# Australian Journal of Mining 7th Global Iron Ore and Steel Conference

## 23 February 2004





#### **Graeme Hunt**



President, WA Iron Ore and Boodarie Iron



#### My message today ...

- We have consistently expanded production to meet customer demands
- High quality and abundant resource base
- Committed to low cost, flexible expansion to meet future demand
- Benchmark technical support





### BHP Billiton Iron Ore Pilbara Operations





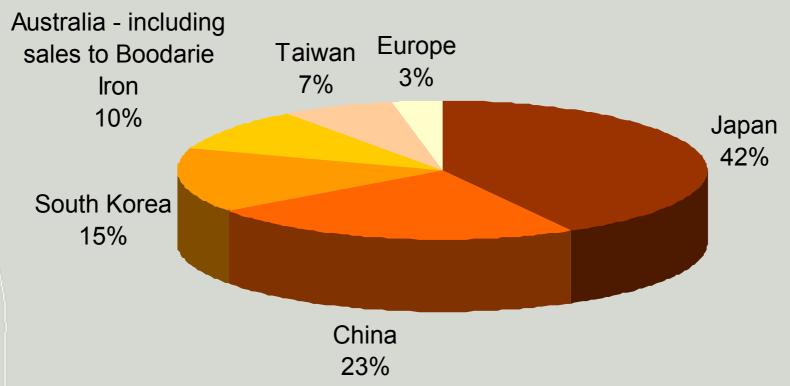






#### BHP Billiton Iron Ore Customers

#### Financial Year 2003 Total = 80.3Mwt







### Mineral Resource Base

Ore Type	Resource
Brockman low P	1370
Brockman high P	1540
Detrital (lump)	75
Marra Mamba	2065
Pisolite	1420
Yarrie	95





#### Iron Ore Products - Hematite

#### Mt. Newman Joint Venture

- High Grade Lump
- High Grade Fines
- Sinter Fines (Hematite/Pisolite)

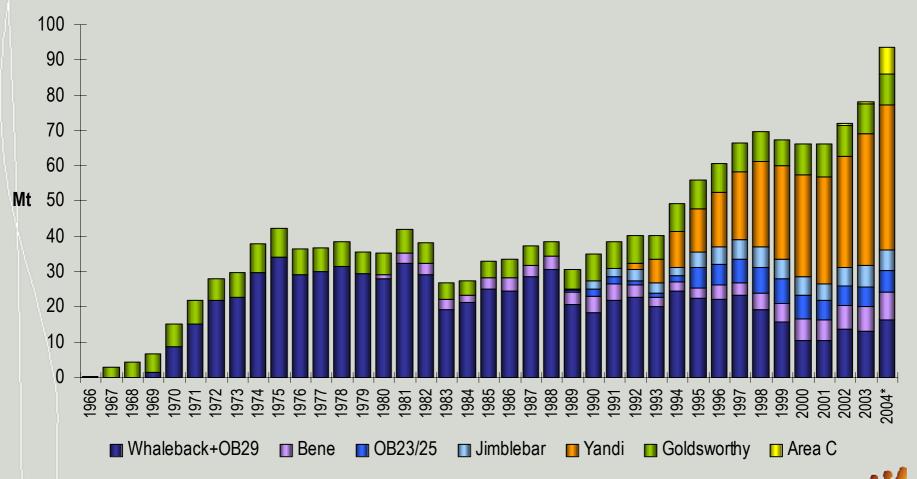
# Mt. Goldsworthy Joint Venture

- High Grade Lump
- High Grade Fines
- Siliceous Run-Of-Mine





## Production History since 1966 Million Wet Tonnes







#### Iron Ore Products – Marra mamba and Pisolite

#### **Area C Joint Venture**

- MAC<sup>TM</sup> Lump (Marra Mamba)
- MAC<sup>TM</sup> Fines (Marra Mamba)

#### **Yandi Joint Venture**

- Yandi Fine Ore (Pisolite)
- Yandi Lump Ore (Pisolite)





### Business Performance: July - December 2003

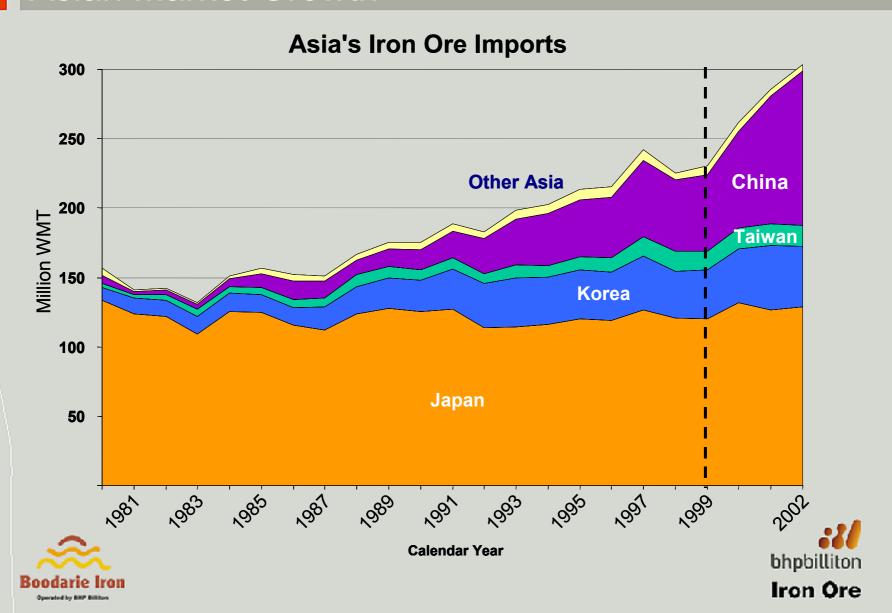
#### **Best Half Year On Record**

- Iron Ore Shipments 44.0Mwt
- Iron Ore Production 45.0 Mwt
- Boodarie Iron Production 1.03 Mt





#### Asian Market Growth



#### **Industry Dynamics**

- Global 1 billion tonne production
- China steel consumption doubling in less than 5 years
- China now largest iron ore importer
- China demand 100% increase from 2000 to 2003





#### Industry Dynamics – the future

- Security of supply critical
- Increased emhasis on value
- Wider range of ore types
- Technical understanding and market support





#### Meeting the Challenges

- Sustaining a strong underlying business that continually strives to deliver operating improvements and efficiencies
- Aligning our products with the marketplace and providing benchmark technical support
- Capacity expansion projects that will allow us to manage changes in demand





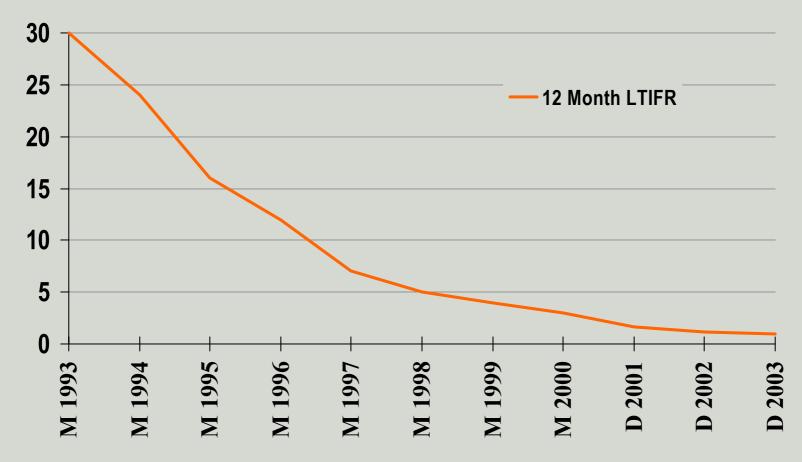
#### BHP Billiton Iron Ore – Operating Excellence

- Highly engaged in OE and Six Sigma
   Improvement Methodology
  - 23 business improvement coaches
- Some examples:
  - Dual Stacking Yandi Fines
  - Haul Trucks





## Our Improving Safety Performance







#### Sustainability

- Working in partnerships is critical
- Eco-efficient management plans
- Maintaining ISO14001 accreditation
- Independent reputation benchmark survey
  - \$3.5 million to local communities
  - \$300 million to Government in 2002-03





### Product development

- MAC<sup>TM</sup> has now added Marra Mamba products
  - 1.0Mwt bulk sample shipments
  - 1.5Mwt commercial shipments since
     September 2003 and ramping up with PACE
- We continue to study how best to develop our large and varied resource base to meet emerging customer demand

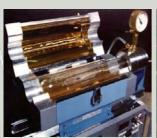


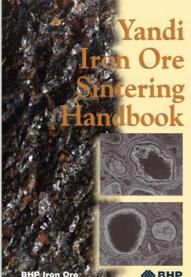


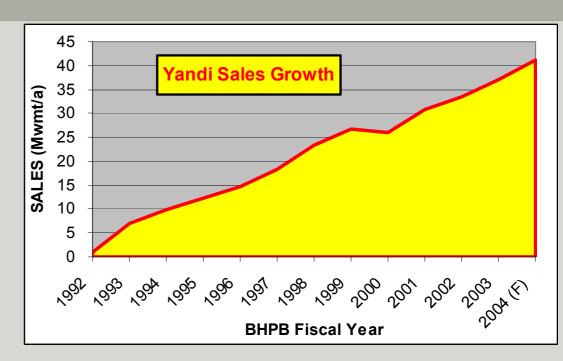
#### Technical support drives Yandi success

Initial sintering challenges

Technological advances required







BHP Billiton's Newcastle
Technology Centre was at the
forefront of the Yandi Iron Ore
Sintering Handbook.

Iron Ore

### Major breakthrough with Marra Mamba

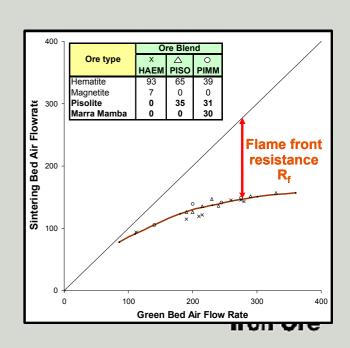


NTC - first in the world to measure the resistance to air flow of the critical flame front zone in sintering.

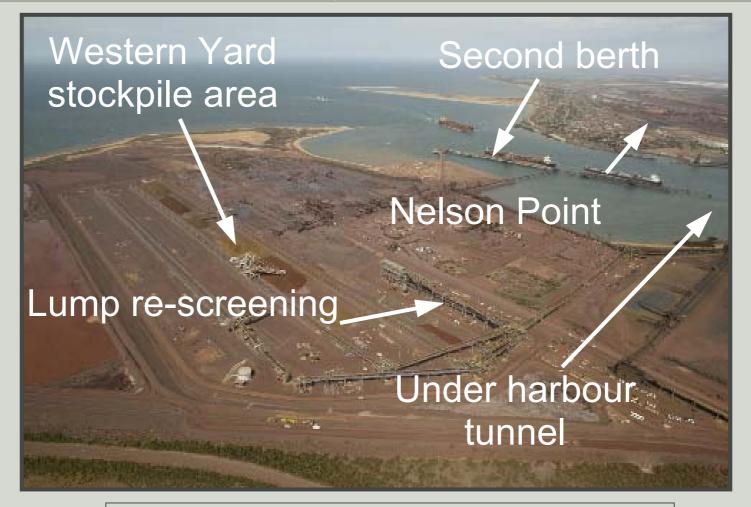
## Marra Mamba ore (MAC<sup>TM)</sup>

 no effect on flame front resistance if correctly sintered





#### Products and Capacity Expansion





Aerial view of PACE during first shiploading – 30 January 2004



#### Our expansion success

- Ahead of time and under budget
- POSCO Joint venture
- 1 million tonne bulk sample of MAC™
- 5.5% indigenous workforce
- 85% (A\$850,000) local content
- Local employment shopfronts





### Rapid Growth Project

- •10 million tonnes per annum
- •A\$145 million
- •110 Mtpa capacity by end CY2004





## Feasibility study

- •145 Mtpa over longer term
  - 60Mtpa Newman JV mines
  - 40Mtpa Area C
  - 45Mtpa from Yandi.





# Our Health Safety, Environment and Community Commitment

- growing community expectations
- toughening environmental standards
- Social Impact Assessment





#### Conclusion

- World Leader
- Quality Asset Base
- Large Product Range
- Expanding production
- Technical support



