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FIRST INDICATED RESOURCE FOR FLINDERS' PILBARA IRON PROJECT INCREASES POTENTIAL DEVELOPMENT OPTIONS

New independent results – including a maiden Indicated resource - have increased iron ore resource estimates for the plus 500 million tonne Pilbara (WA) project of Flinders Mines Limited (ASX: "FMS"), further expanding the Adelaide-based iron developer's potential options for future development.

The Company today announced a new total global Inferred and Indicated Resource for its Pilbara project (ELs 47/882 and nearby 47/1560) of 550 million tonnes grading an average 55.6% Fe.

The gain has been driven solely by a 26% increase, of 39 million tonnes, in the Indicated and Inferred Resource for the flagship Delta deposit, the pivotal area for Flinders' currently on-track mine Prefeasibility study, due for completion in the fourth quarter of 2010.

The new estimate is the first Indicated resource for Delta and the first for the whole project.

At a 50% Fe cut-off, Delta now hosts an estimated Indicated Resource of 156.6Mt at 56.5% Fe and an Inferred Resource of 30.5Mt at 56.4% Fe, totalling 187.1Mt at 56.5% Fe.

Also, at a 57% Fe cut-off, the Delta deposit contains a combined Indicated and Inferred Resource of 85 Mt at 59.3% Fe which, after further mining and metallurgy studies, has potential for conversion to Direct Shipping Ore (DSO).

The higher estimate was prepared by independent geological consultants, Golder Associates Pty Ltd, using results from 381 new reverse circulation infill holes drilled at Delta between October and December last year.

The new gains will be included in a total global resource revised estimate for the Pilbara project about to be prepared by Flinders Mines and Golder, and taking in new modelling on the tenement's Delta, Ajax, Blackjack, Champion and Eagle deposits as well as mineralisation located outside the 2009 resource model.

"The new Delta resource comprises only a part of the emerging overall Pilbara project picture," Flinders Mines' Managing Director, Dr Kevin Wills, said today.

"However, it represents an excellent conversion from Inferred to the Indicated category, demonstrating the robust nature of the Project's mineralisation and its contained multiple layers of hematite-rich Channel Iron Deposits (CID) and goethite-rich Bedded Iron Deposits (BID) - while adding to our confidence of understanding the Delta deposit," Dr Wills said.

“We are scheduling additional drilling over calendar 2010 that will add further to the global resource but we are flexible with that so that the Company can prioritise work that may be needed as part of Prefeasibility study requirements,” he said.

“The results are generating a much clearer picture of the project’s different ore types, their quality and their distribution across the Delta deposit area. Our confidence has also been boosted that the project is likely to contain a variety of mining options backed by evidence that in general, iron grades continue to increase and contaminant concentrations decrease towards the base of the deposit. .

“The range of potentially viable mineable options yielded to date include:

- Direct Shipping Ore (DSO)
- Separate high quality ore styles with variable contaminant levels
- High grade BID mineralisation where phosphorous levels may be just above DSO potential but remain of interest for potential blending purposes, and
- Areas where the ore may be able to be beneficiated or selectively mined.

“Such favourable product-mix potential will allow Flinders Mines to continue preliminary discussions with third parties, on infrastructure options.”

Dr Wills said the 2010 drilling campaign aimed to complete the Indicated Resource requirements at Delta as well as pursuing new BID targets and ore extensions outside the currently defined resource areas.

Flinders Mines and its consultants have also commenced interpretation of metallurgical testwork results from its Pilbara project to aid the Prefeasibility study and to assist future marketing and mining agendas. Funds are available to cover the work planned and any fast-track options if they develop.

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QUALIFYING STATEMENTS

Terminology

The information relating to the terms “iron ore”, “exploration target” and “direct shipping ore” should not be misunderstood or misconstrued as an estimate of Mineral Resources and Reserves as defined by the JORC Code (2004) and therefore the terms have not been used in this context.

JORC Statement

The information that relates to the drilling data and geological interpretations is based on information compiled by Nick Corlis who is a Member of The Australian Institute of Geoscientists and who is Exploration Manager of the Company. The information that relates to the Mineral Resource Estimate has been compiled by Mr Stephen Godfrey of Golder Associates Pty Ltd. Mr Godfrey is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Both Mr Godfrey and Mr Corlis have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Godfrey and Mr Corlis consent to the inclusion of their information in this report in the form and context in which it appears.

Forward-Looking Statements

This release may include forward-looking statements. These forward-looking statements are based on Flinders Mines Limited’s expectations concerning future events. Forward-looking statements are subject to risks, uncertainties and other factors, many of which are outside the control of Flinders Mines Limited and the Company makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release.