

# **ASX** ANNOUNCEMENT

#### 30 April 2015

### LAMBOO RESOURCES Limited

ABN 27 099 098 192

ASX: LMB

#### CORPORATE OFFICE

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## QUARTERLY ACTIVITIES REPORT PERIOD ENDING 31 MARCH 2015

#### **HIGHLIGHTS:**

#### McIntosh Flake Graphite Project:

- Updated Exploration Target of between 80 127Mt grading 2.5 -6.0% TGC across seven prospect areas (2, 3, 4, 5, 6, 10 and 11) covering just 12km (~25%) of the 50km strike length potential identified at McIntosh
- Independent Review of the previously announced Mineral Resource at Target 1 (7.1Mt @ 4.7% TGC)
- 3-Dimensional VTEM interpretation of the VTEM at targets 10 and 11 has confirmed large scale, highly conductive electromagnetic conductors associated with graphitic schist
- 3-Dimensional VTEM interpretation of Target 4 has highlighted the thickest conductors with the highest conductance recorded to date. These highly conductive bodies are interpreted as being attributable to Cu/Ni mineralisation
- New Mineralogical work indicates flake sizes up to 500µm length at Target 6

#### **Geumam Flake Graphite Project:**

- Significant Phase 2 Drilling results from the northern extension to Geumam Prospect Area E include:
  - 22m @ 7.33% Cg (GM-30; 100-122m)
  - 9m @ 5.14% Cg (GM-31; 103-112m)
- Significant Phase 2 Drilling results from Geumam Prospect Area C include:
  - 15m @ 3.41% Cg (GM-32; 79-94m)
  - 5m @ 5.60% Cg (GM-32; 133-138m)

#### Corporate:

Execution of binding agreement for the repayment of US\$2,000,000 from China Sciences Hengda Graphite Corp.

#### **MCINTOSH FLAKE GRAPHITE PROJECT**

#### **EXPLORATION TARGET ESTIMATES**

During the quarter Lamboo announced the results of a major review of exploration procedures and results at the McIntosh Flake Graphite Project. The review was completed by international consulting firm CSA Global Pty Ltd (CSA) and resulted in the definition of seven new Exploration Targets (see Figure 1 and Table 1) totalling 80 - 127 Mt @ 2.5 - 6.0% TGC (total graphitic carbon).

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Figure 1: Exploration Target Estimates at the McIntosh Flake Graphite Project East Kimberley, Western Australia.

CSA's work followed the previously announced exceptional results of the VTEM Supermax survey completed by Geotech Ltd in 2014 and the processing, modelling and interpretive work completed by geophysical consultant Russell Mortimer working through Southern Geoscience Consultants (SGC). This work highlighted some 50 km of strike length potential for graphitic schist within Lamboo's tenements.



Target	Tonnage Range (Mt)	TGC Range (%)
Target 2	5 - 15	2.5 – 5.0
Target 3	30 - 42	2.5 – 4.5
Target 4	5 - 8	2.5 – 4.5
Target 5	4 - 6	3.0 - 6.0
Target 6	18 - 25	3.0 – 5.5
Target 10	15 - 25	3.0 - 6.0
Target 11	3 - 6	3.0 – 5.5
Total	80 - 127 Mt	2.5 - 6.0 %TGC

 Table 1: McIntosh Flake Graphite Project - Exploration Target Estimate for Targets 2, 3, 4, 5, 6, 10 and 11.

Note: Exploration Targets used a TGC% cut-off grade of 1.9%

The Exploration Targets are based on all available exploration data including geological mapping, drilling and sampling results from Reverse Circulation (RC) and Diamond Core (DD) drilling (where available) and the modelling of the VTEM survey data. Additional petrography work was also undertaken on drill samples.

There is a very strong correlation between the interpreted model plates and the results of the geological mapping and drilling and this provides added confidence to the reliability of modelling work completed. Figures 2 through to 7 below represent cross-sections and 3 dimensional oblique views of Targets 1, 5 and 6 respectively and highlight the relationship between the VTEM model plates and the reported drilling intercepts.

The additional exploration potential identified at Targets 2, 3, 4, 5, 6, 10 and 11 (see Table 1), along with the existing Mineral Resource of 7.13Mt @ 4.73%TGC at Target 1 (refer to LMB announcement 20<sup>th</sup> January 2014) cover a combined strike length of ~12 km of graphitic schist, and highlight the significant opportunity for further discovery and increase of the resource inventory at the McIntosh Flake Graphite Project.

Figure 2: Target 1 VTEM imagery (channel 49BZL) and orthophoto draped over digital terrain model showing interpreted VTEM model plates and drill hole collar locations.



Figure 3: Target 1section with resource and VTEM modelled plate outlines and drill hole intercepts.





Figure 4: Target 5 VTEM imagery (channel 49BZL) and orthophoto draped over digital terrain model showing interpreted VTEM model plates and drill hole collar locations.



Figure 5: Target 5 section with VTEM modelled plate and drill hole intercept.





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Figure 6: Target 6 VTEM imagery (channel 49BZL) and orthophoto draped over digital terrain model showing interpreted VTEM model plates and drill hole collar locations.



Figure 7: Target 6 section with VTEM modelled plates and drill hole intercept.



Exploration programs are planned at both Targets 3 and 4 with follow up resource development drilling at both prospects dependant on the results of the exploration drilling programs. Exploration drilling at Target 3 will focus on the high conductance model plates interpreted from the VTEM survey estimated to have a strike length potential of 3,200m (see Figure 8)

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Figure 8: Target 3 VTEM imagery (channel 49BZL) and orthophoto draped over digital terrain model showing interpreted VTEM model plates and drill hole collar locations.

Exploration drilling at Target 4 will also focus on the high conductance model plates interpreted from the VTEM survey estimated at 2,100m of strike length potential being prospective for graphitic schist. Drilling will also include DD and RC into the extremely thick and highly conductive model plates interpreted as prospective for Copper and Nickel (see Figure 9).



Figure 9: Target 4 VTEM imagery (channel 49BZL) and orthophoto draped over digital terrain model showing interpreted VTEM model plates.



#### **INDEPENDENT REVIEW OF TARGET 1 MINERAL RESOURCE**

CSA also completed an independent review of the Mineral Resource estimate for Target 1 (refer to LMB announcement 20<sup>th</sup> January 2014). This was achieved by reviewing the underlying data, the data collection protocols and procedures, the geological and mineralisation model, the estimation and modelling techniques, and the mineralogy and test work data.

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CSA concluded that the data review, modelling and estimation work completed was reasonable for the density of data and stage of exploration of the project. They highlighted a potential bias in the RC drilling results from a review of twin DD / RC holes and suggest the RC method may underestimate total contained graphite by as much as 25%. Further diamond coring was recommended during further resource drilling programs to address this issue, as well as for collection of additional samples for mineralogical and processing test work.

#### ADDITIONAL MINERALOGY WORK

To assist with review of the mineralogical characteristics of the graphite mineralisation an additional 21 samples were selected for petrographic investigation. The samples consist of 6 polished thin sections and descriptions of 3 drill core and 3 rock chip samples along with 15 polished thin sections and descriptions of 15 RC chip samples.

The fresh samples can be summarised as being composed of a high grade metasediment that is a mixture of schist and gneiss lithologies. The graphite generally occurs in bunches or as separate flakes showing locally good orientation and lacking inclusions of deleterious minerals, allowing for a more simplified extraction process and the ability to achieve a high purity graphite concentrate. Flake sizes range up to 500µm in length and commonly >200µm at Target 6 and are generally >100µm and commonly >200µm at the other prospects investigated.

Photomicrographs displaying the morphology and flake size of the graphite have been provided in below in Figures 10 through to 13. The photomicrographs include a surface rock chip sample from Target 1 and RC rock chip samples from Targets 5 and 6.



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Figure 10: Photomicrograph of Target 1 rock chip sample (382802mE ; 8047962mN).



Figure 11: Photomicrograph of Target 5 RC drill hole sample (T5GRC117 6m - 7m).



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Figure 12: Photomicrograph of Target 6 RC drill hole sample (T6GRC93 74m - 76m).



Figure 13: Photomicrograph of Target 6 RC drill hole sample (T6GRC159 93m - 96m).



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#### CONCEPTUAL STUDY

On the basis of the results of the review Lamboo committed to immediately commence a Conceptual Study to assess development concepts for the McIntosh Flake Graphite Project. Lamboo engaged independent international consulting firm CSA Global in Perth, Western Australia to conduct the Conceptual Study.

#### **OTHER AUSTRALIAN PROJECTS**

Limited work programs were undertaken in the quarter on the Mabel, Halls Creek and Valla Projects.

#### Competent Persons Statement:

Information in this report relating to exploration results and geological data at the McIntosh Project is based on information previously compiled and / or reviewed by Mr. Tony Cormack, Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Lamboo Resources Limited. Mr. Cormack has sufficient experience which is relevant to the activity previously undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results and consents to the inclusion in this report of the matters reviewed by him in the form and context in which they appear.



#### LAMBOO TENEMENTS - AUSTRALIA

BOO URCES

F S O

Project	Tenement	Туре	Number	Status	Acquired/Disposed
McIntosh, WA	Melon Patch	E	E80/3864	100% Lamboo	
	McIntosh Hills	E	E80/3928	100% Lamboo	
	Melon North	E	E80/3906	100% Lamboo	
	Melon South	E	E80/3907	100% Lamboo	
	Black Granite	E	E80/4396	100% Lamboo	
	White Rock South	EL	E80/4688	100% Lamboo	
	Panton West	EL	E80/4734	100% Lamboo	
	Black Rock Creek	EL	E80/4739	100% Lamboo	
	Тодо	EL	E80/4732	100% Lamboo	
	Edle Creek	EL	E80/4825	100% Lamboo	
	Alice Downs	EL	E80/4842	100% Lamboo	
	White Rock	EL	E80/4841	100% Lamboo	
	Carolyn Hills South	Р	P80/1821	100% Lamboo	
	Panton North	E	E80/4733	100% Lamboo	
	Mabel Hill	ELA	E80/4879	100% Lamboo	
	Wills Creek	ELA	E80/4931	100% Lamboo	
Mabel, WA	Mabel Downs	E	E80/4385	100% Lamboo	
	Spring Creek	E	E80/4797	100% Lamboo	
	Six Mile Bore	E	E80/4814	100% Lamboo	
Halls Creek, WA	Golden Crown South	E	E80/4794	100% Lamboo	
	Highway	E	E80/4793	100% Lamboo	
	Granite	E	E80/4795	100% Lamboo	
	Granite	Р	P80/1816	100% Lamboo	
	Granite	Р	P80/1817	100% Lamboo	
	Granite	Р	P80/1815	100% Lamboo	
	Granite	Р	P80/1818	100% Lamboo	
	Granite	Р	P80/1414	100% Lamboo	
	Granite	Р	P80/1799	100% Lamboo	
	Granite	Р	P80/1801	100% Lamboo	
	Granite	Р	P80/1800	100% Lamboo	
Valla, NSW	Valla	EL	EL6702	100% Lamboo	10 block compulsory partial surrender



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#### **GEUMAM FLAKE GRAPHITE PROJECT**

During the quarter Lamboo Resource announced significant drilling and metallurgical results from the Geumam Flake Graphite Project in South Korea.

Significant Phase 2 Drilling results from the northern extension to Geumam Prospect Area E include:

- 22m @ 7.33% Cg (GM-30; 100-122m)
- 9m @ 5.14% Cg (GM-31; 103-112m)

Significant Phase 2 Drilling results from Geumam Prospect Area C include:

- 15m @ 3.41% Cg (GM-32; 79-94m)
- 5m @ 5.60% Cg (GM-32; 133-138m)

Comminution and rougher flotation studies highlight an optimum grind size of 212µm for Area B. Geumam graphite deposit has an average flake size between 102µm (Area B deposit) and 75µm (Area C deposit).

#### **RESOURCE DRILLING**

Lamboo also announced the results for the remainder of the Phase 2 resource drilling program at the Geumam Flake Graphite Project in South Korea during the quarter. Broad zones of flake graphite mineralisation were encountered with significant intercepts detailed in Table 1.

A best drill intersection of 22m @ 7.33% Cg was recorded from GM-30 (100-122m). The drilling results confirm the presence of multiple thick intersections of high grade flake graphite at Area E. The results also indicate Area B continues to extend further to the north (ASX Release 15 September, 2014). The Phase 2 drilling program is aimed at substantially increasing the current graphite resource base at Geumam, reported previously by LMB to the ASX (4 August, 2014).

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HOLE ID	DEPTH FROM (m)	DEPTH TO (m)	INTERSECTION (m)	GRADE (% Cg)
GM-28	15	18	3	4.01
	13	15	2	3.34
	23	26	3	3.39
GM-30	100	122	22	7.33
	181	184	3	3.63
	186	191	5	2.31
GM-31	25	29	4	2.13
	59	61	2	6.82
	103	112	9	5.14
	79	94	15	3.41
GM-32	128	130	2	3.76
	133	138	5	5.60

 Table 1. Graphite Mineralised Intersections (>2m; >2% Cg), for drill holes GM-28 to GM-32.

NOTES:

a) Assay results for Phase 2 holes GM-24 to GM-26 have previously been reported (ASX Release 16 September 2014).

- b) No significant assays were recorded in GM-27.
- c) No samples were collected from GM-29, which was terminated early at 12.3m depth.
- d) Significant assays and intersections are highlighted in red.

All drill hole collars have now been accurately surveyed using a differential global positioning system (DGPS) by a locally registered surveyor.

#### METALLURGICAL TESTWORK

Mineral Liberation Analyser (MLA) results from ActLabs on 13 samples of drill core, indicate the Geumam Flake Graphite Project has an average insitu flake graphite size of 102µm at Area B and 75µm at Area C. The graphite flakes are mainly hosted in graphitic arenite and minor meta-limestone, accompanied mainly by quartz, biotite, sericite, chlorite and muscovite.

The flake graphite mineralisation at Geumam is characterised by cataclasite brecciation, massive form and internal deformation styles. The graphite mineralisation is usually accompanied by veinlet stockworks, comprising grey, fine-grained, cryptocrystalline quartz (5-10% volume) in the upper section, with a lower section characterised by fracture infilling quartz-calcite veinlets (<5% volume). Fine-grained disseminated pyrite was the only sulphide mineral observed and is mainly confined to the upper section (<1% volume).

A structured metallurgical testwork program on Geumam flake graphite is underway at ActLabs metallurgical laboratory in Thunder Bay, Canada. The metallurgical study is based on the four ore types identified at Geumam and is designed to support a Scoping Study. ActLabs has considerable experience in the testing and flowsheet development of graphitic ores. The metallurgical testwork program is being independently supervised by *RungePincockMinarco*.

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		Sample Head Assay (%)											
Sample	AI	Ca		Carbon (IR)				к	Mg	Na	Р	S	S
Source	TD- ICP	TD- ICP	Total	Due to Graphite	Organic (calc)	Amorphous (calc)	TD- ICP	TD- ICP	TD- ICP	TD-ICP	TD- ICP	TD- ICP	IR
Deposit 'B' Primary	3.57	9.68	8.72	4.90	< 0.5	<3.32	2.40	1.79	2.27	0.17	0.11	0.86	0.78
Deposit 'B' Weathered	3.86	1.02	8.27	7.30	0.7	0.27	2.55	1.64	0.75	0.17	0.16	0.36	0.34
Deposit 'C' Primary	4.83	9.17	6.82	3.64	< 0.5	<2.68	2.84	1.64	1.48	0.56	0.06	0.65	0.61
Deposit 'C' Weathered	6.51	0.20	4.89	4.67	< 0.5	<0.22	4.26	2.23	0.41	0.13	0.06	0.11	0.15

Table 3. Chemical Characteristics of Geumam Graphite Ore Types.

Table 3 details the chemical characteristics of the ore types at Geumam being tested. The mineralogical and comminution requirements of the various ore types at Geumam have now been established. Comminution studies have concluded that the ore types ranged from soft to moderate hardness and would present no difficulties in milling. The *Bond Ball Mill Work Indices* (BBMWI) ranged between 11.3 and 14.2 kWh/t).

Mineralogical analyses found that quartz was the major gangue mineral present, along with calcite and minor quantities of ankerite, dolomite and muscovite. Low levels of pyrite sulphide (<1%) was also present.

Based on a crush size of  $850\mu m$ , MLA analyses has determined the average in-situ graphite flake size of  $102\mu m$  at Area B and  $75\mu m$  at Area C. Pre-concentration studies indicated that there was limited potential for upgrading using classification. The likely separation flowsheet is based on flotation, with regrinding of the cleaner concentrates to produce a >85% Cg graphite concentrate.

Separation testwork has finalised the optimum grinding and flotation roughing conditions. The optimum grind size is moderately coarse at 80% passing 212µm for the Area B deposit and slightly finer at 80% passing 180µm for Area C. These results are similar to that undertaken in a testwork program conducted in 1983 by the *Korean Mining Promotion Corporation* (1983a) for the original historical Geumam mine and achieved in the milling operation.

Cleaning testwork is currently underway with the target of producing a flotation graphite concentrate with grades of 85% Cg and overall recoveries in excess of 80%.

Once the final flotation cleaning testwork has been completed, graphite concentrate leaching studies will commence. Based on anticipated domestic market demand, very high purity graphite concentrates would be prepared by leaching of the final flotation concentrates to remove any relict quartz, calcite, ankerite, dolomite and muscovite gangue minerals.



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# This testwork will target a high-purity grade of >93% Cg, previously achieved in historical leaching studies conducted in 1983 by the Korean Mining Promotion Corporation (1983b).

In addition, the recovery of pyrite from the flotation tailings is also to be studied. Pyrite is a potentially saleable by-product and its removal also ensures that the flotation tailings are marketable as a fine concrete sand product. This has the added potential benefits to the project of eliminating the need for a tailings storage facility at Geumam and significantly reducing the environmental impacts. The metallurgical testwork is expected to be completed during February 2015.

#### QUARRY AGGREGATE STUDY

The non-graphite mineralised overburden at the Geumam Flake Graphite Project has been studied by the geotechnical materials testing laboratory of *Hanyoung Construction Technology Co. Ltd.* in Korea for comprehensive aggregate testing. Dangjin City and the surrounding Chungnam Province is the highest growth area in South Korea. As a consequence, industrial development, land reclamation and port expansions are taking place nearby at a rapid rate. This in turn results in a significant requirement for quarrying of a range of aggregate materials for use in several sectors. The company believes during graphite mining, there is good potential to extract the overburden, crush and screen it and sell it into the local construction, road base/asphalt and concrete aggregate markets. Initial indications are the tailings sand from flotation milling can potentially be sold as fine sand, probably at a premium to concrete producers.

#### **Competent Persons Statement:**

Information in this report relating to exploration results and geological data at the Geumam Project has been compiled by Consulting Geologist Mr Christopher Sennitt, who is a Fellow of the Australian Institute of Geoscientists. Mr. Sennit has sufficient experience that is relevant to the types of deposits being explored for and qualifies 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 2012 Edition) and consents to the inclusion of this information in the form and context in which it appears in this report.



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#### LAMBOO TENEMENTS - SOUTH KOREA

#### Geumam Flake Graphite Project

Tenement Number	Registration Number	Area (ha)	Registered Holder	Grant Date	Expiry Date
Dangjin 54-4	200432	44	Won Kwang Mines Inc	30 July 2014	31 July 2021
Dangjin 56-3	200433	68	Won Kwang Mines Inc	30 July 2014	31 July 2021
Dangjin 66-1	200434	68	Won Kwang Mines Inc	30 July 2014	31 July 2021
Dangjin 55-3	80077	68	Won Kwang Mines Inc	7 February 2012	6 February 2032
Dangjin 65-1	80014	68	Won Kwang Mines Inc	8 December 2011	7 December 2031
Dangjin 65-2	78355	68	Won Kwang Mines Inc	17 December 2009	16 December 2029
Dangjin-54-2	200258	135	Won Kwang Mines Inc	23 May 2013	22 May 2020
Dangjin-55-4	200259	64	Won Kwang Mines Inc	23 May 2013	22 May 2020

#### Taehwa Flake Graphite Project

Tenement Number	Registration Number	Area (ha)	Registered Holder	Grant Date	Expiration Date	
Hongcheon 91-2	079948	68	Won Kwang Mines Inc	15 November 2011	14 November 2031	

#### Samcheok Flake Graphite Project

Tenement Number	Registration Number	Area (ha)	Registered Holder	Grant Date	Expiration Date	
Samcheok-09-2	200216	68	Won Kwang Mines Inc	10 January 2013	9 January 2020	



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#### CORPORATE

#### MANAGEMENT CHANGES

Subsequent to the end of the quarter, the Company advised the ASX that Mr Trevillion had resigned as Managing Director and CEO on 16 April 2015.

Mr Anthony (Tony) Cormack, Executive Director and Head of Operations, has been appointed as Chief Executive Officer. Mr Cormack has been with Lamboo since June 2014 as Operations Manager, McIntosh Project and became an Executive Director and Head of Operations in December 2014.

Mr Cormack brings strong operational experience as well as technical expertise to the role as Lamboo transitions from exploration into production.

#### FUNDING AGREEMENT AND CLEANSING PROSPECTUS

On 12 January 2015 the Company announced that it had entered into a Funding Agreement with Australian Special Opportunity Fund, LP, an institutional investor managed by New York based The Lind Partners LLC (together "Lind").

In accordance with the funding agreement, Lamboo held a general meeting of shareholders on 27 February 2015 at which meeting the issue of shares and options to Lind under the Agreement were approved and following this approval, the Company lodged a Cleansing Prospectus with ASIC and ASX on the same day.

#### **CAPITAL RAISING**

On the 23 March 2015 the Company announced a placement of 10,500,000 ordinary shares at \$0.10 each plus a free one for two unlisted option to sophisticated investors to raise a total of \$1,050,000. All funds from the capital raising were received prior to the end of the quarter and allotments of the shares and options were made on 30 March 2015 and 1 April 2015.

Funds raised from the placement will be used to fund working capital and towards further progressing the McIntosh Flake Graphite Project.



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#### **RETURN OF HENGDA DEPOSIT**

On the 30 March 2015 Lamboo Resources Limited announced that a binding agreement ("Settlement Deed") for the repayment of the US\$2,000,000 deposit from China Sciences Hengda Graphite Corp. ("Hengda") had been executed by all relevant parties. The deposit was originally remitted on 4 July 2014, but the agreement under which the deposit was paid, was subsequently terminated, and the Company entered into negotiations to have the deposit repaid.

The Settlement Deed provides for a repayment schedule for the refundable deposit as follows:

- (a) RMB 700,000 (A\$145,279) on or before 30 April 2015 (1st Repayment");
- (b) RMB 5,000,000 (A\$1,037,710) on or before 30 May 2015 ("2nd Repayment"); and
- (c) RMB 6,700,000 (A\$1,390,532) on or before 30 June 2015 ("3rd Repayment").

#### **Tony Cormack**

CEO / Head of Operations