

ASX ANNOUNCEMENT

31 May 2023

# Arunta West clay hosted rare earth elements - geology and metallurgical recovery update

**ASX: NWM** 

**Norwest Minerals Limited** ("Norwest" or "the Company") (ASX: NWM) wishes to provide an update on the progress of geological analysis and metallurgical recovery testwork on the clay hosted REE drill samples collected from its Arunta West project.

In December 2022 Norwest drill tested a rare earth element (REE) soil anomaly with a 20-hole reverse circulation (RC) program. Three of the holes intersected strong clay hosted REE mineralisation in highly weathered in-situ rock known as 'saprolite.' Subsequent analysis determined the saprolite to be strongly weathered granite which is clear evidence the drilling did not intersect the Bitter Springs sediments located south of the interpreted granite-sediment contact as initially reported¹. See figure 1 below.

Rare earth research & testwork facility ANSTO Minerals undertook REE recovery testing on 19 of the high-grade saprolite samples and recently delivered their final report to Norwest. The lab results show that, although the REE samples grade up to 2500 ppm TREO, the REEs in the granite saprolite clays are not present as a desorbable component when tested under mild desorption conditions. This indicates the REEs are bonded in the colloidal and mineral phases of the granite-clay saprolite and will require stronger acid and longer residence times for liberation.

Rather than continuing to test the granite saprolites under more aggressive leaching conditions, Norwest will focus on collecting REE enriched samples from the clays associated with the Bitter Springs sediments described below. A 22-hole aircore drill program is scheduled to commence next month with the REE enriched basin clay samples to undergo recovery testing to determine if they classify as ionic adsorption clays (IAC).

Although little is known about the REE enrichment of the Bitter Springs sedimentary clays, it is suggested the REEs were released into solution from the weathering granite parent rock with the soluble REEs migrating tens of kilometres south through the Bitter Springs sediments. These REEs attached onto the basin clay surfaces via ion exchange to form ionic adsorption clays (IAC). REEs in IAC are highly recoverable by mild acid wash at a pH of 4-5. The upcoming drill program will allow collection of these clays for confirmation of their REE recoverability.

 $^{1}$  ASX: NWM - Announcement 22 February 2023, 'Maiden REE drilling program intersects multiple near surface +1000ppm TREO values'

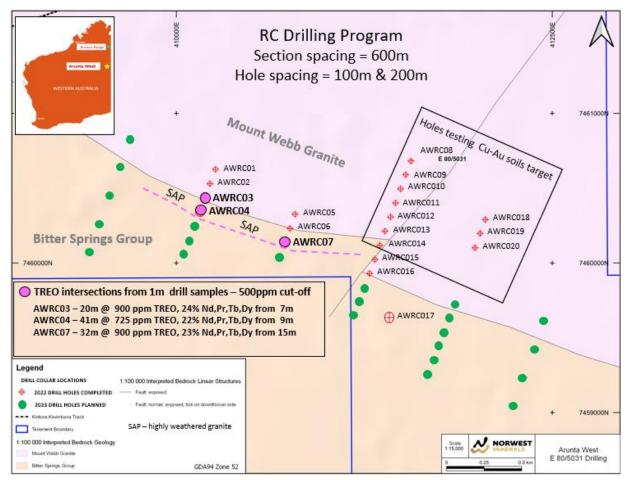
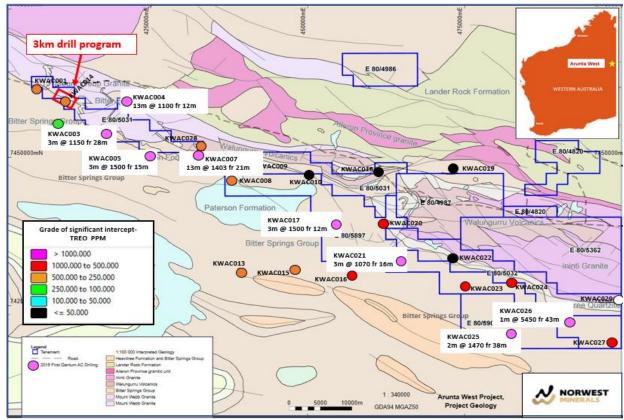


Figure 1 – Map showing the location of REE enriched granite saprolite (SAP) in discovery holes AWRC03, 04 & 07 and the upcoming drill program (green collars) targeting Bitter Springs basin clays. Note: The area is covered by eolian sands (no outcrop) with the granite-sedimentary contact interpreted from geophysical data.

A large area of the Bitter Springs formation was drilled by First Quantum Minerals<sup>2</sup> (FQML) in 2015. High tenor clay hosted REEs were intersected in most of the 29 widely spaced drill holes which covered over 1000 square kilometres. The FQML geological logging supported by multi-element assaying and the chip tray evidence confirm the REE enriched clays occur within a 40m to 70m thick sedimentary package which includes phanerozoic sandstone, clays and limestone sitting above the Neoproterozoic bedrock (dolomite, quartzite). The FQML drill hole map (figure 2) shows 25 of the 29 holes were drilled into the Bitters Springs sediments at points alongside the entire +90km granite - sediment contact with:

- all but 1 hole intersecting > 250 ppm TREO
- 13 holes intersecting > 500ppm TREO with 8 holes >1000 ppm TREO
- high TREO grade intersections are distributed along the entire 90km drill pattern
- high TREO grade was intersected up to 15 kilometres southwest of the granitesediment contact

 $<sup>^2</sup>$  In 2015 First Quantum Minerals (FQML) drilled 29 wide-spaced aircore holes targeting copper bearing sediments in the Bitter Springs formation. The 2015 program assayed for a wide range of elements including the suite of REEs. FQML did not encounter significant copper mineralisation and with no interest in REEs at the time the ground was relinquished.



Figures 2 – Regional drilling by First Quantum Minerals in 2015 intersected REE mineralisation in most holes.

Two drill chip sample trays are display below showing 1) the REE enriched granite saprolite being a mixture of clay and highly weathered granite fragments and, 2) the REE enriched Bitter Springs basin clays which are described as puggy. Figures 3 & 4 below.



Figure 3 – Norwest chip tray showing granite saprolite with REE mineralisation in clay and highly weathered granite fragments.

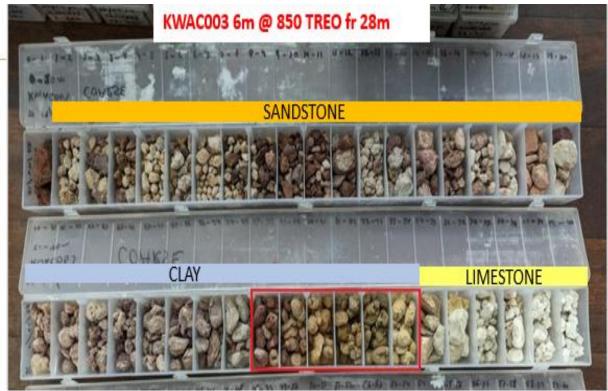


Figure 4 – FQML chip tray showing the REE enriched clays within the Bitter Springs sedimentary package of sandstone, clays and limestones.

Table 1
Norwest Leach Extractions (TREY %)\*

		Test Condition			
Hole	Sample ID	pH 4 (0.5 h)	pH 1 (2 h)		
	AC073	6	10		
AMERICAN	AC076	1	5		
AWRC03	AC077	1	5		
	AC078	1	5		
	AC108	2	5		
	AC117	1	6		
AWRC04	AC118	14	5		
	AC119	1	4		
	AC120	1	9		
	AC176	3	7		
	AC212	1	6		
	AC213	1	18		
AWRC07	AC214	2	18		
	AC215	1	17		
	AC216	1	14		
	AC562	1	1		
	AC563	1	9		
	AC564	1	1		
	AC565	0	1		

<sup>\*</sup> Extractions based on head and leach liquor analysis

#### Norwest Minerals Limited – REE geology & recovery update - 31 May 2023

This ASX announcement has been authorised for release by the Board of Norwest Minerals Limited.

For further information, visit www.norwestminerals.com.au or contact

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#### FORWARD LOOKING STATEMENTS

This report includes forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like "will", "progress", "anticipate", "intend", "expect", "may", "seek", "towards", "enable" and similar words or expressions containing same.

The forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this announcement and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. Given these uncertainties, no one should place undue reliance on any forward-looking statements attributable to the Company, or any of its affiliates or persons acting on its behalf. The Company does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Neither the Company nor any other person, gives any representation, warranty, assurance, nor will guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. To the maximum extent permitted by law, the Company and each of its advisors, affiliates, related bodies corporate, directors, officers, partners, employees and agents disclaim any responsibility for the accuracy or completeness of any forward-looking statements whether as a result of new information, future events or results or otherwise.

#### **COMPETENT PERSON'S STATEMENTS**

#### **Exploration**

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Charles Schaus (CEO of Norwest Minerals Pty Ltd). Mr. Schaus is a member of the Australian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to its activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Schaus consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

#### **CAUTIONARY STATEMENT**

Norwest has reported X-Ray Fluorescence (XRF) analyser readings from 5 of the 29 RC holes drilled by First Quantum Minerals while exploring for copper in 2015. These 5 holes were not subject to multi-element assaying as the original in-field XRF reading did not register copper mineralisation. The XRF from the other 23 holes did show copper potential and were sent for multi-element assay analysis which included the suite of 15 REE. Note that XRF measurements only register 3 rare earth elements being Ce, La and Y due to the other 12 REE being below detection. The REE XRF readings presented in this announcement are preliminary in nature and should be considered as an indication of the expected order of magnitude of laboratory assay analysis.

## Arunta West Project Metallurgical Test Work – May 2023

## JORC Code, 2012 Edition – Table 1 report template

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Metallurgical samples were taken from a variety of geological and grade range intervals utilising downhole drill samples.</li> <li>Reverse Circulation (RC) drill sampling was completed with drill samples collected at 3m composite intervals with sample originally collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative composite sample. The samples were collected as approximately 2 to 3 kg.</li> <li>Samples AC073, AC076 - AC078, AC108, AC117 - AC120, AC176, AC212-AC216 were pulverized at Intertek Genalysis Alice Springs whereas samples AC562 - AC565 were pulverized at Intertek Genalysis Darwin. ~200g pulp samples were then shipped to ANSTO in Sydney for metallurgical testing. The samples were then dried at 50 deg C to constant weight, and then split into representative portions for head assay and leach tests.</li> <li>The average weight of samples was 189.8g.</li> <li>The head samples (dried at 105 deg C) were analysed by XRF at ANSTO for major gangue elements, and by lithium tetraborate fusion digest/ICPMS at ALS, Brisbane for the REs, U, Th and Sc.</li> <li>A diagnostic desorption test was completed on each sample under the following conditions: 0.5 M (NH4)2SO4 as lixiviant, pH 4, 0.5 h; Ambient temperature (~22 deg C); and 2 wt% solids density.</li> <li>A diagnostic leach test was conducted on each sample under the following acid leach conditions: 0.5 M (NH4)2SO4 as lixiviant, pH 1, 2 h, 50 deg C; and 2 wt% solids density.</li> <li>At the completion of each of the desorption and leach tests, the slurry was filtered to separate the leach liquor and the leached residue. The leach liquor was analysed by ICP-OES at ANSTO for gangue elements, and at ALS Brisbane by ICP-MS for the REs and Sc, Th and U.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul> <li>Drill type (e.g., core, reverse circulation, openhole 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).</li> </ul>	<ul> <li>Drilling methods included RC drilling with a 5 ½" diameter bit with sample returned through a cone splitter generating a bulk reference sample. This sample was then composited using conventional spear sampling techniques to yield a 3m sample.</li> <li>The RC drill rigs used include onboard air and an auxiliary compressor. The RC drill rig was capable of drilling to the planned maximum depths of each hole.</li> <li>Utilizing REFLEX GYRO tooling, multi-shot downhole surveys were taken down each drill hole at collar and 25m increments. One shot was taken at EOH.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results asses</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>RC drill sampling was completed with drill sample collected at 1m intervals with sample collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative 3m composite sample.</li> <li>The cone splitter was regularly cleaned and assessed to minimise potential sample contamination.</li> <li>Sample recovery and sample condition was recorded on excel spreadsheets for all samples. Sample recovery was good for all drill holes.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All drill chips were field logged per metre and representative reference material retained in chip trays which were photographed for a digital reference. A subsequent review of chips and field logging was conducted to ensure records are consistent and accurate. Each metre was logged for various geological attributes, including colour, lithology, oxidation, alteration, mineralization and veining. All holes were logged in full by geologists from Apex Geoscience Australia Pty Ltd.</li> <li>A pXRF reading was taken on each metre.</li> <li>Logging is qualitative in nature and of sufficient detail supporting the current interpretations, representative sections, and selection of metallurgical samples.</li> <li>Review of logging is conducted following the return of geochemical results.</li> </ul>

#### Sub- sampling techniques and sample preparation

- If core, whether cut or sawn and whether quarter, half or all core taken.
- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
- For all sample types, the nature, quality and appropriateness of the sample preparation technique.
- Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.
- Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.
- Whether sample sizes are appropriate to the grain size of the material being sampled.

- RC drill sampling was completed with drill sample collected at 1m intervals with sample collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative 3m composite sample. RC drill sample taken from a cone splitter per metre downhole is to industry standard and appropriate for the lithologies being intercepted.
- All samples were dry before sending for analysis. Any wet sample was still
  collected by the same method to ensure consistency with excess moisture sun
  dried prior to laboratory submission. No sample bias through lost material is likely
  in this process. Additional cleaning was completed on the cone splitter after the
  introduction of wet sample.
- The sample sizes and analysis size are considered appropriate to correctly represent the mineralisation based on the style of mineralisation, sampling methodology and assay value ranges for the commodities of interest.
- Quality Control on the RC drill rig included insertion of duplicate samples (2%) to test lab repeatability, insertion of standards (2%) to verify lab assay accuracy and cleaning and inspection of sample assembly. A standard or duplicate was inserted every 25th sample.
- Samples were submitted to Intertek Genalysis in Alice Springs and Darwin for preparation work. ~200g pulp samples were then securely shipped to ANSTO in Sydney for metallurgical testing.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Samples AC073, AC076 - AC078, AC108, AC117 - AC120, AC176, AC212-AC216 were pulverized at Intertek Genalysis Alice Springs whereas samples AC562 - AC565 were pulverized at Intertek Genalysis Darwin. ~200g pulp samples were then shipped to ANSTO in Sydney for metallurgical testing. The samples were then dried at 50 deg C to constant weight, and then split into representative portions for head assay and leach tests.</li> <li>The average weight of samples was 189.8g.</li> <li>The head samples (dried at 105 deg C) were analysed by XRF at ANSTO for major gangue elements, and by lithium tetraborate fusion digest/ICPMS at ALS, Brisbane for the REs, U, Th and Sc.</li> <li>A diagnostic desorption test was completed on each sample under the following conditions: 0.5 M (NH4)2SO4 as lixiviant, pH 4, 0.5 h; Ambient temperature (~22 deg C); and 2 wt% solids density.</li> <li>A diagnostic leach test was conducted on each sample under the following acid leach conditions: 0.5 M (NH4)2SO4 as lixiviant, pH 1, 2 h, 50 deg C; and 2 wt% solids density.</li> <li>At the completion of each of the desorption and leach tests, the slurry was filtered to separate the leach liquor and the leached residue. The leach liquor was analysed by ICP-OES at ANSTO for gangue elements, and at ALS Brisbane by ICP-MS for the REs and Sc, Th and U.</li> <li>pXRF analysis was conducted using a Bruker S1 Titan on 1m intervals. OREAS standards provided with the pXRF device were routinely used to check accuracy of the device.</li> <li>QAQC samples were sent to Intertek Genalysis Perth after being crushed and pulverized in Intertek Genalysis Alice Springs and Darwin. The QAQC samples underwent a sodium peroxide fusion and HCl acid dissolve with an ICP-MS finish for REE analysis. All standards and duplicates submitted were within acceptable limits.</li> </ul>

# 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.

# Location of data points

- Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.
- Specification of the grid system used.
- Quality and adequacy of topographic control.

- Consultant geologists, from Apex Geoscience Australia Pty Ltd ("Apex"), were involved in the logging of the RC drilling. Apex was involved in the whole process including drill hole supervision, chip sample collection and importing of the completed assay results. Drill hole logs were inspected to verify the correlation of mineralised zones between assay results and lithology/alteration/mineralisation. The entire chain of custody of this recent drilling was supervised by Apex Geoscience.
- The drill hole data was logged in a validated excel logging template and then imported into SQL database for long term storage and validation.
- Data was reported by the laboratory and no adjustment of data was undertaken.
- All assay results were verified by alternative company personnel and the Qualified Person before release.
- RC drill hole locations were picked up using a handheld Garmin GPS, considered to be accurate to ± 5 m.
- Downhole surveys have been completed at 25 m stations (and start and end of hole) using a downhole gyroscopic survey tool. The holes were largely straight.
- All coordinates were recorded in MGA Zone 52 datum GDA94.
- Topographic control is provided by a Digital Terrain Model based on the 30 m Shuttle Radar Topographic Mission data.

# Data spacing and distribution

Criteria

#### **JORC Code explanation**

- 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.

#### Commentary

- The drill lines at Arunta West are spaced 600 m with holes on each line spaced 100 m.
- The completed drill spacing is broad by nature as it was designed as a first pass exploration drill program. Further follow up drilling is warranted based off the results received from this drill program.
- The data spacing and distribution is not yet sufficient to support the definition of a mineral resource, and the classifications applied under the 2012 JORC code.
- 3m spear composites were collected down each drillhole.

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.	•	Drillholes and drill lines at Arunta West were oriented to the southwest (200°), which is perpendicular to the Mount Webb Granite – Bitter Springs Group lithological contact of interest.  Drill holes were angled (between 45-50°) to intersect the interpreted ramp thrust contact between the two units.
Sample security	•	The measures taken to ensure sample security.	•	The sample security consisted of zipped RC chip samples being collected from the field into pre-numbered calico bags and loaded into polyweave bags for transport to Intertek Genalysis Alice Springs. The chain of custody for samples from collection to delivery at the laboratory was handled by Apex Geoscience Australia personnel.  The sample submission was submitted by email to the lab, where the sample counts and numbers were checked by laboratory staff.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	No audits completed. Internal processes routinely review the appropriate application of sampling techniques in relation to current knowledge of stratigraphy and mineralisation style.

### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The project is located within Exploration Licence 80/5031, held by Norwest Minerals Ltd.</li> <li>The tenement was granted on 18/07/2017 and was renewed for another 5 years prior to its expiration on 17/07/2022. The expiry of the tenement is now 17/07/2027.</li> <li>The tenement is in good standing.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>CRA Exploration Pty Ltd, Aurora Gold Ltd, BHP Minerals Pty Ltd, Bestgold Investments Pty Ltd, Ashburton Minerals Ltd, Toro Energy Ltd, and FQM Exploration (Australia) Pty Ltd have all held ground over tenement E 80/5031 in the past. Most historic exploration efforts focused on IOCG type mineralisation.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Arunta West project is located on the western extents of the Proterozoic Arunta Orogen in WA.</li> <li>The tenement straddles the Central Australian Suture (CAS) which separates the Aileron and Warumpi Provinces.</li> <li>Interpretations of styles of mineralisation at this point are preliminary. The data released in this announcement suggests REE mineralisation may be associated with primary rare earth minerals shed off the Mount Webb Granite. This interpretation is subject to amendment with additional data from follow up drilling and metallurgical test work. Exploration efforts will focus further away from the granitic source where REs could have migrated in solution into and through the paleochannel sediments/clays of the adjacent Bitter Springs formation.</li> <li>The area is prospective for rare earth elements, specifically HREs.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – 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> </li> <li>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.</li> </ul>	<ul> <li>All completed drillhole collar information is included in the report, appendices or has been previously released.</li> <li>All available and relevant assay data is included in this report or has previously been reported.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Where applicable when significant intercepts and aggregate data is are reported they are weighted average grades considering variable sampling lengths. Some significant intercepts are significant because of multiple anomalous elements.</li> <li>Standard element to stoichiometric oxide conversion factors is used in calculating and reporting oxide equivalent elements.</li> <li>Rare Earth Elements (REE) converted to oxide equivalents were aggregated as total rare earth elements TREE or Total Rare Earth Oxide elements TREO and combined as Heavy Rare Earth Elements (HREE/HREO), Light Rare Earth Elements (LREE/LREO), (CREE/CREO) Critical Rare Earth Elements or Magnetic Rare Earth Oxide (MREO) using industry standards. HREO, CREO and MREO as a percentage of TREO may also be reported.</li> <li>Element-to-stoichiometric oxide conversion factors shown in table below: multiply wt% element by numerical value below for equivalent expressed as an oxide.</li> <li>TREO refers to the sum of all 15 REE's in their respective oxide equivalent</li> <li>MREO refers to the 4 Magnetic Rare Earth Oxides (Nd2O3+Pr2O3+Dy2O3+Tb2O3)</li> <li>HREO refers to the Heavy Rare Earth Oxides (Eu2O3+Gd2O3+Tb2O3+Dy2O3+Ho2O3+Er2O3+Tm2O3+Yb2O3+Y2O3+Lu2O3)</li> <li>LREO refers to Critical Rare Earth Oxides, a set of oxides defined as critical due to their importance to clean energy requirements and their supply risk</li> </ul>

Criteria	JORC Code explanation	Commentary			
		(Nd2O3+Tb2O3	+Dy2O3+Er2O3+Y20	D3)	
			Element	Oxide	Factor
			Cerium	Ce2O3	1.1713
			Dysprosium	Dy2O3	1.1477
			Erbium	Er <sub>2</sub> O <sub>3</sub>	1.1435
			Europium	Eu2O3	1.1579
			Gadolinium	Gd2O3	1.1526
			Holmium	Ho2O3	1.1455
			Lanthanum	La2O3	1.1728
			Lutetium	Lu2O3	1.1371
			Neodymium	Nd2O3	1.1664
			Praseodymium	Pr2O3	1.1703
			Samarium	Sm <sub>2</sub> O <sub>3</sub>	1.1596
			Terbium	Tb2O3	1.151
			Thulium	Tm <sub>2</sub> O <sub>3</sub>	1.1421
			Yttrium	Y2O3	1.2699
			Ytterbium	Yb2O3	1.1387

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Sections, either included in this or previous ASX announcements, show identified mineralisation downhole. Some holes drilled in a deliberate orientation to gain perspective of structural or stratigraphic orientation and as such will not be a direct reflection of true thickness. All reported lengths are to be considered downhole lengths unless stated as calculated true thickness.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Appropriate plan diagrams of collar location, surface features and location of results are provided in the report. Appropriate sections are provided in the report showing mineralisation and interpreted geological boundaries.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	All relevant information is reported within the document or included in the appendices if not reported previously.
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.	<ul> <li>All relevant and meaningful data is included in this report or has been previously released.</li> <li>Metallurgical samples were provided to the laboratory for preliminary leach extraction assessment using samples and conditions as detailed within the body of the report.</li> <li>It must be noted that the extraction numbers reported are indicative only and do not account for further losses or inefficiencies that may or may not occur due to further downstream processing to marketable product(s).</li> </ul>

#### Further work

- The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).
- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.
- Follow up exploration efforts will focus further away from the granitic source where REs could have migrated in solution into and through the paleochannel sediments/clays of the adjacent Bitter Springs formation.
- Extended exploration using available drill information and geophysical data are being used for reconnaissance style exploration targeting similar geological settings for further potential REE accumulations like those currently being drilled.