

ASX:LEG

15 January 2020 ASX Announcement

Final Assays and Structural Report Confirm New Mawson Discovery

• Drillhole RKDD007 returned: 70.15m @ 0.52% Ni, 0.36% Cu, 0.03% Co from 88.2m

Incl. 14.9m @ 1.07% Ni, 0.75% Cu, 0.06% Co from 114m

Incl. 2.1m @ 2.03% Ni, 1.34% Cu, 0.11% Co from 115.5m

- Structural report confirms RKDD007 drilled across mineralisation and not down dip
- Net-texture sulphides in websterite and melt textures observed in RKDD007 core
- 3D modelling underway to assist planning locations of next diamond drillholes

Legend Mining Limited (Legend) is pleased to announce final assay results from all three diamond drillholes (RKDD005-007) and significant observations from a structural report by Model Earth PL concerning the RKDD007 drill core from Mawson Prospect, Fraser Range, Western Australia. Details are in the technical discussion in this announcement.

Legend Managing Director Mr Mark Wilson said: "These assays and the structural observations from hole 007 have confirmed this hole to be a new discovery for Legend.

"The key takeaways are:

- > The mineralisation starts at a relatively shallow depth of 76m.
- > The mineralised intercept is 70m long and contains a 14.9m higher grade zone.
- The structural report confirms RKDD007 has been drilled across mineralisation and not down dip.
- The structural report contains observations of several important characteristics of the mineralisation which are remarkably similar as those at the Nova-Bollinger deposit.

"We are currently developing a 3D model of Mawson using the structural information from hole 007 and all other available data. This model will be used to plan the next diamond drillhole programme which is scheduled to commence later this first quarter of 2020."



Massive pyrrhotite-chalcopyrite-pentlandite sulphide in drillhole RKDD007, 119m (NQ2 core)



TECHNICAL DISCUSSION

Final assay results for all remaining diamond drill core samples have been received from drillholes RKDD005-007 and structural logging of RKDD007 has been completed at Mawson (see Figure 1).

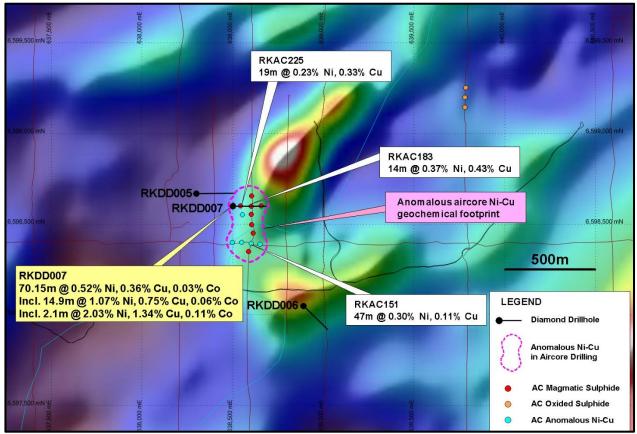


Figure 1: Mawson Diamond Drillhole Locations on Aeromagnetics

RKDD007 Results

The new results from RKDD007 now provide full assay coverage for the entire 70.15m sulphide bearing interval, returning an intersection of 70.15m @ 0.52% Ni, 0.36% Cu, 0.03% Co from 88.2m (see Table 1 & Figure 2). This 70.15m intersection includes the halo of disseminated sulphide above and below the previously reported significant nickel-copper-cobalt interval of 14.9m @ 1.07% Ni, 0.75% Cu, 0.06% Co from 114m, including 2.1m @ 2.03% Ni, 1.34% Cu, 0.11% Co from 115.5m (see ASX announcement dated 9 December 2019).

Table 1 summarises the 70.15m sulphide intersection and provides a breakdown with respect to four distinct sulphide zones, namely the upper disseminated, the 14.9m main sulphide zone, the 2.1m high grade interval, and the lower disseminated zone. Individual sample results from the upper and lower disseminated zones returned consistently anomalous Ni-Cu values with nickel ranging between 0.1-0.74% and copper between 0.06-0.59%. This highlights the significant amount of Ni-Cu sulphide distributed throughout the entire 70.15m interval, along with higher sulphide concentrations occurring in the 14.9m main zone.

Examples of sulphide textures/occurrence are presented in Photos 1-5 and include; disseminated, semi-massive breccia, massive, extension vein and net-textured.



Table 1: Diamond Drillhole RKDD007 – Significant Sulphide Intervals							
Hole	From	То	Int	Ni %	Cu %	Co %	Description
RKDD007	88.2	158.35	70.15	0.52	0.36	0.03	Full sulphide intersection
RKDD007	88.2	114.0	25.8	0.43	0.30	0.03	Upper disseminated zone
*RKDD007	114.0	128.9	14.9	1.07	0.75	0.06	Main sulphide zone
*Incl.	115.5	117.6	2.1	2.03	1.34	0.11	High grade zone
RKDD007	128.9	158.35	29.45	0.32	0.21	0.02	Lower disseminated zone

* Assays reported previously 9 December 2019

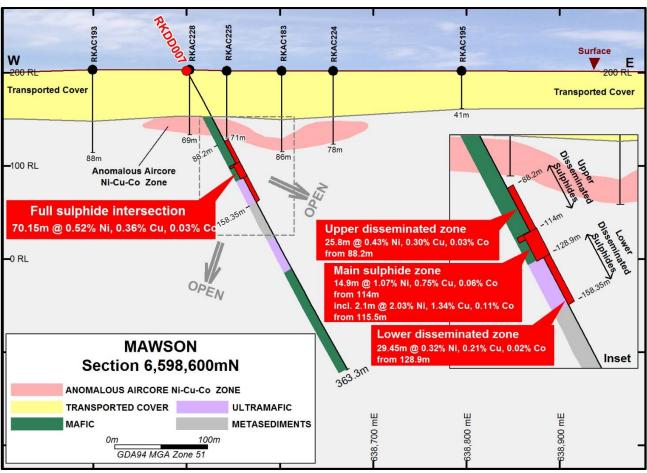
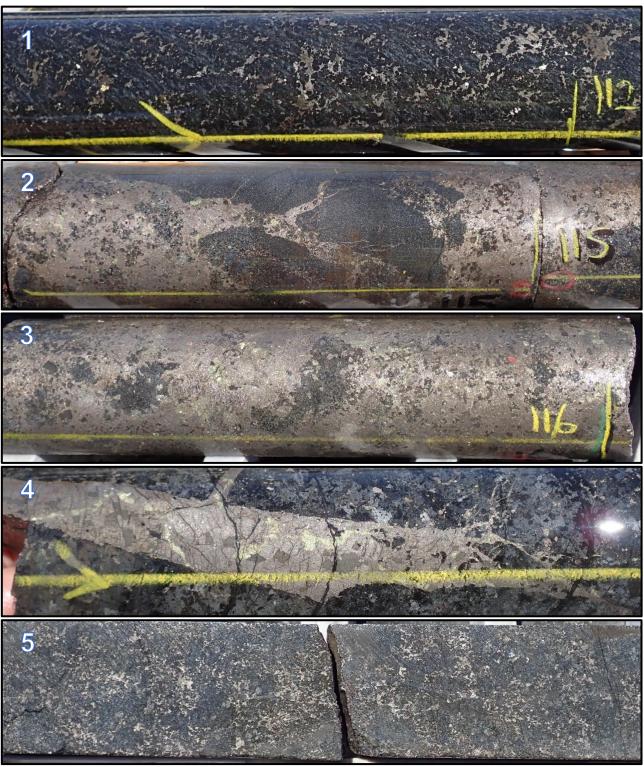


Figure 2: Drill Section 6,598,600N with Diamond Drillhole RKDD007

RKDD005-006 Results

Assay results from RKDD005 associated with logged disseminated and blebby sulphides in gabbronorite returned an elevated intersection of 2.5m @ 0.05% Ni, 0.10% Cu, 0.01% Co from 110.5m. No significant assay results were returned from RKDD006.





Photos 1-5: Examples of sulphide textures in diamond drillhole RKDD007 (NQ2 core ~5cm)

- 1) Olivine websterite with mc-po-cpy-vl (Upper disseminated zone, 112.7m)
- 2) Norite clasts within semi-massive sulphide breccia po-cpy-pn (Main sulphide zone, 115m)
- 3) Massive sulphide po-cpy-pn with minor gabbronorite (High grade zone, 116m)
- 4) Extension vein po-cpy-pn with cubes of py-mc (Main sulphide zone, 127m)
- 5) Net-textured po-pn-cpy in olivine websterite (Lower disseminated zone, 135m)

(Abbr: po-pyrrhotite, cpy-chalcopyrite, pn-pentlandite, vl-violarite, , mc-marcasite, py-pyrite)



RKDD007 - Structural Assessment

Legend commissioned Jon Standing, Director of Model Earth PL to undertake a structural assessment of the pyrrhotite-chalcopyrite-pentlandite sulphide mineralisation and host rocks in drillhole RKDD007, with the ultimate aim of assisting future drillhole planning. The drill core logging focussed on the sulphide-bearing interval and underlying metasediments (68.3-201m) with the key findings summarised below.

- The sulphide mineralisation is hosted within the upper mafic/ultramafic intrusion, which overlies a moderate west dipping metasedimentary unit and a lower mafic/ultramafic intrusion.
- The upper intrusion comprises two cycles of gabbronorite-olivine websterite with the higher Mg rocks at the base of each cycle.
- The main sulphide interval is hosted in gabbronorite. Sulphide veins are semi-massive to breccia textured with silicate melt textures, indicating sulphide melt rather than solid-state remobilisation.
- Net-textured sulphides were observed in olivine websterite host rocks at Mawson. These are considered important textures as they are indicative of sulphide-bearing magma conduits (Barnes et al., 2017) and are observed at Nova-Bollinger (Taranovic et al., 2019).
- The logging confirmed the presence of pyrrhotite-chalcopyrite-pentlandite loop textures as previously reported by microXRF analysis (ASX 9 December 2019).
- Structural observations indicate that the sulphide veins are near optimally oriented to core axis indicating the drillhole cross cuts mineralisation rather than drilling down dip.

Future Activities

- Develop a 3D model for Mawson integrating a full interpretation of drilling, geological, geochemical and geophysical data.
- Infill aircore drilling at nominal 200m x 200m to define the extent of anomalous Ni-Cu-Co aircore footprint around mineralisation in RKDD007 and aircore holes RKAC151 and 183.
- Infill aircore at 200m x 200m spacing around previous aircore drilling with anomalous Ni-Cu geochemistry over wider Mawson region.
- Diamond drilling follow up aimed at defining the extent of nickel-copper mineralisation.

References:

Barnes, S.J., Mungall, J.E., Le Vaillant, M., Godel, B., Lesher, C.M., Holwell, D., Lightfoot, P.C., Krivolutskaya, N., and Wei, B., 2017, Sulfide-silicate textures in magmatic Ni-Cu-PGE sulphide ore deposits: Disseminated and net-textured ores. American Mineralogist, Volume 102, 473-506.

Taranovic, V., Barnes, S.J., Beresford, S., Miller, J., and Rennick, S., 2019, Nova-Bollinger Ni-Cu sulfide ore deposits, Fraser Zone, Western Australia: Petrology of the host intrusions sulphide-silicate textures and emplacement mechanisms of the ores. AEGC2109 Data to Discovery, 1-6.



Table 2: Mawson Diamond Drillhole Details						
Hole	MGA94-East	MGA94-North	RL	Azimuth	Dip	Total Depth
RKDD005	638,300	6,598,670	203	090 ⁰	-70 ⁰	586.2
RKDD006	638,890	6,598,050	205	135 ⁰	-70 ⁰	473.7
RKDD007	638,500	6,598,600	202	090 ⁰	-60 ⁰	363.3

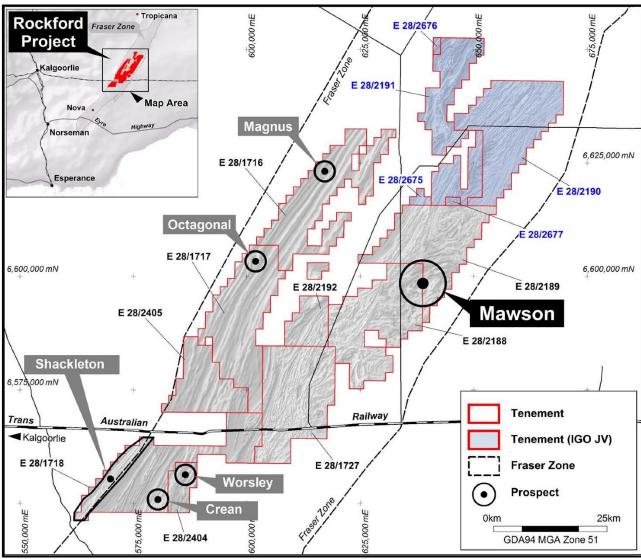


Figure 3: Rockford Project – Mawson Location

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.

The information in this report that relates to Legend's Exploration Results is a compilation of previously released to ASX by Legend Mining (11 December 2017, 9 April 2018, 12 June 2018 & 9 December 2019) and Mr Derek Waterfield consents to the inclusion of these Results in this report. Mr Waterfield has advised that this consent remains in place for subsequent releases by Legend of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. Legend confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. Legend confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Visit <u>www.legendmining.com.au</u> for further information and announcements.

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Mr Derek Waterfield Executive Director - Technical Ph: +61 8 9212 0600



Appendix 1:

Legend Mining Ltd – Diamond Drilling Programme Mawson Prospect - Rockford Project JORC Code Edition 2012: Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 Diamond drilling was used to produce half NQ2 core samples (between 0.2m-1.6m) which were submitted to Intertek Genalysis Laboratory Services Perth for geochemical analysis. Sample intervals were based on geology and style of sulphide occurrence. QAQC standard samples were included (1 standard per 30 samples). Samples were analysed for: 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 by methods 4A/MS48R and 4AH/OM (four acid digest with ICP-MS finish). Au, Pt, Pd by method FA50/MS (fire assay with an ICP-MS finish).
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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	 Diamond drillhole pre-collars were completed using the mud rotary technique to depths of 64.2-79.2m. No samples were recovered from the mud rotary pre-collar. The remainder of the hole was drilled with HQ into the top of fresh rock (depths between 80.4-89.7m), followed by NQ2 diamond coring to end of hole. Orlando Drilling completed the drilling.



Criteria	JORC Code Explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Drill core orientation was recorded when possible at the end of each drill run (line on bottom of core). Drill core sample recoveries for the HQ and NQ2 core were measured and recorded in drill log sheets. No relationship has been determined between sample recoveries and grade and there is insufficient data to determine if there is a sample bias.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 Geological logging of all drillholes included; lithology, grainsize, texture, deformation, mineralisation, alteration, veining, colour, weathering. Drill core logging is qualitative and based on drill core retained in core trays. All drillholes were logged in their entirety.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. 	 Selected sawn half NQ2 core samples based on geology and sulphide occurrence were submitted for geochemical analysis. The size of the sample from the diamond drilling method is considered appropriate for the mineralisation style sought and for the analytical technique used. The samples are dried, crushed and pulverised before analysis. A quartz wash was utilised between samples to avoid any carry over. QAQC standard samples were included (1 standard per 30 samples).



Criteria	JORC Code Explanation	Commentary
	 Whether sample sizes are appropriate to the grain size of the material being sampled. 	
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 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. 	 Samples were analysed for: 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 by methods 4A/MS48R and 4AH/OM (four acid digest with ICP-MS finish). Au, Pt, Pd by method FA50/MS (fire assay with an ICP-MS finish). These assay methods are considered appropriate. QAQC standard samples were included (1 standard per 30 samples). In addition, reliance is placed on laboratory procedures and internal laboratory batch standards and blanks. All samples were analysed by Intertek Genalysis Laboratory Services Perth.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Significant intersections were verified by senior exploration personnel. 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. No adjustments of assay results have been undertaken.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 All 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. All co-ordinates are expressed in GDA94 datum, Zone 51. Regional topographic control has an accuracy of ±2m based on detailed DTM data.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to 	• Diamond drillhole spacing is not regular or grid based, with the location of individual drillholes governed by targeting the position of modelled EM conductor plates and anomalous



Criteria	JORC Code Explanation	Commentary
	establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	 geochemical results in previous aircore drillholes. Only selected sawn NQ2 half core samples based on geology and sulphide mineralisation were submitted for geochemical analysis.
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Diamond drillholes were planned to intersect modelled EM conductor plates perpendicular to strike and beneath anomalous geochemistry in previous aircore drillholes. The relationship between drill orientation and mineralisation is unknown.
Sample security	The measures taken to ensure sample security.	 Individual calico sample bags from the core drilling were placed in polyweave bags and hand delivered directly to the assay laboratory in Perth by company personnel. All diamond drill core will be removed
		 All diamond drill core will be removed from site and stored at an appropriate facility.
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.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<i>Mineral tenement and land tenure status</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.	 The Rockford Project comprises nine granted exploration licences, covering 2,430km², (Legend manager). Rockford JV tenements: E28/2188, 2189, 2192 (70% Legend, 30% Rockford Minerals Pty Ltd) E28/1716, 1717, 1718, 1727 (70% Legend, 30% Ponton Minerals Pty Ltd).
	 The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Legend 100%: E28/2404, 2405. The Project is located 280km east of Kalgoorlie mostly on vacant crown land with the eastern portion on Kanandah Pastoral Station. There are no determined Native Title Claims over tenements E28/1716, 1717, 2188, 2189, 2192, 2405.



Criteria	JORC Code Explanation	Commentary
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Tenements E28/1718, E28/1727 & E28/2404 are covered 90%, 20% and 100% respectively by the Ngadju Native Title Claim. The tenements are in good standing and there are no known impediments. Not applicable, not referred to.
Geology	Deposit type, geological setting and style of mineralisation.	 The primary target is Nova style nickel-copper mineralisation hosted in mafic/ultramafic intrusives within the Fraser Zone of the larger Albany- Fraser Orogen. Secondary targets include VMS style zinc-copper-lead-silver mineralisation and structurally controlled Tropicana style gold.
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above 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. 	Refer to table of drillhole collars in body of report.



Criteria	JORC Code Explanation	Commentary
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 	 Individual sample assays and weighted averages are presented.
	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.	
	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	 The drill core has been oriented to enable structural logging and evaluation of true thicknesses of the mineralised intervals. All drillhole intercepts/intervals are measured downhole in metres.
	 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'). 	
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 and drillhole location maps and a drill section have been included in the body of the report.
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.	Assay results presented are balanced.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including	 Detailed high quality aeromagnetic and gravity datasets, aircore drilling and ground EM surveys have been



Criteria JORC Code Explanation		Commentary
	(but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment;	 used to target drilling. GEM Geophysics completed downhole EM surveying of RKDD005- 007. DHTEM Details
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	 Loop Size: 300mx300m, double turn Station Spacing: 2-10m intervals Sensor: B-field DigiAtlantis Base/frequency: 0.125Hz Stacking: ~32-64 stacks, 2-3 repeatable readings
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step- out drilling). 	Full geological, geophysical and geochemical integration of data.Plan further diamond drillholes.
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	