10a	6	7	675695
KM1613	CP10a	9	10	675709
KM1613	CP10a	10	11	675710
KM1614	CP10a	6	7	675721
KM1616	CP10a	6	7	675736
KM1616	CP10a	7	8	675737
KM1617	CP10a	7	8	675746
KM1617	CP10a	8	9	675747
KM1617	CP10a	9	10	675748
KM1619	CP10a	12	13	675787
KM1621	CP10a	4	5	675800
KM1621	CP10a	5	6	675801
KM1621	CP10a	6	7	675802
KM1624	CP10a	6	7	675831
KM1625	CP10a	4	5	675841
KM1626	CP10a	4	5	675847
KM1626	CP10a	5	6	675848
KM1630	CP10b	1	2	675871
KM1630	CP10b	2	3	675872
KM1631	CP10b	0	1	675873
KM1631	CP10b	2	3	675875
KM1632	CP10b	4	5	675883
KM1632	CP10b	5	6	675884
KM1633	CP10b	6	7	675891
KM1633	CP10b	7	8	675892
KM1634	CP10b	1	2	675898
KM1635	CP10b	11	12	675916
KM1635	CP10b	12	13	675917
KM1635	CP10b	13	14	675918
KM1637	CP10b	1	2	675930
KM1639	CP10b	5	6	675946
KM1639	CP10b	6	7	675947
KM1640	CP10b	0	1	675950
KM1641	CP10b	4	5	675957
KM1642	CP10b	1	2	675960
KM1642	CP10b	2	3	675961
KM1642	CP10b	3	4	675962
KM1643	CP10b	1	2	675966

Hole ID	Composite ID	Depth From (m)	Depth To (m)	Sample ID
KM1643	CP10b	2	3	675967
KM1643	CP10b	3	4	675968
KM1643	CP10b	4	5	675969
KM1644	CP10b	2	3	675973
KM1644	CP10b	3	4	675974
KM1645	CP10b	1	2	675981
KM1645	CP10b	2	3	675982
KM1646	CP10b	9	10	675995
KM1646	CP10b	10	11	675996
KM1631	CP10b	1	2	675874
KM1632	CP10b	3	4	675882
KM1633	CP10b	4	5	675889
KM1633	CP10b	5	6	675890
KM1635	CP10b	8	9	675911
KM1635	CP10b	9	10	675912
KM1635	CP10b	10	11	675915
KM1640	CP10b	1	2	675951
KM1641	CP10b	3	4	675956
KM1645	CP10b	3	4	675983
KM1646	CP10b	6	7	675992
KM1646	CP10b	7	8	675993
KM1646	CP10b	8	9	675994

APPENDIX III – DRILL HOLE LOCATIONS

Hole_ID	East	North	Total Drill Depth	RL
KM0739	497,292	5,884,716	5	116.9
KM0740	497,195	5,884,724	11	115.3
KM0741	497,091	5,884,721	5	112.3
KM0742	496,995	5,884,717	6	111.8
KM0760	497,349	5,884,917	6	117.1
KM0761	497,250	5,884,917	6	114.7
KM0762	497,146	5,884,920	21	110.8
KM0763	497,049	5,884,920	7	106.6
KM0764	496,945	5,884,921	9	106.0
KM0784	496,842	5,885,117	16	107.9
KM0785	497,037	5,885,119	12	108.9
KM0788	497,336	5,885,121	9	111.4
KM0881	494,190	5,883,514	12	98.5
KM0882	494,085	5,883,517	3	99.9
KM0883	493,981	5,883,514	4	99.9
KM0884	493,892	5,883,510	14	99.9
KM0897	494,083	5,883,413	6	98.3
KM0898	494,175	5,883,406	6	98.0
KM0907	494,284	5,883,420	3	96.6
KM0909	494,282	5,883,317	5	96.6
KM0910	494,184	5,883,316	3	97.2
KM0911	494,188	5,883,217	5	97.7
KM0912	494,184	5,883,113	9	99.0
KM0946	493,594	5,884,618	11	96.8
KM0947	493,592	5,884,726	13	96.6
KM0972	493,785	5,883,622	8	94.7
KM0973	493,884	5,883,619	3	98.2
KM0974	493,982	5,883,614	6	100.8
KM0975	494,083	5,883,618	11	100.1
KM0976	494,085	5,883,717	15	99.7
KM0978	493,889	5,883,723	6	97.4
KM0980	493,887	5,883,817	5	100.1
KM0981	493,989	5,883,816	9	100.6
KM0982	494,087	5,883,816	6	100.5
KM0983	494,187	5,883,619	14	101.0
KM0989	494,186	5,883,817	10	98.0
KM1075	493,791	5,884,517	14	97.3
KM1076	493,689	5,884,521	15	96.0
KM1077	493,700	5,884,611	12	95.0
KM1078	493,791	5,884,614	7	98.1
KM1079	493,889	5,884,615	9	101.0
KM1080	493,992	5,884,614	10	102.9
KM1082	493,895	5,884,697	9	102.8
KM1083	493,792	5,884,714	6	99.3
KM1096	493,395	5,884,823	8	95.7
KM1097	493,492	5,884,820	15	95.6
KM1098	493,594	5,884,818	10	96.2
KM1099	493,693	5,884,818	5	97.8

KM1099	493,693	5,884,818	5	97.8
KM1100	493,791	5,884,825	6	99.6
KM1103	493,493	5,884,925	16	92.6
KM1108	493,496	5,885,014	9	93.0
KM1113	493,495	5,885,120	6	95.7
KM1116	493,305	5,885,218	11	95.7
KM1117	493,396	5,885,219	12	95.6
KM1122	493,598	5,885,323	8	94.3
KM1123	493,494	5,885,320	8	94.7
KM1124	493,396	5,885,322	9	95.4
KM1125	493,311	5,885,321	9	95.4
KM1168	496,944	5,884,818	9	107.2
KM1170	497,150	5,884,825	9	112.5
KM1171	497,255	5,884,822	6	116.2
KM1363	497,353	5,885,220	20	114.9
KM1364	497,248	5,885,219	6	113.2
KM1365	497,143	5,885,215	9	111.4
KM1366	497,041	5,885,211	18	110.7
KM1367	496,955	5,885,228	9	108.6
KM1368	496,850	5,885,211	9	110.0
KM1369	496,750	5,885,218	9	110.0
KM1389	497,003	5,885,019	9	106.8
KM1390	497,105	5,885,020	9	107.6
KM1391	497,201	5,885,025	9	109.5
KM1392	497,309	5,885,025	9	111.1
KM1393	497,401	5,885,021	9	112.6
KM1424	495,443	5,883,392	6	105.2
KM1425	495,544	5,883,389	6	106.3
KM1426	495,641	5,883,391	6	107.1
KM1431	495,646	5,883,488	6	104.2
KM1432	495,549	5,883,492	9	104.8
KM1433	495,450	5,883,493	6	105.2
KM1437	495,792	5,883,695	9	111.1
KM1438	495,685	5,883,694	6	109.5
KM1439	495,585	5,883,692	6	106.8
KM1440	495,627	5,883,794	6	107.3
KM1441	495,723	5,883,790	9	109.6
KM1444	495,685	5,883,590	6	105.6
KM1448	495,490	5,883,689	6	105.7
KM1450	495,286	5,883,690	3	103.2
KM1451	495,322	5,883,795	3	100.3
KM1452	495,419	5,883,795	15	103.9
KM1453	495,518	5,883,789	9	105.0
KM1455	495,446	5,883,891	6	104.4
KM1456	495,345	5,883,891	12	102.4
KM1605	495,955	5,882,695	6	110.0
KM1606	496,051	5,882,697	6	110.3
KM1612	496,145	5,882,777	9	110.5
KM1613	496,051	5,882,794	15	110.2
KM1614	495,947	5,882,794	9	110.2
KM1616	496,045	5,882,888	9	110.8

KM1617	496,140	5,882,894	18	110.9
KM1618	496,245	5,882,892	18	111.7
KM1619	496,345	5,882,877	15	110.2
KM1620	496,086	5,882,594	6	110.2
KM1621	496,186	5,882,594	9	110.3
KM1624	496,306	5,882,496	12	110.2
KM1625	496,229	5,882,494	6	109.5
KM1626	496,334	5,882,412	9	109.7
KM1630	497,051	5,882,791	3	113.9
KM1631	496,944	5,882,791	6	113.2
KM1632	497,057	5,882,693	6	115.0
KM1633	497,345	5,882,794	12	114.3
KM1634	497,250	5,882,793	6	115.3
KM1635	497,139	5,882,789	15	117.4
KM1637	497,253	5,882,696	6	115.4
KM1639	497,387	5,882,590	9	112.7
KM1640	497,294	5,882,599	3	114.2
KM1641	497,189	5,882,590	6	114.3
KM1642	497,090	5,882,592	6	113.6
KM1643	497,310	5,882,494	6	113.3
KM1644	497,212	5,882,493	9	112.7
KM1645	497,114	5,882,496	6	113.0
KM1646	497,010	5,882,492	12	112.5
KM1676	494,286	5,883,217	15	95.7