

29th January 2010

QUARTERLY REPORT 31st December 2009

The Directors of Ironclad Mining Limited (ASX: IFE) are pleased to announce that in the last quarter progress on the Wilcherry Hill project has progressed at an accelerated pace. Highlights of the reported progress include: Registered Office: Level 2, 679 Murray Street West Perth, WA, 6005 Telephone: +61 (08) 9485 1040 Facsimile: +61 (08) 9485 1050

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- Completion of DSO drilling and return of assay results defines extensive areas of direct shipping ore at Wilcherry Hill
- Completion of initial metallurgical test work on DSO Material proves 50-60% Fe easily upgradeable to +60% Fe using simple dry processes
- South Australian Government grants mineral claims at Wilcherry Hill
- Ironclad signs comprehensive logistics proposal with Flinders Ports to fast track export of Iron Ore from Wilcherry Hill through Port Adelaide
- Completion of Internal Pre-Feasibility report
- A bankable study for the Stage 1 DSO operation commenced on 4th January 2010 and the report is due on 31st March 2010.

DSO Drilling

Targeted DSO drilling completed in October has identified extensive areas of shallow (<50 vertical metres) Direct Shipping Ore (DSO) in a targeted drilling campaign at the Wilcherry Hill Iron Ore Project in South Australia (Figure 1).

Direct shipping iron grades, with assay results of up to 66% Fe, and consistently low levels of impurities, particularly phosphorous, were encountered over a strike length of approximately 400m at the Weednanna prospect and other targets including Weednana North, Ultima Dam East and Ultima Dam West (Table 1).

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Hole ID	From	То	Interval	Fe%	Fe%	SiO2%	AI2O3	P%	S%	LOI
09WDRC007	10	20	10	61.5	63.0	5.0	3.8	0.022	0.036	2.4
	60	70	10	56.0	58.6	4.1	0.7	0.008	5.35	4.4
09WDRC009	40	42	2	58.3	60.5	7.0	4.4	0.045	0.060	3.7
09WDRC010	30	34	4	55.2	59.0	8.5	4.4	0.072	0.105	6.5
09WDRC011	20	24	4	56.4	60.0	8.5	4.1	0.011	0.085	6.0
	48	52	4	59.4	62.0	5.4	2.1	0.045	0.020	4.3
09WDRC012	16	18	2	61.2	63.7	2.9	3.0	0.042	0.260	3.9
09WDRC019	20	32	12	58.2	61.0	5.6	4.4	0.042	0.118	4.5
	40	46	6	63.2	62.8	7.4	1.1	0.003	0.012	-0.6
09WDRC022	0	4	4	58.5	60.1	7.0	4.8	0.001	0.030	2.7
	12	18	6	60.5	62.1	5.8	3.6	0.033	0.047	2.7
	46	52	6	62.3	63.0	6.3	1.9	0.014	0.027	1.1
09UWRC005	12	16	4	54.7	55.3	18.7	0.8	0.018	0.014	1.0
09UWRC006	88	92	4	54.1	56.0	6.5	0.1	0.007	0.036	3.6
09UWRC007	8	12	4	54.3	55.9	13.2	4.1	0.014	0.029	2.8
	92	96	4	58.9	59.0	6.8	0.2	0.004	0.016	0.2

Table 1: Highlights of DSO assays.



Figure 1 : Magnetic map showing drilling areas

Metallurgical Test Work

Metallurgical test work of its high grade iron ore at Wilcherry Hill confirms that simple dry, low cost processing will enable the Company to commence

production of 2 million tonnes a year of premium >60% Fe Direct Shipping Ore (DSO) late this year.

Low cost processing on site is likely to be carried out utilising a simple mobile crushing and screening plant with accompanying low intensity magnetic separation options.

The work, carried out by Promet Engineers, involved multiple tests on typical ore samples from recent drilling on the Weednanna Prospect at Wilcherry Hill. Due to the extremely high grade nature of the in situ ore at the Weednanna Prospect, it is the likely site for the first open cut DSO mining operation.

Significantly the test work has also confirmed that Ironclad will be able to extend its proposed Stage 1 DSO operation by simple processing of material down to 50% Fe. A lower cut off grade of 50% Fe readily and economically upgrades to + 60% Fe by crushing, screening and low intensity dry magnetic separation.

Dry magnetic separation is preferred as it is a low cost option and does not require extensive amounts of water. Further test work will be undertaken during the bankable feasibility study to optimise plant design.

The test work has also shown a significant upgrade by size from simple crushing and screening with high lump to fines ratio of 52:48. This ratio should enable Ironclad to negotiate a premium price for its shipped product.

Quality products can be produced with low impurities (table 2). In addition to the high lumps and fines grades the test work shows that a high grade (>65% Fe), <3mm sinter additive can also be produced.

	Lump	Fines			
Size Range	95% -32+8mm	80% -8mm+150micron			
%Fe	>62%	>60%			
%SiO ₂	<5%	<5%			
%Al ₂ O ₃	<3%	<3%			
%CaO	0.02-0.04%	0.02-0.04%			
%MgO	0.7-0.9	0.7-0.9			
%TiO ₂	<0.04	<0.04			
%Na ₂ O+K ₂ O	<0.12	<0.12			
%P	<0.02	<0.02			
%S	<0.04	<0.04			
%MnO	0.12-0.15	0.12-0.15			
%LOI	2.0-4.0%	2.0-4.0%			

Table 2: Summary of Likely Specifications from test work.

Mineral Claims

The South Australian State Mining Registrar has granted the Company's application for 17 Mineral Claims which comprise the 4,200 hectare Mining Lease for the Wilcherry Hill iron ore mine (Figure 2). This is an important regulatory milestone in advancing the project towards a fast tracked start-up.



Figure 2 : Wilcherry Hill Mineral Claims

Pre-Feasibility Study

The results of a Pre-Feasibility Study into the production and sales of the proposed two million tonnes per annum of Direct Shipping Ore (DSO) from the Wilcherry Hill project in South Australia indicate that it is a robust project and likely to provide significant financial returns for the foreseeable future.

The Pre-Feasibility Study investigated: project scope, cost, schedule and risks based on the pre-defined assessment criteria of:

- Shortest development time to first sales
- Minimum capital requirement
- Easiest and earliest regulatory approvals

Approval Process.

The approvals process is progressing according to schedule. Several of the long lead time items in this process were identified and commenced at the earliest opportunity. For instance, the first biodiversity study was completed in the spring of 2008 and that work is near completion. Community impact studies were carried out during 2007 and 2008.

The approvals process has been expedited by the engagement of the leading consultant in this field in South Australia and by the appointment of an internal approvals manager. Both are working closely with the various regulatory authorities in South Australia to achieve the earliest satisfactory completion.

Bankable Study

A bankable study for the Stage 1 DSO operation commenced on 4th January 2010 and the report is due on 31st March 2010.

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Ian Finch

Director

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The information in this announcement that relates to results, is based on information compiled by Ian Finch who is a Member of The Australasian Institute of Mining and Metallurgy and who has more than five years experience in the field of activity being reported on and is Executive Chairman of the Company.

Mr. Finch has sufficient experience which is relevant to the style of mineralisation 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'. Mr. Finch consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.