

16 April 2009

The Company Announcements Office ASX Limited

# Via E Lodgement

# POSITIVE METALLURGICAL TEST RESULTS RECEIVED FOR MARAMPA TAILINGS

# HIGHLIGHTS

- Metallurgical test results have now been received for a bulk, composite sample of historical hematite tailings located at the Marampa Project;
- A test regime comprising wet, high intensity magnetic separation for roughing and cleaning and reverse flotation cleaning of the middlings fraction produced a high-grade concentrate suitable for the manufacture of blast furnace feed pellets;
- The hematite concentrate produced from the tailings graded 65% iron and 3.9% silica for a mass and iron recovery of 46% and 91.6% respectively; and
- Air core drilling of the tailings commenced in late March 2009, and drill samples will be used to prepare a representative bulk tailings sample for follow-up bench scale metallurgical test work in Australia.

# BACKGROUND

Australian resources company, Cape Lambert Iron Ore Limited (the "Company" or "Cape Lambert") (ASX: CFE) has received positive metallurgical test results for tailings situated at the Marampa Iron Ore project ("Marampa Project"), located in Sierra Leone, West Africa (Figure 1).

In January this year, the Company collected, through face and test pit sampling, a 370kg bulk tailings sample for metallurgical test work. This sample was despatched to independent, Australian metallurgical testing group, AMMTEC Limited, where a sighter test program has now been completed. The objective of the sighter test program was to assess a number of beneficiation options to enable the production of a hematite concentrate with greater than or equal to 65% Fe for, blast furnace or direct reduction, pellet production.

The metallurgical test regime comprised wet, high intensity magnetic separation for roughing and cleaning, and reverse flotation cleaning of the middlings fraction produced a high-grade concentrate suitable for the manufacture of blast furnace feed pellets or sinter (Table 1). Importantly, the high-grade concentrate was produced with a mass recovery of 46.2% and a high iron recovery of 91.6%. It is expected that further cleaning of the concentrate will enhance its quality, with a small reduction in mass and iron recovery, thereby enabling it to be utilised for direct reduction pellet production.

ltem	Mass (%)	Fe Recovery (%)	Fe Grade (%)	SiO₂ Grade (%)	Al <sub>2</sub> O <sub>3</sub> Grade (%)	P Grade (%)	S Grade (%)	
Feed	100.0	100.0	32.8	45.3	4.2	0.021	0.007	
Concentrate	46.2	91.6	65.0	3.9	1.5	0.019	0.001	
Tail	53.8	8.4	5.1	81.4	6.2	0.025	0.006	

#### Table 1: Summary Metallurgical Test Results – Marampa Project Tailings



### AIR CORE DRILLING

Shallow, air core drilling of the hematite tailings situated at the Marampa Project commenced in late March 2009. The objective of the drilling program is to enable a JORC compliant resource estimate to be completed for the tailings, and to provide representative samples to prepare a bulk tailings sample for follow-up bench scale metallurgical test work in Australia.

### MARAMPA INVESTMENT SUMMARY

On 1 October 2008, the Company formalised an agreement with AIM listed African Minerals Limited ("African Minerals") for a 30% investment in the Marampa Project. Under the terms of the investment, Cape Lambert paid an initial scrip consideration of 44 million fully paid ordinary shares, committed to sole fund US\$25 million towards a feasibility study, and assumed management of the Marampa Project. Cape Lambert may terminate its investment in the Marampa Project subject to achieving a minimum expenditure of US\$5 million toward a feasibility study. On 22 January 2009, Cape Lambert increased its investment in the Marampa Project to 35% with payment of a further scrip consideration of 17 million shares.

The Company's near term work plan for the Marampa Project is to evaluate the development of a tailings retreatment operation, and to explore the extensions to the hematite mineralisation and regional targets

The Marampa Project has reduced barriers to entry compared to a "Greenfields" project through its connection by an 84km railway to an existing deep water port, stockpiling and ship loading facility located at Pepel ("Rail and Port Infrastructure") (Figure 1). Pursuant to its investment, the Company has a right of access to the Rail and Port Infrastructure, which is currently leased from the government of Sierra Leone by African Minerals.

Yours faithfully Cape Lambert Iron Ore Limited

Tony Sage Executive Chairman

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#### **Test Work Summary:**

The "as received" tailings sample ( $P_{80}$ =562µm) was screened at 710µm and the +710µm fraction (approximately 14.8% of the mass) set aside. This was done to protect the laboratory scale magnetic separation equipment; in future tests this material will be added to the middlings fraction prior to size reduction. The -710µm material was first processed using wet, high intensity magnetic separation ("WHIMS") to produce a rougher concentrate and then the rougher concentrate was cleaned using WHIMS. The middlings fraction representing only 12% of the feed was reduced to a  $P_{80}$ =106µm prior to reverse flotation cleaning. The WHIMS and reverse flotation concentrates were then combined to form a final concentrate.

#### **Competent Persons Attribute:**

The metallurgical information in this report is based on information compiled by GV Ariti who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Ariti has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ariti consents to the inclusion in this report of the matters based on his information in the form and the context in which it appears.

