

ASX:LEG 15 July 2019 ASX Announcement

Aircore Drill Results, Geochemical Analysis and Geophysical Modelling at Area D

- New anomalous assay received in drillhole RKAC629
 - > 23m @ 0.23% Ni, 0.03% Cu, 0.02% Co from 64 to EOH Incl. 8m @ 0.32% Ni, 0.06% Cu, 0.02% Co from 72m
- Geochemical analysis of all BOH aircore samples highlights 500m x 200m
 zone adjacent to D5 conductor
- Geophysical remodelling identifies D5 as most prospective conductor

Legend Mining Limited ("Legend") is pleased to provide a summary of three separate studies of aircore drilling results and EM surveys conducted at Area D prospect at its Rockford project in the Fraser Range in WA since the project commencement in 2015 (see Figure 1). These studies are designed to assist in the prioritisation of diamond drillhole locations. Diamond drilling is planned for later this year once final EM surveying and modelling is complete. A detailed discussion follows in the body of this announcement.

Legend Managing Director Mr Mark Wilson said, "This comprehensive wrap up of results from the Area D prospect represents the culmination of several months of fieldwork and desktop studies. The nett result has given our team the confidence that conductor D5 represents our top priority diamond drill target at this prospect. Our geophysical consultants have recommended an additional low frequency EM survey to enable them to better model D5. Once the results from this survey are analysed the next step is the eagerly awaited diamond drill programme".

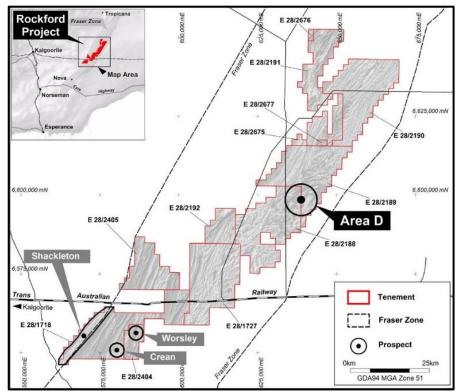


Figure 1: Rockford Project - Prospect Locations



Technical Discussion

1. Aircore Drilling Programme

Legend has completed the 2019 Area D aircore drilling programme focussing on the up-dip projection of 14 previously identified moving loop electromagnetic (MLTEM) conductors (D1-D5, D9-D17), as shown on Figure 2. A total of 60 holes for 5,616m were completed and assays results for all holes have now been received (see Table 1).

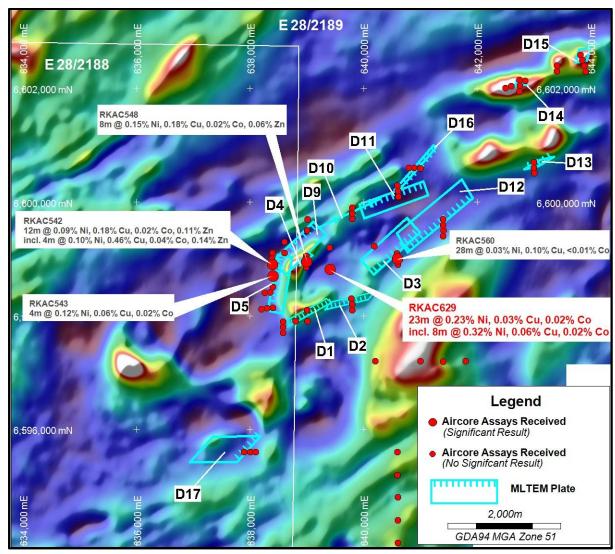


Figure 2: Area D Aircore Drillholes with MLTEM Conductors on Aeromagnetics

Та	Table 1: Area D - Aircore Drillhole Results for Entire 60 Hole Programme								
Drillhole	From	То	Int.	Ni %	Cu %	Co %	Ag g/t	Zn %	Target
RKAC629	64	87 EOH	23	0.23	0.03	0.02	0.72	0.04	Gravity High
Incl.	72	80	8	0.32	0.06	0.02	1.50	0.06	Gravity High
*RKAC542	64	76	12	0.09	0.18	0.02	1.15	0.10	D5
Incl.	72	76	4	0.10	0.46	0.04	0.84	0.14	D5
*RKAC543	60	64	4	0.12	0.06	0.02	1.54	0.05	D5
*RKAC548	44	52	8	0.15	0.18	0.02	0.12	0.06	D4
*RKAC560	112	140	28	0.03	0.10	<0.01	0.19	0.05	D3

^{*} Drillholes previously reported 13 May 2019.

Collar details provided in Appendix 1.



Recently received assays include drillhole RKAC629 which returned 23m @ 0.23% Ni, 0.03% Cu from 64m to EOH. This hole was testing the main Area D gravity high (4mgal) and intersected a medium grained gabbroic intrusion. Drillhole RKAC628, located 400m to the north and also testing the gravity feature, did not return anomalous Ni-Cu results, however intersected an olivine pyroxenite confirming a mafic/ultramafic intrusive association with the gravity feature. As reported previously, drillholes RKAC542, 543, 548 and 560 returned anomalous Ni-Cu results in both intrusive and metasediment lithologies related to the up-dip projection of conductors D3-D5.

The programme successfully met its objective of providing geochemical and bedrock lithology information associated with the footwall, top and hanging wall positions of the modelled MLTEM conductor plates. The drilling also revealed that favourable Ni-Cu mafic/ultramafic intrusive host rocks including gabbro, gabbronorite and pyroxenite were more widespread across Area D than expected and intersected at all 14 conductors.

In summary, all 14 conductors were shown to be closely associated with a broad metasediment/ granulite package which has been intruded by numerous prospective mafic/ultramafic bodies. This is a favourable setting for Ni-Cu mineralisation and similar to that at Nova and Silver Knight.

2. Geochemical Analysis

All bottom of hole (BOH) multi-element assays from the entire Rockford project were given to a consultant to analyse and compare with known Ni-Cu deposits in the Fraser Range with a particular focus on Area D. Assay data from the RC and diamond drillholes at Area D was also included in the analysis.

The results from the geochemical analysis were then integrated with bedrock geology, petrographic descriptions, gravity inversion modelling and EM conductor locations to identify priority targets. This review defined/confirmed a 500m x 200m zone with anomalous aircore drillhole geochemistry coincident with the D5 conductor. This zone includes three previous drillholes (RKAC183, 224, 225) which intersected disseminated pyrrhotite-pentlandite-chalcopyrite in gabbronorite and is the highest priority target at Area D. Whilst this could simplistically be described as the previously defined Ni-Cu sulphide anomaly, there is considerable supporting multi-element geochemistry to again highlight conductor D5 as the number one priority target at Area D.

3. Geophysical Modelling

Following the successful identification of 17 significant conductors at Area D, the recent challenge has been to identify the best position to drill test these conductors, which have a combined strike length of approximately 11km. These conductors have an interpreted stratigraphic (barren sulphide±graphitic) component related to the metasediment/granulite host package, however they also a have the ability to "mask" significant sulphide mineralisation hosted within the adjacent mafic/ultramafic intrusives. The presence of multiple mafic/ultramafic bodies intruding the regional metasediment/granulite package has been confirmed by the recent aircore drilling.

Remodelling of all EM data has identified "hot spots" of interest within seven conductors (D1, 3, 5, 9, 13, 15, 16) warranting further evaluation. Of these, the D5 conductor is the highest priority based on a combination of the geophysical parameters of the feature, the adjacent gabbronorite host rock and the presence of sulphides in aircore holes.



Detailed geophysical modelling/interpretation of D5 significantly positions the conductor within favourable gabbronorite host rocks rather than metasediment/granulite, albeit close to an inferred lithological contact (see Figure 3). Critically, drillholes RKAC183, 224 and 225 all intersected disseminated pyrrhotite-pentlandite-chalcopyrite in olivine bearing gabbronorite and are located within 150m of the modelled conductor position.

Despite the D5 model being relatively robust, the geology in the immediate vicinity is known to be complex (from previous diamond drillhole RKDD002) and the presence of multiple conductors is considered highly likely. To assist in the final diamond drillhole design for D5 an innovative low frequency EM survey is planned to better define the position/dip of the conductor and resolve any issues with multiple conductors. If this technique proves to be successful the other priority conductors will be surveyed.

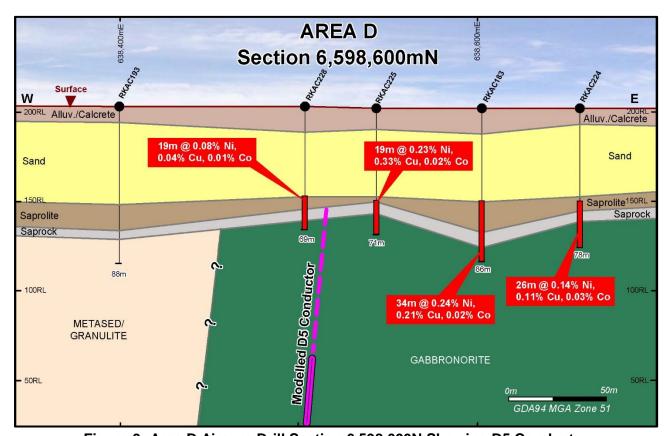


Figure 3: Area D Aircore Drill Section 6,598,600N Showing D5 Conductor

Future Programmes

- Undertake low frequency EM survey over D5 conductor to define diamond drill collar.
- Continue regional aircore drilling targeting Area D "lookalike" aeromagnetic and gravity features.
- Diamond drilling at Area D, Worsley, Shackleton and possibly Crean prospects.



Appendix 1: Area D - Aircore Drillhole Details

Drillhole	Easting	Northing	RL (m)	Dip	Azimuth	Depth (m)
RKAC542	638398	6598900	202	-90	0	91
RKAC543	638401	6598699	202	-90	0	90
RKAC548	638986	6598949	202	-90	0	56
RKAC560	640588	6599094	204	-90	0	150
RKAC628	639400	6599201	203	-90	0	65
RKAC629	639402	6598802	206	-90	0	87

Note: Co-ordinates GDA94 MGA Zone 51

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.

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Appendix 2: Legend Mining Ltd – Aircore Drilling Area D 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 	 MLTEM conductors. The residual (non-transported) portion only of each drillhole was originally sampled as 4m composites to the end of hole, with a 1m bottom of hole sample also collected. All samples weighed 2-3kg. QAQC standards and duplicate samples were included routinely (approximately 1 each every 50 samples). Samples were submitted to an independent commercial assay laboratory. Au was analysed by fire assay with an ICP-OES finish. A four acid digest with ICP-MS finish was used for a multi-element suite including: 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. 	
Drilling techniques	information. • 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, facesampling bit or other type, whether core is oriented and if	The aircore drilling technique was used, utilising a 90mm bit and completed by Drillpower.	
Drill sample recovery	 so, by what method, etc.). 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. 	 Sample recoveries are visually estimated for each metre by the supervising rig geologist with poor or wet samples recorded in drill and sample log sheets. The sample cyclone is routinely cleaned at the end of each rod (3m) and when deemed necessary. 	



Criteria	JORC Code Explanation	Commentary
	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.	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. Logging is qualitative and based on 1m intervals. Representative drill chips from the bottom of hole are retained in chip 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 All aircore drill samples were collected using a PVC spear or scoop as 4m composites (2-3kg). Other composites of 2m, 3m and 5m and individual 1m samples were collected where required, i.e. bottom of hole. Both wet and dry samples were collected. The samples are dried and pulverised before analysis. QAQC reference samples and duplicates were routinely submitted with each sample batch. The size of the sample is considered appropriate for the mineralisation style sought and for the analytical technique used.
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, 	 Aircore samples were analysed for Au by 50g fire assay with an ICP-MS finish, and for a multi-element suite by ICP-MS following a four acid digest. These assay methods are considered appropriate. 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. All samples were analysed by Intertek Genalysis Laboratory Services Perth



Criteria	JORC Code Explanation	Commentary
	calibrations factors applied and	using methods; FA50/OE04 (Au),
	their derivation, etc.	4A/MS48 (multi-elements) and
	Nature of quality control	4A/MS48R (REE extended suite).
	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.	
Verification of sampling	,	Primary data was collected in the field
and assaying	intersections by either	using a set of standard logging templates
, J	independent or alternative	and entered into a laptop computer. The
	company personnel.	data was forwarded to Legend's
	The use of twinned holes.	database manager for validation and
	Documentation of primary data,	loading into the company's drilling
	data entry procedures, data	database.
	verification, data storage	 No adjustments of assay results have been undertaken.
	(physical and electronic)	Deen unuenaken.
	protocols.	
	Discuss any adjustment to assay	
	data.	
Location of data points	Accuracy and quality of surveys	Aircore drillhole collars are surveyed with
	used to locate drill holes (collar	a handheld GPS unit with an accuracy of
	and down-hole surveys),	±5m which is considered sufficiently
	trenches, mine workings and	accurate for the purpose of the drillhole.
	other locations used in Mineral Resource estimation.	 All co-ordinates are expressed in GDA94 datum, Zone 51.
		Regional topographic control has an
	 Specification of the grid system used. 	accuracy of ±2m based on detailed DTM
		data.
	Quality and adequacy of topographic control.	
Data spacing and	Data spacing for reporting of	Aircore drilling was undertaken at 100m
distribution	Exploration Results.	spacings over the up dip projection of
	Whether the data spacing and	MLTEM conductors.
	distribution is sufficient to	 Drillholes are sampled in the residual
	establish the degree of	portion of the profile only as 4m
	geological and grade continuity	composites on a routine basis or as 2m,
	appropriate for the Mineral	3m and 5m composites at the end of
	Resource and Ore Reserve	holes as required. Where anomalous
	estimation procedure(s) and	values are returned, 1m samples may be submitted for assay.
	classifications applied.	Sabilition for assay.
	Whether sample compositing	
Orientation of data in	has been applied.	The orientation of the circura drill
relation to geological	Whether the orientation of sampling achieves unbiased	 The orientation of the aircore drill traverses and broad spacing of the
structure	sampling achieves unbiased sampling of possible structures	individual drillholes is considered to
	and the extent to which this is	achieve unbiased sampling.
	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	



Criteria	JORC Code Explanation	Commentary
	should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	Individual calico sample bags were placed in polyweave bags and delivered directly to the assay laboratory prep facility in Kalgoorlie by company personnel.
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 Criteria	T	Commentary
Criteria Mineral tenement and land tenure status	• 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	 Commentary The Rockford Project comprises twelve granted exploration licences, covering 2,379km². Rockford JV tenements: E28/2188-2192 (70% Legend, 30% Rockford Metals Pty Ltd), E28/1718 & E28/1727 (70% Legend, 30% Ponton Minerals Pty Ltd). Legend 100% owned: E28/2404-2405, E28/2675-2677. The Project is located 280km east of Kalgoorlie mostly on vacant crown land with the eastern portion on Kanandah Pastoral Station. There are no Native Title Claims over tenements E28/2188-2192, E28/2405 & E28/2675-2677. 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.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	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 high grade mafic granulites within the Fraser Complex. Secondary targets are: Andromeda style VMS copper-zinc mineralisation and Tropicana style structurally controlled gold mineralisation.
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 	Refer to Figures 1 & 2.



Criteria	JORC Code Explanation	Commentary
Ontena	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	Commentary
	from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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.	 Weighted averaging based on sample interval has been used in the reporting of the aircore drilling results. No short length high grade results were returned (therefore not included in aggregate intercepts) and no metal equivalent values have been reported.
	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 geometry of anomalous nickel-copper and copper-zinc assays with respect to the aircore drilling angle and orientation is unknown. All drillhole intercepts 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, drillhole and EM conductor plate location maps have been included in the body of the report.



Criteria	JORC Code Explanation	Commentary
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.	All significant results are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	 Detailed high quality aeromagnetic and gravity datasets and aircore drilling have been used in the targeting of the MLTEM survey. Highpower EM Geophysical Services Pty Ltd have undertaken high powered moving loop electromagnetic surveying (MLTEM) over Area D to assist with drillhole targeting. MLTEM Details Loop Size: 300mx300m, single turn Line/Station Spacing: 500m spaced lines with 100m stations Configuration: Slingram position, 150m offset from loop edge Transmitter: HPEM HPTX (~200 amps) Receiver: GDD NordicEM24 Sensor: EMIT Fluxgate, 3 component B field sensor Time base/frequency: 0.5Hz (500msec time base), ~1msec ramp
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Further activities include: infill aircore drilling, geophysical modelling and interpretation, RC/diamond drilling.