

Registered Office: Level 2, 679 Murray St. West Perth, WA, Australia, 6005 Telephone: +61 (0)8 9485 1040 Facsimile: +61 (0)8 9485 1050

Principal Office: 307 Pulteney St. Adelaide, SA, Australia, 5000 Telephone: +61 (0)8 8224 0411 Facsimile: +61 (0)8 8227 0411 Website: ironcladmining.com

ASX RELEASE

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## WILCHERRY HILL IRON ORE PROJECT UPDATE

# Highlights

- Significant efficiencies introduced to port operations.
- Bulk storage planned. Container costs minimised.
- Application to reduce transhipping distance.
- Close spaced drilling upgrades high grade DSO tonnages.
- Infill drilling commences at all planned pits.
- Mining, crushing and haulage contracts near finalisation.
- Stage 2 studies (Gravity Circuit) well advanced.
- Stage 3 (Hercules iron ore deposit) exploration underway.

The Directors of IronClad Mining Ltd (ASX: IFE ) are pleased to provide an update of the Wilcherry Hill Iron Ore Project on South Australia's Eyre Peninsula. The Project is an 80%: 20% Joint Venture with Trafford Resources Limited (ASX: TRF).

In preparation for Stage 1 mining, a detailed review of the "mine site to port" logistics has been undertaken. In the process, all methodologies and costing related to mining, crushing, mine infrastructure, road haulage, port handling, shipping and stevedoring have also been reviewed.

In addition, work continued on the Stage 2 Gravity Separation phase and work also began on the Stage 3 (Hercules) phase.

**Stage One** is defined as mining and shipping of Direct Shipping Ore (DSO) and specification ore that can be produced by a simple Dry Magnetic Separation (DMS) process.

**Stage Two** is defined as the mining, processing and shipping of ore that is not DSO, nor amenable to upgrade by DMS but can be upgraded to specification by a relatively simple gravity separation process. Typically, this ore is formed by hematite encrusting of high grade magnetite, near surface.

**Stage Three** is now defined as the exploration and development of the Joint Venture partner's massive Hercules iron ore deposit (magnetite, goethite and hematite) about 15 kilometres west of the current mining operations.

Detailed infill drilling at the Weednanna prospect, completed in February, was highly successful in converting ore, previously classified as Gravity Plant feed, into the high grade DSO (+60%Fe) category.

Costs associated with the mining and shipping of DSO are less than for those associated with the production of ore via the gravity circuit. More importantly, DSO can be mined and exported during Stage 1, whereas gravity circuit feed will require mining (accruing mining costs) and stockpiling until construction of the Gravity Plant is complete, effectively tying up capital.

As a result, further infill drilling at Weednanna, Weednanna North, and Ultima Dam East is planned to commence this week. Further conversion of Gravity Circuit ore, at those prospects, to DSO grade will significantly enhance the economics of the overall project.

Detailed drilling is also to be undertaken at the Ultima Dam West prospect since ore suitable for DMS is known to outcrop there but is not included in current reserves. Therefore, additional low cost ore could be added to the Stage 1 inventory, further enhancing project economics.

When the above drilling is completed, the rig will then commence an exploration program at the Hercules Project where it will primarily target near surface DSO (Goethite and Hematite).

#### <u>MINING</u>

High grade DSO will now be crushed separately from DMS ore by utilising a simple, single stage, impact crusher producing both fine and lump (+6.3mm) ore. As a result, cost savings of approximately \$5 per tonne can be attained per tonne of DSO. In addition, premium prices may be obtained for the lump ore.

The mining and crushing contracts are to be separated and are currently being finalised. Lucas Earthmovers Pty Ltd is the preferred contractor for both.

Mr Doug Downes has been employed as Pit Supervisor. Mr Downes has extensive hands-on open pit mining experience.

#### **METALLURGY**

All Metallurgical testwork for Stage 1 has been completed.

Work has commenced on tailings characterisation for the stage 2 Gravity circuit.

#### <u>HAULAGE</u>

Extensive analysis of the proposed transport of ore in containers from the mine site to the port at Lucky Bay, was undertaken.

Under the original plan, approved by the South Australian Government, approximately 3,000 custom built containers would have to have been purchased or leased. Each container was costed at about A\$7,000. If a bulk buffer facility was to be developed near the harbour on IronClad leased land, then

only 270 containers would be required to effect efficient transhipment loading, while retaining environmental safeguards.

Appropriate documentation is well advanced in respect of this issue and an application for an amendment to the original plan - to allow a bulk storage facility - will be lodged with the South Australian Government within the next two weeks. Indications are for a three- month approval process.

GHD Consulting was appointed to survey and assess the Kimba to Cowell bitumen road and its suitability for iron ore transport in both double and triple road trains

The road is deemed suitable for double road trains provided that up to six culverts are strengthened at a modest capital cost.

Approval of the local Franklin Harbour Council will be sought to utilise the road under a permit system. Initial discussions with the council have been positive.

The capital requirement to enable triple road trains is still being assessed.

Qube Logistics Holdings Ltd is the preferred haulage contractor. Haulage contracts are currently being finalised.

#### **SHIPPING and STEVEDORING**

The Company has completed a full review of the transhipping operation at Lucky Bay.

In the medium term, the technical review team has recommended that the existing tug and powered barge be replaced with two smaller, more powerful tugs and two 70-metre dumb barges, all of which can be easily chartered. Loading is planned to be by fixed gantry crane at the dockside and by a chartered (in the first instance) floating crane at the transhipment point in Spencer Gulf.

These changes will bring substantial improvements to efficiency of the transhipment process. The proposed new methodology is expected to double loading rates and better ensure access to competitive shipping rates.

Any equipment change-out will be timed to maximise the greatest saving in both operating and capital costs.

Discussions have also been held with the relevant authorities and the port owner, Sea Transport Corporation (STC), in order to reduce the distance of the transhipment point from eight nautical miles to five nautical miles from the Lucky Bay port. All indications are that STC's application for an amendment to the original port approval to reduce the transhipping distance will be viewed favourably.

## **EXPLORATION**

An infill drilling program is planned to commence this week and will consist of 4,625m (98 drill holes) at the Ultima Dam East (UDE), Weednanna (WDA) and Weednanna North (WDN) prospects.

The infill drilling is aimed at delineating additional high grade (+60% Fe) DSO at the three prospect areas (UDE, WDA & WDN).

UDE and areas of WDA, in particular, show original intercepts of +60% Fe grades that are not reflected in current block model grades. The assumption, shown to be correct in the February drilling at WDA, is that relatively wide spaced drilling (50m x 50m or greater) is causing down grading of the ore blocks, and that ore block grades are likely to improve with closer drill spacing.

A 500m to 1,000m exploration drilling program is planned at Ultima Dam West. The program's target is to delineate additional, near surface magnetic DMS feed stock.

## STAGE 2

Work has continued on the design and costing of a 2.5 million tonnes per annum (tpa) gravity circuit. That work was carried out by consultants MSP and Golders, under the direction of IronClad's Project Director, David Burvill.

The period required to design, procure long lead time items and construct the plant is likely to be in the order of 12 to 14 months.

Consultants Golders and Associates was retained to provide a tailings dam development program and schedule. Indications are that process will also take approximately 12 to 14 months, including all relevant government approvals. This will also include the development of a 5 megalitre per day borefield. (currently 1.8 megalitres per day) and completion of all requisite geotechnical work.

#### **STAGE 3 (HERCULES)**

A review of the available aeromagnetic and gravity data over the Hercules prospect was undertaken. The available gravity station spacing of 250m x 250m was viewed as too sparse to accurately identify the near surface dense bodies suggested in the initial geophysics review. An infill gravity survey at 62.5m spacing on 125m infill lines was completed. Data from a total of 983 stations was collected.

The new gravity data set was merged with the pre-existing 250m x 250m data and supplied to Adelaide Mining Geophysics. A review and updated report of the merged model is expected by the middle of this month.

An exploration drilling program is planned for Hercules. The holes will test high density gravity targets, focusing on the potential for high grade goethite / hematite. The drilling program is scheduled to commence following the completion of the drill program at Wilcherry Hill.

#### **FINANCE**

During the June quarter, the Federal Government provided a \$2.2 million grant to assist with the development of the port of Lucky Bay as a multi-user facility. As a result, a channel is to be constructed westwards of the existing harbour. Some of the development costs of that channel, in the first instance, may be required from IronClad. Other port related costs have increased slightly as longer term efficiencies will be introduced during Stage 1 and benefits accrued in later stages.

Capital expenditure costs elsewhere in the Stage 1 project have remained close to budget.

Excluding finance previously raised and at bank, a further \$5 million to \$6 million will be required to complete Stage 1 capital works (mainly at the port).

In addition, it is estimated that about \$8 million to \$9 million working capital will be required.

The above does not include advance letters of credit from end users that may be negotiated, nor any receipts from the pending sale of the tug and barge owned by IronClad.

Negotiations are underway for the provision of the debt finance instrument to cover the above requirements.

Stage 2 finance requirements are at a +/- 25% level and are currently under review.

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CONTACT: IRONCLAD Ian Finch IronClad Mining Limited P: +61 8 9485 1040

MEDIA Sean Whittington Field Public Relations P: +61 8 8234 9555 or 0412 591 520