

## MARCH 2016 QUARTERLY REPORT

11 April 2016

#### **LEGEND MINING LIMITED**

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#### **CONTACT**

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#### **PROJECTS**

Rockford - Fraser Range: Nickel-Copper, Gold

#### **HIGHLIGHTS**

- First RC drillholes in entire project area completed
- Typical Fraser Zone lithologies intersected highly prospective for Ni-Cu mineralisation
- Downhole EM and pending assay results to determine next programmes

#### **OVERVIEW**

Legend field activities at the Rockford Project got into full swing this quarter with a five hole RC programme completed at Area D. Area D is characterised by coincident aeromagnetic and gravity anomalies with previous MLEM surveying identifying five significant bedrock conductors (D1-D5). The drill programme tested three of those conductors (D1, D2 and D4).

The lithologies intersected were typical of the Fraser Zone, which are considered highly prospective for Ni-Cu mineralisation.

Conductor D1 was explained by an intersection of 22m of graphite schist from 174m. At conductor D2 there was a 10m intersection of graphite schist from 141m, which does not explain the strength of the conductor and is not consistent with the modelled depth of the conductor which was 250m. A downhole EM survey is planned at D2 to look for offhole conductors. At conductor D4, no definitive conductor was intersected and a downhole EM survey is also planned. Four metre composite samples from all holes were sent for assay with results awaited.

Once results from the downhole EM surveys and the assays are received the next drilling programmes at Area D can be planned. Meanwhile integration of the new data obtained from the drilling with the existing data sets is assisting with future planning of aircore and ground EM programmes throughout the entire Project.



## 1. ROCKFORD PROJECT - (Fraser Range District) Nickel-Copper, Gold

The Rockford Project covering 2,939km² comprises eight contiguous granted exploration licences located in the highly prospective Fraser Range district of Western Australia (Figure 1). A large portion of the Project (2,530km²) is the subject of a joint venture between Legend (70%) and Creasy Group (30%), with Legend operator and manager of the joint venture, (see LEG:ASX announcement 2 July 2015).

The project covers a strike length of 100km over a regional gravity high "ridge" associated with dense mafic/ultramafic intrusive rocks of the Fraser Zone, within the larger Albany-Fraser Orogen. The Nova-Bollinger deposit, which lies within the Fraser Zone, is situated on a similar tenor gravity ridge to that of the Rockford Project, see Figure 1.

Exploration completed during the quarter included; a five hole RC drilling programme testing three EM conductors at Area D and moving loop electromagnetic ("MLEM") surveying over Area A North and South, see Figure 1.

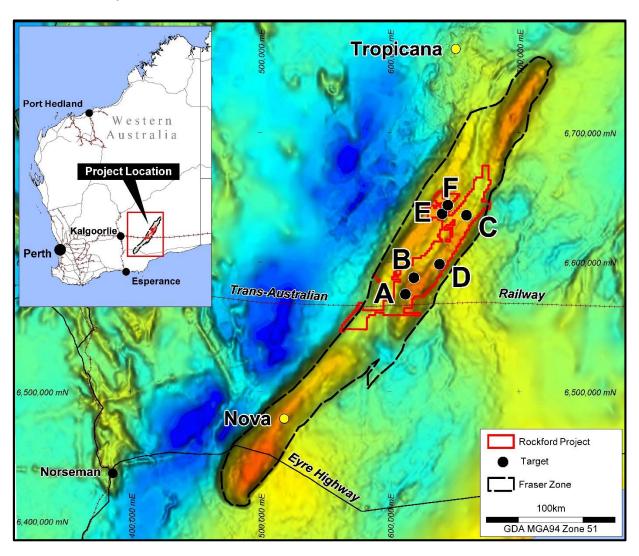


Figure 1: Rockford Project Target Areas on Regional Gravity



## **RC Drilling Programme – Area D**

A total of five RC drillholes (RKRC001-005) for 1,160m were completed at Area D, testing three strong-moderate conductors (D1, D2 and D4) previously identified by MLEM surveying, see Figure 2. Full drillhole details are provided below in Table 1.

Table 1: Rockford Project RC Drillhole Summary							
Conductor	Hole	Easting	Northing	RL	Dip	Azimuth	Final Depth
Area D-1	RKRC001	639100	6598160	205	-65°	150°	143*
Area D-2	RKRC002	639800	6598340	203	-65°	150°	216*
Area D-4	RKRC003	638974	6599030	200	-70°	150°	268
Area D-1	RKRC004	639110	6598130	205	-70°	150°	249
Area D-2	RKRC005	639803	6598325	203	-65°	150°	284
Total							1,160

Note: Co-ordinates MGA GDA94, Zone 51

<sup>\*</sup> Drillhole did not reach target depth due to poor ground conditions.

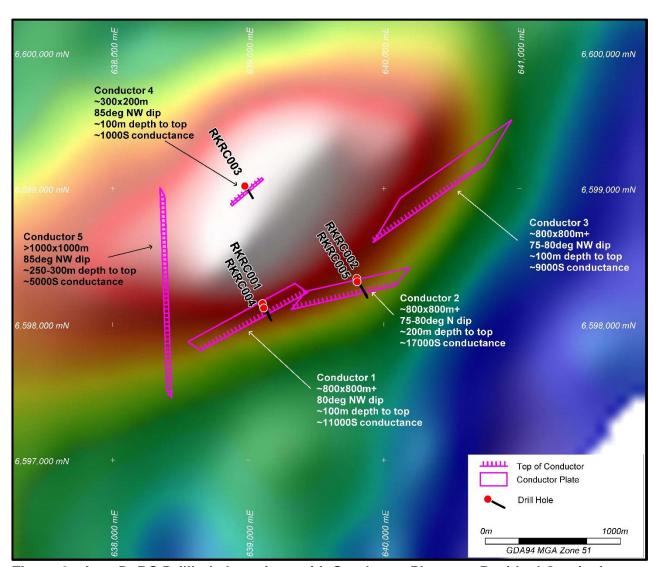


Figure 2: Area D RC Drillhole Locations with Conductor Plates on Residual Gravity Image



The drilling has provided valuable geological information specific to Area D, and also marks the first RC drilling within the Project into the prospective Fraser Zone of the larger Albany-Fraser Orogen. Typical Fraser Zone lithologies were intersected including; pyroxene-rich mafic granulite, olivine/pyroxene-rich ultramafic, garnet/biotite felsic granulite and minor metasediment. This interlayered package follows the regional NE strike and has an overall steep NW dip. The rocks have experienced granulite facies metamorphism, however localised hydrothermal activity is evidenced by quartz veining and thin pegmatite units.

The presence of "dense and magnetic" mafic/ultramafic units intersected in the drillholes at Area D, and interpreted elsewhere in the Project, is consistent with the observed gravity and magnetic data. The information obtained from the drilling further supports Legend's belief that the Rockford Project is highly prospective for Ni-Cu mineralisation associated with mafic/ultramafic intrusive bodies.

Descriptions of the three conductors (D1, D2 and D4) tested by the RC drilling are provided below.

#### **Conductor D1**

Drillhole RKRC004 (re-drill of RKRC001) was completed to a depth of 249m targeting a strong ~11,000S conductor at a modelled depth of 175-225m. The hole intersected a 22m interval of graphite schist between 174-196m, along with three other 1-3m thick graphitic units, within a package dominated by pyroxene-rich granulite. The graphite schist has fully explained the MLEM conductor.

## **Conductor D2**

Drillhole RKRC005 (RKRC002 re-drill) was targeting a very strong ~17,000S conductor at a modelled depth of 250-325m and was completed to 284m. The hole intersected a 10m interval of graphite schist with clay alteration between 141-151m, followed by a 16m thick biotite schist with subordinate graphitic units. This graphitic unit does not match the modelled depth (circa 250m downhole) or the high conductance of the targeted conductor and the presence of a second deeper conductive body is interpreted. A DHEM survey is planned in RKRC005 to test for a second offhole conductive body as suggested by the modelling.

### **Conductor D4**

Drillhole RKRC003 was completed to 268m targeting a moderate 1,000S conductor at a modelled depth of 175-225m. No definitive conductor was intersected in the drillhole, however between 190-220m a package of predominantly mafic granulite containing 1-3% pyrrhotite/pyrite was observed. DHEM is planned to test for offhole conductors, which may represent higher accumulations of sulphide detected by the original MLEM survey.

Samples from all five drillholes were submitted for full multi-element analysis, with results pending.

The proposed drillhole at Area D Conductor D3 was not completed during this programme and will be assessed pending the results of the DHEM at Conductors D2 and D4 and receipt of assay results. The Conductor at Area F will be tested at a later date in conjunction with exploration activities in the northern part of the project.



## **MLEM Surveying**

During the quarter MLEM surveying was completed over the untested targets from the 2015 programme at Areas A North and South. At Area A South a localised conductive feature was identified by the MLEM and followed up with a fixed loop electromagnetic survey (FLEM). Unfortunately the FLEM did not define a significant bedrock conductor and the feature is interpreted as a major N-S trending fault/shear zone. No further work is planned at these targets.

### **Future Programmes**

- At Area D, DHEM is planned at Conductors D2 and D4 testing for offhole conductors.
- Assessment of assay results from RC drillholes RKRC001-005.
- Planning of follow-up programmes at Area D pending results from the DHEM and assays.
- A regional +5,000m aircore programme aimed at providing geochemical and geological information over selected targets based on aeromagnetic and gravity datasets.

#### 2. CORPORATE

## 2015 Annual Report

Legend Mining's 2015 annual report was released to the ASX on 4 March 2016.

## Annual General Meeting

The Notice of Annual General Meeting was released to the ASX on 29 March 2016, with the meeting to be held on 28 April 2016.

## Cameroon Project

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Legend received the quarterly interest payment of \$30,000 on 21 March 2016 from Jindal Steel and Power, as per the rescheduled debt agreement announced to the ASX on 28 July 2015.

#### 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 for further information and announcements.

#### For more information:

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# Appendix 1: Tenement Schedule as at 31 March 2016

**Mining Tenements** 

Tenement	Location	Interest at	Acquired /	Interest at	Comments
Reference		beginning	Disposed	end of	
		of Quarter		Quarter	
E28/1718	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/1727	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2188	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2189	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2190	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2191	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2192	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2342	Fraser Range, Western Australia	100%	N/A	100%	Granted
ELA28/2408	Fraser Range, Western Australia	100%	N/A	100%	Application
ELA28/2415	Fraser Range, Western Australia	100%	Disposed	0%	Withdrawn

**Farm-In or Farm-Out Arrangements** 

Tenement Reference		Interest at beginning of Quarter	Disposed	Interest at end of Quarter	Comments
None	N/A	N/A	N/A	N/A	N/A

# Appendix 2: Legend Mining Limited - Rockford Project JORC Code Edition 2012: Table 1

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<ul> <li>RC drilling was used to obtain samples on 1m intervals. For each metre drilled, a 2-3kg rig split sample is collected from the cyclone in a calico bag with the remainder of the sample collected in a green plastic bag (20-40kg).</li> <li>All drillholes have been sampled as 4m composites and where anomalous values are returned the 1m rig split samples may be submitted for assay.</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 and analysed for; Au by fire assay and a multi-element suite including Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr by ICP-OES/MS. No results received to date.</li> </ul>
Drilling techniques	The RC drilling technique was used, utilising a face sampling bit.
Drill sample recovery	Sample recoveries were not measured, however poor or wet samples are recorded in drill and sample log sheets.



Criteria	Commentary
Logging	<ul> <li>Geological logging of all drillholes included; lithology, grainsize, texture, deformation, mineralisation, alteration, veining, colour, weathering.</li> <li>Logging is qualitative and based on 1m intervals which are sieved and retained in chip trays.</li> </ul>
	All drillholes were logged in their entirety.
Sub-sampling techniques and sample preparation	<ul> <li>No drillcore was collected.</li> <li>RC drill samples were collected using a PVC spear or scoop as 4m composites (2-3kg). Other composites of 2m and 3m 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</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>mineralisation style sought and for the analytical technique used.</li> <li>RC samples will be analysed for Au by 50g fire assay with an ICP-OES finish, and for a multi-element suite by ICP-OES/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> </ul>
Verification of sampling and assaying	<ul> <li>Primary data was collected in the field using a set of standard logging templates and entered into a laptop computer. The data was forwarded to Legend's database manager for validation and loading into the company's drilling database.</li> <li>No validation or adjustment of assay results has been undertaken, as no assay results have been received to date.</li> </ul>
Location of data points	<ul> <li>RC drillhole collars are surveyed with a handheld GPS unit with an accuracy of ±5m which is considered sufficiently accurate for the purpose of the drillhole.</li> <li>All co-ordinates are expressed in GDA94 datum, Zone 51.</li> <li>Regional topographic control has an accuracy of ±2m based on detailed DTM data.</li> </ul>
Data spacing and distribution	<ul> <li>Drillhole spacing is not regular or grid based, with the location of individual drillholes governed by targeting the position of modelled EM conductor plates.</li> <li>Drillholes are sampled as 4m composites and where anomalous values are returned 1m samples may be submitted for assay.</li> </ul>
Orientation of data in relation to geological structure	Drillholes were planned to intersect modelled EM conductor plates perpendicular to strike.
Sample security	Samples were placed in polyweave and/or bulka bags and delivered directly to the assay laboratory.
Audits or reviews	Internal audits/reviews of procedures are ongoing, however no external reviews have been undertaken.



**Section 2: Reporting of Exploration Results** 

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Rockford Project comprises eight granted tenements; E28/2342 (100% Legend), E28/2188-2192 (70% Legend, 30% Rockford Minerals Pty Ltd JV), E28/1718 &amp; E28/1727 (70% Legend, 30% Ponton Minerals Pty Ltd JV).</li> <li>The Project is located 280km east of Kalgoorlie on vacant crown land.</li> <li>There are no Native Title Claims over tenements E28/2342, E28/2188-2192. Tenements E28/1718 &amp; E28/1727 are covered 90% and 20% respectively by the Ngadju Native Title Claim.</li> </ul>
Exploration done by other parties	Not applicable, not referred to.
Geology	<ul> <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>
Drill hole Information	Refer to table of collars in body of report.
Data aggregation methods	Not applicable, as no assay results received to date.
Relationship between mineralisation widths and intercept lengths	Not applicable, as no assay results received to date nor logged mineralised intervals reported.
Diagrams	<ul> <li>Project location and drillhole location maps have been included in the body of the report.</li> </ul>
Balanced reporting	All significant results are reported.
Other substantive exploration data	No other substantive exploration data is available.
Further work	<ul> <li>DHEM to test Conductors D2 and D4 at Area D planned.</li> <li>Assessment of assay results from drillholes RKRC001-005.</li> </ul>