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ABOUT CARPENTARIA:

Carpentaria is an exploration company focused on discovering base, precious metals and bulk commodities in eastern Australia. The company currently has interests in iron ore, tin, gold, copper and coal exploration projects

CARPENTARIA'S AIM:

With a strong geo-scientific team Discover and build a strong cash flow generating mining operation.

DISCOVERIES TO DATE:

Hawsons Iron Project - NSW Euriowie Tin Project - NSW

Capital Structure:

Ordinary Shares 71,541,301 Total Options 20,856,114

Major Shareholders:

Conglin Yue Giralia Resources

14.65% 9.49%

Financial

Cash and deposits on hand A\$12.8 million

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Drilling success at Carpentaria's Burta iron ore JV, Broken Hill

HIGHLIGHTS

- Drilling supports Carpentaria's exploration target¹ of 2.2 4.8 billion tonnes at 18% to 20% magnetite DTR with concentrate grade of 69-71% Fe, to depth of 250m
- New discoveries include multiple thick (generally 50 to +100 metres) magnetite ironstone mineralisation units at:
 - South Limb,
 - Dam, and
 - Wonga
- Resource delineation planned to commence in August, with a fourth rig to be added to the three drilling rigs currently operating.
- Test work confirms the iron ore is relatively soft and will require less energy to liberate the magnetite than most other magnetite deposits in Australia

Carpentaria Exploration Limited (ASX:CAP) announced today positive initial drilling results from its Burta Bonython Metals Group Pty Ltd (BMG) magnetite iron ore joint venture near Broken Hill, New South Wales (part of the Hawsons Iron Project).

The preliminary results are supportive of the Company's exploration target¹ interpretation, which is estimated at 2.2-4.8 billion tonnes at 18% - 20% magnetite DTR (Davis Tube Recoveries) with a concentrate grade of 69-71% Fe (iron) to a depth of 250 m over an estimated 34-51 km strike length.

The Burta BMG JV (EL 7208 and 7504) cover a large portion of the Braemar Iron Formation, which is highly prospective for bulk magnetite iron deposits. Importantly, the magnetite occurs in a siltstone and is very soft, allowing for low-cost mining and crushing in a favourable location for infrastructure just 60 kilometres from Broken Hill (See Figure 1).

¹ The potential quantity and grade of the exploration targets are conceptual in nature, and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource



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Figure 1: Location of the Burta JV with BMG

Carpentaria's Executive Chairman, Nick Sheard, said the results were pleasing at this early stage in the Company's drilling program, with a total of approximately 4,000 m of drilling planned in the initial phase on this JV.

"Carpentaria has three drilling rigs currently operating at the Hawsons Iron Project as part of our record \$9 million exploration program planned this calendar year across seven projects in New South Wales.

Although we are awaiting the assay results, it is pleasing to return such good initial results consistent with our earlier drilling. This has further boosted our confidence in the prospect for a new magnetite iron ore province near Broken Hill," Mr Sheard said.

Drilling

The initial drilling program undertaken by Carpentaria on the Burta JV has confirmed new iron ore discoveries at multiple target areas. Apart from a historical third party drill hole, which was targeted on the margin of the Wonga Anomaly for possible copper mineralisation, no past drilling had occurred at the South Limb, Wonga or Dam Prospects. In total, 1802 m have been drilled on these targets in the current program, with a further 2000 m planned over the next four weeks.

Observations and field and laboratory magnetic susceptibility results (which correlate with the magnetite content) from the recent drilling, support the interpretation used to derive Carpentaria's exploration target¹ (as announced to the ASX in the March Quarterly Activities Report on the April 30^{th,} 2010).

The drilling has confirmed Carpentaria's interpretation of the aeromagnetic data and have identified (refer Figure 2):

- Four parallel magnetite ironstone units in the South Limb Prospect
- Magnetite ironstone at the **Dam** anomaly
- Thick sequence of magnetite ironstone at the **Wonga** anomaly.

Initial drilling at the **South Limb** Prospect has tested four units identified from the aeromagnetic data. The units all returned thick sequences of magnetite mineralisation based on field measurements of magnetic susceptibility and geological observations. These include:



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- South Limb Unit 1, intersected in RC10HA004, returned over 70 m over magnetite ironstone
- **South Limb Unit 2**, intersected partly in RC10HA005, returned **20 m** of magnetite ironstone at the bottom of hole
- South Limb Unit 3, intersected partly in RC10HA006 and 008, returned over 140 m of magnetite ironstone to bottom of hole
- South Limb Unit 4, intersected partly in RC10HA001, returned over 100 m of magnetite ironstone.

Drilling at the **Dam** Prospect has begun, and preliminary observations of drill chips confirm this so far untested magnetic anomaly is sourced by similar magnetite ironstone.

Similarly, initial drilling at the **Wonga** Prospect has intersected thick sequences of magnetite ironstone and diamond drilling is in progress.

Carpentaria is very encouraged by these initial field results and samples have been despatched for Davis Tube Recovery (DTR) analysis. Results are awaited.



Figure2: Burta JV prospect areas and drill hole locations, over a tilt processed magnetic image



Metallurgical Testing

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The diamond drilling program at the Burta JV will enable further metallurgical test work to commence using diamond drill core. The test work will provide information for the scoping of the design of a crushing and grinding circuit for the Project. The key factors to be assessed at this stage of the project progression include:

- Crushing and grinding work indices
- Mineral liberation characteristics
- Comparison of High Pressure Grinding Rolls (HPGR) to conventional autogenous milling.

The energy requirement for crushing and grinding is usually the largest operating cost item for magnetite concentrating operations. Initial test work has indicated that Hawsons iron ore is soft and less energy will be required to liberate the magnetite than other comparable magnetite deposits in Australia. The metallurgical test work on the diamond drill core will provide preliminary estimates of the energy requirements to feed into the Project scoping studies.

The recent diamond drill core and RC samples show consistent grain sizes across the deposit. The high grade magnetite core sample photographed (see Figure 3) provides visual confirmation that the magnetite has a consistent grain size coarser than 38 microns.



Figure 3: Photo of diamond drill core from diamond hole DD10HA003 at 221m



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Mr Sheard said Carpentaria was quickly progressing the Hawsons Iron Project towards prefeasibility study status, potentially by early 2011.

"We will shortly be receiving the metallurgical results, which will assist in the development of our scoping and pre-feasibility studies for the project," he said.

"Once this phase of work has finished, we will start drilling out a resource using four rigs, pending Government approvals. This is a very exciting time for Carpentaria and our joint venture partners, as we continue exploration development in the world-class Broken Hill mineral province.

"Carpentaria's aggressive exploration program across a range of commodities and regions is rapidly expanding our project pipeline, which already includes Hawsons and the Euriowie tin discoveries. We are focused on making the progression from minerals explorer to mid-tier mining house and growing shareholder value."

The information in this announcement that relates to Exploration Results and Resources is based on information compiled by S.N.Sheard, who is a Fellow of the Australian Institute of Geoscientists and has had sufficient experience which is relevant to the style of mineralization 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'. S.N.Sheard is an employee of Carpentaria and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.