DECEMBER 2015 QUARTERLY REPORT 19 January 2016

LEGEND MINING LIMITED

ASX Symbol: **LEG**

ABN 22 060 966 145

Level 1, 8 Kings Park Road
West Perth
Western Australia 6005

PO Box 626
West Perth
Western Australia 6872

Phone: +61 8 9212 0600
Facsimile: +61 8 9212 0611
Email:
legend@legendmining.com.au
Website:
www.legendmining.com.au

CONTACT

Mr Mark Wilson
Managing Director

Mr Derek Waterfield
Executive Director Technical

PROJECTS

Rockford - Fraser Range:
Nickel-Copper, Gold

HIGHLIGHTS

- **Extensive ground EM programme completed over six target areas at Rockford Project, Fraser Range**
- **Five conductors identified at Area D, with three conductors having very high conductivities of 9,000-17,000S associated with large relatively shallow bedrock features**
- **Two further conductors identified at Areas E & F**

OVERVIEW

Following the settlement of the 70% purchase of the Rockford Project tenements from the Creasy Group on 23 September 2015, Legend conducted the first full quarter of exploration consisting of data interpretation and ground EM surveying.

The ground EM programmes were rewarded with seven conductors in three separate locations. Three of the conductors have very high conductivities and are relatively shallow. This will mean that the cost of RC drill testing these features will be at the modest end of the cost scale. The RC programme is a priority activity for the current quarter and will be complimented by completing the ground EM programmes (which were interrupted by the Christmas break) and later regional aircore drilling of circa 10,000m.

Full details of the work completed are summarised in the body of this report and once new RC and aircore programmes are finalised details will be released to ASX.

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

The Rockford Project covering 2,939km^2 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 (2,530km^2) 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.

During the quarter, Legend undertook extensive moving loop electromagnetic ("MLEM") surveying over six target areas (Areas A Central, B, C, D, E & F), comprising 82 traverses, 1,978 stations and covering 189.9 line km, see Figure 1.

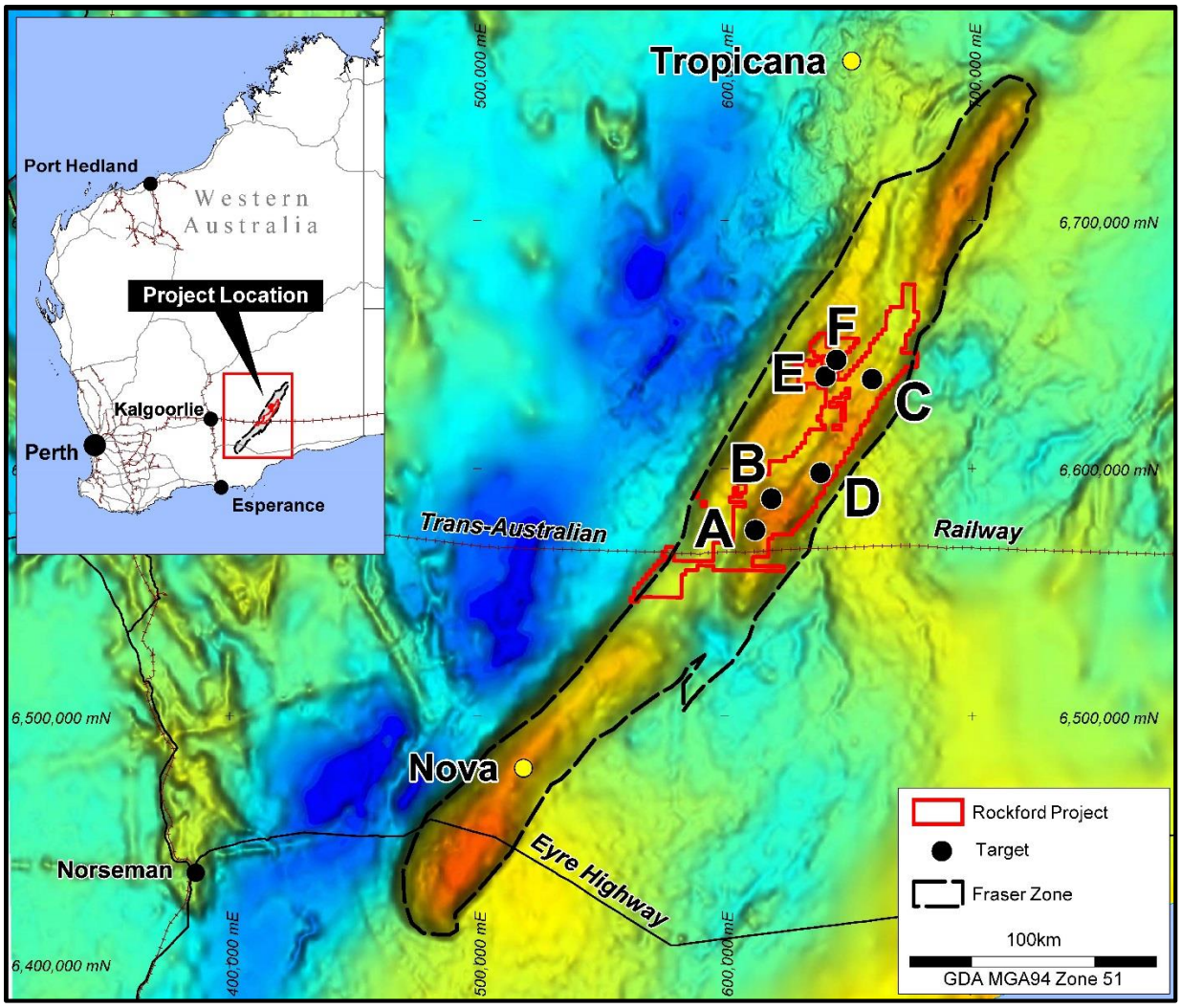

Figure 1: Rockford Project Target Areas on Regional Gravity

The results from the MLEM surveying are considered highly encouraging with the identification of five conductors at Area D and single conductors at both Area E and Area F. Descriptions of the conductors from these three areas are provided below.

Area D

Area D has a discrete 1.5km x 1km gravity high (4mgal) with an associated magnetic signature suggestive of a structural fold closure or intrusive feature. A total of 11 high powered (~200amp) MLEM lines spaced 150/300m apart were completed, identifying five highly to moderate conductive bedrock conductors at relatively shallow depth. Figure 2 shows the location of the five conductors with respect to the discrete gravity high, with a summary provided in Table 1 below.

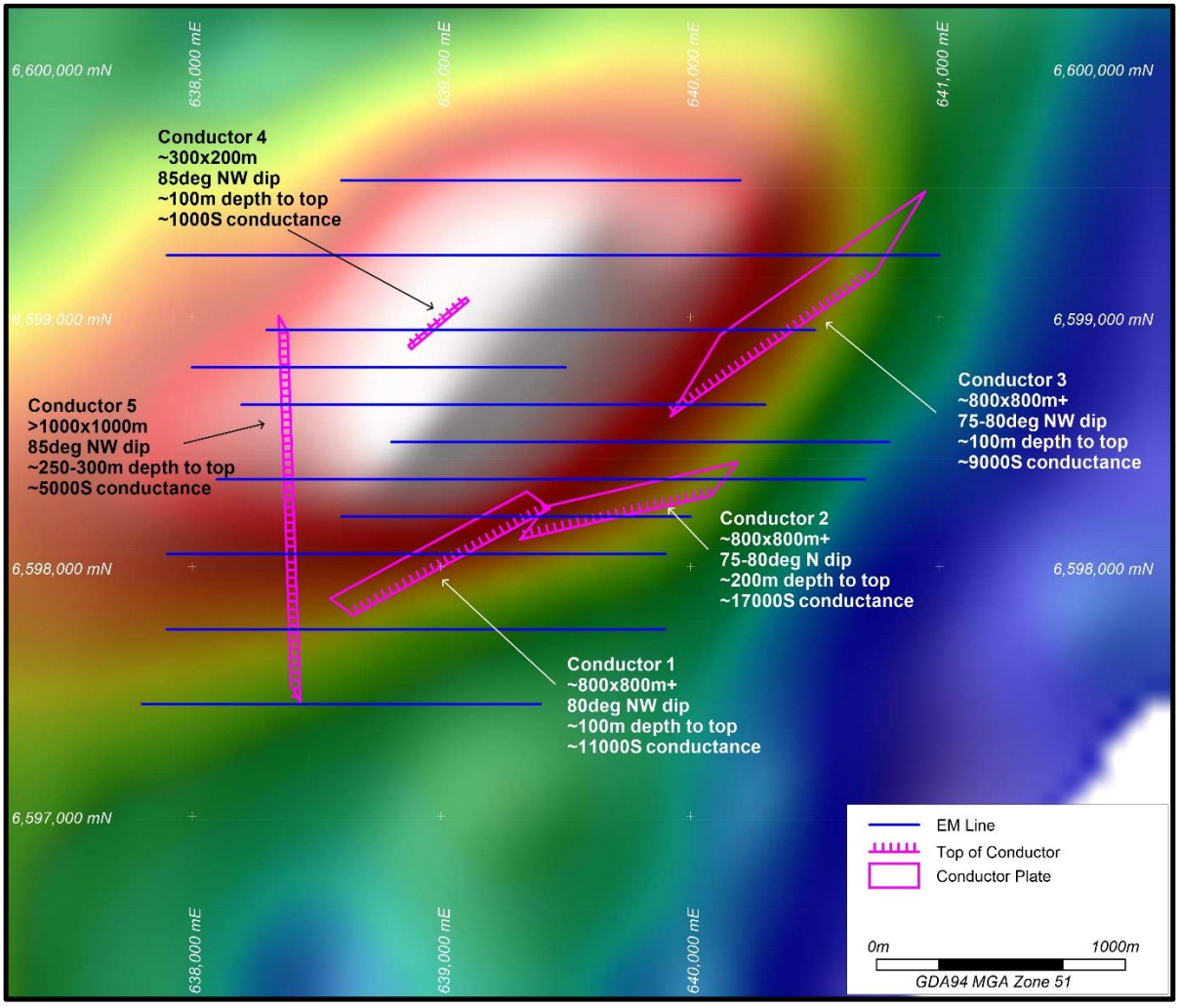

Figure 2: Area D Conductor Plates on Residual Gravity Image

Table 1: Area D Conductor Description				
Conductor	**Conductance**	**Dimensions**	**Depth to Top**	**Plate Orientation**
1	~11,000S	800m x 800m+	~100m	80 deg. NW dip
2	~17,000S	800m x 800m+	~200m	75-80 deg. N dip
3	~9,000S	800m x 800m+	~100m	75-80 deg. NW dip
4	~1,000S	300m x 200m	~100m	85 deg. NW dip
5	~5,000S	+1,000m x 1,000m	~250-300m	85 deg. NW dip

Conductors 1, 2 and 3 all had very high conductance levels which required infill lines utilising lower base frequencies (originally 1 Hz down to 0.5Hz & 0.125Hz) to better define the conductors and allow accurate modelling. These conductors represent highly conductive bedrock sources and are situated on the SE margin of the gravity high and appear related to local aeromagnetic units.

Maxwell modelling has characterised these three conductors as being of large areal size/extent (>800x800m), striking ENE-WSW, having steep N/NW dips (75-80^0) and an estimated depth to top of source of 100-200m. Conductance levels are very high at ~9,000-17,000S and consistent with the signature of a well-developed sulphidic/graphitic body.

Conductor 4 represents a moderate strength, localised (~300x200m) conductor located within the central zone of the gravity high. Moderate conductance levels of ~1,000S were apparent from modelling, with the associated source having an estimated depth to top of source of 100m, orientated NE-SW and dipping steeply NW at ~85^0.

Conductor 5 is a strong and deeper level bedrock conductor defined along the western margin of the gravity high. Further definition of this target is required, however the associated conductive source/s are situated at >250m depth to top and do not demonstrate any clear correlation with the gravity and aeromagnetic data.

The highly conductive character of Conductors 1-3 and the location of Conductor 4 with respect to the gravity feature make these conductors compelling RC drill targets.

Area E

Area E has a discrete 1.5km x 1.3km residual gravity high with associated strong magnetic response representing a complex fold closure, see Figure 3. A major NW trending cross structure is also interpreted to bound the gravity feature to the northeast and north.

Modelling of the MLEM data identified a large >1,500m x 1,500m late channel bedrock conductor with low conductance (~250-500S), an estimated depth to top of source of >600m and is near flat lying (summarised in Table 2). This is a low priority feature, however further modelling is required to better define its parameters and determine whether it warrants drill testing.

Area F

Area F has an elongate ENE trending residual gravity high in the west and a more subtle gravity trend in the east, see Figure 3. The aeromagnetics indicates a large open Z-parasitic fold and a regional scale NW trending cross structure.

The MLEM survey identified a NE trending moderate bedrock conductor situated on the flank of the subtle eastern gravity trend. Modelling of the conductor indicates a depth to top of source of <125m, a steep NW dip of 80-85^0, a moderate conductance of ~1,250-2,000S+ and a plate with dimensions of ~800m x 800m+ (summarised in Table 2). RC drill testing of this feature is required to determine the source of the conductor.

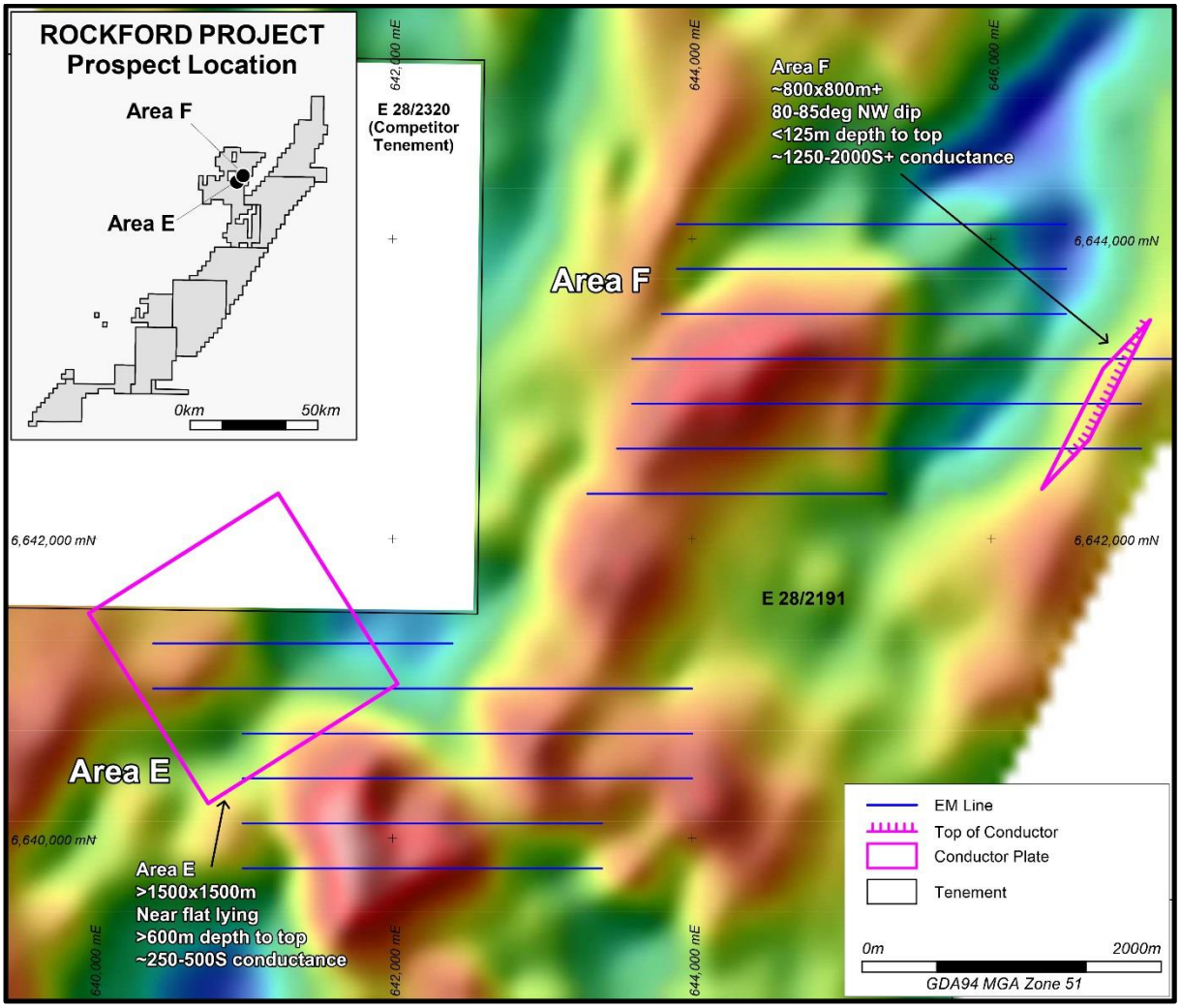

Figure 3: Areas E & F Conductor Plates on Residual Gravity Image

Table 2: Areas E & F Conductor Description				
Conductor	**Conductance**	**Dimensions**	**Depth to Top**	**Plate Orientation**
Area E	~250-500S	>1,500m x 1,500m	>600m	Near flat lying
Area F	~1,250-2,000S+	~800m x 800m+	<125m	80-85^0 N dip

Future Programmes

- MLEM surveying will recommence in late January to complete untested targets from the 2015 programme, i.e. Areas A North and South.
- RC drill testing of four conductors at Area D and one at Area F is planned for late February/March.
- A +10,000m aircore programme is planned to commence next quarter, aimed at providing valuable geological and geochemical information and assisting with the prioritisation of areas for further work.
- Further details of the drilling programmes will be released once final planning and logistics are complete.

MLEM Survey Background

Outer-Rim Exploration Services Pty Ltd were commissioned by Legend in late September to undertake high powered (~200amp) moving loop electromagnetic surveying over the Rockford Project. This surveying is part of a research and development programme designed to develop and advance current EM methods, aimed at identifying conductors associated with massive sulphide (i.e. Nova-Bollinger type) beneath extensive transported/conductive cover.

Survey Specifications:

- Loop Size: 200m x 200m, single turn
- Line/Station Spacing: 300m spaced lines with 100m stations
- Transmitter: ORE HPTX (190-200 amps)
- Receiver: EMIT SMARTem24
- Sensor: EMIT Fluxgate 3 component B field sensor
- Time base/frequency: 0.125 - 1 Hz (250-2,000msec time base), ~0.475msec ramp

2. CORPORATE

Cameroon Project

Legend received the first quarterly interest payment of $30,000 on 16 December 2015 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:

Mr Mark Wilson
Managing Director
Ph: (08) 9212 0600

Mr Derek Waterfield
Executive Director - Technical
Ph: (08) 9212 0600

Appendix 1: Tenement Schedule as at 31 December 2015

Mining Tenements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / Disposed	Interest at end of Quarter	Comments
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%	N/A	100%	Application

Farm-In or Farm-Out Arrangements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / 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	• Not applicable, as no geochemical sampling or drilling was undertaken or referred to in the report.
Drilling techniques	
Drill sample recovery	
Logging	
Sub-sampling techniques and sample preparation	
Quality of assay data and laboratory tests	
Verification of sampling and assaying	
Location of data points	
Data spacing and distribution	
Orientation of data in relation to geological structure	
Sample security	
Audits or reviews	

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• The Rockford Project comprises eight granted tenements; E28/2342 (100% Legend), E28/2188-2192 (70% Legend, 30% Rockford Minerals Pty Ltd JV), E28/1718 & E28/1727 (70% Legend, 30% Ponton Minerals Pty Ltd JV). • The Project is located 280km east of Kalgoorlie on vacant crown land. • There are no Native Title Claims over tenements E28/2342, E28/2188-2192. Tenements E28/1718 & E28/1727 are covered 90% and 20% respectively by the Ngadju Native Title Claim.
Exploration done by other parties	• Not applicable, not referred to.
Geology	• The primary target is Nova style nickel-copper mineralisation hosted in high grade mafic granulites within the Fraser Complex. • A secondary target is Tropicana style structurally controlled gold mineralisation.
Drill hole Information	• Not applicable, not referred to.
Data aggregation methods	• Not applicable, not referred to.
Relationship between mineralisation widths and intercept lengths	• Not applicable, not referred to.
Diagrams	• Project location and ground EM anomaly maps have been included in the body of the report.
Balanced reporting	• Not applicable, not referred to.
Other substantive exploration data	• Outer-Rim Exploration Services Pty Ltd have undertaken high powered moving loop electromagnetic surveying over the Rockford Project. • Loop Size: 200m x 200m, single turn • Line/Station Spacing: 300m spaced lines with 100m stations • Transmitter: ORE HPTX (190-200 amps) • Receiver: EMIT SMARTem24 • Sensor: EMIT Fluxgate 3 component B field sensor • Time base/frequency: 0.125 – 1 Hz (250-2,000msec time base), ~0.475msec ramp
Further work	• RC drilling testing of conductors at Areas D & F is planned.