

*Lamboo Resources is an Australian exploration company focusing on substantial flake graphite assets located in the East Kimberley and South Korea*



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14 March 2013

### **SG BONUS FOR THE McINTOSH PROJECT**

**As part of the work underway for the establishment of an initial JORC resource at the McIntosh Project systematic SG (specific gravity or density) measurements of the diamond drill core have been undertaken at Targets 1, 2 & 3.**

#### **Highlights**

- **The initial SG data has confirmed that the sulphide – rich flake graphite mineralisation at Targets 1 and 2 exhibits densities ranging from 2.23 in the oxide zone to 3.26 in the primary zone.**
- **The SG (or density of the mineralisation) is higher in the primary zone than for typical graphite deposits (est SG - 2.2 to 2.6).**
- **This is positive for the project as it will result in more tonnes per cubic metre of ore mined.**

Additional SG (specific gravity or densities) measurements on bulk core samples (average 1 m length of ½ NQ and HQ core) have been taken from drill holes T1GRD 074, 085, 088 & 089 at Targets 1 (**Figure 1**) and drill hole T1GRD 003 at Target 2. Additional SG data is also being collected from drill holes from Targets 2 and 3.

**Table 1** confirms that the sulphide – rich graphite mineralisation in the primary zone below the oxidised zone (ie beyond a vertical depth of 18 to 20 m) is markedly higher than the SG values within the oxidised zone. The average SG in the oxide zone is 2.36 compared to the primary zone average of 2.75 while the quality of the flake graphite appears to be unaffected based on the drill hole petrographic data.

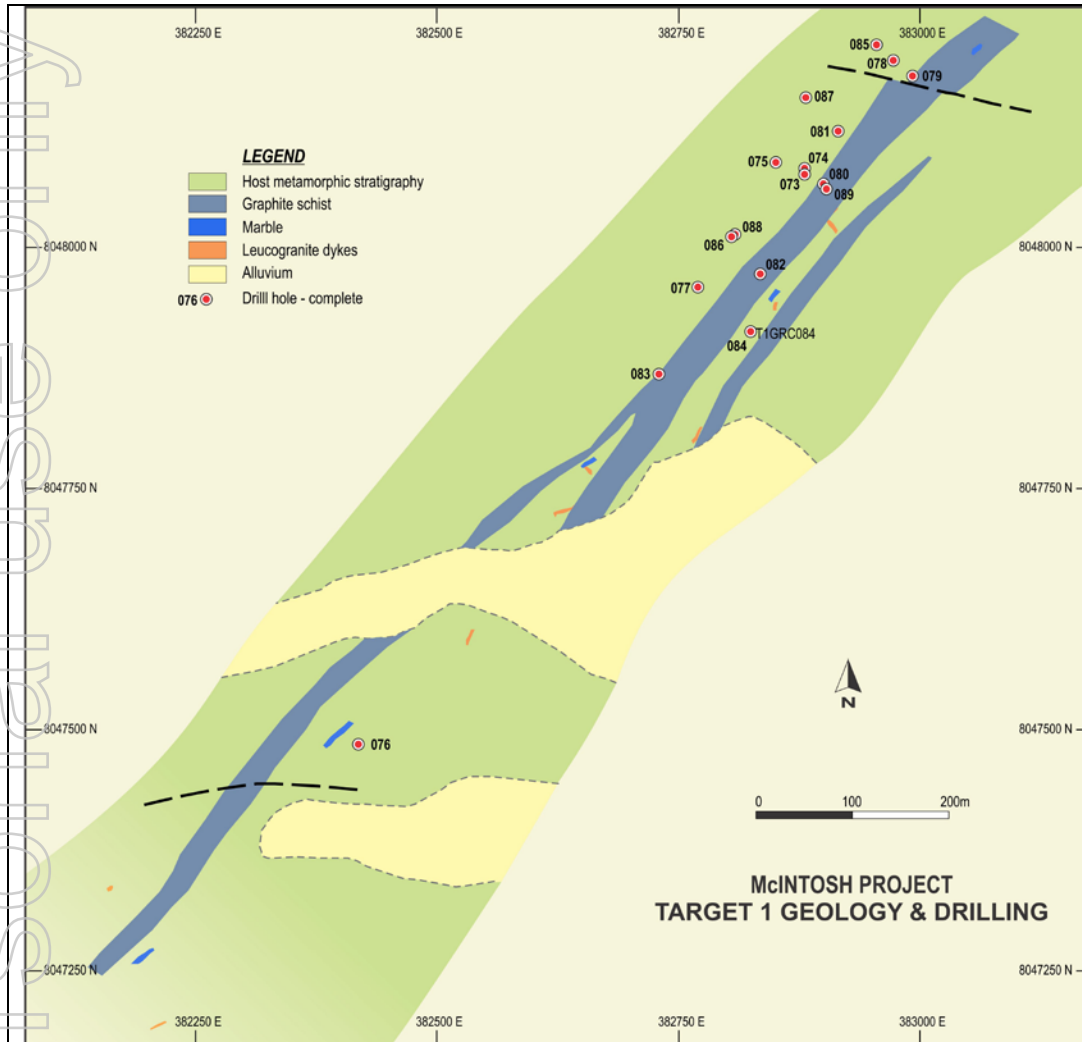


Figure 1  
Target 1 showing the location of diamond drill holes T1GRD 075, 084, 085, 088 & 089 relative to the mapped flake graphite horizons.

The increased density of the graphite mineralisation in the primary zone is due to the presence of sulphides (mainly pyrrhotite). Preliminary metallurgical testing has shown that the sulphide component can be largely separated at an early stage in the beneficiation process.

### Potential Uplift Factor

Table 1 shows that an uplift factor ranging from 1.1x to 1.4x (av. 1.2x) can be expected within the primary zone containing the sulphide – rich graphite mineralisation at McIntosh compared with other documented graphite deposits that generally lack appreciable sulphides and have a lower overall SG (ie SG of 2.2 to 2.6). The uplift factor is based on the proportion of the relatively light flake graphite (density or SG ranging between 1.8 and 2.2) compared with the heavier sulphide (wt% of sulphur calculated as pyrrhotite with an SG of 4.65) plus the silicate host rock components (with a typical SG of 2.6) in the sample that now has a measured SG value (see column in **Table 1**). If all the minerals had the same density or SG as the overall SG of the host rock the uplift value would be equivalent to 1x (ie no affect) and this is apparent for the oxide zone at McIntosh.

This will also be reflected in the final JORC resource (targeted to be finalised this month) where the increased SG of the McIntosh sulphidic graphite mineralisation will be reflected by an expected uplift in terms of tonnes per cubic metre of ore mined within the heavier or more dense primary zone graphite mineralisation. In other words, the calculated volume within the ore zone will potentially contain more tonnes of graphite mineralisation than a comparable deposit with a similar grade.

**Table 1 Specific Gravity Measurements and Estimated Vol% Graphite Content at Targets 1 and 3**

Drill hole	Sample No	From (m)	To (m)	TGC%	Tot C%	Tot S%	SG	Po Content (wt%)	Graphite volume uplift factor x	Weatheri
	LB558850SG	4.1	4.28	3.73	7.17	0.01	2.3	0.03	0.97	Oxide
	LB558851SG	5.08	5.25	5.92	9.36	0.02	2.33	0.05	1.03	Oxide
	LB558852SG	6.31	6.53	6.28	9.45	0.01	2.24	0.03	0.99	Oxide
	LB558853SG	7.81	7.96	4.61	7.3	0.02	2.48	0.05	1.06	Oxide
<b>T1GRD 089</b>	LB557567	11	12	6.21	7.31	0.02	2.4	0.05	1.06	Oxide
	LB557569	13	14	5.74	7.21	0.03	2.41	0.08	1.06	Oxide
	LB557576	18	19	0.025	6.7	4.91	2.51	13.45	0.91	Oxide
<b>T1GRD 089</b>	LB558849SG	21	22	7.5	7.62	5.61	2.23	15.37	0.96	Oxide
<b>Averages</b>				<b>5.00</b>	<b>7.77</b>	<b>1.33</b>	<b>2.36</b>		<b>1.0</b>	
	LB557581	23	24	7.28	7.32	5.74	2.45	15.73	1.04	Primary
	LB558854SG	25	26	7.43	7.48	5.59	2.33	15.32	1.00	Primary
	LB557589	31	32	7.16	7.17	5.13	2.52	14.06	1.08	Primary
	LB557595	36	37	7.37	7.37	5.58	2.54	15.29	1.09	Primary
	LB557602	43	44	6.16	6.05	5.49	2.64	15.04	1.10	Primary
	LB558855SG	44	45	7.28	7.33	6.29	2.72	17.23	1.15	Primary
	LB558859SG	48	49	5.86	5.96	4.95	2.74	13.56	1.14	Primary
<b>T1GRD 088</b>	LB557615	56	57	6.91	7.11	4.21	2.71	11.54	1.17	Primary
<b>T1GRD 088</b>	LB558846SG	56	57	6.91	7.11	4.21	2.71	11.54	1.17	Primary
	LB557625	65	66	5.82	5.94	3.82	2.71	10.47	1.14	Primary
	LB557633	72	73	6.69	6.75	4.3	2.69	11.78	1.15	Primary
	LB558847SG	72	73	6.64	6.65	4.26	2.71	11.67	1.16	Primary
	LB557637	75	76	7.08	4.98	7.17	2.7	19.65	1.13	Primary
	LB557646	84	85	10.4	10.6	5.21	2.73	14.28	1.25	Primary
	LB558848SG	84	85	10.4	10.5	5.28	2.77	14.47	1.27	Primary
<b>T1GRD 084</b>	LB558857SG	88	89	7.12	7.23	4.54	2.76	12.44	1.19	Primary
	LB557653	91	92	8	8.26	4.52	2.7	12.38	1.18	Primary
	LB558863SG	93	94	8.45	8.15	2.79	2.79	7.64	1.26	Primary
	LB557657	95	96	4.46	4.48	3.28	2.76	8.99	1.14	Primary
	LB558867SG	96	97	2.87	2.89	2.82	2.69	7.73	1.07	Primary
	LB558858SG	102	103	8.02	8.43	6.72	2.84	18.41	1.22	Primary
<b>T2GRD 003</b>	LB556078	105.61	105.78	1.51	1.52	3.83	2.86	10.49	1.09	Primary
	LB556080	106.33	106.96	2.3	2.23	2.08	3.11	5.70	1.23	Primary
	LB556081	106.96	107.78	6.54	6.59	5.48	3.26	15.02	1.37	Primary
	LB558864SG	109.2	110	6.08	5.91	4.92	2.8	13.48	1.17	Primary
	LB558866SG	113.1	113.91	5.7	5.65	1.97	2.68	5.40	1.15	Primary
<b>T1GRD 075</b>	LB558860SG	119	120	4.39	4.23	5.77	2.93	15.81	1.17	Primary
<b>T1GRD 085</b>	LB558865SG	125.5	126.4	5.51	5.24	2.71	2.83	7.43	1.20	Primary
	LB558861SG	131.3	131.9	5.62	5.41	5.18	2.96	14.19	1.22	Primary
<b>Averages</b>				<b>6.41</b>	<b>6.36</b>	<b>4.62</b>	<b>2.75</b>		<b>1.2</b>	
	Po - pyrrhotite dominant sulphides									

## Target 1 – Drill Hole Petrology

Drill hole samples from Target 1 have confirmed the presence of strong flake graphite occurring as clumps as well as locally rimming stellate aggregates of sillimanite that would appear to indicate remobilisation and potential enhancing of flake graphite during retrograde metamorphism (refer Figures 2A and 2B). Figures 2C and 2D show that flake graphite has been concentrated along a series of anastomosing shears providing a natural separation of the flake graphite at Target 1. Graphite flakes are relatively consistent and vary in size from 20 to 160  $\mu\text{m}$  with an average 50  $\mu\text{m}$  in the samples examined.

The separation of flake graphite has been improved in preliminary metallurgical testing where float concentrates have achieved in excess of 30 TGC% graphitic carbon in the Test 4 cleaner concentrate (Table 2). Petrographic studies of the flotation concentrates confirm that the integrity of the flake graphite and flake size has been preserved (refer Figures 3A and 3B). Increased concentrations of flake graphite will be achieved by re-grinding and the use of simple classification techniques in addition to flotation in proposed metallurgical testwork.

### Photomicrographs of flake graphite from Target 1 diamond drill holes under the polarising microscope

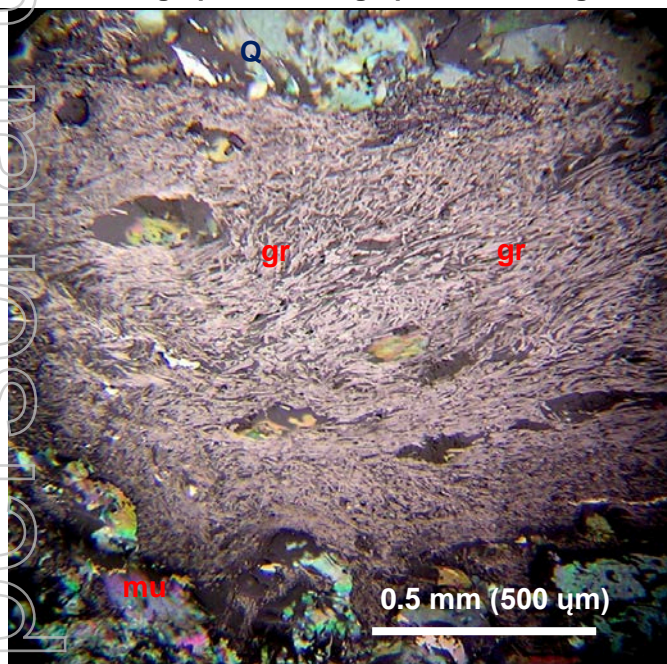


Figure 2A: Target 1 (Sample 507224 – T1GRD 84 100.85 m) showing flake graphite (gr) aggregates or “clumps” associated with minor quartz (Q) and muscovite (mu) in the graphitic schist host. Crossed polars under reflected and transmitted light. Field of view – 1.5 mm.

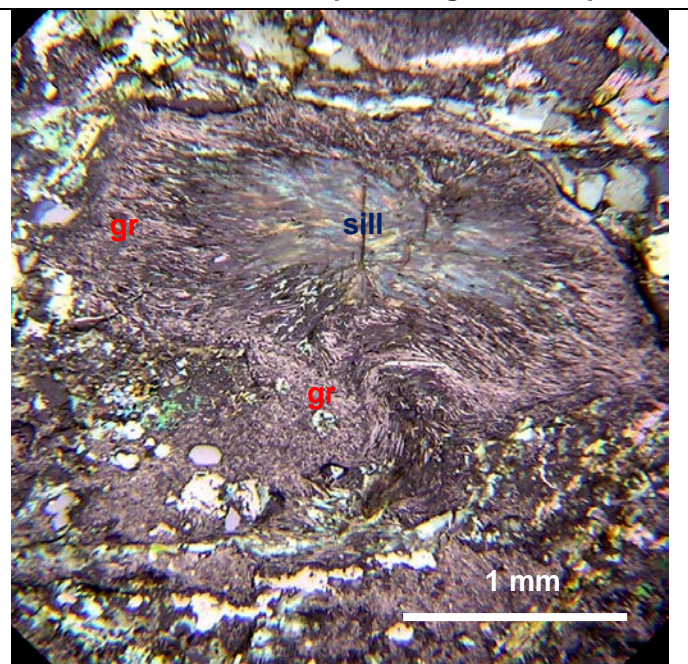


Figure 2B: Target 1 (Sample 507225 – T1GRD 84 102.41 m) – detail of flake graphite rimming sillimanite (sill). Graphite appears to have been re-mobilised during the metamorphic process. Crossed polars under reflected and transmitted light Field of view – 3 mm.

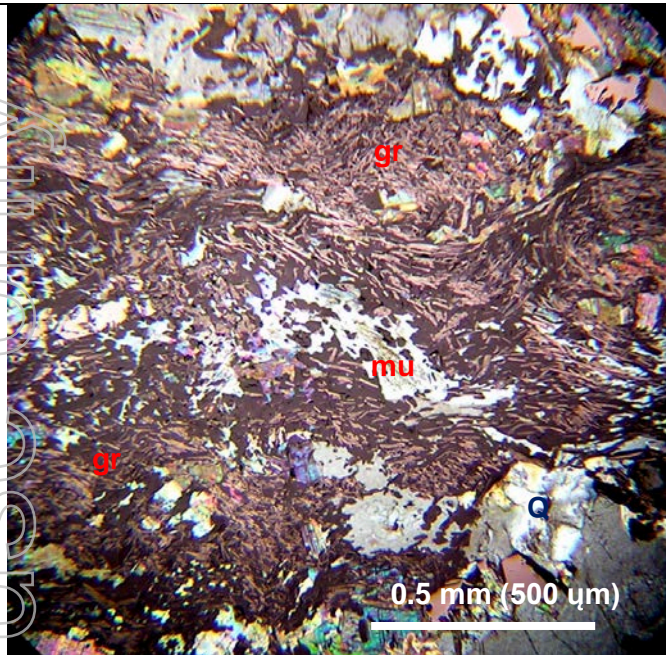


Figure 2C: Target 1 (Sample 508488-T1GRD 085 107.35 m) flake graphite (gr) parallels an anastomosing schistosity in the graphite schist host. Note that graphite (gr) occurs as discrete aggregates locally rimming muscovite (mu) and quartz (Q). Crossed polars under reflected and transmitted light. Field of view – 1.5 mm.

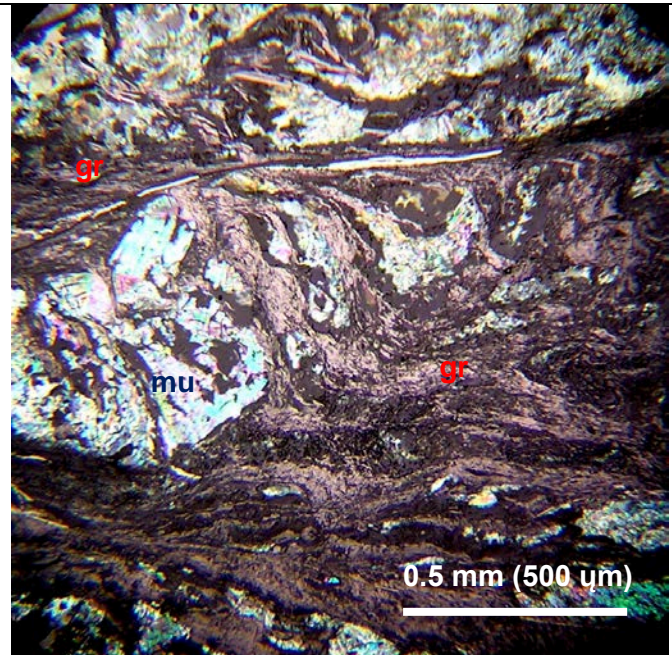


Figure 2D: Target 1 (Sample 508500 – T1GRD 084 88.6m) anastomosing graphite (gr) occurring as "shredded concentrates" associated with muscovite (mu) in the graphite schist host. Crossed polars under reflected and transmitted light Field of view – 1.5 mm.

**Photomicrographs of metallurgical float samples from the Target 1 metallurgical diamond drill hole - T1GRD 089.**

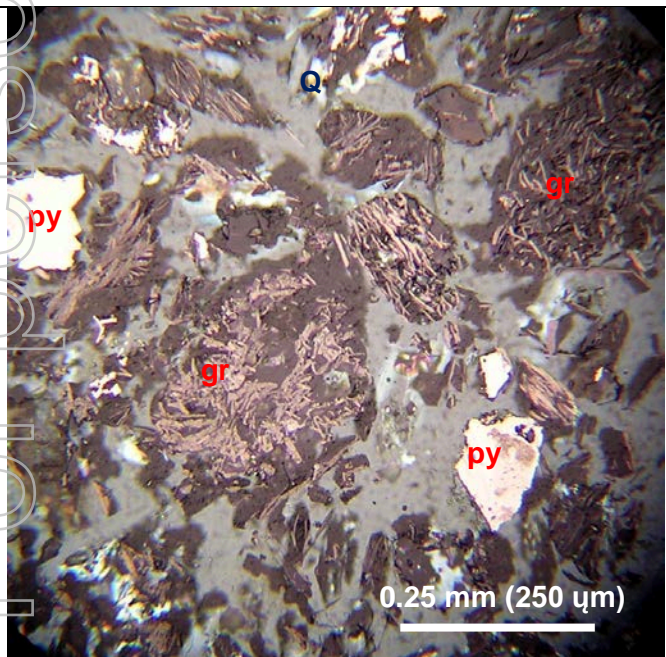


Figure 3A: Target 1 Float Sample (Test 3 Con 1). Note the preservation of flake graphite (gr) aggregates and separate pyrite grains. Pyrite and quartz will be eliminated with further classification techniques. Plane polarised reflected light. Field of view – 0.75 mm.

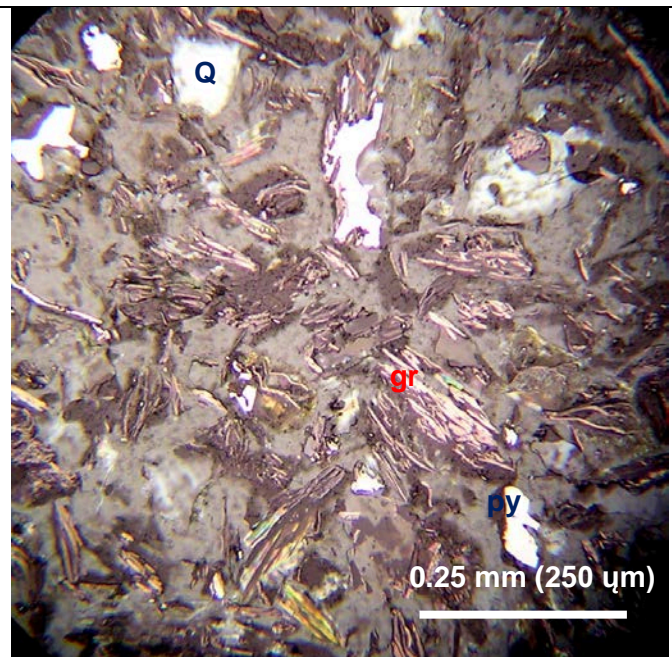


Figure 3B: Target 1 Float Sample (Test 4 Cleaner Con 2) showing good separation of graphite flakes. Plane polarised reflected light. Field of view – 0.75 mm.

**Table 2 Metallurgical Graphite Flotation Testwork – Mass and Graphite Balances - Test 4**

Product	Mass			Graphitic Carbon				Total Carbon				Total Sulphur			
	g	%	Cum%	%	%dist	Cum%	Cum%dist	%	%dist	Cum%	Cum%dist	%	%dist	Cum%	Cum%dist
Cleaner Con 1	23.2	2.4	2.4	30.7	11.1	30.7	11.1	28.6	9.2	28.6	9.2	4.16	1.7	4.2	1.7
Cleaner Tails 1	32.1	3.3	5.6	15.0	7.5	21.6	18.7	17.1	7.6	21.9	16.7	6.56	3.8	5.6	5.5
Cleaner Con 2	151.8	15.5	21.1	17.1	40.6	18.3	59.2	18.2	38.2	19.2	54.9	3.86	10.6	4.3	16.1
Cleaner Tails 2	37.5	3.8	25.0	12.7	7.4	17.4	66.7	15.5	8.0	18.6	62.9	4.59	3.1	4.4	19.2
Rougher tails	735.3	75.0	100.0	2.90	33.3	6.53	100.0	3.65	37.1	7.4	100.0	6.09	80.8	5.66	100.0
Calc'd Head	979.9	100.0		6.53	100.0			7.39	100.0			5.66	100.0		
Assay Head				6.58											

### **Target 1 - Ongoing Metallurgical Testwork**

With the successful completion of initial grinding and flotation testwork a more comprehensive beneficiation study will commence shortly using bulk RC samples that have been transported to Perth. The bulk samples from Target 1 will be subject to further grinding and classification techniques in addition to ongoing flotation testwork to produce a flake graphite concentrate. For example, reverse gravity techniques such as hydrosizing and spiral concentrators have been used successfully for other flake graphite deposits. The use of these relatively simple techniques is supported by the obvious graphite separation apparent in drill water from the RC drilling program at McIntosh (refer ASX:LMB Announcement 13 Sept 2013).

Successful separation techniques will be subsequently trailed in a pilot plant designed specifically for the McIntosh flake graphite to help to refine techniques and establish a flow-sheet for the production of high grade flake graphite at the pre-feasibility and feasibility stages.

Dr Craig Rugless  
Technical Director

### **Competent Persons Statement**

Information in this "ASX Announcement" relating to Exploration Results and geological data has been compiled by the Technical Director of Lamboo Resources Ltd, Dr Craig S. Rugless who is a Member of the Australian Institute of Mining and Metallurgy and a Member of the Australian Institute Geoscientists. He has sufficient experience that is relevant to the types of deposits being explored for and qualifies as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2004 Edition). He consents to the inclusion of this information in the form and context in which it appears in this report.