

BHP Billiton Metallurgical Coal

Dave Murray President, Metallurgical Coal



Analysts and Investors Site Visit

Queensland

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Agenda

Safety Induction Carbon Steel Materials Structure **Coal Markets BMA** Coal **BMA** Operations Morning Tea **BMA Key Projects** Illawarra Maruwai **Goonyella Mine** Hay Point Terminal Wrap-up

– Dave Murray – Boyd Payne – John Smith – Mick Madden

– Ben Zietsman

- Bryce Jones
- Colin Bloomfield
- Dave Murray
- Ben Zietsman
- Sam Bonanno
- Dave Murray



The Thermal and Metallurgical Coal Markets (2003 estimate)



Major Suppliers in the Seaborne Met Coal Industry (2004 est)



Major Suppliers in the Seaborne HCC Industry (2004 est)



Strategic Advantages

- Resources in two basins (with a third to follow)
- Long life reserves (opportunity to grow)
- Cover quality range but mainly HCC
- Single marketing channel
- Production sourced from many operations
- Dependable, well established infrastructure
- BMA owns port and water infrastructure
- Relatively stable and experienced workforce



Strategic Advantages – Mining Types

Mix of mining types but predominantly surface mining:

- Higher resource utilisation
- Ability to blend between seams
- More flexible production
- Safer operations
- Can use new technologies



BHP Billiton Metallurgical Coal Business



Growth on Track

BMA Managed:

- Production increases at all mines on track
- Poitrel close to approval
- Hay Point productivity improvements, expansion on track
- Additional port & rail capacity secured or in discussion
- Further production increases being investigated

Illawarra - projects on schedule

Maruwai - studies well underway

Generally:

- Expansion expenditures will help achieve cost containment in weaker market
- Cost savings projects in place focus on overburden removal
- Many challenges



Carbon Steel Materials - Structure





Boyd Payne Vice President Marketing





The world has changed

Today we are in a very different environment than 2 years ago; the steel world has changed significantly

Higher global steel demand and hence crude steel and pig iron production; over 1 billion tonnes crude steel in 2004

Doubling of flat steel prices in 2004; long term higher base prices

+

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Steel industry highly profitable; very significant turnaround, e.g. Corus EBITDA >US\$1bn; top companies have ROCE's of 35-50%

+

Increasing likelihood that the BF/BOF steelmaking route will increase or at least maintain share of steel production; BRICs largely BF based

+

Steelmakers' investments in new capacity to meet growing local demand

bhobilli

China's impact on global steel production

China's very strong demand growth since 2000 has been a major driver for higher steel production growth rates, with flow-on benefits to other producers



Regional trends by process – EAF production share

Lack of scrap and high steel demand is driving Asian steelmakers to rely more on the blast furnace/BOF route



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Source: IISI

Implications of changes on BF hot metal demand

- More efficient steel industry = reduced prompt scrap
- Low production over past 20 years
 = insufficient scrap pool
- Improved coating technology = longer steel recovery cycle and reduced scrap availability
- Increased "tramp" elements in scrap requiring "virgin" iron units
- Rise in EAF thin slab casting needing >25% "virgin" iron units
- Major growth in countries/regions of low scrap but sufficient raw materials

Overall impacts

Scrap shortage requiring higher levels of BF-based hot metal in steel production and more high quality coke



Key aspects of coke for steel production

- The blast furnace is fully integrated into the plant energy balance; top gas is an important energy source
- Despite strong gains in alternate fuels (generally PCI), coke remains one of the critical raw materials
- High injection rates have raised the need for high strength, higher quality coke as coke rates have declined
- Major BF relines have seen furnace size increase which has resulted in the need for higher quality coke

High quality coke is vital for the future of the BF!



Global steel outlook, crude steel and pig iron



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Source: IISI and BHP Billiton

Future growth led by BRICS

The world is likely to see increased demand for BF-based ironmaking and hence coke in the short to medium term. China is a major factor in the strong demand growth for coke and hard coking coal.



Seaborne metallurgical coal demand

Demand for metallurgical coal (hard coking coal in particular) will follow the pig iron trend, growing strongly in the medium term



World Metallurgical Coal Supply Sources

Australia

- Large reserves, simple geology, close to tidewater, high quality LV/MV
- Canada
 - Large reserves, complex geology, 1100 km from tidewater, narrow range
- United States
 - High cost production, reserve depletion issues, unique quality HV

China

- Large reserves, deep/gassy underground, safety issues, 800 km from tidewater
- Future Developments
 - Indonesia BHP Billiton Maruwai
 - Mozambique CVRD Moatize; largely thermal
 - Mongolia greenfield, 1800 km to tidewater
 - Russia greenfield, 2000+ km to tidewater



Metallurgical Coal Market Segments

- High Quality Coking Coal
 - Core requirement for BF Coke
 - Limited geographic supply sources
 - High quality low OWP, LV coking coal supply limited
 - Global infrastructure "strained"
- Semi-Soft Coking Coal
 - Used as filler coal in coke blends
 - Predominantly used in Asian steel mills
 - Abundant supply
- Pulverised Coal Injection (PCI)
 - Abundant supply of low ash thermal coals used
 - Geographically diverse supply sources
 - Technical shift to LV/ULV PCI coals limited availability



BMA Coal Quality

		Full	range of r	netallurgic	al coal products	\$	
VM		Lower VM				Higher VM —	
	13%	18%	19%	20%	24%	27%	34%
НСС		3.8	6.0	8.0	10.0	5.0	4.2
WCC		1.0				5.0	
PCI	3.4					_	_
Thermal	0.6	0.2				4.0	0.8
			-				
	South	Norwich		Peak	Goonyella		
	Walker	Park	Saraji	Downs	Riverside	Blackwater	Gregory
	4M	5M	6M	8M	11M	13M	5M



Estimated future supply increases

The medium to long term demand gap can be filled. Australia and BHP Billiton will be major contributors. In the short term, high priced coals from e.g. USA have been drawn back into the market.



Summary

- The global met coal world has changed due to higher demand for BF based steel and hence metallurgical coke
- Increasing demand and challenges from the BF have raised the bar for coke quality, requiring increased levels of hard coking coal
- The current market tightness is anticipated to last for some time due to infrastructure constraints and difficulties in expanding rapidly
- The northern Bowen Basin BHP Billiton/BMA reserves represent the best global growth opportunity for high quality hard coking coal
- BHP Billiton is focused on the growing market for metallurgical coal, targeting 100 million tonnes by 2010 in response to the market





BHP Billiton Mitsubishi Alliance

John Smith



BMA – Key Facts



- The world's largest coking coal producer with over 55 Mtpa sales
- Australia's largest coal producer and exporter
- Central Queensland's largest private employer
 - 7,500 people directly employed incl. contractors
 - Estimated 20,000 flow-on jobs
 - 210 apprenticeships/traineeships/graduates/scholarships
- A major contributor to the Central Queensland economy
 - \$410 million annual wages bill
 - \$700 million paid to 800 regional businesses for materials, goods and services
 - Largest single exporter of any product from Queensland

Hard Coking Coal Market (2004)





Source: BHP Billiton

Marketable Reserves as at 30 June 2004



Deposit	Coal Production Mtpa	Marketable Reserve (Mt)	Approx Mine Life (years)
Operating Mines			
Goonyella/Riverside	10.9	570	52
Peak Downs	8.2	555	68
Saraji	5.8	331	57
Norwich Park	4.7	71	15
Blackwater	13.1	342	26
Gregory / Crinum	5.7	55	10
South Walker Creek	3.7	92	25
Subtotal	52.1	2,016	
Undeveloped Deposits	Daunia	64	
	Poitrel/Winchester	62	
Total		2,142	

BMA Met Coal Export Growth





Zero Harm Injury Performance





Classified Injury Frequency Rate (Incidents/Million Man Hrs)

Zero Harm Injury Performance





Cost Curve





Cost curves: country, coal type and exchange rate





Source: Barlow Jonker

Price-induced export increases from the USA are not a long-term threat as they help to contain the current crisis but are not viable when prices return to long-term levels



	2002	2003	2004	2005	2006	2007	2008
North	32.7	32.7	36.1	41.4	41.4	48.4	49.4
South	16.2	16.2	16.2	16.2	16.7	17.2	17.2
Total	48.9	48.9	52.3	57.6	58.1	65.6	66.6

Currently negotiating beyond FY07 to meet growth profile

Port Capacity



Hay Point

- First phase expansion 40 Mt Q1 FY07
- Second phase expansion being assessed 44.5 Mt Q3 FY07 (includes 1 Mt departure path)
- Further expansion options being reviewed

DBCT

- Additional 3 Mt entitlement from Dec 03
- Assumes renewal 3.3 Mt from Dec 08 (includes recovery of 1.8 Mt sub-leased to Peabody to Dec 08)

Gladstone

• Extra 2 Mtpa capacity from Jan 06

Other Opportunities

- Commercial access to other port throughput
- Abbot Point Government Feasibility Study being completed. Possible future port expansion of 25+ Mtpa

2002	2003	2004	2005	2006	2007
33.0	33.0	34.0	35.0	35.0	40.0

2002	2003	2004	2005	2006	2007
1.5	1.5	3.3	4.5	4.65	4.65

2002	2003	2004	2005	2006	2007
15.0	16.2	16.2	16.2	17.2	18.2

Resources







Conclusions

- Industry leader with premier position in high quality HCC
- Tier one mines with large reserves and resources, access/ownership of infrastructure
- Focused strategies and plans on critical areas for growth
- Organisation structured for tomorrow
- Programmes to attract and retain critical skills
- Staying flexible through scenario planning
- Cost control remains a key focus



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Operations

Mick Madden General Manager - Operations



A	nnual Sales	3 Qtrs FY05	
•	HCC	36.6	30.6
٠	WCC	9.6	7.4
٠	Thermal	6.1	3.7
•	Total	52.3	41.7

Total



41.7 1-1-1-17

Open Cut Operations





BMA Earth Moving Equipment



Draglines



33 + 1

Electric Shovels



Haul Trucks



94

Other Mobile Equipment

Coal Haulers





108



Added Stripping Costs More





Mining Philosophy





Dragline business supplemented by Truck Shovel



Continuous Improvement



Incremental + Step Change

• Universal Dig and Dump (UDD)

4 completed, 1 underway; indicated 15% productivity improvement

Last Drop

Redesign coal uncovery process to reduce losses

• 125% Rated Suspended Load (RSL)

Upgrade dragline capacity from 115% to 125%; +40 Mbcm/yr for fleet

- Processing Improvements
 BW CHPP, debottlenecking, fines recovery, component upgrades
- Additional Equipment
 Larger trucks, Blackwater dragline
- Underground Mining
- Leadership Training 700+ in foundation course, higher level courses
- Commodities

Optimise use of tyres, fuel, explosives

• Others

130+ projects





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Project Development

Bryce Jones Vice President Project Development

Project Development Capability



BMA has established a Project Development Group to manage the major project portfolio from Prefeasibility to Project startup



BMA 80 Mtpa Growth Scenario





BMA is currently taking steps to secure/develop the required port and rail capacity needed to achieve potential sales growth

BMA Operations

Broadmeadow Project

- Punch longwall underground mine
- 3.6 Mtpa production capacity
- Goonyella Middle Seam
- 200m longwall face
- New high capacity roof supports
- Infrastructure independent of Goonyella Mine
- Total Capital A\$120 million (100%)
- Scheduled Completion Q1 FY06







Stage 1 Growth Project



- Increases annual production capacity from 52 Mtpa to 57 Mtpa.
- Achieved by de-bottlenecking mine production capacity through:
 - stripping contracts,
 - purchase of EME,
 - dragline upgrade,
 - Saraji CPP upgrade,
 - housing
- Total Capital: A\$160 million (100%)
- Scheduled Completion: July 2006





Stage 2 Growth Project

- Increases annual production capacity from 57 to 59Mtpa
- Achieved by:
 - Expansion of onshore facilities at Hay Point,
 - Additional overburden stripping at Saraji
 - New EME at both Goonyella and Saraji Mines
- Total Capital: A\$250 million (100%)
- Scheduled Completion: Q1FY07







Blackwater CHPP Project

- Project represents a cost reduction initiative - no increase in mine capacity:
 - Construction of a new coal handling and preparation plant to replace three existing plants
 - 14 Mtpa capacity plant
- Budget and schedule currently under review







Port & Rail Capacity Requirements





Project delivery in the current market environment will be challenging:

- Contractors and suppliers are heavily committed
- Material costs and equipment delivery times have increased significantly
- Project managers and skilled labour are in short supply
- Commodities are in short supply, driving costs up



Illawarra Coal

Colin Bloomfield President, Illawarra Coal





Safety continues long term improvement trend



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Production performance stabilised and improving



Delivering reliability from business improvement plan



Investments in critical production infrastructure

- West Cliff Longwall
- Appin Main Slope Conveyor
- West Cliff Washery Raw Coal Handling System
- Dendrobium Washery upgrade
- Appin Longwall replacement

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Improvement focus on critical production systems and processes

- Strata management
- Maintenance
- Data capture and analysis
- Production planning

Dendrobium longwall commences ahead of schedule



- Longwall commenced April 3rd 2005, eight weeks early
- Production commissioning completed April 19th 2005
- Conservative ramp up forecast due to
 - Training for inexperienced crews
 - logistics constraints with Elouera still operating
- Expected raw coal production to year end ~ 400,000 tonnes



Dendrobium mine production assumptions

- Full capacity of 5.2 Mtpa raw coal production
- Production will ramp up to this level over three years
- FY06 expect about 3.9 Mtpa raw coal production
- Coking coal yield: 40 45%
- Energy coal yield: 20 25%



Potential for growth in output

- Vision is a small number of high production mines
- De-bottleneck Appin & West Cliff
 - Increase coal clearance capacity
 - Increase ventilation and methane drainage capacity
 - Add washery capacity
- De-bottlenecking projects in pre-feasibility
- Potential to add another longwall is under review
- Key issue is government approvals



BHP Billiton Maruwai Coal Project





BHP Billiton's Maruwai Coal Project



Maruwai Project Comprised of 7 Coal Contracts of Works (CCoWs)



- All seven CCoWs are located in Central Kalimantan and East Kalimantan
- To date BHP Billiton has spent US\$ 40 million in exploration in the Maruwai area
- The region is remote and infrastructure non existent



Maruwai Coal- An Integrated Development



- BHP Billiton has delineated a number of significant coking coal deposits in its CCoWs
- The overall strategy is to initially develop the Lampunut deposit and its associated Logistics Corridor
- Lampunut will form a hub, the coal from the other 6 CCoWs will be transported using the Lampunut Logistics Corridor.



Lampunut Deposit- 5 mtpa Operation Commencing 2008



Lampunut coal

- The Lampunut deposit is located on the boundary of Central Kalimantan and East Kalimantan Province
- The coal is a low ash, mid volatile coking coal and will be mined using open pit methods
- The deposit is made up of a number of seams from 0.5 m to 2.5 m, with a life of mine strip ratio of 6:1
- To date 3 drilling programs and 2 bulk samples have been completed
- Currently an extensive drill and bulk sample program has commenced to convert the coal to reserve status.

The Lampunut Logistic Corridor





- It is planned to develop 131 km transport corridor from Lampunut to the Mahakam River.
- A coal barge port will be built on the Mahakam and coal transported down river 430 km to the Samarinda Delta.
- An offshore storage vessel of 95,000 t capacity will unload coal from the barges and load the export ships.



Maruwai Project- The Future





- Initially develop a number of Open Pit operations and connect into the Lampunut Logistics Corridor
- Commence small scale trial underground operations in the mid term
- The long term future is for large underground operations as open cut reserves are depleted

