



## COMPANY UPDATE

- **Nullagine Joint Venture**
  - **Low grade trial completed - Fortescue has advised that at this stage in its mine plan, it does not wish to purchase low grade ore on an ongoing basis**
  - **Minimising holding costs during the temporary suspension period and monitoring market conditions**
- **Buckland Project**
  - **Optimisation work and assessment of alternative development concepts have progressed for the strategic West Pilbara mine-to-port development project**
  - **Viability of an 8 Mtpa<sup>1</sup> operation has improved, in particular through a reduction in expected C1 cash costs ( $\pm 25\%$ ) by more than A\$10/wmt to A\$31.6/wmt (US\$22/wmt)<sup>2</sup>**
  - **Preliminary cost estimates ( $\pm 35\%$ ) for a 20 Mtpa road and multi-user port infrastructure operation indicate low capital intensity of A\$43/dmt and operating costs of A\$13.5/wmt<sup>3</sup>**
- **Iron Valley**
  - **BC Iron is generating positive cash flow from Mineral Resources Limited's ("MIN") ongoing DSO truck haulage operations**
  - **Supporting MIN's potential expansion to 16 Mtpa by completing required approvals**

BC Iron Limited (ASX:BCI) ("BC Iron" or "the Company") wishes to provide an update on the Nullagine Joint Venture ("NJV"), Iron Valley and ongoing optimisation studies at the Buckland Project in the West Pilbara.

### Nullagine Joint Venture

As previously advised, direct shipping ore ("DSO") operations at the NJV have been temporarily suspended due to iron ore prices, with the final DSO shipment occurring in February 2016. The NJV, which is a 75:25 joint venture between BC Iron and Fortescue Metals Group Limited ("Fortescue"), has also been undertaking a trial whereby a parcel of low grade ore from existing stockpiles is hauled to Christmas Creek and sold to Fortescue.

The trial which was for 200,000 wet metric tonnes ("wmt") of low grade ore is now complete and Fortescue has notified the NJV that, at this stage in its mine plan, it does not wish to purchase low grade ore on an ongoing basis. Following completion of the trial, the NJV has approximately 11M wmt of low grade ore (average grade of approximately 51-52% Fe) in stockpiles at site. These stocks could be blended with DSO in future operations or alternatively, the NJV will monitor the potential for beneficiation opportunities that could produce a DSO product or re-engage with Fortescue if the opportunity presents.

As a result, BC Iron (as manager of the NJV) is implementing further changes to reflect temporary suspension of all NJV activities including demobilisation of remaining contractors from site and a further reduction of overheads. As a result of these further changes, the NJV will further minimise costs during the temporary suspension period.

The NJV continues to work on opportunities to lower the operating cost base and is monitoring market conditions.

<sup>1</sup> All capacities for the Buckland Project are in dry metric tonnes ("dmt") per annum. Conversions between dmt and wmt are based on a moisture content of 9%.

<sup>2</sup> All conversions between Australian dollars and US dollars in this announcement are based on an exchange rate of 0.70.

<sup>3</sup> These estimates exclude capital and operating costs for mining, processing and associated activities.

## Buckland Project

The Buckland Project is an iron ore development project that was acquired in late 2014 as part of the Iron Ore Holdings Limited (“IOH”) transaction. A feasibility study was completed by IOH, which envisaged an 8 Mtpa operation for more than 15 years, consisting of a mine at Bungaroo South and an independent infrastructure solution which comprised a 200km private haul road and an up to 20Mtpa capacity multi-user transshipment port facility at Cape Preston East.

BC Iron has been working on improving the Buckland Project economics through reducing capital and operating costs and considering alternative development concepts, as well as collaboratively progressing approvals for the port at Cape Preston East with the Pilbara Ports Authority.

In late 2015, BC Iron completed two key tasks which have reduced expected capital and operating costs: (1) road haulage optimisation studies; and (2) repricing of a number of higher value capital works packages.

The results of these tasks have now been fully assessed and expected C1 cash costs<sup>4</sup> have reduced by more than A\$10/wmt to approximately A\$31.6/wmt (US\$22/wmt) and total capital costs (upfront and deferred) have reduced by A\$55M to A\$942M (US\$660M). Upfront capital costs have increased slightly (and deferred capital costs have decreased) because a private haul road is required for the entire route from commencement of operations to facilitate the significant reduction in road haulage costs. Current estimates are shown in the tables below with a comparison to the June 2014 feasibility study estimates.

BC Iron Managing Director, Morgan Ball, said: “*The Buckland Project is a long term, strategic project for BC Iron that has its own mine to port logistics solution. Whilst we are cognisant of the current environment, we are pleased with the reduction in costs achieved to date for an 8 Mtpa development of the Buckland Project, particularly operating costs. There is more work to do, but these first steps have significantly enhanced the project’s competitiveness. We will continue to position the Buckland Project so BC Iron can participate in the future recovery in iron ore prices and financing conditions.*”

**Table 1: Capital Cost Estimate for Mine, Road and Port Operation (± 25%)**

	Jun-14 Estimate <sup>1</sup> (A\$M)	Dec-15 Estimate (A\$M)
Upfront Capital Cost	826	879
Deferred Capital Cost	172	64
<b>Total Capital Cost</b>	<b>997</b>	<b>942</b>

**Table 2: C1 Cash Operating Cost Estimate (± 25%)**

	Jun-14 Estimate <sup>1,2</sup> (A\$/wmt)	Dec-15 Estimate (A\$/wmt)
<b>Total C1 Cash Operating Cost</b>	<b>41.7</b>	<b>31.6</b>

Notes:

1. IOH prepared both a BOOT and No BOOT scenario in the feasibility study. The tables above present the No BOOT numbers which therefore differ from the BOOT numbers presented in IOH’s announcement date 4 June 2014.
2. Operating cost estimates in the table above are presented in A\$/wmt and therefore differs from the IOH announcement which was presented in A\$/dmt. Assumed Buckland product moisture is 9%.

Additional optimisation work is planned with immediate focus on a re-evaluation of mining and processing operating costs at the Bungaroo South mine.

<sup>4</sup> C1 cash costs include mining, processing, road haulage, port and site overhead costs.

## Road Haulage Optimisation Studies

Product haulage costs represented nearly 40% of the June 2014 feasibility study C1 cash costs and accordingly, BC Iron has focused significant efforts on reducing these costs. To date, expected haulage operating costs have reduced by nearly 50% to A\$7.9/wmt as a result of road haulage optimisation studies and updated diesel prices assumptions.

Road haulage optimisation studies evaluated the latest developments in prime movers, trailer configurations and autonomous driving technology. As a result of these studies, BC Iron envisages utilising a new prime mover capable of hauling increased payloads of 260 tonnes at improved gradients. Convoy road haulage or “platooning” technology is then applied to form a group of several trucks at close inter-vehicular distances, whereby the first truck has a human driver and other trucks in the convoy are controlled by wireless vehicle-to-vehicle communication that sees them precisely imitate the movements of the lead truck.

This technology is already being used in a number of operating scenarios internationally and the Buckland Project is well suited to it because of the proposed private road that connects the mine and the port.

Adoption of convoy road haulage would result in significantly reduced manning requirements and associated costs, as well as potentially lower diesel fuel usage and maintenance costs due to more efficient driving of the vehicles. It also provides opportunities for improving cycle times and more efficient truck utilisation.

The use of convoy road haulage technology and increased payloads necessitate construction of the Company’s private road from mine to port from the commencement of operations and slightly increased upfront capital costs due to requirements for higher specification road crossings. These changes are factored into the current capital cost estimate.

As an alternative consideration, the Company will continue to assess the progress of MIN in relation to the potential development of BOTS at BC Iron’s Iron Valley Project and its applicability as an efficient haulage solution from the Bungaroo South mine to the Cape Preston East port facility.

## Capital Cost Repricing

BC Iron has engaged with the contractors, vendors and suppliers that contributed to the original feasibility study and requested updated pricing for a number of higher value capital works packages. These packages represent approximately two-thirds of the direct capital cost and repricing achieved an average reduction of approximately 10% of the capital cost evaluated. Overall, this resulted in a A\$55M reduction in total capital costs to A\$942M.

## Infrastructure Expansion Studies

BC Iron has also been assessing the potential for the provision of a standalone infrastructure service in the West Pilbara. The Buckland Project’s proposed independent infrastructure solution comprises a private haul road and multi-user transshipment port facility at Cape Preston East. This low capital intensity and scalable infrastructure has the potential to accommodate significantly increased throughput, including from other prospective West Pilbara iron ore producers.

The existing port lease agreements with the Pilbara Ports Authority provide BC Iron with the right (subject to the satisfaction of certain conditions) to export up to 20 Mtpa for an initial term of 20 years and also provides for third party access to this capacity. BC Iron will have, subject to the satisfaction of certain conditions, the right to extend the term and to expand its leased area.

Preliminary cost estimates ( $\pm$  35%) have been prepared for a 20 Mtpa road and port infrastructure operation utilising convoy road haulage from a central location in the West Pilbara that is approximately 160 kilometres from Cape Preston East. Capital costs for this logistics related infrastructure are estimated at A\$868M (US\$608M), or a capital intensity of A\$43/dmt of annual throughput. This compares to an expected capital intensity of greater than A\$100/dmt for developing logistics infrastructure based upon a rail and deep water port solution.<sup>5</sup> For BC Iron's potential infrastructure solution, road and port operating costs are expected to be competitive at A\$13.5/wmt (US\$9.5/wmt). Note that these estimates exclude capital and operating costs for mining, processing and associated activities.

BC Iron believes these figures can underpin attractive tariffs for potential third party users of this infrastructure.

No investment decision has yet been made in relation to any development concept at the Buckland Project.

### **Iron Valley**

BC Iron continues to generate positive cash flow from Iron Valley, which is currently being operated by Mineral Resources Limited ("MIN") as a DSO, truck haulage operation at a production rate of approximately 6 million tonne per annum ("Mtpa"). For the first half of FY16, MIN shipped 3.13M wmt (annualised rate of 6.2 Mtpa) through the Utah Point port in Port Hedland.

MIN is evaluating a potential expansion to 16 Mtpa utilising its proposed bulk ore transport system ("BOTS") and BC Iron is supporting MIN at Iron Valley, including by completing (as tenement owner) the required below water table environmental approvals.

**- ENDS -**

**FOR FURTHER INFORMATION:**

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<sup>5</sup> Based on a A\$4.5 billion cost of developing a 40 Mtpa rail and port operation (source: Aurizon Investor Day Presentation released on 7 October 2015 and Aurizon website ([www.aurizon.com.au/projects/west-pilbara-infrastructure-project](http://www.aurizon.com.au/projects/west-pilbara-infrastructure-project))).

## ABOUT BC IRON LIMITED

BC Iron is an iron ore mining and development company with assets in the Pilbara region of Western Australia, including the Nullagine Joint Venture (“NJV”), Iron Valley and Buckland. BC Iron is listed on the ASX under the code ‘BCI’.

The NJV is an unincorporated 75:25 joint venture with Fortescue Metals Group Limited (“Fortescue”), which commenced exports in February 2011. The NJV has the capacity to rail and export up to 6Mtpa of ore on Fortescue’s infrastructure. Direct shipping ore operations at the NJV are temporarily suspended due to market conditions.

Iron Valley is a mine located in the Central Pilbara that is operated by Mineral Resources Limited (“MIN”) under an iron ore sale agreement. MIN operates the mine at its cost and purchases Iron Valley product from BC Iron at a price linked to MIN’s realised sale price. MIN is currently evaluating a range of initiatives that have the potential to improve the long term viability of Iron Valley and its value to both parties.

Buckland is a development project located in the West Pilbara region. It has Ore Reserves of 134.3 Mt at 57.6% Fe, a completed and announced feasibility study, its own proposed infrastructure solution comprising a haul road and transshipment port at Cape Preston East, and all primary tenure and licences secured. BC Iron is currently evaluating all options to determine the optimal development and financing path for Buckland.

BC Iron also has an interest in a number of other exploration stage projects in the Pilbara and potential royalties over the Koodaideri South and North Marillana tenements.

## KEY STATISTICS

<b>Shares on issue:</b>	196.2 million	
<b>Cash and cash equivalents:</b>	A\$42.9 million	as at 31 December 2015
<b>Board:</b>	Tony Kiernan	Chairman and Non-Executive Director
	Morgan Ball	Managing Director
	Martin Bryant	Non-Executive Director
	Andy Haslam	Non-Executive Director
	Brian O’Donnell	Non-Executive Director
	Hayley McNamara	Company Secretary
<b>Major shareholders:</b>	Wroxby Pty Ltd	19.0%

Website: [www.bciron.com.au](http://www.bciron.com.au)