

ACN 103 367 684

## **ASX ANNOUNCEMENT**

19 APRIL 2022

#### **ASX Code: RDM**

Red Metal Limited is a minerals exploration company focused on the exploration, evaluation and development of Australian copper-gold and basemetal deposits.

### **Issued Capital:**

245,591,743 Ordinary shares

19,225,000 Unlisted options

#### **Directors:**

Rob Rutherford Managing Director

Russell Barwick Chairman

Joshua Pitt Non-executive Director

#### **RED METAL LIMITED**

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# YARRIE PROJECT UPDATE: NEW COPPER-GOLD TARGET OPORTUNITES IN THE PATERSON PROVINCE, WESTERN AUSTRALIA

The Paterson Province which is home to the tier one Telfer gold mine and large Nifty copper mine has come into renewed prominence with several recent Intrusion-Related Gold-Copper discoveries including those at Winu, Ngapakarra, Havieron and Minyari (Figure 1).

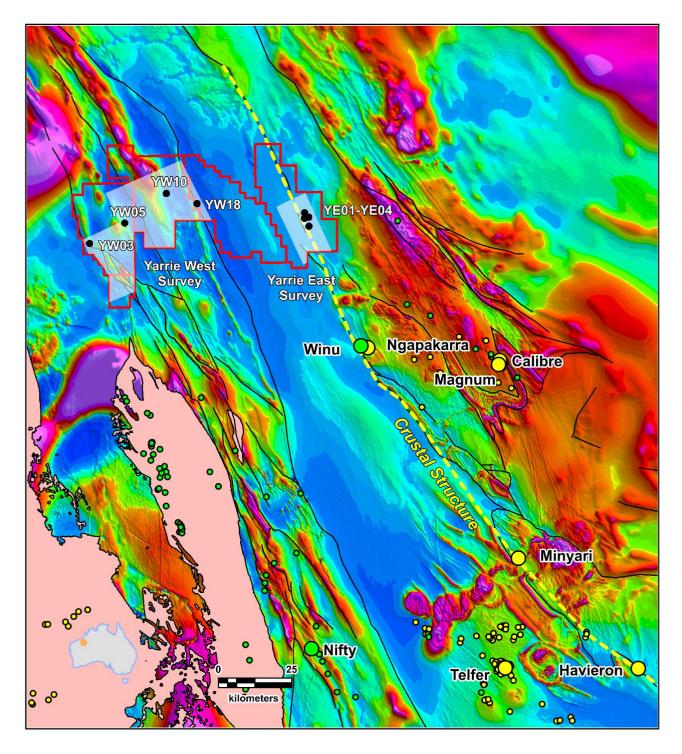
Importantly, the Winu, Ngapakarra and Havieron discoveries are recognized as low amplitude, magnetic bulls eye targets thought to be sourced from weakly magnetic, hydrothermal pyrrhotite (Figures 3 and 4).

Advanced processing of new airborne electromagnetic and magnetic data recently flown over Red Metal's Yarrie project has enabled the interpretation of several high-priority geophysical targets for follow-up exploration (Figure 1).

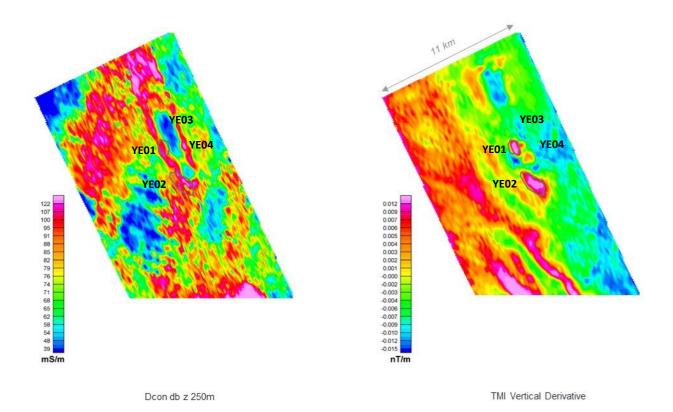
Of particular interest are two Havieron-like, magnetic bulls eye targets YE01 and YE02, a high resistivity target YE03 and a possible basement conductor YE04, located just 45 kilometres along trend from Rio Tinto's Winu copper and gold discovery (Figures 2 to 4). Regionally, these targets appear to occur along the same crustal structure that controls the Winu, Ngapakarra, Minyari and Havieron deposits (Figure 1) and are situated along the same high gravity ridge as Winu (Figure 4).

Preparations for heritage surveying in anticipation of drilling later in 2022 are underway.

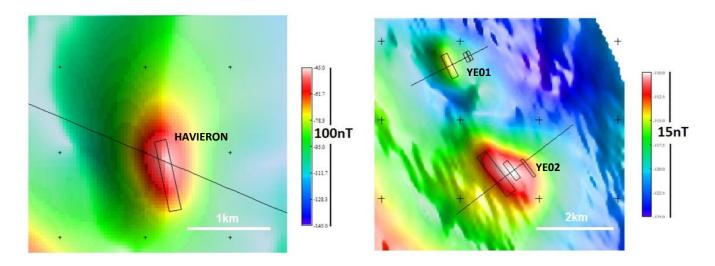
The Yarrie program is funded by OZ Minerals (ASX: OZL) under the terms of the Greenfields Discovery Alliance.



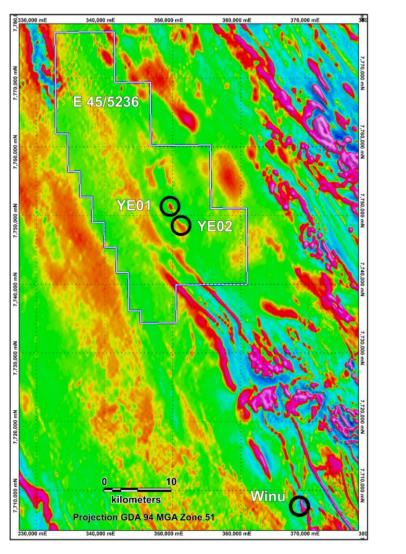
[Figure 1] Paterson Province Yarrie Project: Magnetic imagery overlain by the recently flown airborne electromagnetic and magnetic survey areas (frosted white) showing the Nifty mine, Telfer mine, new Winu and Haverion discoveries and Red Metal's Yarrie tenements (red line). Priority geophysical targets are labelled YE1-YE04 on the Yarrie East survey and YW03, YW06, YW10, YW18 on the Yarrie West survey. The Yarrie East targets are interpreted by Red Metal to occur along the same crustal scale structure (dashed yellow line) as the Havieron, Minyari, Winu and Ngapakarra deposits. Copper-cobalt or copper-gold major deposits and occurrences (green circles); gold or gold-copper major deposits and occurrences (yellow circles). Note the exposed basement terrain of older Archaean rocks (buff coloured polygon).

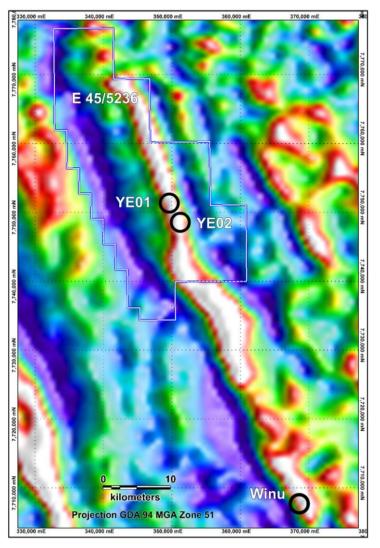


[Figure 2] Yarrie East Grid: Conductivity depth slice at 250 metres below surface (left) and vertical gradient magnetic image (right) highlighting interpreted copper-gold target opportunities YE1 to YE4. These previously untested targets are located about 45 kilometres along trend from the Winu deposit (see Figure 4). Red Metal interprets the large, dome shaped, resistive feature (YE3) as a basement high, perhaps related to wide spread silica alteration, and speculates that the flanking magnetic targets (YE1 and YE2) and conductors (YE1 and YE4) may reflect combinations of iron sulphides and/or graphite associated with copper and gold mineralisation. Preparations for proof on concept drill tests on some of these exciting new targets are underway.



[Figure 3] Comparison of magnetic response of Havieron (left) with target YEO1 and YEO2 (right): Sectional, 2D modelling of the 55nT magnetic anomaly over Havieron predicts a depth below surface of 560m for a body with a width of 140m and a magnetic susceptibility of 0.12 SI units. Modelling of the 10-20nT anomaly over Red Metal's YEO2 target predicts a depth below surface of 570m for a body with a width of 274m and a magnetic susceptibility of 0.012 SI units.





[Figure 4] Yarrie East: Regional vertical derivative RTP magnetic image (left) and vertical gradient Falcon airborne gravity image (right).

This announcement was authorised by the Board of Red Metal. For further information concerning Red Metal's operations and plans for the future please refer to the recently updated web site or contact Rob Rutherford, Managing Director at:

Phone +61 (0)2 9281-1805 www.redmetal.com.au

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**Rob Rutherford** 

**Managing Director** 

**Russell Barwick** 

Chairman

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Robert Rutherford, who is a member of the Australian Institute of Geoscientists (AIG). Mr Rutherford is the Managing Director of the Company. Mr Rutherford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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" (the JORC Code). Mr Rutherford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

Table 1 – Yarrie Project: JORC 2012 sampling techniques and data

Criteria	JORC 2012 Explanation	Commentary
Sampling Techniques	Nature and quality of sampling	Two separate survey areas Yarrie East and Yarrie West totalling 2956 kilometres of airborne electromagnetic and magnetic data were recently flown over the Yarrie project. The airborne electromagnetic survey was completed by Xcalibur Multiphysics Pty Ltd using HeliTEM 2 their 6.25Hz helicopter time domain electromagnetic system which is the lowest frequency airborne electromagnetic system in the world. The effective penetration of this technique is variable across the survey area due to changes in the thickness/conductivity of certain horizons in the younger sedimentary cover sequences. The technique appears to have successfully mapped basement responses through 250-350 metres of cover where the conductive horizon in the cover sequences is thin and/or has a reduced conductivity.
	Include reference to measures taken to ensure representativity samples and the appropriate calibration of any measurement tools or systems used.	N/A
	Aspects of the determination of mineralisation that are Material to the Public Report.	N/A
Drilling Technique	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.).	N/A
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	N/A
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	N/A
	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.	N/A
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.	N/A
	Whether logging is qualitative or quantitative in nature.	
	Core photography  The total length and percentage of the	N/A N/A
Sub-campling	relevant intersections logged.  If core, whether cut or sawn and whether	N/A
Sub-sampling techniques and sample preparation	quarter, half or all core taken.	-47.1
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	N/A
	Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.	N/A
	Measures taken to ensure that the sampling is representative of the insitu	N/A

Criteria	JORC 2012 Explanation	Commentary
	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.	N/A
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.	N/A
	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.	N/A
	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.	N/A
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	N/A
	The use of twinned holes.	N/A
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	N/A
	Discuss any adjustment to assay data.	N/A
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.	Helicopter system includes two single frequency phase measurement GPS systems to record flight position data to an accuracy of 1.8m and a precision of 6cm. Novatel \ OEMV-2-L1 – Single frequency (or equivalent)
	Specification of the grid system used.	WGS84 Zone 51
	Quality and adequacy of topographic control.	The helicopter uses a laser altimeter TruSense \ S200 (or equivalent) with an accuracy of between 4 cm and 15cm
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Yarrie East was flown on 400 metre spaced, 245 degree trending lines and totalled 601 line kilometres. Yarrie West was flown on 400 metre spaced, 245 degree trending lines and totalled 2355 line kilometres.
	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.	The line spacing was sufficient for mapping geology and modelling drill targets at basement depths ranging between 200 and 400 metres below surface
	Whether sample compositing has been applied.	N/A
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.	The survey lines were at right angles to the general strike of the geology determined from airborne magnetic imagery.
	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	N/A

Criteria	JORC 2012 Explanation material.	Commentary
Sample security	The measures taken to ensure sample security.	A digital acquisition system was used for recording all geophysical and ancillary data. A minimum of two external hard drives were provided to the field crew for duplicate backups of data acquired.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Xcalibur supplied experienced operators/technicians and data processing personnel as required. The minimum survey crew consisted of:         <ul> <li>A qualified geophysical operator to maintain the geophysical instrumentation.</li> <li>Experienced survey pilot(s) who has demonstrated an ability to fly the aircraft safely, and within parameters suitable for data acquisition within survey specifications.</li> </ul> </li> <li>The data is transmitted to the office for processing, where a geophysical data processor processed the survey data and monitored data quality on a flight-by-flight basis.</li> <li>Data was verified during the survey by independent consultant geophysicist Neil Hughes</li> </ul>

Table 2 Gidyea Project: JORC 2012 reporting of exploration results

Criteria	JORC 2012 Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The surveying has been undertaken on the Yarrie project tenements E45/5225 E45/5236 E45/5185 E45/5186 E45/5187. These tenements are owned 100% by Red Metal Limited. An ancillary exploration access agreement has been established with the native title claimants and a standard access deed has been entered with holders of FNA13553 – NW Interconnected Power Pty Ltd
	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.	The tenements are in good standing and no known impediments exist
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There is no past drill history on the Yarrie geophysical targets of interest.
Geology	Deposit type, geological setting and style of mineralisation.	The Paterson Province is a composite Neo-Proterozoic orogenic belt flanked to the west and southwest by the Archean Pilbara craton and unconformably overlain to the northeast by sedimentary rocks of the Phanerozoic Canning Basin.  The surficial geology is dominated by Cenozoic and Quaternary deposits (aeolian sands and gravels) which have been deposited on the underlaying Jurassic — Cretaceous Callawa Formation (sandstones, conglomerates) and Cretaceous Parda Formation (mudstones, interbedded fine-grained sandstones) rocks of the Canning Basin  The Yarrie project targets several geophysical anomalies in an under explored northwest extension to the Paterson Province which offers scope for the discovery of large Intrusion-related gold-copper deposits such as Telfer, Winu, Havieron and Minyari as well as stratabound and structure controlled Sedimentary-hosted Copper-Cobalt deposit types like Nifty or Maroochydore. There is no past drill history on the Yarrie geophysical targets of interest and no clear understanding of the geological setting other than what is inferred from interpretation of regional magnetic and gravity imagery and widely spaced regional aeromagnetic traverses and exploration drill holes.
		There is no detailed published data on the Neoproterozoic basement rocks of the YEO2 target area. Geoscience Australia Record 2009/16 (Czarnota et. al. 2009) contains an interpretation of the basement

Criteria	JORC 2012 Explanation	Commentary
		immediately to the south of E 45/5236. Local geological interpretations surrounding Winu were recently published in Rio Tinto presentations.
		Red Metal postulates that the sedimentary rocks of the Yeneena Supergroup, interpreted south of E 45/5236, continue to the northwest and underlie the tenement. The high-gravity ridge trending through the Winu deposit and the YEO2 target area suggest the host rocks to Winu (Upper Malu and Puntapunta Formations) may extend below the YEO2 magnetic target.
		Red Metal's recently flown airborne electromagnetic data over the YEO2 target show the gold and copper prospective basement rocks are overlain by about 300-400 metres of the younger Phanerozoic sediments.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of survey information for all Material drill holes:	N/A
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	N/A
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.	Refer Figures 1 to 4
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.	N/A
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.	N/A
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).	Drill tests on a range of magnetic, conductive and resistive geophysical target types are planned.