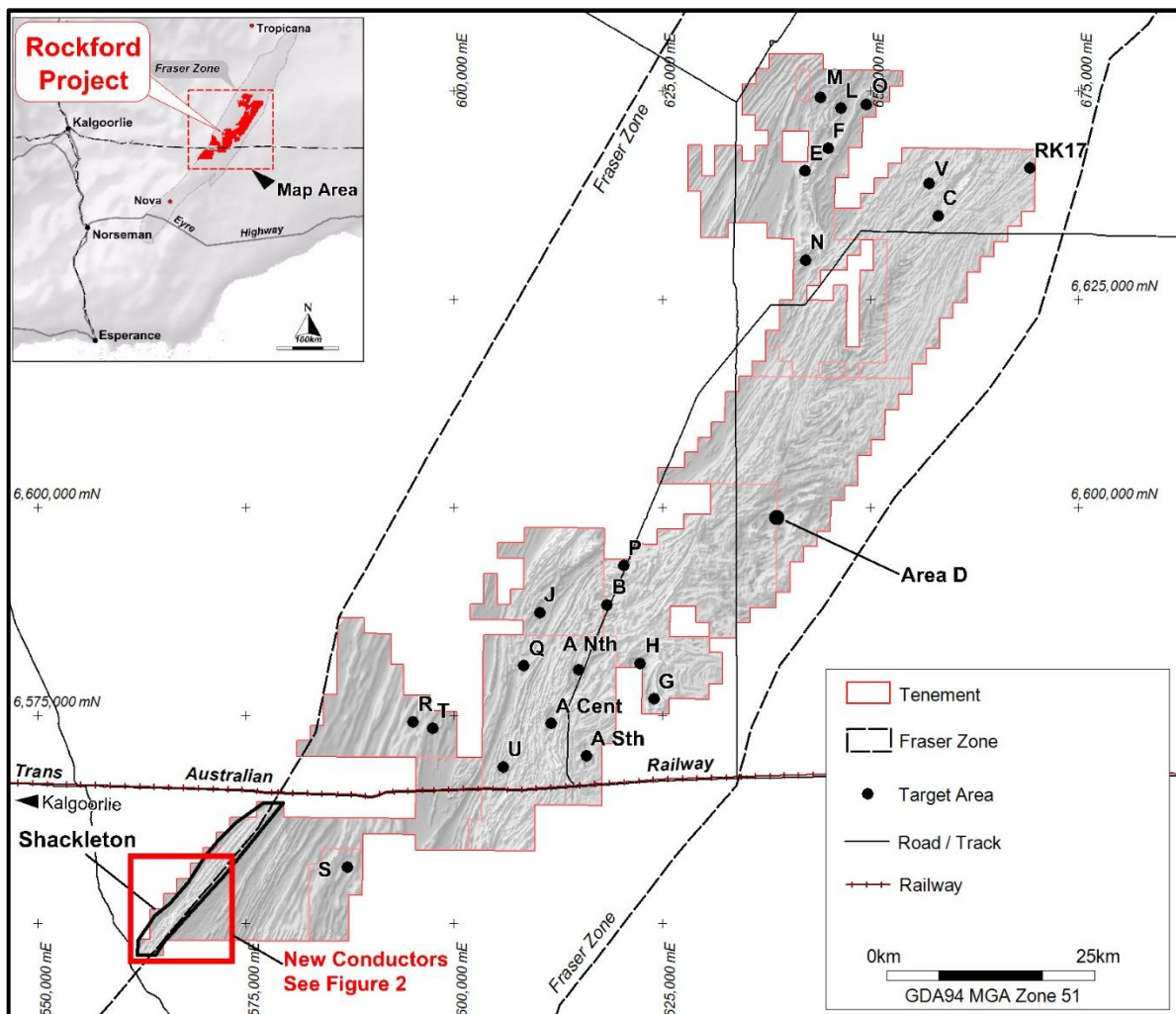


**Two Conductors Identified in VMS Trend at Shackleton – Rockford Project**

- Shackleton 1 conductor has characteristics consistent with VMS style mineralisation.
- Shackleton 2 conductor open to the south and requires more MLTEM to better define.
- Legend cash balance bolstered by \$1.28M R&D cash refund and \$30K interest.

Legend Mining Limited (“Legend”) is pleased to announce the identification of two moving loop electromagnetic (“MLTEM”) conductors at the Shackleton prospect at its Rockford Project in the Fraser Range of Western Australia (see Figure 1). The two conductors are located near the western margin of a magnetically distinct stratigraphic package considered prospective for volcanic massive sulphide (“VMS”) style mineralisation.

Legend Managing Director Mark Wilson said, “These results are a positive end to the 2018 field season which itself has been a very productive one for value adding exploration news. Legend is now poised for an exciting 2019 year commencing with the IP survey over our Area D prospect.”



**Figure 1: Shackleton Prospect Location**

## Technical Discussion

### Shackleton Prospect

The final 2018 moving loop electromagnetic (“MLTEM”) surveying over the Shackleton prospect has identified two significant bedrock conductors, Shackleton 1 and 2 (see Figure 2 and Table 1). These surveys were undertaken over two separate priority target areas and cover only 30% of the 24km magnetic trend considered prospective for VMS mineralisation. Further MLTEM surveying over this trend is planned for 2019.

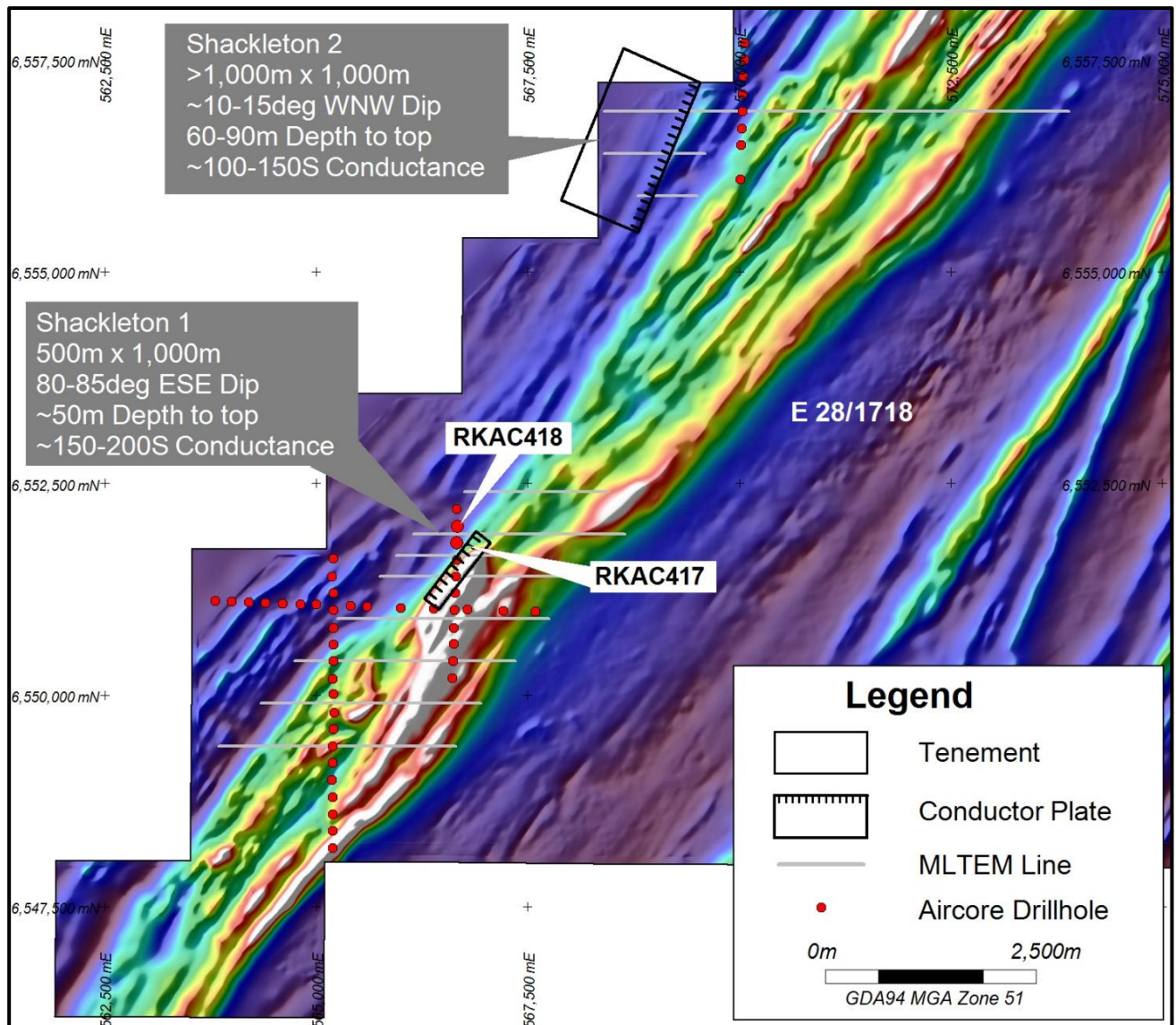


Figure 2: Shackleton Prospect MLTEM Conductor Location

Table 1: Shackleton MLTEM - Modelled Parameters				
Conductor	Conductance	Dimensions	Depth to Top	Plate Orientation
Shackleton 1	~150-200S	500m x 1,000m	~50m	80-85 <sup>o</sup> ESE dip
Shackleton 2	~100-150S	>1,000m x 1,000m	60-90m	~10-15 <sup>o</sup> WNW dip

The two conductors have differing dimensions and orientation (Table 1), as well as their location with respect to the magnetic stratigraphic package and are discussed further below.

### ***Shackleton 1 Conductor***

Eight MLTEM lines were completed in the southern part of Shackleton targeting a strong magnetic feature, a ENE trending cross-cutting structure and elevated geochemistry in previous aircore drilling. The survey identified the Shackleton 1 conductor which has a weak to moderate conductance of ~150-200S and moderate size, but importantly coincides with the western margin of the strong magnetic feature (see Figure 2 and Table 1).

Shackleton 1 is also closely associated with a weathered pyritic black shale (interpreted exhalite horizon) hosted within a broader mafic granulite/metasediment package. This pyritic shale was intersected over a  $\geq 400\text{m}$  strike in previous aircore drilling and returned anomalous sulphur up to 8m @ 2.21% S from 36m in RKAC417, along with elevated  $\text{Ag}\pm\text{S}\pm\text{Mo}\pm\text{Bi}\pm\text{Sn}\pm\text{In}\pm\text{Tl}$  (ASX release 23 October 2018). Drillholes in this area also intersected elevated zinc intervals to bottom of hole, including 10m @ 0.06% Zn from 68m and 7m @ 0.06% Zn from 68m in holes RKAC417 and RKAC418 respectively.

The relatively low conductance of Shackleton 1 is interpreted to be due to a more pyrite-dominant source rather than a pyrrhotite-dominant source where a much higher conductance would be expected. This interpretation is supported by the presence of the pyritic black shale in the aircore drilling, while the lower conductance is considered consistent with pyrite-dominant VMS style mineralisation.

### ***Shackleton 2 Conductor***

Only two and half MLTEM lines were completed over the northern target area before bad weather and atmospheric interference caused the termination of surveying. However, the limited surveying identified the Shackleton 2 conductor located west of the main magnetic stratigraphic package in a region with low magnetics (see Figure 2).

Shackleton 2 is a broad, relatively flat lying ( $10\text{-}15^\circ$  dip) low conductivity feature. Further MLTEM surveying is required to the south of Shackleton 2 to define the extent of the feature and determine whether the conductance and character of the conductor changes along strike.

### ***Shackleton Prospectivity***

The identification of these two conductors from only 30% coverage of the 24km VMS prospective trend, along with encouraging previous aircore drill results have greatly increased the overall prospectivity at Shackleton.

### ***Future Programmes***

- RC/diamond drill test Shackleton 1 conductor.
- Extend aircore and MLTEM coverage over 24km VMS prospective stratigraphic package.

## **Cash and Liquid Assets Update**

### ***Research and Development Cash Refund Received***

Legend lodged its FY2018 tax return in November 2018 and received a R&D cash refund from the Australian Taxation Office of \$1,282,355 on 7 December 2018.

### ***Jindal receivable***

Legend received the December 2018 interest payment of \$30,000 on 20 December 2018.



### **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 [www.legendmining.com.au](http://www.legendmining.com.au) for further information and announcements.

### **For more information:**

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**Appendix 1:**  
**Legend Mining Ltd – Shackleton Prospect MLTEM Survey - Rockford South**  
**JORC Code Edition 2012: Table 1**

**Section 1: Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <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 multi-element 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, Tl, Tm, U, V, W, Y, Yb, Zn, Zr.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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.).</i></li> </ul>	<ul style="list-style-type: none"> <li>• The aircore drilling technique was used, utilising a 90mm bit and completed by Drillpower.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> </ul>	<ul style="list-style-type: none"> <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
	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No relationship has been determined between sample recoveries and grade and there is insufficient data to determine if there is a sample bias.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times,</i></li> </ul>	<ul style="list-style-type: none"> <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
	<p><i>calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>using methods; FA50/OE04 (Au), 4A/MS48 (multi-elements) and 4A/MS48R (REE extended suite).</p>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<p><b>Location of data points</b></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Aircore drillhole collars are surveyed with a handheld GPS unit with an accuracy of <math>\pm 5\text{m}</math> 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 <math>\pm 2\text{m}</math> based on detailed DTM data.</li> </ul>
<p><b>Data spacing and distribution</b></p>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<p><b>Orientation of data in relation to geological structure</b></p>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this</i></li> </ul>	<ul style="list-style-type: none"> <li>The orientation of the aircore drill traverses and broad spacing of the individual drillholes is considered to achieve unbiased sampling.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<i>should be assessed and reported if material.</i>	
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Individual calico sample bags were placed in polyweave bags and delivered directly to the assay laboratory prep facility in Kalgoorlie by company personnel.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Internal audits/reviews of procedures are ongoing, however no external reviews have been undertaken.</li> </ul>

## Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Rockford Project comprises twelve granted exploration licences, covering 2,792km<sup>2</sup>.</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>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, not referred to.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The primary target is Nova style nickel-copper mineralisation hosted in high grade mafic granulites within the Fraser Complex.</li> <li>A secondary target is Tropicana style structurally controlled gold mineralisation.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No new drill collar information presented, see ASX release 23 October 2018.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> <li>• <i>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.</i></li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The geometry of anomalous nickel-copper and gold assays with respect to the aircore drilling angle and orientation is unknown.</li> <li>• All drillhole intercepts are measured downhole in metres.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Project location and MLTEM survey and drillhole location maps have been included in the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative</i></li> </ul>	<ul style="list-style-type: none"> <li>• All significant results are reported.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<p><b>Other substantive exploration data</b></p>	<p><i>reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Detailed high quality aeromagnetic and gravity datasets have been used in the targeting of the aircore drilling.</li> <li>• Highpower EM Geophysical Services Pty Ltd have undertaken high powered moving loop electromagnetic surveying (MLTEM) over Area D at the Rockford Project to assist with drillhole targeting.</li> </ul> <p><b>MLTEM Details</b></p> <ul style="list-style-type: none"> <li>➤ Loop Size: 300mx300m, single turn</li> <li>➤ Line/Station Spacing: 500m spaced lines with 100m stations, infill line spacing 150-250m</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: CSIRO LANDTEM HT SQUID, 3 component B field sensor</li> <li>➤ Base frequency/time base/ramp: 0.25Hz (1,000msec time base), ~0.7msec ramp</li> </ul>
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further MLTEM surveying over the Shackleton Prospect and VHMS prospective stratigraphy.</li> <li>• Broad aircore drill traverses at Shackleton Prospect.</li> <li>• RC/diamond drill testing of conductors, if warranted.</li> </ul>