

ASX:LEG 5 December 2018 ASX Announcement

## Two New Prospects Identified from Rockford South Aircore Assays

- Mafic/ultramafic intrusive with nickel values up to 0.71% in hole RKAC520
- Anomalous copper-zinc-silver associated with EM conductor in hole RKAC505

Legend Mining Limited ("Legend") is pleased to announce two significant results from the final batch of samples from regional aircore drilling programme at the Rockford Project in the Fraser Range of Western Australia (see Figures 1 & 2).

Legend Managing Director Mr Mark Wilson said, "Both these results are positive news for Legend shareholders. The nickel values in mafic/ultramafic rocks in hole RKAC520 opens up a new prospect for Nova style nickel-copper mineralisation similar to Area D. The copper-zinc-silver above the S1 conductor is very complimentary to the work we are doing at Shackleton. This has broadened the base of both styles of known anomalous mineralisation for follow up work next year".

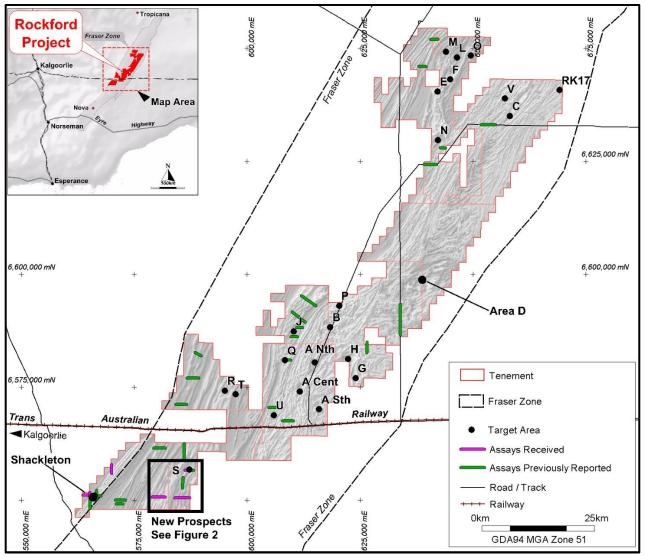


Figure 1: Rockford Project Aircore Drillhole Locations



#### **Technical Discussion**

## **Aircore Drilling Programme**

Results from the final batch of aircore drill samples (holes RKAC486-524) have now been received, returning anomalous geochemistry in holes RKAC520 and RKAC505 (see Figure 2). Two different styles of mineralisation are represented by these anomalous results with RKAC520 considered a magmatic Ni-Cu intrusive related style, while RKAC505 displays characteristics of a Cu-Zn-Ag VMS system. Both are discussed in more detail below.

These results complete the 2018 Regional Aircore Drilling Programme, which formed part of Legend's systematic exploration approach across the entire Rockford Project, and involved 344 holes for 22,897m testing 27 separate targets.

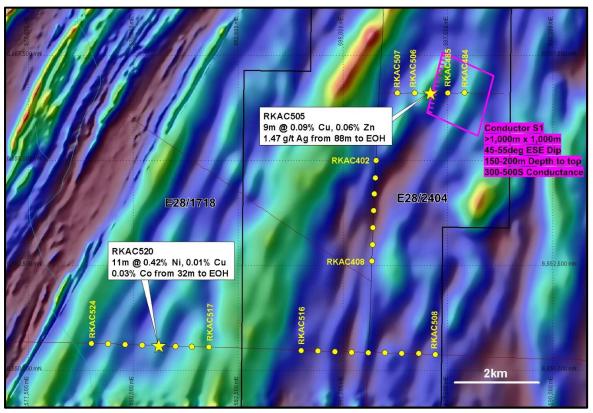


Figure 2: Anomalous Aircore Drillholes with S1 Conductor on Aeromagnetic Image

#### RKAC520 - Mafic/ultramafic related magmatic Ni-Cu

An eight hole traverse including drillhole RKAC520 was designed to test a coincident aeromagnetic low and gravity high interpreted as a possible mafic/ultramafic (see Figure 2). RKAC520 intersected a medium grained mafic/ultramafic intrusive with strong silica/goethite alteration and returned an intersection of: 11m @ 0.42% Ni, 0.01% Cu, 0.03% Co from 32m to end of hole (see Table 1). This intersection along with the maximum value of 3m @ 0.71% Ni in a favourable intrusive host rock further demonstrates the prospectivity for Nova style Ni-Cu mineralisation in the Rockford South region.

	Table 1: Anomalous Results from Aircore Drillhole RKAC520							
Hole	From	То	Int	Ni %	Cu %	Co %	Cr %	Description
RKAC520	32	36	4	0.15	0.02	0.01	0.27	Saprolite over mafic/ultramafic
RKAC520	36	40	4	0.47	0.01	0.05	0.60	Saprock over mafic/ultramafic
RKAC520	40	43 EOH	3	0.71	0.01	0.04	1.14	Si/Fe altered mafic/ultramafic

Note: Co-ordinates GDA94 MGA Zone 51 RKAC520 - 580,600E / 6,550,597N



Holes RKAC519 and RKAC521 drilled 400m east and west of RKAC520 respectively, both intersected banded to massive granulite/metasediment with no anomalous results returned. Infill aircore drilling adjacent to RKAC520 is required to define the extent of the anomalous geochemistry and favourable intrusive host rock.

## RKAC505 - Cu-Zn-Ag VMS

A five hole traverse including drillhole RKAC505 was designed to provide bedrock lithological and geochemical information over the S1 conductor at Area S (see Figure 2). The S1 conductor was previously defined by moving loop electromagnetic surveying (ASX release 12/09/2017) with modelled parameters shown in Table 2.

	Table 2: Area S Conductor Description (Modelled Parameters)				
Conductor	Conductance	Dimensions	Depth to Top	Plate Orientation	
S1	300-500S	1,000m X 1,000m	150-200m	45-55° ESE dip	

Drillhole RKAC505 intersected a profile containing 49m of ferruginous saprolite/saprock before ending at 97m in banded mafic granulite with elevated Cu-Zn-Ag with trace amounts of pyrite. RKAC505 returned an intersection of 9m @ 0.09% Cu, 0.06% Zn, 1.47 g/t Ag from 88m to end of hole (see Table 3). Importantly the anomalous assay results and increased depth of weathering/alteration potentially due to the presence of sulphides in RKAC505 coincides with the up dip projection of the S1 conductor plate (see Figure 2) making Area S a priority RC/diamond drilling target for 2019.

	Table 3: Anomalous Results from Aircore Drillhole RKAC505								
Hole	From	То	Int	Cu %	Zn %	Fe %	S %	Ag g/t	Description
RKAC505	88	92	4	0.12	0.08	30.56	3.02	1.89	Mafic granulite
RKAC505	92	97 EOH	5	0.06	0.05	16.85	0.66	1.13	Mafic gran. Trace pyrite

Note: Co-ordinates GDA94 MGA Zone 51 RKAC505 - 587,102E / 6,556,615N

Holes RKAC485 and RKAC506 drilled 400m east and west of RKAC505 respectively, both intersected banded to massive mafic granulite/metasediment with no anomalous results returned. Infill aircore drilling adjacent to RKAC505 is required to define the extent of the anomalous geochemistry followed by RC/diamond drilling of the S1 conductor.

## Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Derek Waterfield, a Member of the Australian Institute of Geoscientists and a full time employee of Legend Mining Limited. Mr Waterfield has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity being 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" (JORC Code). Mr Waterfield consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Visit <a href="www.legendmining.com.au">www.legendmining.com.au</a> for further information and announcements.

#### For more information:

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# Appendix 1: Legend Mining Ltd – Aircore Drilling D - Rockford Project JORC Code Edition 2012: Table 1

**Section 1: Sampling Techniques and Data** 

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. 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</li> </ul>	<ul> <li>Aircore drilling was undertaken on broad spaced traverses testing aeromagnetic and gravity targets.</li> <li>The residual (non-transported) portion only of each drillhole was originally sampled as 4m composites to the end of hole, with a 1m bottom of hole sample also collected. All samples weighed 2-3kg.</li> <li>QAQC standards and duplicate samples were included routinely (approximately 1 each every 50 samples).</li> <li>Samples were submitted to an independent commercial assay laboratory.</li> <li>Au was analysed by fire assay with an ICP-OES finish. A four acid digest with ICP-MS finish was used for a multielement suite including: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, TI, Tm, U, V, W, Y, Yb, Zn, Zr.</li> </ul>
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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	The aircore drilling technique was used, utilising a 90mm bit and completed by Drillpower.
Drill sample recovery	<ul> <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> </ul>	<ul> <li>Sample recoveries are visually estimated for each metre by the supervising rig geologist with poor or wet samples recorded in drill and sample log sheets.</li> <li>The sample cyclone is routinely cleaned at the end of each rod (3m) and when deemed necessary.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	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.	No relationship has been determined between sample recoveries and grade and there is insufficient data to determine if there is a sample bias.
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>Geological logging of all drillholes included; lithology, grainsize, texture, deformation, mineralisation, alteration, veining, colour, weathering.</li> <li>Logging is qualitative and based on 1m intervals. Representative drill chips from the bottom of hole are retained in chip trays.</li> <li>All drillholes were logged in their entirety.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All aircore drill samples were collected using a PVC spear or scoop as 4m composites (2-3kg). Other composites of 2m, 3m and 5m and individual 1m samples were collected where required, i.e. bottom of hole. Both wet and dry samples were collected.</li> <li>The samples are dried and pulverised before analysis.</li> <li>QAQC reference samples and duplicates were routinely submitted with each sample batch.</li> <li>The size of the sample is considered appropriate for the mineralisation style sought and for the analytical technique used.</li> </ul>
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,</li> </ul>	<ul> <li>Aircore samples were analysed for Au by 50g fire assay with an ICP-MS finish, and for a multi-element suite by ICP-MS following a four acid digest. These assay methods are considered appropriate.</li> <li>QAQC standards and duplicate samples were included routinely (approximately 1 each every 50 samples). In addition reliance is placed on laboratory procedures and internal laboratory batch standards and blanks.</li> <li>All samples were analysed by Intertek Genalysis Laboratory Services Perth</li> </ul>



Criteria	JORC Code Explanation	Commentary
	calibrations factors applied and their 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	using methods; FA50/OE04 (Au), 4A/MS48 (multi-elements) and 4A/MS48R (REE extended suite).
Verification of sampling and assaying	precision have been established.	<ul> <li>Primary data was collected in the field using a set of standard logging templates and entered into a laptop computer. The data was forwarded to Legend's database manager for validation and loading into the company's drilling database.</li> <li>No adjustments of assay results have been undertaken.</li> </ul>
Location of data points	<ul> <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>	<ul> <li>Aircore drillhole collars are surveyed with a handheld GPS unit with an accuracy of ±5m which is considered sufficiently accurate for the purpose of the drillhole.</li> <li>All co-ordinates are expressed in GDA94 datum, Zone 51.</li> <li>Regional topographic control has an accuracy of ±2m based on detailed DTM data.</li> </ul>
Data spacing and distribution	<ul> <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>	<ul> <li>Aircore drill traverses are not regular or grid based, with the location of traverses governed by aeromagnetic/gravity targets.</li> <li>Individual drillholes along traverses are spaced at 400m with minor infill to 200m/100m were deemed necessary.</li> <li>Drillholes are sampled in the residual portion of the profile only as 4m composites on a routine basis or as 2m, 3m and 5m composites at the end of holes as required. Where anomalous values are returned, 1m samples may be submitted for assay.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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</li> </ul>	The orientation of the aircore drill traverses and broad spacing of the individual drillholes is considered to achieve unbiased sampling.



Criteria	JORC Code Explanation	Commentary
	should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	Individual calico sample bags were placed in polyweave bags and delivered directly to the assay laboratory prep facility in Kalgoorlie by company personnel.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Internal audits/reviews of procedures are ongoing, however no external reviews have been undertaken.

Criteria	JORC Code Explanation	Commentary
Criteria  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.	<ul> <li>Commentary</li> <li>The Rockford Project comprises twelve granted exploration licences, covering 2,621km².</li> <li>Rockford JV tenements: E28/2188-2192 (70% Legend, 30% Rockford Metals Pty Ltd), E28/1718 &amp; E28/1727 (70% Legend, 30% Ponton Minerals Pty Ltd).</li> <li>Legend 100% owned: E28/2404-2405, E28/2675-2677.</li> <li>The Project is located 280km east of Kalgoorlie mostly on vacant crown land with the eastern portion on Kanandah Pastoral Station.</li> <li>There are no Native Title Claims over tenements E28/2188-2192, E28/2405 &amp; E28/2675-2677. Tenements E28/1718, E28/1727 &amp; E28/2404 are covered 90%, 20% and 100% respectively by the Ngadju Native Title Claim.</li> <li>The tenements are in good standing and there are no known impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Not applicable, not referred to.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The primary target is Nova style nickel-copper mineralisation hosted in high grade mafic granulites within the Fraser Complex.</li> <li>Secondary targets are: Andromeda style VHMS copper-zinc mineralisation and Tropicana style structurally controlled gold mineralisation.</li> </ul>
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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above</li> </ul>	Refer to Figures 1 & 2.



Criteria	JORC Code Explanation	Commentary
	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.	
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>Weighted averaging based on sample interval has been used in the reporting of the aircore drilling results.</li> <li>No short length high grade results were returned (therefore not included in aggregate intercepts) and no metal equivalent values have been reported.</li> </ul>
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>The geometry of anomalous nickel-copper assays with respect to the aircore drilling angle and orientation is unknown.</li> <li>All drillhole intercepts are measured downhole in metres.</li> </ul>
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.	Project, EM conductor plate and drillhole location maps have been included in the body of the report.



Criteria	JORC Code Explanation	Commentary
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.	All significant results are reported.
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>Detailed high quality aeromagnetic and gravity datasets and aircore drilling have been used in the targeting of the MLTEM survey.</li> <li>Highpower EM Geophysical Services Pty Ltd have undertaken high powered moving loop electromagnetic surveying (MLTEM) over Area S at the Rockford Project to assist with drillhole targeting.</li> <li>MLTEM Details</li> <li>Loop Size: 300mx300m, single turn</li> <li>Line/Station Spacing: 500m spaced lines with 100m stations</li> <li>Configuration: Slingram position, 150m offset from loop edge</li> <li>Transmitter: HPEM HPTX (~200 amps)</li> <li>Receiver: GDD NordicEM24</li> <li>Sensor: EMIT Fluxgate, 3 component B field sensor</li> <li>Time base/frequency: 0.5Hz (500msec time base), ~1msec ramp</li> </ul>
Further work	<ul> <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>	Further activities include: infill aircore drilling and possible moving loop electromagnetic surveying.