

## **HEMATITE CONCENTRATE RECOVERY (60% iron) USING MAGNETIC AND GRAVITY SEPARATION**

### **Positive Metallurgical Test Work Results Continue At Central Eyre Iron Project**

**Iron Road Limited** (Iron Road, ASX:IRD, IRDO) is pleased to announce that initial results from its extensive PFS metallurgical test work program at the Central Eyre Iron Project (CEIP) indicate viability of the hematite (oxide) component of the orebody. Oxidised iron samples are upgradable by both gravity and magnetic separation methods, with average concentrate grade of 60% iron.

The testing is part of the Company's pre-feasibility study for CEIP, which is scheduled to be completed in early 2011.

#### **Highlights**

- Wet High Intensity Magnetic Separation (WHIMS) test work and Wilfrey table test work on RC chip samples indicates that hematite (oxide) ore from the Boo-Loo – Dolphin prospect is amenable to upgrading.
- WHIMS at a magnetic strength of 10,000 Gauss and -212µm grind produced a concentrate containing ~60% iron with ~5% SiO<sub>2</sub>. Iron recovery was approximately 60% with a mass recovery of 30%.
- Wilfrey tabling generated >60% iron with best grade and recovery performance at 500µm.
- The coupling of both gravity and magnetic separation during beneficiation may reduce overall capital costs.
- Central Eyre Iron Project remains one of Australia's most significant emerging magnetite projects

Iron Road engaged Mineral Engineering Technical Services (METS) to comprehensively investigate the metallurgical characteristics of the Warrambo mineralisation as a major component of the pre-feasibility study (PFS) at the Central Eyre Iron Project in South Australia.

These studies include an oxide test work programme that to date has examined oxide ore from RC chips. The test work will be repeated using diamond drill core and include variability test work and QEMSCAN analysis.

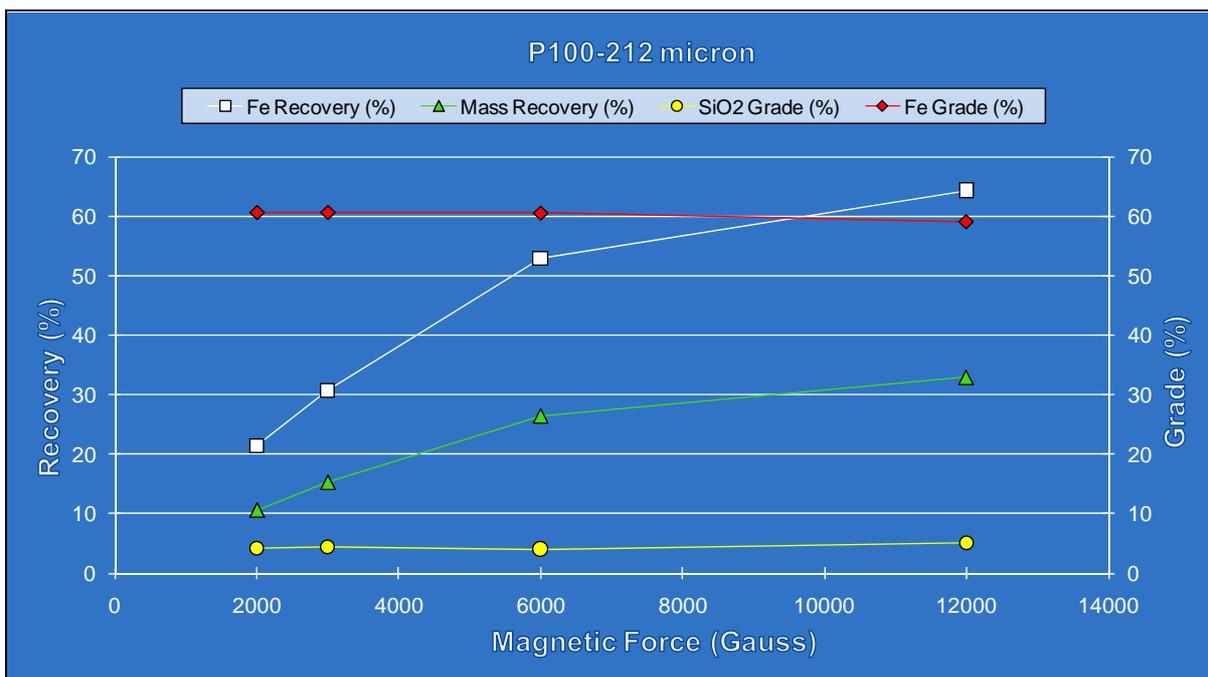
Commenting on the results, Iron Road Managing Director, Andrew Stocks, said that the recovery of iron from the oxide portion of the mineralisation was a pleasing development.

"The hematite component is approximately ten per cent of the current Mineral Resource and these results reveal the robust nature of the Central Eyre Iron Project. Demonstrating the oxide recovery, along with our belief that the Central Eyre hosts a very large and very coarse magnetite iron ore deposit will only strengthen the pre-feasibility study, still scheduled for completion in Q1 next year," he said.

The Wet High Intensity Magnetic Separation (WHIMS) test work programme was conducted at four grind sizes of -500, -212, -106 and -75 $\mu$ m. For each of the grind sizes, the magnetic separation was undertaken at four levels of magnetic force, including 2,000, 3,000, 6,000 and 12,000 Gauss. This aimed to determine the optimum magnetic force required to permit effective upgrading of the oxidised sample.

Except for the -500 micron samples, all samples were amenable to upgrading by magnetic separation, producing concentrates that meet the specification of a saleable hematite concentrate i.e. iron grade ~60% and SiO<sub>2</sub> <5%. Increasing the magnetic strength improved the mass and iron recoveries. However, the quality of the magnetic concentrate decreased accordingly.

Balancing between the quality of the magnetic concentrate and the recoveries data, the best performance was achieved at magnetic strength of ~8000-10000 Gauss. At a magnetic strength of 10000 Gauss, the optimum performance was achieved at -212 $\mu$ m, where a concentrate containing ~60% Fe and ~5% SiO<sub>2</sub> was generated. About 60% of the iron was being recovered in 30% of the mass (Figure 1).



**Figure 1 – Graph showing Fe grade, SiO<sub>2</sub> grade, mass recovery and Fe recovery for oxide ore from RC chips at various magnetic strengths (grind of -212 $\mu$ m).**

The Wilfley table test work programme was conducted at four different grind sizes of -500, -212, -106 and -75 $\mu$ m. For all the grind size investigated, the ore was amenable to upgrading by Wilfley table. At -500 $\mu$ m, the iron grade was upgraded from 31% to 61.7% Fe, with 19.9% of the iron being recovered in 10% of the feed mass.

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**Competent Person's Statement**

The information in this report that relates to Exploration Results is based on and accurately reflects information compiled by Mr Larry Ingle, who is a fulltime employee of Iron Road Limited and a Member of the Australasian Institute of Mining and Metallurgy. Mr Ingle has sufficient experience relevant to the style of mineralisation and the type of deposits 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 Ingle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.