

# ASX Announcement 28 January 2010

# DRILL RESULTS CONFIRM POTENTIAL FOR SUBSTANTIAL IRON ORE DEPOSITS AT MARAMPA

# **Key Points:**

- 6 prospects identified to date at Marampa. Initial drilling completed at Gafal West and drilling has commenced at Matukia.
- First drill results received from diamond drilling at Gafal West with significant intersections of specular hematite schist mineralisation including:
  - MPDD007: 160 m at 31.8% Fe from 110 m;
  - MPDD008: 138 m at 32.7% Fe from 238 m; and
  - MPDD010: 96 m at 26.1% Fe from 0 m;
- Gafal West open up-plunge to the north and along strike indicating exploration target size<sup>1</sup> of 100-200 million tonnes at 25%-35% Fe (target size does not include the other 5 prospects),
- Initial beneficiation tests indicate a quality concentrate can be produced from the Gafal West specular hematite mineralisation.

Australian resources and investment company, Cape Lambert Resources Limited (ASX: CFE) ("Cape Lambert" or the "Company") is pleased to announce the first assay results from a recently completed diamond drilling program at the Gafal West prospect located at its 100% owned Marampa Iron Ore Project ("Marampa Project") in Sierra Leone, West Africa (refer Figure 1). Results have also been received from the first 2 trenches at the Matukia prospect, and 2 additional trenches at Gafal West.

The Gafal West prospect is located immediately to the west and along strike of the historic Gafal Hill open pit, an iron ore mine operated by DELCO until the mid 1970's (refer Figure 2). The Gafal West prospect is the first of 6

Cape Lambert is an Australian domiciled, mineral investment company. Its current investment portfolio is geographically diverse and consists of mineral assets and interests in mining and exploration companies.

The Company continues to focus on investment in early stage resource projects and companies, primarily in iron ore, copper and gold. Its "hands on" approach is geared to add value and position assets for development and/or sale.

The Board and management exhibit a strong track record of delivering shareholder value.

# Australian Securities Exchange Code: CFE

Code: CFE

Ordinary shares 565,166,467

Unlisted options (30 June 2010) 8,350,000

Unlisted options (31 Oct 2010) 28,000,000

#### **Board of Directors**

Tony Sage Executive Chairman
Tim Turner Non-executive Director
Brian Maher Non-executive Director

Eloise von Puttkammer Company Secretary

### Key Projects and Interests

Lady Annie Copper Project Marampa Iron Ore Project Sappes Gold Project DMC Mining Limited Corvette Resources Limited

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<sup>&</sup>lt;sup>1</sup> The estimates of exploration target sizes mentioned in this release should not be misunderstood or misconstrued as estimates of Mineral Resources. The estimates of exploration target sizes are conceptual in nature and there has been insufficient results received from drilling completed to date to estimate a Mineral Resource compliant with the JORC Code (2004) guidelines. Furthermore, it is uncertain if further exploration will result in the determination of a Mineral Resource.



prospects (refer Figure 2) defined by surface exploration in 2009 to be subject to systematic drill testing.

# **Trenching**

Assay results were received for trenches MPTR005 and MPTR006 located 200 m north of drill section 18450mN at Gafal West (refer Figure 3). Significant results are shown in Table 1 and include 92 m at 46% Fe in MPTR005 and 172 m at 33% Fe in MPTR006. These trenches exposed predominantly iron-rich laterite cap but also included 42 m of recognisable hematite schist bedrock in MPTR005.

Assay results were received for the first 2 trenches excavated at the Matukia prospect, which is located along strike and 1 km north of the old open pit at Masaboin Hill (refer Figure 2). Geological mapping and trenching in the second half of 2009 at Matukia has identified specular hematite schist over a strike length of 1.8 km. Significant results are shown in Table 1 and include 103 m at 47% Fe in MPTR003. These trenches also exposed predominantly iron-rich laterite cap and included a number of recognisable specular hematite schist bedrock exposures up to 46 m in width.

# **Drilling**

Diamond drilling commenced at the Gafal West prospect in late June 2009. The aim of the drilling program was to elucidate the structure, thickness and grade of the hematite schist mineralisation by the drilling of a series of diamond drill holes on a 1 km long geological cross section (Section 18450mN-local grid) oriented across the interpreted principal fold direction.

A total of 9 diamond drill holes, MPDD005-013 have been completed at Gafal West (refer Figures 3 and 4) for a total of 4,235 m, with assay results now received for the first 8 holes.

Diamond drilling commenced at the Matukia prospect late in December with 2 holes completed to date for a total of 496 m.

# Geology

Geological mapping and logging of oriented diamond drill core by geologists from SRK Consulting assisted by company geologists shows a complex history of metamorphism, folding, faulting and dyke intrusion of the iron-bearing schists in the Gafal West area. The principal folds are a series of tight antiforms and synforms with steeply-dipping fold axes striking north northeast and overall wavelengths of approximately 1 km. These are referred to as "F3" folds (refer Figure 3).

The F3 folds have been refolded by later F4 folds, which are open folds with axes striking west northwest. This has resulted in an overall basin structure to the west of Gafal Hill where there is a central unit of weakly schistose quartz-albite rock bounded and underlain by quartz-albite-mica schists with specular hematite-bearing layers (refer Figure 3). The best iron grades are located at the base of this unit, which is underlain by a piemontite-bearing quartz-mica schist.

The Gafal West prospect lies on the northern edge of the basin structure where the specular hematite schists are interpreted to plunge 20-30 degrees to the south, re-emerging at surface at the Rotret prospect in the south. The western part of the basin structure is referred to as the Mafuri prospect.

# **Assay Results**

All 8 diamond drill holes at Gafal West with final assays received to date have intersected medium to coarse-grained (0.5mm - 3mm) specular hematite with minor (<5%) disseminated magnetite in



quartz-albite-mica schist above the footwall piemontite schist (refer Figure 4). Significant assay results at a >20% Fe lower cut off grade are shown in Table 2.

Drill intersections of the main specular hematite schist unit in the west part of Section 18450mN vary in length from 74 m to 160 m at grades of 26% to 34% Fe. The quartz-albite schist overlaying the main specular hematite schist unit contains thick bands of lower grade specular hematite and patchy disseminated magnetite grading 17% - 20% Fe over drilled widths of 26 m to 140 m (refer Table 3 and Figure 4).

# **Exploration Potential**

Diamond drilling at Gafal West has now confirmed specular hematite mineralisation with significant widths and grades from surface to depths of 400 m over a strike length of 1 km on Section 18450mN. Further drilling is required to test 200 to 400 m up-plunge to the north of Section 18450mN where specular hematite schist has been exposed in trenches MPTR001C and MPTR005-6 (refer Figure 3), and along strike to the east and west.

An exploration target size<sup>1</sup> from 100 to 200 million tonnes at 25% - 35% Fe is estimated for the Gafal West prospect. This is based on interpretation and modelling of geological mapping, trench and diamond drill information available to date with projection of mineralisation, up-plunge of, and along strike from Section 18450mN.

# Metallurgy

In October 2009, AMMTEC Limited completed preliminary bench-scale metallurgical test work on composite core samples from diamond drill holes MARDH002-004 drilled in 2007 at the Gafal West prospect by African Minerals Ltd. The results are summarised in Table 4.

This work indicated that a multi-stage Wet, High Intensity Magnetic Separation ("WHIMS") processing flowsheet can produce a quality hematite concentrate from the Marampa mineralisation of the type and grade encountered in the recently completed drilling program at Gafal West.

# **Further Work**

Diamond drilling now underway at Matukia is designed to test the structure, width and grade of mapped units of hematite schist extending 1.8 km north from Masaboin Hill. Initial drilling will be collared on 4 wide-spaced traverses with 2 holes on each traverse. This drilling will be completed in the March quarter 2010. Further drilling will then be undertaken at Gafal West and an initial program is planned at Mafuri.

A ground gravity geophysical survey will be undertaken in the March quarter 2010 along the prospective stratigraphy between the Matukia and Makambo prospects and further north with the aim of identifying further drill targets.

A detailed metallurgical testwork program is being planned utilising the drill core that has been sent to Perth for head grade analysis. The program will assess ore breakage and comminution characteristics, and optimise the WHIMS flowsheet.

Yours faithfully
Cape Lambert Resources Limited

Tony Sage **Executive Chairman** 



Table 1 – Marampa Trench Assay Results

Trench ID	Prospect	Easting WGS84	Northing Zone 28	RL m	Azimuth Degrees	Dip Deg.	From	To Metres	Interval	Fe %	SiO <sub>2</sub> %	Al₂O₃ %	P %	MnO %	LOI %
MPTR003	Matukia	773879	963198	83	90	0	0	103	103	46.90	16.72	5.76	0.03	0.43	3.07
							127	183	56	28.45	35.49	13.57	0.11	0.04	7.10
MPTR004	Matukia	773696	963599	65	90	0	0	56	56	41.01	30.45	5.62	0.05	0.02	4.11
MPTR005	Gafal West	770403	958837	67	126	0	76	168	92	46.42	22.34	6.04	0.04	0.35	3.41
							178	346	168	33.85	33.28	10.46	0.05	0.02	5.65
MPTR006	Gafal West	770628	958435	78	114	0	0	172	172	32.62	33.13	11.40	0.06	0.02	6.50

Above 20% Fe cut-off, maximum of 4m internal waste. Intervals 45 m- 50 m and 63 m -66 m in MPTR003 were not sampled and were allocated a grade of 0% Fe and weighted average grade of other elements for 0m-103m interval.



Table 2 – Gafal West Diamond Drill Hole Assay Results Above 20% Fe Cut-off

Hole	Easting	Northing	RL	Dip Degrees	Azimuth Degrees	From	То	Down Hole	Fe	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Р	TiO <sub>2</sub>	LOI
Number	WGS84	Zone 28				Metres		Length	%	%	%	%	%	
MPDD005	769951	958748	96.4	-60	300	0	10	10	33.32	18.2	21.67	0.06	0.89	10.52
						170	308	138	27.45	5.37	44.38	0.13	0.19	2.99
MPDD006	769952	958748	96.4	-50	120	0	12	12	30.48	19.93	23.84	0.08	0.00	11.15
						336	452	116	30.94	4.58	40.64	0.13	0.18	3.01
MPDD007	769912	958783	97.0	-50	300	0	8	8	34.02	11.76	29.51	0.04	0.53	7.61
						110	270	160	31.78	4.49	38.69	0.11	0.18	3.42
MPDD008	770080	958727	94.3	-50	300	0	10	10	35.51	17.72	20.45	0.04	0.94	9.61
						238	376	138	32.68	4.14	38.17	0.12	0.17	3.54
MPDD009	769818	958722	89.2	-60	300	0	12	12	22.18	13.51	46.47	0.05	0.57	5.91
						258	286	28	29.13	5.20	42.87	0.11	0.18	3.03
MPDD010	770728	958244	98.8	-50	300	0	96	96	26.07	7.45	48.09	0.17	0.34	2.16
						192	272	80	21.23	7.11	52.83	0.24	0.29	1.47
						376	464	88	26.42	5.97	46.70	0.14	0.22	2.01
MPDD011	770130	958657	90.1	-60	300	0	8	8	30.20	10.41	38.87	0.04	0.39	5.59
						290	408	118	33.47	3.92	36.68	0.12	0.17	3.09
MPDD012	770127	958659	89.6	-60	120	0	32	32	28.05	8.82	46.12	0.05	0.31	2.85
						304	374	70	23.94	6.68	49.50	0.20	0.27	1.66
						402	476	74	26.95	5.91	46.01	0.19	0.23	1.99

Minimum intersection width is 6m down hole at >20% Fe. Maximum of 10 m of internal waste <20% Fe. All samples half sawn diamond core, HQ in weathered zone, NQ in fresh rock, 2 m composites in fresh rock, 2 m - 5 m composites in weathered rock. Elements assayed by UltraTrace laboratories in Perth, Western Australia using XRF. The down hole intersection lengths do not represent true widths.



Table 3 – Gafal West Diamond Drill Hole Assay Results from 15% to 20% Fe Cut-offs

Hole	From	То	Down Hole	Fe	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	P	TiO <sub>2</sub>	LOI
Number	Me	tres	Length	%	%	%	%	%	
MPDD005	126	170	44	19.93	7.54	52.98	0.17	0.28	1.98
MPDD006	195	336	140	17.26	8.43	55.42	0.16	0.28	2.13
MPDD007	54.5	110	55.5	19.96	7.63	53.61	0.18	0.27	1.74
MPDD008	174	238	64	18.37	7.99	54.60	0.16	0.27	1.89
MPDD010	96	192	96	17.94	8.13	55.70	0.28	0.35	1.51
	464	500	36	17.68	8.0	56.00	0.17	0.27	1.93
MPDD011	8	58	50	18.35	9.76	56.69	0.08	0.31	2.36
	44	182	38	19.00	7.86	54.97	0.19	0.30	1.15
MPDD012	32	58	26	17.39	8.47	57.33	0.11	0.26	1.94
	206	232	26	17.12	8.61	55.92	0.14	0.29	1.81

Above a 15% nominal Fe cut-off and below 20% Fe cut-off. Minimum intersection width is 6 m down hole at >15% Fe and < 20% Fe. Maximum 5 m of internal waste <15% Fe. All samples half sawn diamond core, HQ in weathered zone, NQ in fresh rock, 2 m composites in fresh rock, 2 m – 5 m composites in weathered rock. Elements assayed by UltraTrace laboratories in Perth, Western Australia using XRF. The down hole intersection lengths do not represent true widths.



Table 4: Gafal West preliminary bench-scale metallurgical test work results.

	Weight	F	'e	Si	<b>O</b> <sub>2</sub>	Al <sub>2</sub> C	<b>)</b> <sub>3</sub>	P	
Composite	Recovery %	<i>Grade</i> %	Dist. %	Grade %	Dist. %	Grade %	Dist. %	Grade %	Dist. %
0-50m Feed		30.4		45.6		6.51		0.06	
0-50m Conc.	43.0	63.2	90.5	5.8	5.4	1.8	11.8	0.03	20.3
50-200m Feed		28.1		44.8		5.25		0.23	
50-200m Conc.	42.6	61.1	92.3	7.4	6.9	1.8	14.4	0.04	6.6

(Based on composite hematite schist samples collected from diamond drill holes MARDH002-004: WHIMS Rougher Results at P80 of 125 microns)

#### Competent Persons:

The contents of this report relating to exploration and mineral resources are based on information compiled by Sean Halpin, a Member of the Australasian Institute of Geoscientists. Mr Halpin is a geological consultant to Marampa Iron Ore Limited and has sufficient experience relevant to the styles of mineralisation and the deposit under consideration and to the activity 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 Halpin consents to the inclusion in this report of the matters compiled by him in the form and context in which they appear.

The contents of this report relating to metallurgical results are based on information compiled by Mr G V Ariti, a Member of the Australasian Institute of Mining and Metallurgy. Mr Ariti has sufficient experience relevant to the styles of mineralisation and the deposit under consideration and to the activity 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 compiled by him in the form and context in which they appear.

The estimates of exploration target sizes mentioned in this release should not be misunderstood or misconstrued as estimates of Mineral Resources. The estimates of exploration target sizes are conceptual in nature and there has been insufficient results received from drilling completed to date to estimate a Mineral Resource compliant with the JORC Code (2004) guidelines. Furthermore, it is uncertain if further exploration will result in the determination of a Mineral Resource.



Figure 1: Marampa Project Location











