

ASX:LEG

22 May 2020

ASX Announcement

## Regional Geophysical Exploration Update, Rockford Project

- **Northeast Mawson fixed loop (FLTEM) surveys confirm diamond drill targets at conductors D13 and D15**
- **Worsley conductor W1 now diamond drill ready**
- **Crean and new prospect, Hurley, require final aircore drilling and infill surveys**

Legend Mining Limited (Legend) is pleased to provide an update of regional geophysical exploration activities from the Rockford Project, Fraser Range, Western Australia. A combination of innovative moving and fixed loop electromagnetic (MLTEM & FLTEM) surveys have been completed over seven prospect areas namely, Northeast Mawson, Mawson Central, Worsley, Crean, Hurley, Magnus and Octagonal (see Figure 1). The results are discussed in detail in the body of this announcement.

Legend Managing Director Mr Mark Wilson said: “The work covered in this announcement commenced late last year and is part of the regional exploration programme at our Rockford Project.

“The completion of the infill work at Crean and Hurley is expected to be in 4-6 weeks. Once this is finalised we can plan a Rockford south drill programme comprising Worsley, Shackleton and probably Crean and Hurley, dependent upon infill EM and aircore results.

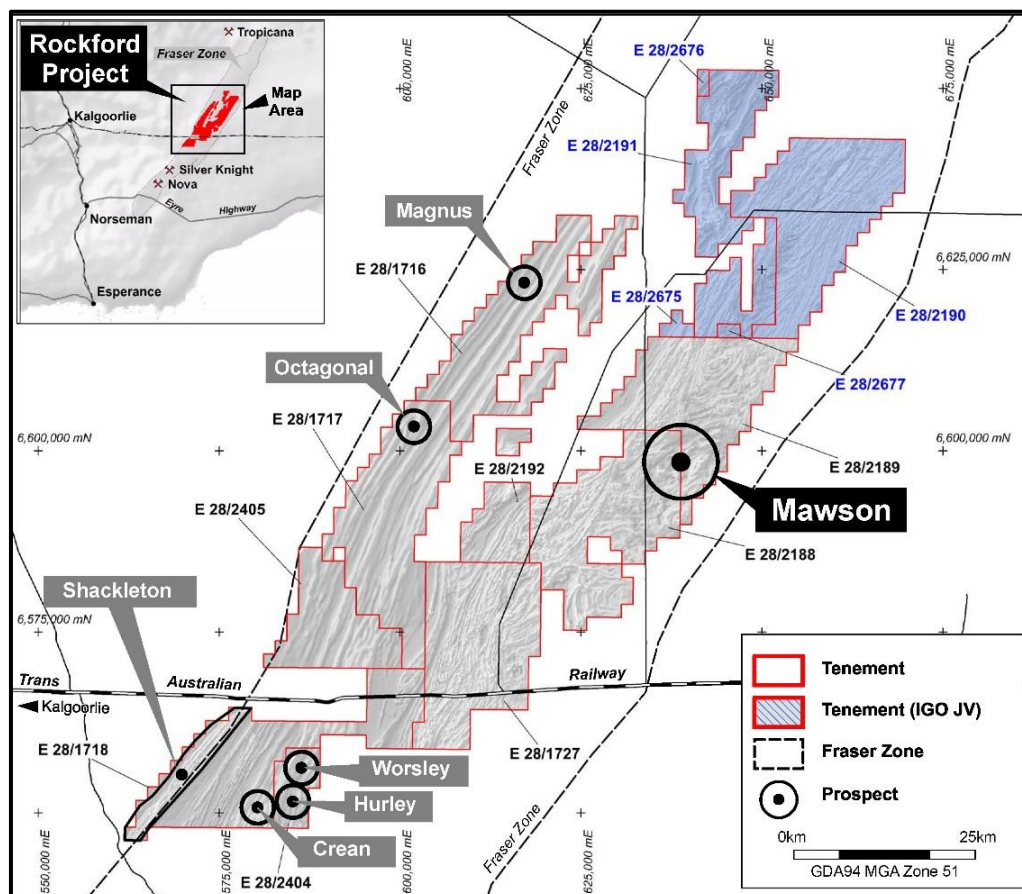
“We are planning extending the current Mawson diamond drill programme to include conductors D13 and D15 once commitments in the main Mawson prospect are completed.”



**MLTEM Surveying at Rockford Project**

## TECHNICAL DISCUSSION

Geophysical results from innovative MLTEM and FLTEM surveys over seven prospects across the Rockford Project have now been received and modelling completed (see Figure 1). The surveys were completed over a range of target types including; aeromagnetic and gravity features, previous EM conductors and anomalous geochemistry from previous aircore drilling.



**Figure 1: Rockford Project – Prospect Locations**

A total of nine conductors were identified or better defined by the recent surveys and are summarised in Table 1. The conductors are described in more detail below.

Prospect	Conductor	Conductance	Dimensions	Depth to Top	Orientation
NE Mawson	D13*	2,000-3,000S	>500 x 250m	125-175m	75-80° SE
NE Mawson	D14*	4,500-5,000S	<200 x 100m	100-125m	70-80° NNW
NE Mawson	D15*	7,500-12,500S	~300 x 300m	300-350m	65-75° NNW
NE Mawson	D18*	6,000-7,000S	<125 x 125m	150-175m	80-90° NNW
Worsley	W1	400-800S	>1,000 x 1,000m	200-250m	50-60° E/ESE
Crean	C1	500-1,500S	>1,000 x 1,000m	500-600m	60-70° E/ESE
Hurley	H1	3,000-5,000S	~300 x 1,000m	100-200m	30-45° N/NNE
Hurley	H2	300-500S	>300 x 400m	100-150m	60-80° E
Magnus	M1	300-500S	200x>250m	75-125m	50-60° SE

\* FLTEM survey

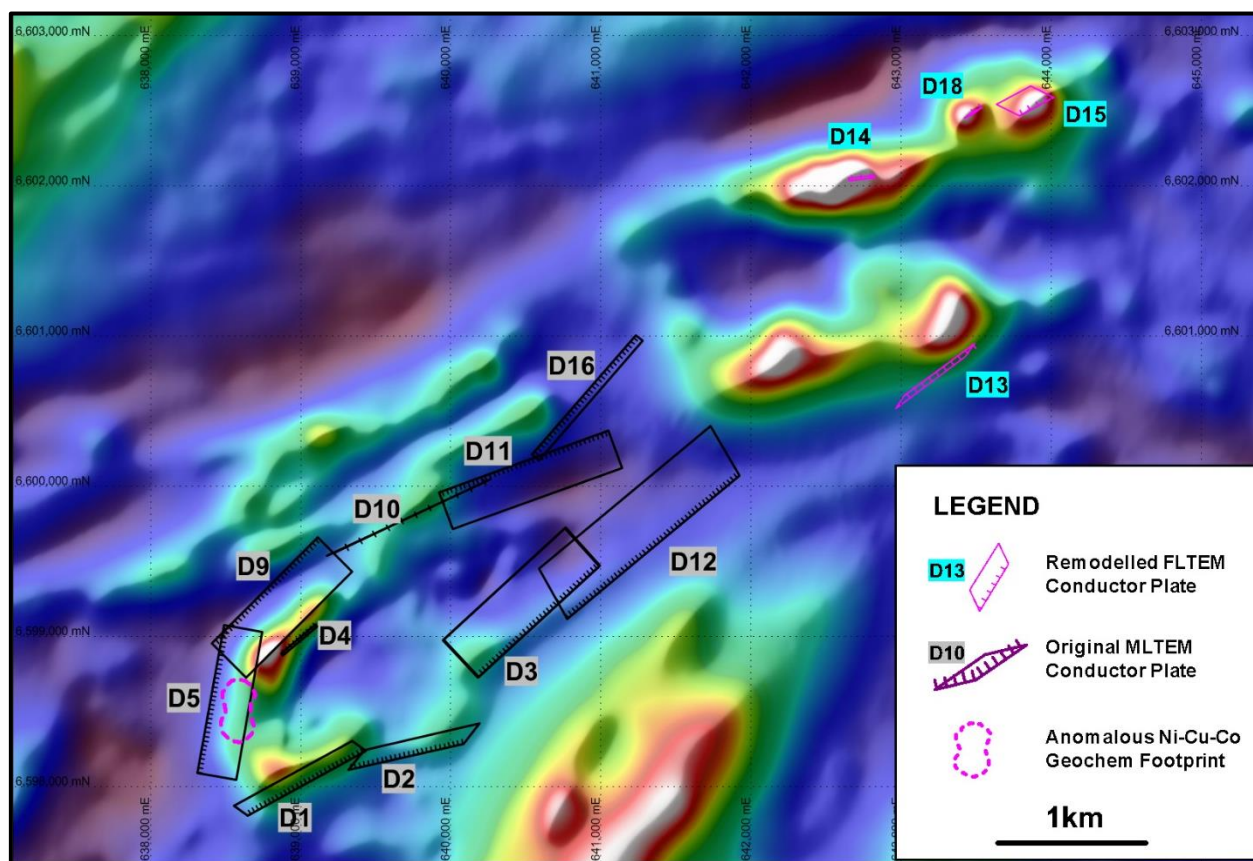


### Northeast Mawson (FLTEM)

FLTEM surveys were completed over four previously identified MLTEM conductors (D13, D14, D15 and D18) in the north-eastern portion of Mawson (see Figures 1 & 2). The surveying confirmed the presence of the features and allowed accurate modelling of the plate parameters (see Table 1).

D13 is a moderate conductor (2,000-3,000S) and shows similarities to the conductors which define the overall synformal structure at Mawson. It is however a relatively discrete feature and appears related to a linear magnetic unit some 200m to the north. Conductors D14, D15 and D18 differ to the other Mawson conductors in that they are discrete features with high conductances (4,500-12,500S) and directly associated with a coincident localised magnetic high and gravity high/ridge.

The FLTEM has assisted with the design of diamond drillholes at all four conductors with D13 and D15 considered high priority features based on their geological setting and conductance levels.



**Figure 2: Mawson EM Conductors**  
**Recent FLTEM and Previous MLTEM Plates Over Aeromagnetic Image**

### Mawson Central (LF-FLTEM)

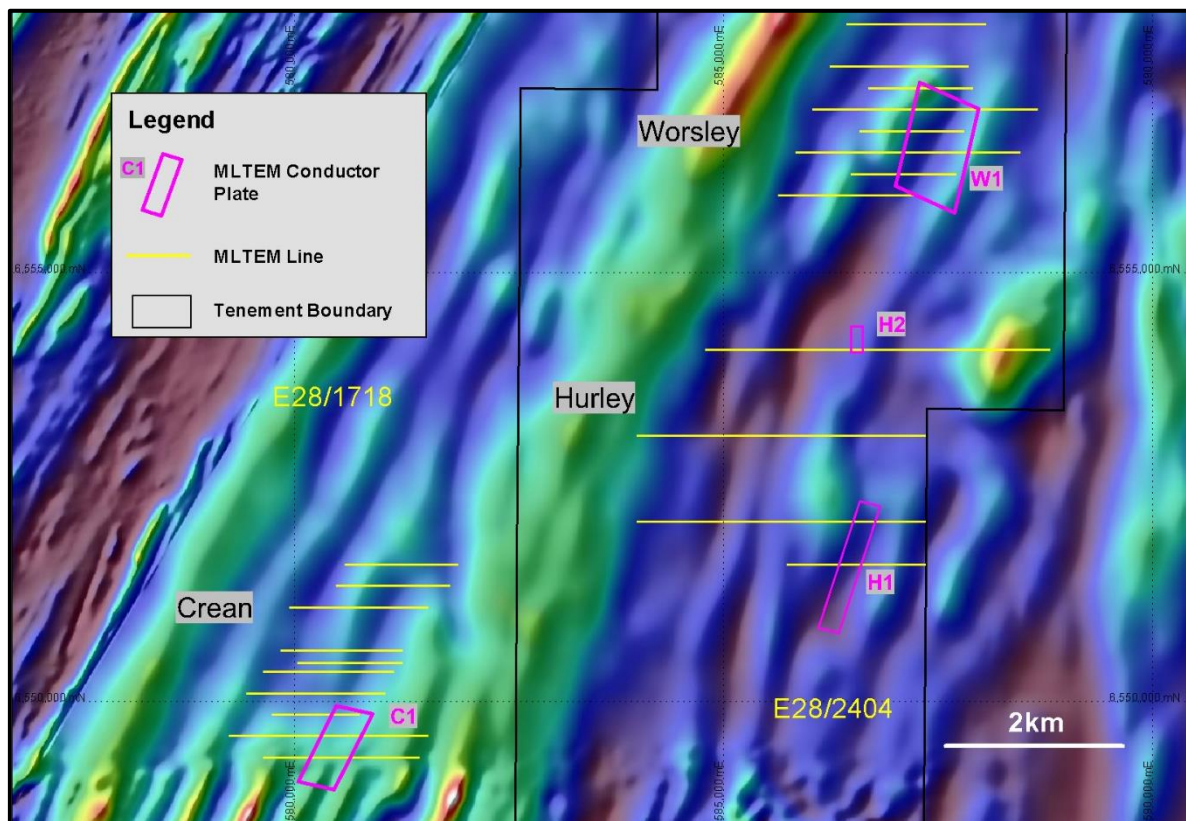
Legend commissioned Highpower EM Geophysical Services (HPEM) to conduct a low frequency fixed loop electromagnetic (LF-FLTEM) survey over the recently discovered nickel-copper sulphide mineralisation at Mawson. This survey was part of further developing Legend's innovative R&D activities, combining high power (~100amp), a new Figure 8 loop configuration and a low frequency of 0.0625Hz. The aim of the survey was to overcome the problem of highly conductive transported cover and the close proximity of large graphitic/stratigraphic conductors to detect the sulphide mineralisation.

The technique was able to suppress/limit the effects of the conductive transported cover and the western D5 conductor, however the effects of the large D1 conductor to the south could not be suppressed. As a result, the sulphide mineralisation was not detected by the survey. This is still considered a valid exploration technique and further test work will be completed over the D1 conductor testing an offhole DHTEM feature adjacent to the previous diamond drillhole RKDD006.

### Worsley (MLTEM)

Infill MLTEM surveying at Worsley has further refined the original MLTEM modelling in the mid and late channels revealing a broad/deep conductor of moderate conductance. The following modelled parameters were returned from the W1 conductor; 400-800S conductance, >1kmx1km dimensions, a dip of 50-60° to the E/ESE and a depth to top of 200-250m (see Table 1 & Figure 3).

The position of the remodelled conductor corresponds closely with anomalous Zn-Cu-Ag results in previous aircore drillholes associated with metasedimentary host rocks. A 400m diamond drillhole has been designed to test this conductor.

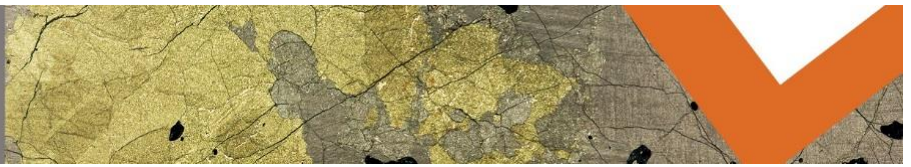


**Figure 3: MLTEM Survey Over Worsley, Crean and Hurley Prospects**

### Crean (MLTEM)

Ten lines of MLTEM were completed at Crean following up anomalous Ni-Cu-Co results in olivine bearing ultramafic from previous aircore drilling (11m @ 0.42% Ni, 0.01% Cu, 0.03% Co from 32m to end of hole in RKAC520). The survey identified the C1 conductor in late channels with the following modelled parameters; moderate conductance of 500-1,500S, >1kmx1km dimensions, a dip of 60-70° to the E/ESE and a depth to top of 500-600m (see Table 1 & Figure 3).





The C1 conductor lies some 800m to the south of the anomalous aircore geochemistry. Follow up aircore drilling to define the extent of the anomalous geochemistry is required along with a FLTEM survey to allow more accurate modelling of the C1 conductor.

#### **Hurley (MLTEM)**

An initial four line MLTEM survey at Hurley was undertaken targeting a NNE-SSW trending package of rocks with a complex/folded aeromagnetic signature. The survey identified the H1 conductor with preliminary modelling indicating a moderate to high conductance of 3,000-5,000S+ and a narrow/elongate conductor ~300m wide E-W with relatively large depth/plunge extent (see Table 1 & Figure 3). Further infill MLTEM of this promising conductor is required to allow accurate parameter modelling. A second, less well defined feature (H2) was also identified to the north and requires further surveying to better define the target. Several lines of aircore will also be required to test for anomalous geochemistry prior to possible RC/diamond drill testing.

#### **Magnus (MLTEM)**

High power (~200 amp) MLTEM surveying was completed over the entire Magnus prospect. The survey identified the M1 conductor with the following modelled parameters; low-moderate conductance of ~300-500S, 200x>250m dimensions, a dip of 50-60° to the SE and a depth to top of 75-125m (see Table 1). Further assessment of this conductor is required prior to possible drill testing. A number of other low conductance features were identified, however are considered low priority targets.

#### **Octagonal (MLTEM)**

As with Magnus, high power MLTEM surveying was completed over the entire Octagonal prospect aimed at detecting extensions to previously identified nickel-copper mineralisation and identifying additional bedrock targets to a depth ~500m (beyond conventional EM depth penetration of 250-300m). The survey identified a number of large weak to moderate stratigraphic features associated with the main mafic/ultramafic intrusive, however no new significant bedrock conductors were identified.

#### **Future Regional Exploration Programmes**

- LF-FLTEM over Mawson D1 conductor following up offhole feature in RKDD006.
- Infill MLTEM at Hurley to better constrain H1 and H2 conductors.
- Diamond drill testing Northeast Mawson conductors D13 and D15.
- Aircore follow up at Crean and Hurley to define extent of anomalous geochemistry.
- Diamond drill test Worsley conductor.

Authorised by Mark Wilson, Managing Director.

### **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.*

### **COVID-19**

The Company has been proactively managing the potential impact of COVID-19 and has developed systems and policies to ensure the health and safety of our employees and contractors, and limiting the risk to our operations. These systems and policies have been developed in line with the formal guidance of State and Federal health authorities and with the assistance of our contractors.

To ensure the health and wellbeing of our employees and contractors, the Company has implemented a range of measures to minimise the risk of infection and rate of transmission of COVID-19. These measures include employees and contractors completing a COVID-19 Exposure Questionnaire, increased hygiene practices, restrictions on non-essential travel, establishing strong infection control systems and protocols across the business and facilitating remote working arrangements, where practicable. The Company will continue to monitor the formal requirements and guidance of State and Federal health authorities, and act accordingly.

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

### **For more information contact:**

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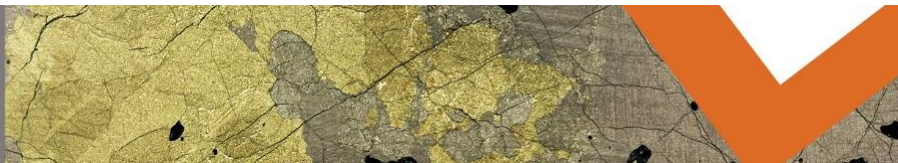
**Appendix 1:**  
**Legend Mining Ltd – Regional Geophysical Programmes - Rockford Project**  
**JORC Code Edition 2012: Table 1**

**Section 1: Sampling Techniques and Data**

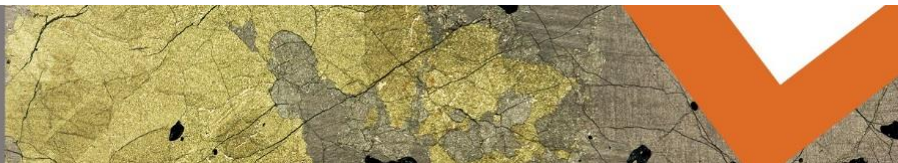
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, 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>No sampling undertaken.</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>No drilling undertaken.</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</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<p><i>representative nature of the samples.</i></p> <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>	
<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>• No drilling undertaken.</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>• No sampling undertaken.</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</i></li> </ul>	<ul style="list-style-type: none"> <li>• No sampling undertaken.</li> </ul>





Criteria	JORC Code Explanation	Commentary
	<p><i>model, reading times, 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>	
<b>Verification of sampling and assaying</b>	<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>No sampling undertaken.</li> </ul>
<b>Location of data points</b>	<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>No drilling undertaken.</li> </ul>
<b>Data spacing and distribution</b>	<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>No drilling undertaken.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<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>No drilling undertaken.</li> </ul>



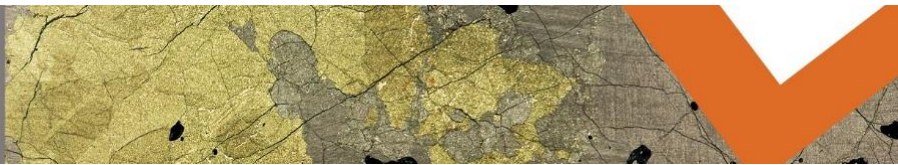
Criteria	JORC Code Explanation	Commentary
	<i>should be assessed and reported if material.</i>	
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>No sampling undertaken.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>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>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Rockford Project comprises nine granted exploration licences, covering 2,430km<sup>2</sup>, (Legend manager).</li> <li>Rockford JV tenements: <ul style="list-style-type: none"> <li>➢ E28/2188, 2189, 2192 (70% Legend, 30% Rockford Minerals Pty Ltd)</li> <li>➢ E28/1716, 1717, 1718, 1727 (70% Legend, 30% Ponton Minerals Pty Ltd).</li> </ul> </li> <li>Legend 100%: E28/2404, 2405.</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 E28/1716, 1717, 2188, 2189, 2192, 2405. 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>Acknowledgment and appraisal of exploration by other parties.</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>Deposit type, geological setting and style of mineralisation.</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>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> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>• hole length.</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>	
<b>Data aggregation methods</b>	<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>	<ul style="list-style-type: none"> <li>• No drilling undertaken.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<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>	<ul style="list-style-type: none"> <li>• No drilling undertaken.</li> </ul>
<b>Diagrams</b>	<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>	<ul style="list-style-type: none"> <li>• Project location and EM survey location maps have been included in the body of the report.</li> </ul>
<b>Balanced reporting</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>• All significant results are reported.</li> </ul>





Criteria	JORC Code Explanation	Commentary
	<i>practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<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>	<ul style="list-style-type: none"> <li>Detailed high quality aeromagnetic and gravity datasets have been used in the targeting of areas for moving and fixed loop electromagnetic (MLTEM) and (FLTEM) surveys.</li> <li>Highpower EM Geophysical Services Pty Ltd have undertaken high powered moving loop electromagnetic surveying MLTEM over Worsley, Crean, Hurley, Octagonal and Magnus prospects and LF-MLTEM at Mawson.</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> <li>GEM Geophysics have undertaken (FLTEM) over NE Mawson.</li> </ul> <p><b>FLTEM Details</b></p> <ul style="list-style-type: none"> <li>➤ Loop Size: 375mx300m, single turn</li> <li>➤ Line/Station Spacing: 75m spaced lines with 50m stations</li> <li>➤ Configuration: Fixed loop ZXY components, 000-180az Lines - X+ 000az, Y+ 270az</li> <li>➤ Transmitter: ZT-30 HPM - current ~70-100A+</li> <li>➤ Sensor: JESSY DEEP HT SQUID sensor, 3 component B field sensor</li> <li>➤ 0.25Hz, 500msec TB - 50% Duty Cycle</li> </ul>
<b>Further work</b>	<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>	<ul style="list-style-type: none"> <li>Further MLTEM surveying at Hurley and LF-MLTEM at Mawson over D1 conductor.</li> <li>Diamond drill testing of FLTEM conductors at NE Mawson.</li> </ul>