

**DECEMBER 2019 QUARTERLY REPORT****30 January 2020****LEGEND MINING LIMITED**ASX Symbol: **LEG**

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**PROJECTS****Rockford - Fraser Range:**

Nickel-Copper (Ni-Cu)

Copper-Zinc-Silver (Cu-Zn-Ag)

Gold (Au)

**HIGHLIGHTS – Rockford Project, Fraser Range**

- **Massive nickel- copper sulphides discovered and off hole conductor identified in diamond hole RKDD007**
- **Annual expenditure budget for 2020 doubled**
- **Next diamond and aircore drill programmes scheduled to commence in March 2020**

**OVERVIEW**

Legend achieved a watershed milestone in December 2019 at the Mawson prospect at its Fraser Range Rockford Project with the discovery of massive nickel-copper sulphides in diamond drillhole RKDD007.

A structural report from analysis of the core from the discovery hole and the final assays in January 2020 supported the Company's view that the hole was part of a large mineralised system. Subsequent review and modelling of the downhole EM survey data and geological input has identified an off hole conductor which is a compelling drill target for the first diamond drillhole in the March 2020 programme.

Meanwhile the regional aircore and innovative moving loop EM surveys will be ongoing throughout the project area.

The success of hole RKDD007 has resulted in the Legend Board approving a doubling of the expenditure budget to \$8M for the 2020 calendar year. The funding for this is planned to come from the Jindal debt repayment (\$2.5M) and the exercise of options held by the Creasy Group (\$6M). This will leave the company with a cash balance at year end very similar to the current balance of \$10.3M.

## 1. ROCKFORD PROJECT (Fraser Range District)

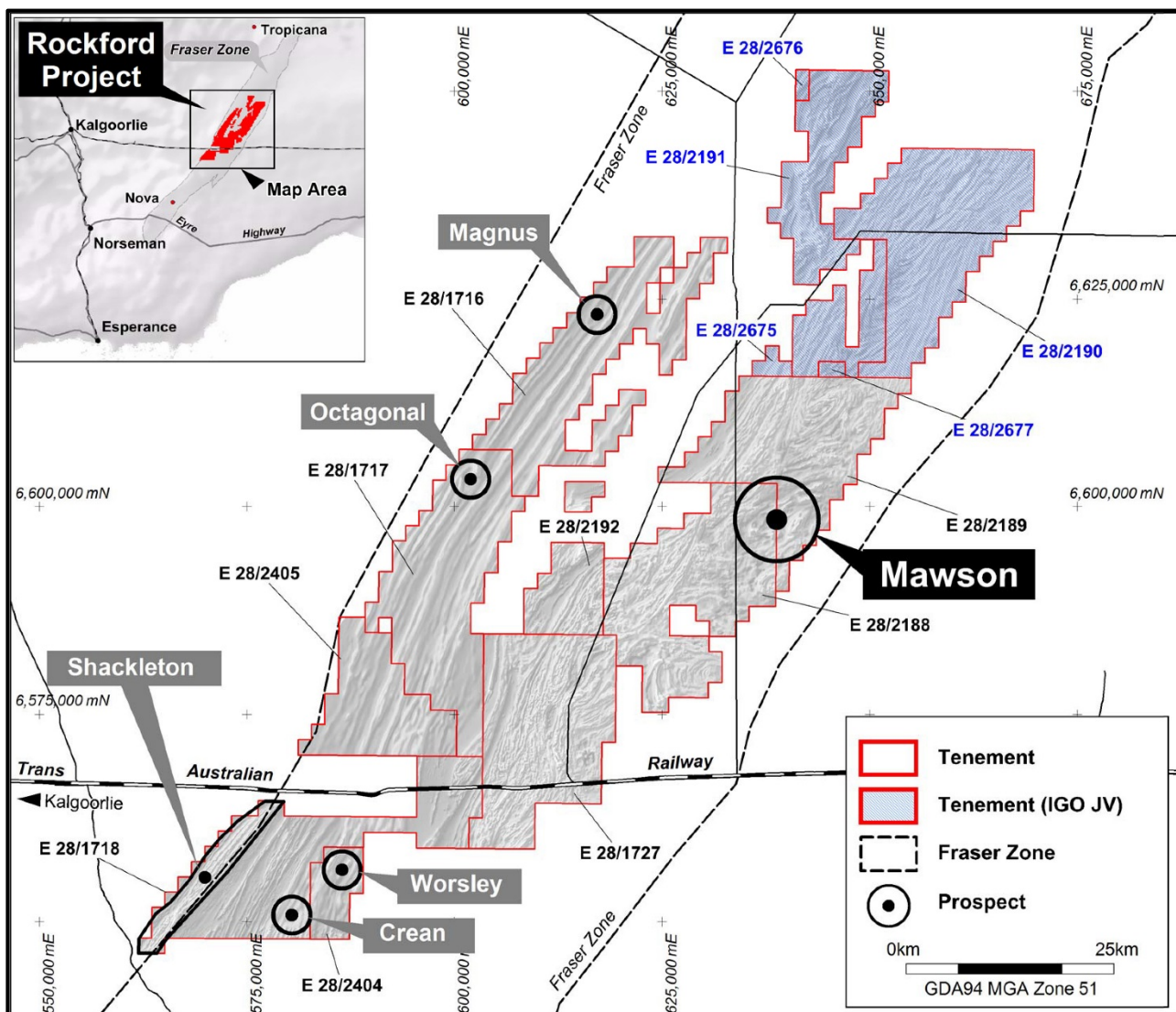
### Nickel-Copper, Copper-Zinc-Silver, Gold

Legend's Rockford Project is located in the highly prospective Fraser Range district of Western Australia and considered prospective for mineralisation styles including: magmatic nickel-copper, VMS zinc-copper-silver and structurally controlled gold.

The Rockford Project comprises 14 contiguous granted exploration licences covering a total area of 3,088km<sup>2</sup> (see Figure 1). A detailed breakdown of ownership, area and manager is given below:

- Legend (100%) 238km<sup>2</sup>
- Legend (70%)/Creasy Group (30%) two JVs covering 2,192 km<sup>2</sup> with Legend manager
- IGO (60%)/Creasy Group (30%)/Legend (10% free carry) JV covering 634km<sup>2</sup> with IGO manager
- IGO (70%)/Legend (30% free carry) JV covering 24km<sup>2</sup> with IGO manager

Exploration activities completed during the December 2019 quarter at Rockford include: diamond drilling and downhole electromagnetic (DHTEM) surveying at Mawson (formerly Area D) and regional aircore drilling (see Figure 1).



**Figure 1: Rockford Project with Current Prospect Locations**

## Mawson Prospect

During the December 2019 quarter a diamond drilling programme comprising three holes (RKDD005-007) for 1,423.2m was completed at the Mawson prospect, formerly named Area D. The three drillholes were targeting the D1 and D5 low frequency moving loop electromagnetic (LF-MLTEM) conductors and anomalous nickel-copper geochemistry in previous aircore drillholes (Figure 2 & Table 1).

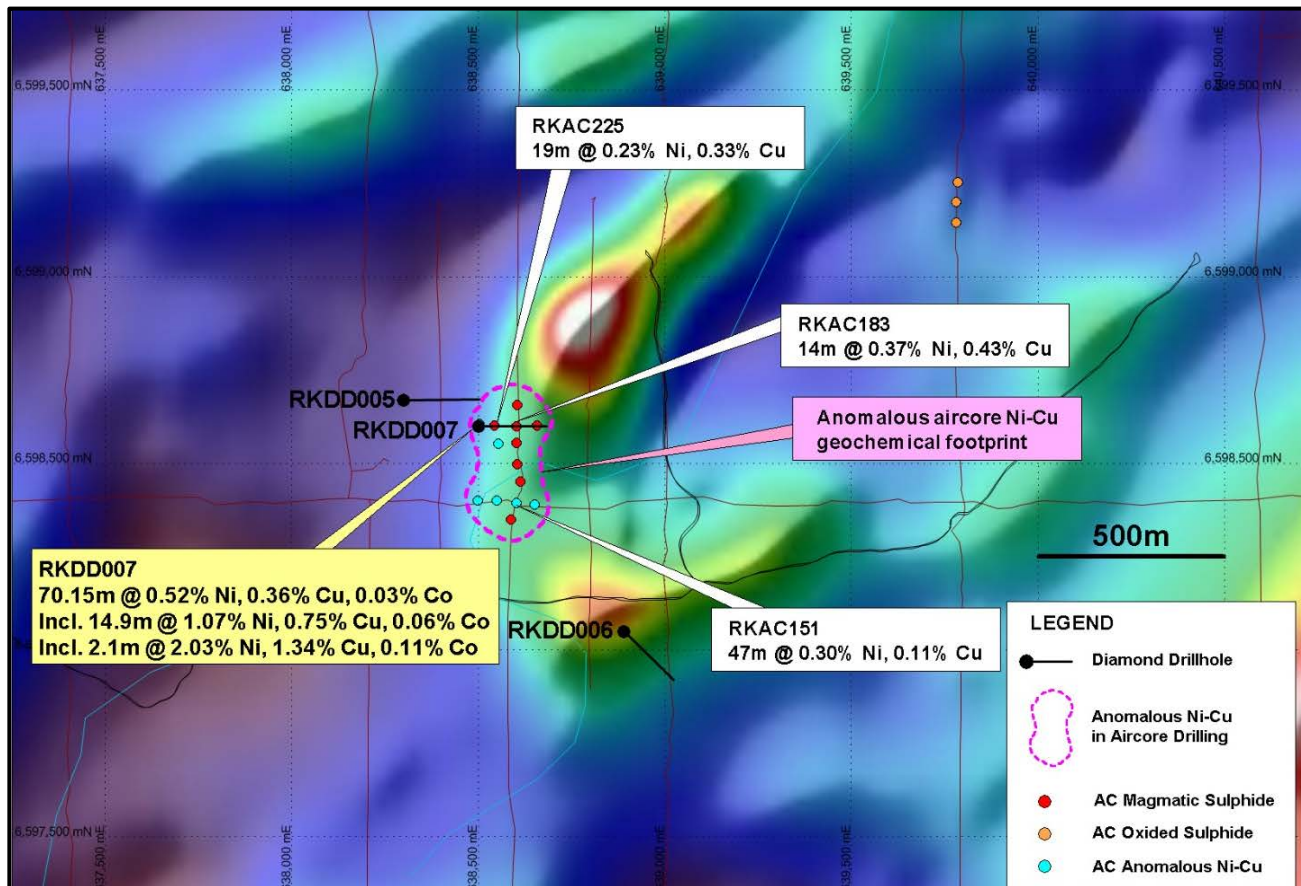


Figure 2: Mawson Diamond Drillhole Locations on Aeromagnetics

Table 1: Mawson Diamond Drillhole Details

Hole	MGA94-East	MGA94-North	RL	Azimuth	Dip	Total Depth	Hole Target
RKDD005	638,300	6,598,670	203	090 <sup>0</sup>	-70 <sup>0</sup>	586.2	D5 conductor
RKDD006	638,890	6,598,050	205	135 <sup>0</sup>	-70 <sup>0</sup>	473.7	D1 conductor
RKDD007	638,500	6,598,600	202	090 <sup>0</sup>	-60 <sup>0</sup>	363.3	Ni-Cu geochem

### RKDD005 – D5 Conductor

Drillhole RKDD005 (586.2m) was drilled to test the D5 LF-MLTEM conductor and anomalous nickel-copper geochemistry in previous aircore holes. The hole intersected two gabbro-norite intrusive units with the upper intrusive intersecting disseminated and blebby pyrrhotite-chalcopyrite-pentlandite sulphides between 110.3-119.9m. Elevated nickel and copper values were returned throughout this sulphide interval with a best intersection of 2.5m @ 0.05% Ni, 0.10% Cu, 0.01% Co from 110.5m.

RKDD005 also intersected a broad package of mixed metasediment/granulite containing multiple graphite±pyrrhotite bands, which coincide with the position of the modelled D5 conductor and confirmed by downhole electromagnetic (DHTEM) surveying.



### RKDD006 – D1 Conductor

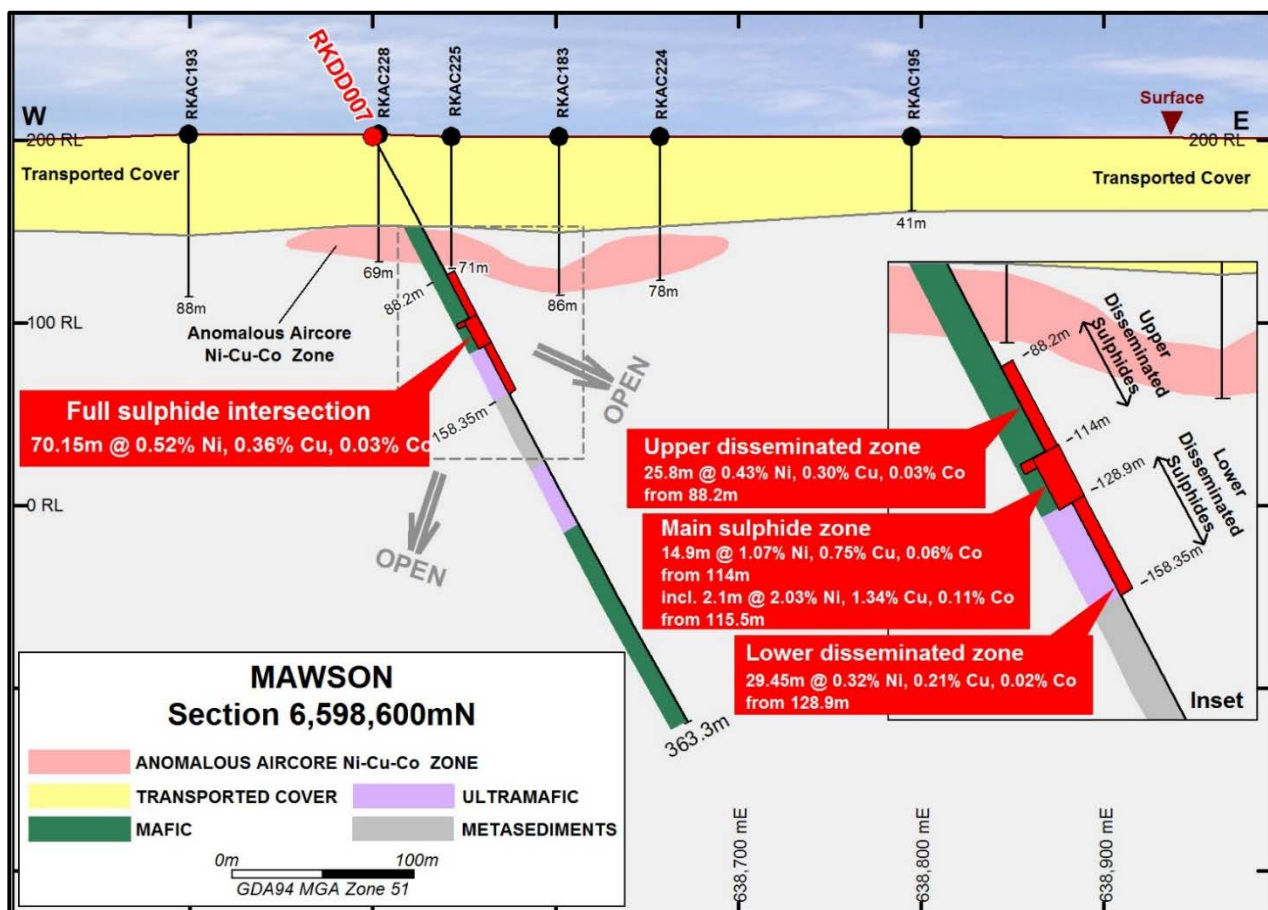
Drillhole RKDD006 (473.7m) was drilled to test the very strong ~42,000S D1 LF-MLTEM conductor. The hole intersected a broad metasediment and granulite package containing multiple thick graphitic bands between 262-321m, which was confirmed as the targeted conductor (albeit shallower than the modelled depth of ~350m) by DHTEM surveying. No significant assays were returned from the hole.

### RKDD007 – Aircore Ni-Cu Geochemical Anomaly

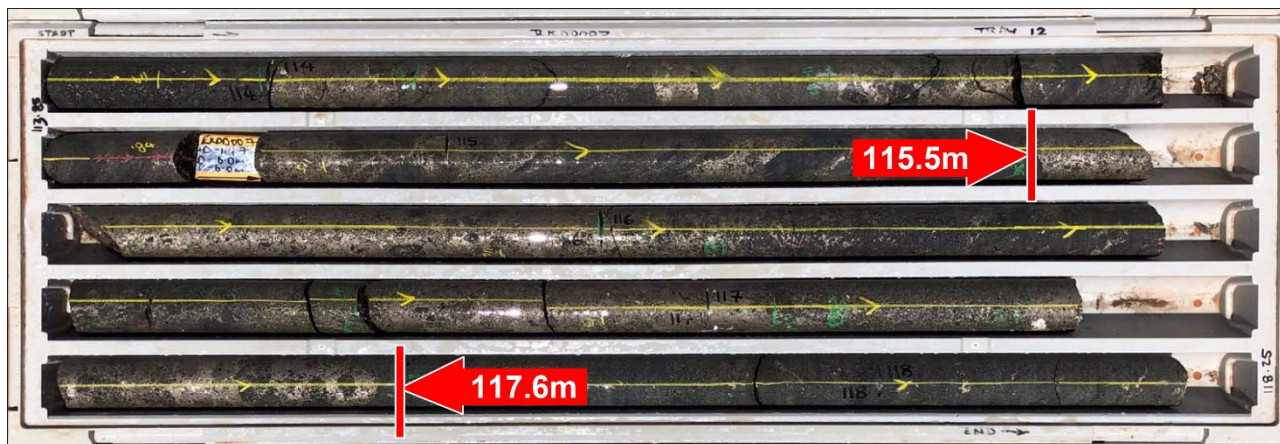
Drillhole RKDD007 (363.3m) was designed to test beneath anomalous nickel-copper geochemistry associated with pyrrhotite-chalcopyrite-pentlandite (po-cpy-pn) intersected in previous aircore drillholes RKAC183 and RKAC225, and follow up encouraging results from RKDD005. RKDD007 was collared in the northern part of a 400m x 200m supergene Ni-Cu-Co blanket defined by aircore drilling (see Figure 2).

RKDD007 intersected a suite of mafic/ultramafic intrusives (containing significant sulphide intervals), bedded/banded metasediment, a second mafic/ultramafic intrusive package, followed by an open ended interval of mafic intrusive (see Figure 3).

A significant nickel-copper-cobalt intersection 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 was returned associated with the upper mafic/ultramafic intrusive (see Figures 3 & 4). A combination of massive, semi-massive, net-textured, vein and disseminated three phase sulphides occur in this zone. The 14.9m zone is bounded uphole and downhole by broad halos of disseminated sulphides (88.2-114m and 128.9-158.35m) giving an overall 70.15m downhole sulphide interval (see Tables 2 & 3).



**Figure 3: Drill Section 6,598,600N with Diamond Drillhole RKDD007**



**Figure 4: Ni-Cu Sulphide Mineralisation in Drillhole RKDD007**  
2.1m @ 2.03% Ni, 1.34% Cu, 0.11% Co from 115.5m (NQ2 core).

Table 2 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. Table 3 provides data for the 22 individual samples related to the 14.9m intersection (114-128.9m) including Au, Pd and Pt values, which are highly anomalous and significantly increase the prospectivity of Mawson.

**Table 2: Diamond Drillhole RKDD007 – Significant Sulphide Intervals**

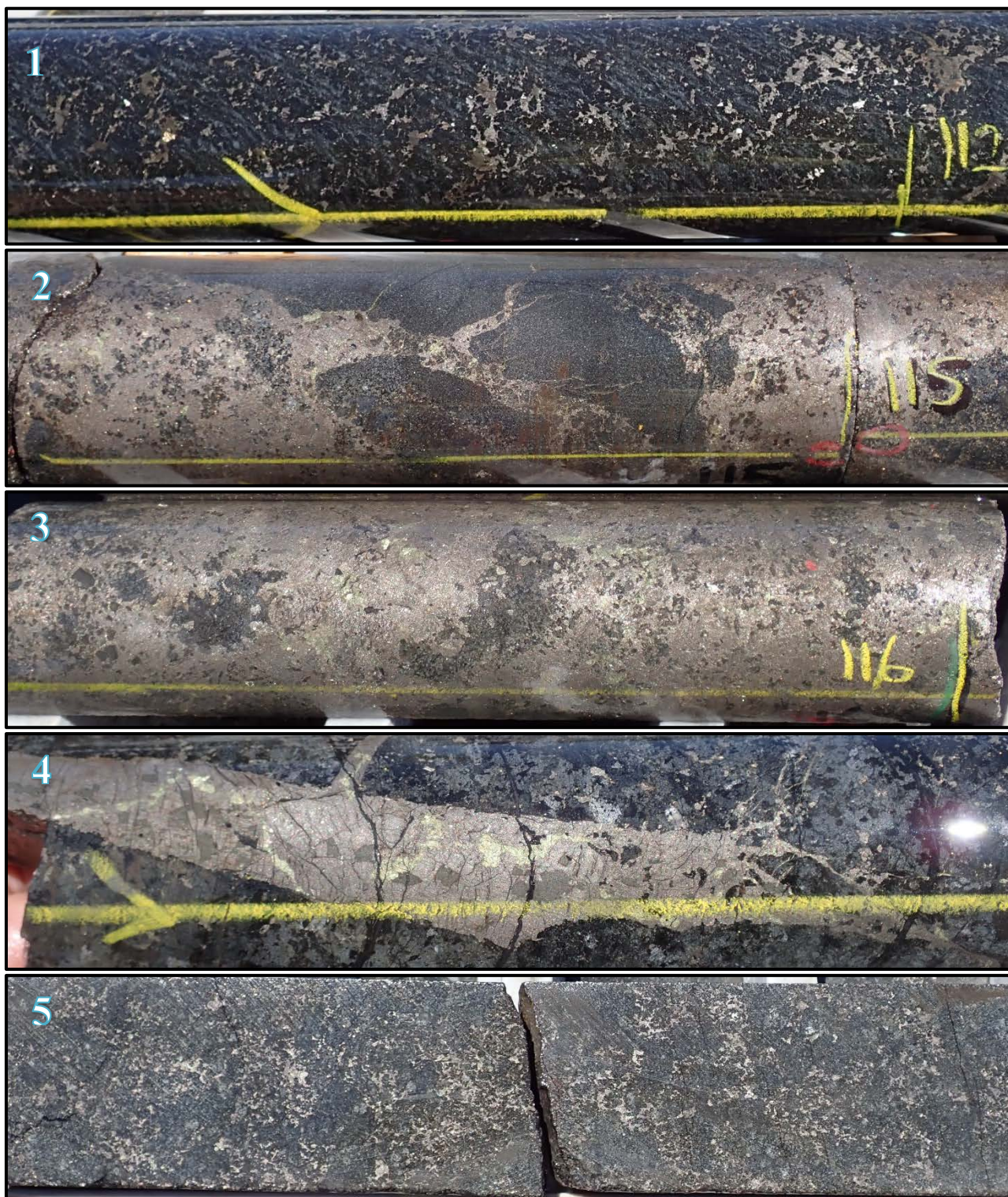
Hole	From	To	Int	Ni %	Cu %	Co %	Description
<b>RKDD007</b>	<b>88.2</b>	<b>158.35</b>	<b>70.15</b>	<b>0.52</b>	<b>0.36</b>	<b>0.03</b>	<b>Full sulphide intersection</b>
RKDD007	88.2	114.0	25.8	0.43	0.30	0.03	Upper disseminated zone
*RKDD007	114.0	128.9	14.9	1.07	0.75	0.06	Main sulphide zone
*Incl.	115.5	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

**Table 3: Diamond Drillhole RKDD007 – Significant Assay Results (114-128.9m)**

Hole	From (m)	To (m)	Int (m)	Ni (%)	Cu (%)	Co (%)	MgO (%)	Au (ppb)	Pd (ppb)	Pt (ppb)
RKDD007	114	115	1.0	1.20	0.64	0.06	6.61	43	46	3
RKDD007	115	115.5	0.5	1.36	0.68	0.07	4.27	61	56	9
<b>RKDD007</b>	<b>115.5</b>	<b>116.15</b>	<b>0.65</b>	<b>2.59</b>	<b>1.58</b>	<b>0.13</b>	<b>2.67</b>	<b>24</b>	<b>69</b>	<b>2</b>
<b>RKDD007</b>	<b>116.15</b>	<b>116.7</b>	<b>0.55</b>	<b>0.88</b>	<b>0.76</b>	<b>0.05</b>	<b>8.25</b>	<b>79</b>	<b>34</b>	<b>1,311</b>
<b>RKDD007</b>	<b>116.7</b>	<b>117.05</b>	<b>0.35</b>	<b>2.67</b>	<b>3.01</b>	<b>0.15</b>	<b>4.58</b>	<b>28</b>	<b>26</b>	<b>3</b>
<b>RKDD007</b>	<b>117.05</b>	<b>117.6</b>	<b>0.55</b>	<b>2.10</b>	<b>0.56</b>	<b>0.11</b>	<b>6.19</b>	<b>36</b>	<b>29</b>	<b>3</b>
RKDD007	117.6	118.65	1.05	0.23	0.19	0.02	10.87	43	13	8
RKDD007	118.65	119.45	0.8	1.94	1.27	0.10	5.05	109	45	720
RKDD007	119.45	120.15	0.7	1.46	0.71	0.08	7.88	166	43	55
RKDD007	120.15	120.55	0.4	0.90	1.04	0.05	12.20	171	56	83
RKDD007	120.55	121.2	0.65	0.73	0.73	0.05	14.65	651	157	93
RKDD007	121.2	121.75	0.55	1.17	1.04	0.06	11.18	534	195	81
RKDD007	121.75	122.5	0.75	0.29	0.30	0.02	17.86	128	29	14
RKDD007	122.5	123.3	0.8	1.53	0.78	0.09	9.73	225	259	9
RKDD007	123.3	124	0.7	0.40	0.28	0.03	19.26	254	71	12
RKDD007	124	125	1.0	0.46	0.34	0.03	18.64	238	69	53
RKDD007	125	126	1.0	0.71	0.54	0.04	16.36	558	189	39
RKDD007	126	126.95	0.95	0.82	0.77	0.05	16.17	348	113	104
RKDD007	126.95	128	1.05	0.77	0.60	0.04	14.93	131	52	3
RKDD007	128	128.5	0.5	1.28	1.52	0.07	10.93	103	46	5
RKDD007	128.5	128.7	0.2	0.62	0.48	0.04	15.65	44	20	7
RKDD007	128.7	128.9	0.2	1.71	0.37	0.09	8.33	39	24	5



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



**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 gabbro-norite (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)**



### **Regional Aircore Drilling**

The Rockford regional aircore programme continued during the December 2019 quarter with a further 29 holes for 1,430m completed and all assay results now received. This drilling targeted three aeromagnetic/gravity features located within the central portion of the Rockford Project. Several drillholes intersected gabbro-norite and norite, however no significant nickel or copper values were returned.

### **Future Programmes**

- Continue Mawson 3D modelling of geological, structural and geophysical datasets to assist diamond drillhole design.
- Commence Mawson diamond drilling following up sulphide intersection in RKDD007.
- Commence Mawson infill aircore drilling aimed at defining extent of Ni-Cu-Co geochem footprint.
- MLTEM surveying/modelling over Magnus and Octagonal prospects.
- MLTEM surveying/modelling over Crean and Worsely prospects

## **2. CORPORATE**

### **Jindal Receivable**

Legend received \$500,000 (two \$250,000 monthly payments) from Jindal Steel and Power during the December 2019 quarter. The payment of \$282,658 (\$250,000 principal and \$32,658 interest), due on 31 December 2019 was received on 22 January 2020 (see ASX announcement 8 May 2019 for further details).

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

Legend lodged its FY2019 tax return in October 2019 and received a R&D cash refund from the Australian Taxation Office of \$1,259,160 on 4 December 2019.

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 (9 April 2018, 12 June 2018, 10 & 17 October, 19 & 27 November 2019, 9 December 2019, 15 & 23 January 2020) 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 [www.legendmining.com.au](http://www.legendmining.com.au) for further information and announcements.

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## Appendix 1: Tenement Schedule as at 31 December 2019

### Mining Tenements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / Withdrawn	Interest at end of Quarter	Comments
<b>E28/1716</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/1717</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/1718</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/1727</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/2188</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/2189</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/2190</b>	Fraser Range, Western Australia	10%	N/A	10%	10:60:30 JV
<b>E28/2191</b>	Fraser Range, Western Australia	10%	N/A	10%	10:60:30 JV
<b>E28/2192</b>	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
<b>E28/2404</b>	Fraser Range, Western Australia	100%	N/A	100%	100% Legend
<b>E28/2405</b>	Fraser Range, Western Australia	100%	N/A	100%	100% Legend
<b>E28/2675</b>	Fraser Range, Western Australia	30%	N/A	30%	30:70 JV
<b>E28/2676</b>	Fraser Range, Western Australia	30%	N/A	30%	30:70 JV
<b>E28/2677</b>	Fraser Range, Western Australia	30%	N/A	30%	30:70 JV

### Farm-In or Farm-Out Arrangements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / Withdrawn	Interest at end of Quarter	Comments
<b>None</b>	N/A	N/A	N/A	N/A	N/A