



## JFE WESTERN 4 JOINT VENTURE ANNOUNCEMENT MEDIA BACKGROUNDER

### General:

- ❑ The Yandi Western 4 Deposit is one of a number of deposits situated within the greater Yandi Mine and contains approximately 115wmt's of reserves.
- ❑ The Yandi mine is located 120kms north west of Newman. A 32 km rail spur line connects the Yandi mine to the Newman Port Hedland railroad at the 281km mark. A further 32 km extension links Yandi with the Area C mine.
- ❑ The formal signing of the JFE Western 4 Joint Venture consolidates BHP Billiton's long standing partnership with one of Japan's leading steel mills, JFE Steel, a relationship which dates back to the start of the development of the Pilbara Iron Ore industry in the late 60s through JFE Steel's predecessor's Kawasaki Steel & NKK.
- ❑ Under the Joint venture, JFE Steel will pay an undisclosed sum to purchase a 20 per cent interest in the Western 4 deposit from the existing Yandi Joint Venture Participants. BHP Billiton will retain a 68 per cent interest, with existing Japanese joint venture partners ITOCHU Minerals & Energy of Australia and Mitsui Iron Ore Corporation taking a 6.4 per cent and 5.6 per cent interest respectively.
- ❑ The joint venture will be BHP Billiton's first iron ore joint venture with a Japanese steelmaker and will underpin sales of approximately 16 million tonnes per annum (mtpa) of iron ore from BHP Billiton's suite of products over the next 11 years, valued at around US\$4.3 billion
- ❑ The joint venture covers an ore reserve of 115 mwt. Mined ore will be included in the Yandi product.
- ❑ A bulk sample of Yandi product was shipped for trial to Kawasaki Steel, Japan, in 1991 following successful testing of ore samples at BHP Billiton's Newcastle research facility.
- ❑ The first commercial shipment to Japan, also to Kawasaki Steel, was in March 1992.
- ❑ The latest joint venture follows a similar pattern to the proving of the Yandi resource, this time involving a technical development and commercialisation programme of 160 million tonnes of Lower Channel Iron Deposit (LCID) 'pisolite' iron ore, which has not previously been used in the steel-making process – further extending the life of the Yandi Mine.
- ❑ Today's announcement is in line with BHP Billiton's current expansion plans. BHP Billiton is currently expanding the capacity of its Western Australian iron ore operations from 110Mtpa to 118Mtpa, with studies underway to further incrementally increase capacity to over 152mtpa as the market requires.

### **Development History:**

- 1960's -  
BHP realises the Yandi mine's potential, but development is for over 30 years because of a preference for harder, Brockman ores.
- Late 1980's –  
BHP reassesses the value of the 1.8 billion tonne Yandi resource. (the Asian market had a somewhat negative view of the sintering potential of 'pisolitic' ores)
- 1987 -  
BHP trials 200,000 tonne bulk sample in its Newcastle Steelworks, NSW.
- 1989 –  
Japanese steelmaker Kawasaki Steel trials second 200,000 tonne bulk sample
- 1991 –  
WA Government passes the Iron Ore (Marillana Creek) Agreement Act granting approval for Yandi development.  
BHP announces capital expenditure of \$82m to build Yandi mine, processing plant, railway loadout facility and accommodation village.  
Annual production rate is 5Mtpa.
- 1992 (March) –  
The Yandi Project is commissioned and the first ore railed to Port Hedland for shipment  
(November) – Yandi shipments exceed 5mtpa and existing plant expanded to 10mtpa.
- 1994 –  
Yandi's production expanded to 15mtpa to meet market demand.  
BHP Iron Ore modernises and expands its Port Hedland iron ore processing and shipping facility to cater for increased production from its Pilbara mines.
- 1996 –  
Yandi's annual shipments reached 14Mtpa.  
State Government approves expansion to 25Mtpa.  
BHP invests a further \$47m in a new mine and railing infrastructure, 10 km from existing mining operations.
- 2000 –  
State Government approves expansion to 30Mtpa
- 2005 –  
BHP Billiton and its joint venture partners ITOCHU Minerals & Energy of Australia and Mitsui Iron Ore Corporation announces and executes a new Joint Venture with JFE for the Yandi Western 4 sub-lease

### **BHP Billiton's iron ore operations:**

- In addition to its iron ore mines, BHP Billiton operates a rail system extending over 700 kilometres to link the mines to processing and shipping facilities at Port Hedland.
- In 2001, BHP Billiton operated the world's longest and heaviest train comprising 10 locomotives and 336 ore cars, which was 7.2 kilometres long.
- In the year ending June 2004, BHP Billiton shipped 88.3 million tonnes.
- BHP Billiton has a range of joint ventures covering its Pilbara iron ore resources, including the Mt Newman Joint Venture (85% BHP Billiton) with ITOCHU Minerals & Energy of Australia Pty Ltd (5 per cent) and Mitsui-Itochu Iron Pty Ltd (10%) and the Mount Goldsworthy Mining Associates Joint Venture (BHP Billiton (85%), ITOCHU Minerals & Energy of Australia Pty Ltd (7%) and Mitsui-Itochu Iron Pty Ltd (7%).

- In October 2003, BHP Billiton opened the new Area C mine after entering into a joint venture with Korean steel producer, POSCO, whereby POSCO acquired a 20 per cent interest in Area C's 'C' deposit. As part of the joint venture, POSCO committed to purchase a minimum 3Mtpa of MAC™ marra mamba ore and to maintain a long-term strategic alliance with BHP Billiton for the supply of other iron ore products.
- BHP Billiton (51%) also has a joint venture, known as the Wheelarra Joint Venture, with four leading Chinese steel mills (40%) – Maanshan Iron & Steel (Australia) Pty Ltd (Magang), Shagan (Australia) Pty Ltd, Tangshan Iron and Steel (Australia) Pty Ltd (Tanggang) and Wugang (Australia) Pty Ltd for a section of the Jimblebar lease, near Newman. ITOCHU Minerals & Energy of Australia Pty Ltd and Mitsui Iron Ore Corporation Pty Ltd hold 4.8% and 4.2% respectively.
- BHP Billiton recently expanded its mining, rail and shipping capacity to 100Mtpa and extended this to 110Mtpa in 2004. A feasibility study is currently underway to further extend capacity to beyond 152mtpa.
- BHP Billiton's total capital investment in the Pilbara over 40 years exceeds \$A13 billion in today's terms, much of it directly spent in the Pilbara.
- Today Iron Ore directly employs more than 5,000 people – more than 75% of them in the Pilbara.
- Voluntary contributions to the Western Australian community (most in the Pilbara) totalled almost \$A8m.
- Total Western Australian Iron Ore purchases from Pilbara-based suppliers in FY2004 exceeded \$A200m
- Payments to the State government in royalties and taxes were more than \$A140m