



**EMETALS**  
LIMIITED

11 February 2021

The Manager  
Market Announcements Office  
Level 40, Central Park,  
152-158 St George's Terrace  
PERTH WA 6000

## THE RAJ DELIVERS EXCEPTIONAL TANTALUM RESULTS

### HIGHLIGHTS

- Follow-up sampling at The Raj Tantalite Prospect returns multiple high grade tantalite bearing pegmatites over a **strike length exceeding 800m**.
- Tantalum results for 22 new samples show all samples exceed **179 ppm Ta<sub>2</sub>O<sub>5</sub>** and three samples in excess of **0.1% Ta<sub>2</sub>O<sub>5</sub>**
- Pegmatites are mapped to continue in a swarm between The Raj and Panjshir Prospect, where significant lithium mineralisation has been previously reported.
- Drill planning underway for mid-2021.

The Directors of eMetals Limited (**ACN 142 411 390**) (**ASX: EMT**) (**eMetals** or the **Company**), are pleased to announce the exploration results for the Poona Rare Metals Project (**Poona Project**).

eMetals Director, Mathew Walker commented:

*"The Poona Project continues to deliver significant geochemical results that enhance and solidify the prospectivity of the Project to host a number of styles of mineralisation. The current results from The Raj are sufficiently encouraging to warrant fast-tracking of a drill test to determine the size, thickness and grade of the host pegmatites."*

### POONA PROJECT

The Poona Project is located approximately 70 kilometres north west of Cue, in the Murchison Domain of the Yilgarn Craton, Western Australia. The project is approximately 600 kilometres north of Perth and is serviced by sealed and unsealed roads and is strategically located close to rail and gas infrastructure.

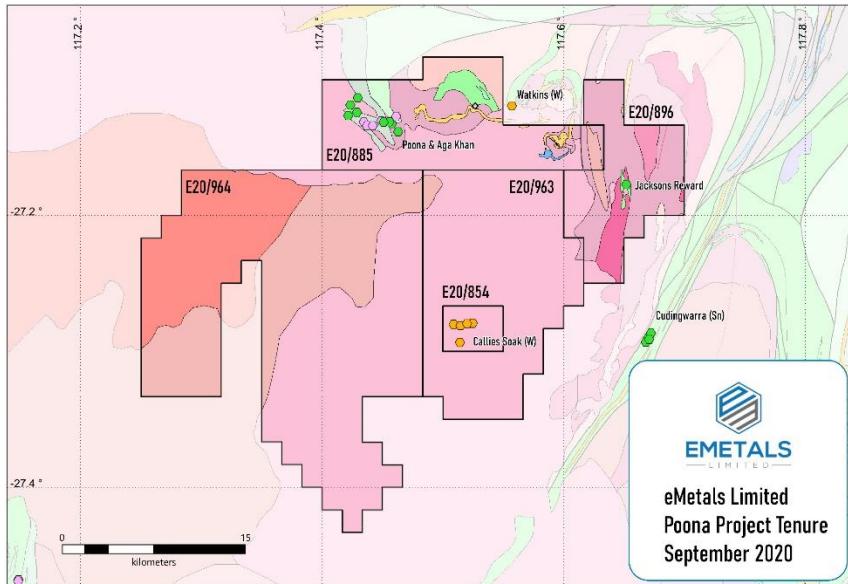
The Poona Project is prospective for LCT type pegmatite mineralisation hosted within the greenstone belts of the Weld Range, where they are intruded by evolved granites. The Tenements have been explored since the early 1900's when emeralds were discovered at the Aga Khan mine, with modern exploration focusing on gold, nickel, gemstones and more recently for lithium and pegmatite associated mineralisation.

eMetals has aggressively explored the Poona Project, discovering significant Ni-Cu-PGE anomalism at the **Mughal Prospect**, and significant tantalum mineralisation at **The Raj** prospect.



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The Poona Project remains lightly explored with 42 holes drilled on E20/885 and no known drilling on E20/896. Previous exploration is summarised in the Company's announcement dated 16 March 2020.



**Figure 1 EMT Poona Project**

## THE RAJ TANTALITE PROSPECT

The results reported herein are from rock chip samples taken from the Raj Prospect where previous reconnaissance results had shown a swarm of feldspar-quartz-mica pegmatites up to 400m in length contained up to 0.1% Ta<sub>2</sub>O<sub>5</sub> (see ASX release dated 12 November 2020).

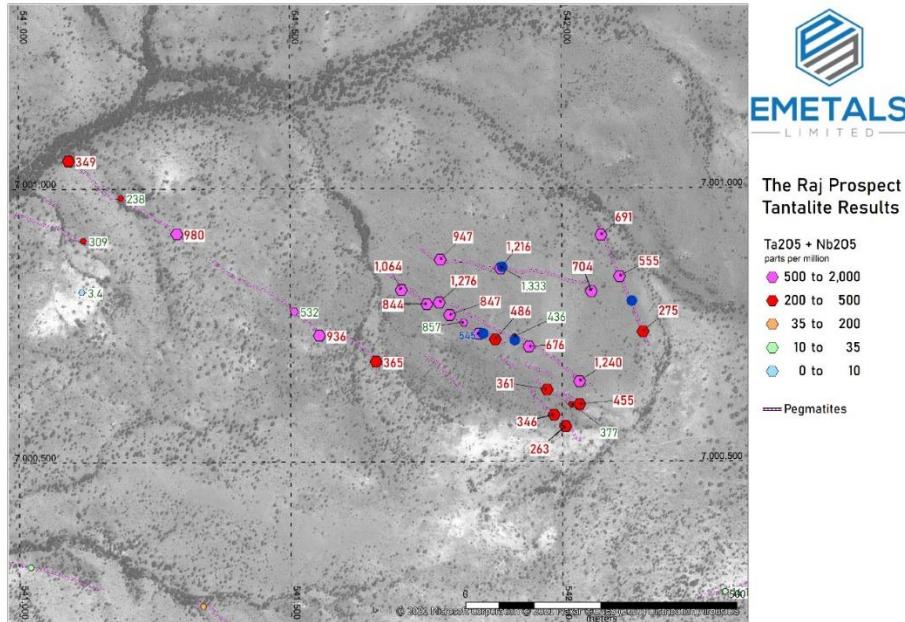
The initial rock chip sampling results were too sparse to confidently plan a drilling program or to be confident in the concentration of tantalite over such a large area. A mapping and sampling program was initiated after the Christmas break to infill sample The Raj pegmatite swarm, plan drill holes and access for a drilling rig.

Results of the new sampling are shown below (see Table 1), indicating that the initial rock chip sampling results are sustained by the additional infill sampling. Results indicate a tantalum-dominant mineralogy, with Ta:Nb ratios of 3:1 to 5:1. This suggests the host mineral is tantalite, rather than columbite, with low Fe, Mg, Mn and U contents.

Sampling methodology and assay details are reported in the attached JORC Table 1 and 2. Mapping of the pegmatites has shown they consist of two phases of intrusion; a set of thicker foliation parallel sheets of mica-rich pegmatite dipping moderately north east, and a series of thinner, feldspar pegmatites filling a steeply south west dipping cleavage. Tantalite appears associated equally with both sets of pegmatites in this area, suggesting that lateral fractionation is the dominant factor in grade not the timing of the two sets of intrusions.



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**Figure 2 Geochemical results (as Ta + Nb oxide) for The Raj Prospect, Poona E20/885**

The current work confirms that The Raj is a zone of pegmatites approximately one kilometre in length and up to 400m across. This zone shows with tantalite grades consistently and substantially in excess of 200ppm.

The Company notes that The Raj exhibits tantalum oxide concentrations greater than historically operating tantalite mines, for example the Bald Hill mine that operated between 2001 and 2005 at a resource grade of 176ppm Ta<sub>2</sub>O<sub>5</sub> (1 - Australian Energy and Minerals Resources Investor Guide 2020. Geoscience Australia, Canberra). Given the clear prospectivity of the area, the company is advancing plans to drill test the pegmatites to test their down dip extent and continuity.

SAMPLE	MGA_E	MGA_N	Be_ppm	Cs_ppm	LiO2%	Rb_ppm	Sn_ppm	Ta2O5	Nb2O5
CR0585	541092	7001052	30	293.1	0.76	7236.8	139	245	104
CR0586	541291	7000918	63	44.9	X	821.8	38	781	200
CR0587	541553	7000732	5	7.9	X	313.9	19	746	190
CR0588	541657	7000684	3	12.1	X	552.7	12	276	89
CR0589	541776	7000870	91	8.9	X	240.7	43	743	205
CR0590	541887	7000854	65	1.7	X	10.6	28	997	219
CR0591	542054	7000812	70	2	X	9.3	36	566	139
CR0592	542149	7000738	339	29.8	X	1215.5	86	174	102
CR0593	542108	7000839	473	33.5	X	1336.2	383	419	137
CR0594	542072	7000915	1092	67.5	X	520.4	104	538	153
CR0595	542032	7000647	94	20.1	X	906.2	213	1007	233
CR0596	541939	7000711	46	40.9	X	2611.2	126	509	167
CR0597	541774	7000792	88	11.7	X	103.5	143	1027	249
CR0598	541704	7000815	58	9.6	X	269.5	61	867	197
CR0599	541751	7000789	282	16.5	X	109	95	675	169
CR0600	541793	7000769	11	2.8	X	50.6	42	687	160
CR0601	541847	7000735	163	28.4	X	1994.4	191	417	129
CR0602	541877	7000724	8	19.8	X	574.4	23	378	109
CR0603	541985	7000586	40	10.2	X	579	107	280	66
CR0604	542006	7000565	84	11.3	X	780	18	195	69
CR0605	542032	7000605	37	7.6	X	568.6	63	327	129
CR0606	541972	7000632	30	5.2	X	191.2	38	284	77

Table 1: Rock chip sample results, The Raj Tantalite Prospect, January 2021  
Assay method: Peroxide Fusion

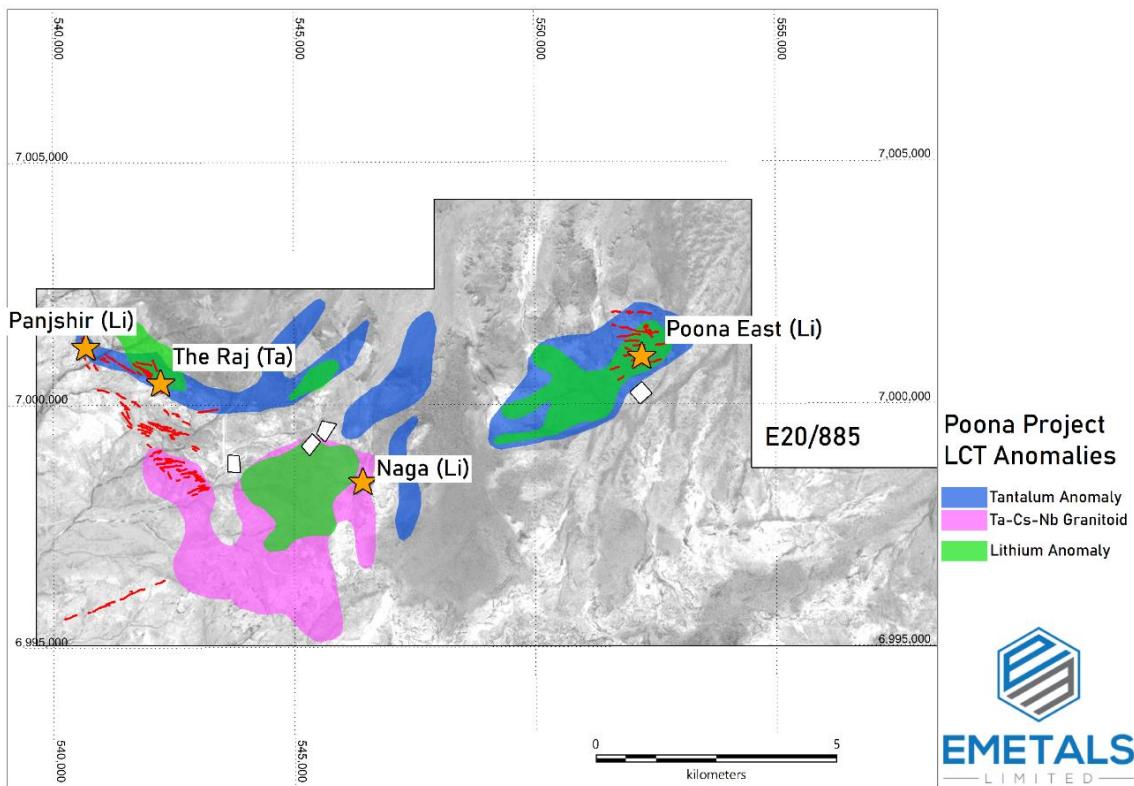


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## LITHIUM, CAESIUM, TANTALUM RESULTS

Interpretation of soil sampling and rock chip sampling results over the entire project has been completed, highlighting several priority target areas defined by anomalous lithium, rubidium and caesium in soils (comprising target areas for lithium, caesium pegmatites), tantalum and niobium anomalous areas (comprising targets for tantalite) and previously highlighted nickel-copper-cobalt and PGE anomalies associated with the Mughal Nickel Prospect. Clear trends of tantalum enrichment in soils are observed around The Raj project and in sparsely explored areas between Aga Khan and Poona East. See figure 3, below.

Consistently elevated tantalum, rubidium, caesium and niobium results are associated with a late granite stock with pegmatite stockworks. Further work is required to determine if economic mineralisation exists in this area, or whether tantalite in soil is caused by lithological enrichment in the granite itself.



**Figure 3 Li-Cs-Rb-Ta-Nb Soil anomalies on E20/885**

Lithium and caesium targets from soil sampling in areas with little rock chip sampling are to be followed up to identify lithium bearing pegmatite and altered wall-rocks, eg, the **Naga Prospect** where intensely mica altered granite contains lithium and rubidium alteration proximal to zinnwaldite-bearing pegmatite.

### CALLIES SOAK RESULTS

Results have been received for rock chip sampling around the Callies Soak tungsten occurrence (please refer EMT Quarterly Report). No significant tungsten results were returned from greisen and pegmatites. Elevated rubidium in several pegmatites within the Kyarra application areas indicates some potential for LCT-type pegmatites. The Company will await grant of the licenses before progressing exploration.

### UPCOMING EXPLORATION

eMetals is finalising a Program of Works for submission to the native title consultants for a heritage clearance survey, to clear up to ten drill holes to test The Raj prospect for tantalite mineralisation.

This announcement has been authorised by the Board of eMetals Limited.

*For, and on behalf of, the Board of the Company*

**Mathew Walker**

Director

**EMETALS Limited**

-ENDS-

*Shareholders and other interested parties can speak to Mr Sonu Cheema if they have any queries in relation to this announcement: +618 6489 1600*

#### **Forward looking statements**

This announcement contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and our management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. We have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by law. These forward looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements.

#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr Roland Gotthard. Mr Gotthard is a consultant geologist for eMetals and a member of the Australian Institute of Mining and Metallurgy. Mr Gotthard has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which they are 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' ("JORC Code"). Mr Gotthard consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.



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## JORC CODE, 2012 EDITION – TABLE 1

- Section 1 sampling techniques and data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
• Sampling techniques	<ul style="list-style-type: none"> <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>	<p>Soil sampling and rock chip sampling.</p> <p>Sampling included field and analytical duplicate analyses, standards and check sampling.</p> <p>Historical exploration utilized a variety of sampling techniques including;</p> <ul style="list-style-type: none"> <li>Stream sediment sampling</li> <li>Soil sampling of various generations</li> <li>Rock chip sampling</li> <li>Drilling</li> </ul> <p>Historical sampling utilized various sampling methods, with older work consisting of composite sampling of drill holes, spear sampling, riffle splitting and other methods, as detailed in WAMEX reports</p> <p>The repeatability and accuracy of all historical work is not detailed in all cases and may not be utilized in future resource estimations</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<p>Historical exploration has utilized RAB, Aircore, Reverse Circulation methods.</p> <p>Recovery and quality information is absent for older historical work</p> <p>Drilling information accessed from WAMEX is considered indicative only</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</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</li> </ul>	<p>No consistent data is available from historical drilling information. Results are reported as is.</p> <p>Historical drilling was halted at the water table or within siliceous laterite.</p>



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Criteria	JORC Code explanation	Commentary
	<p>derivation, etc.</p> <ul style="list-style-type: none"> <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>	<p>historical QAQC methodology for all historical exploration.</p> <p>Sampling by Venus Metals Limited was assayed by modern commercial laboratories and is of a high standard, with quality assurance and quality control methods considered acceptable.</p>
• Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	N/A
• Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>EMT samples were located in the field using smartphone Avenza maps, and positions recorded with Garmin GPS devices (various models) to +/- 3m accuracy.</p> <p>Historical drilling has been digitized from WAMEX maps and plans and downloaded from the WAMEX database.</p> <p>VMS drilling was recorded by hand held GPS at +/- 5m accuracy, sufficient for exploration of this nature.</p>
• Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>Data spacing is appropriate for early stage exploration but insufficient work has been done to classify any Mineral Resources.</p>
• Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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</li> </ul>	<p>Drilling is oriented normal to assumed strike</p> <p>Insufficient work exists to quantify whether the drilling is reported as true width.</p> <p>Downhole widths and lengths are reported.</p>



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Criteria	JORC Code explanation	Commentary
	if material.	
• Sample security	• The measures taken to ensure sample security.	Samples were delivered to the laboratory by company personnel.
• Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Data has been loaded in to a relational MS Access database and data integrity checks performed

## 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 style="list-style-type: none"> <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>	<p>E20/885 is 90% EMT, 10% other holders  E20/854 and E20/896 are 100% EMT  E20/963, E20/964 are applications 100% EMT  See body of announcement for maps and plans.</p>
• Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>Exploration is detailed in WAMEX reports, and by Venus Metals Corporation, with key reports being</p> <ul style="list-style-type: none"> <li>A69137</li> <li>A51567</li> <li>A51336</li> <li>A62812</li> </ul> <p>VMC ASX announcements are referred to as substantive sources of information.</p>
• Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>Pegmatites hosted within granite and greenstone terranes of Archaean age, with nickel in weathered ultramafic rocks present</p> <p>Pegmatites are Poona are mapped in a 4.3km x 1.3km zone and display geochemical zonation from Rb-Cs-Li to Li-Cs-Ta end members</p>



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• Criteria	• JORC Code explanation	• Commentary
• Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<p>Substantive reporting of historical drill holes is detailed in previous ASX announcements by Venus Metals Corporation in 2016, 2017 and 2018</p> <p>Collar and other information is available on public databases and is not reported fully herein. The reader is referred to the appropriate WAMEX report.</p>
• Data aggregation methods	<ul style="list-style-type: none"> <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>	<p>Drilling results from historical air core results are reported above an 0.2% Ni lower cut-off</p> <p>Data is reported in congruence with historical reporting.</p> <p>No metal equivalents are used.</p>
• Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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>	<p>Historical drilling was conducted at - 90 degrees.</p> <p>No calculation of true width is provided.</p> <p>Insufficient work has been undertaken to define true widths and strike orientations</p>
• Diagrams	<ul style="list-style-type: none"> <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>	<p>Maps and plans are provided in the body of the report in MGA Zone 50 projection</p>



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• Criteria	• JORC Code explanation	• Commentary
• Balanced reporting	<ul style="list-style-type: none"> <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>	<p>261 rock chip samples were taken of which 63 are considered anomalous and reported in a table in the appendix.</p> <p>Individual assays and maxima are provided to provide context in relation to exploration potential</p>
• Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	$Li:LiO_2 = Li\_ppm * 2.1527$ $Be/BeO = Be\_ppm * 2.7758$ $Rb:Rb_2O = Rb\_ppm * 1.0936$ $Ta-Ta_2O_5 = Ta \text{ ppm} * 1.2211$ $Nb:Nb_2O_5 = Nb \text{ ppm} * 1.4305$
• Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Drilling to test for continuity at depth and along strike