

Welcome to BHP Billiton Iron Ore Mining Operations



Business Analysts visit
11 – 12 September 2003



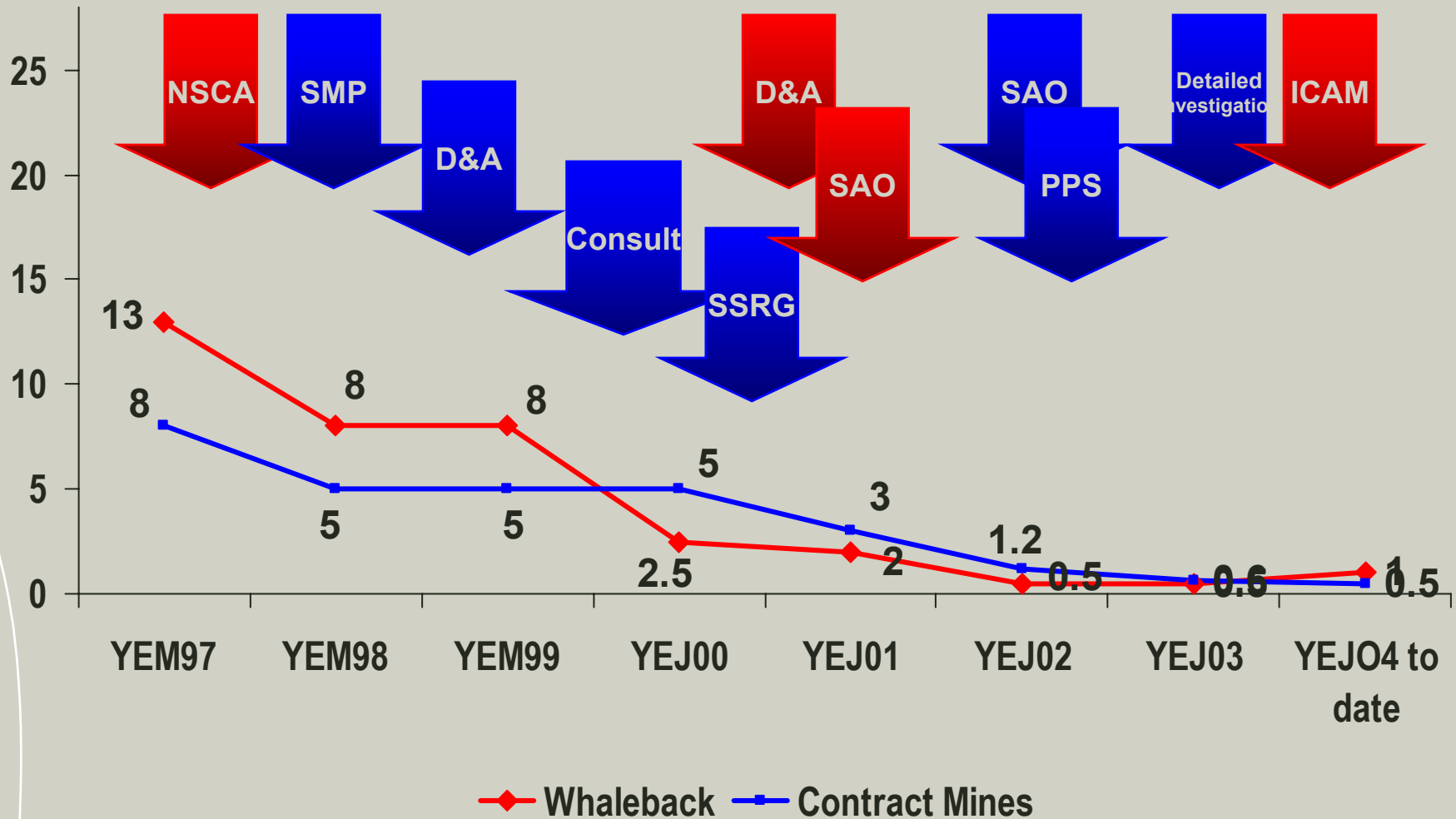
Visitor Safety Induction

Welcome to Newman

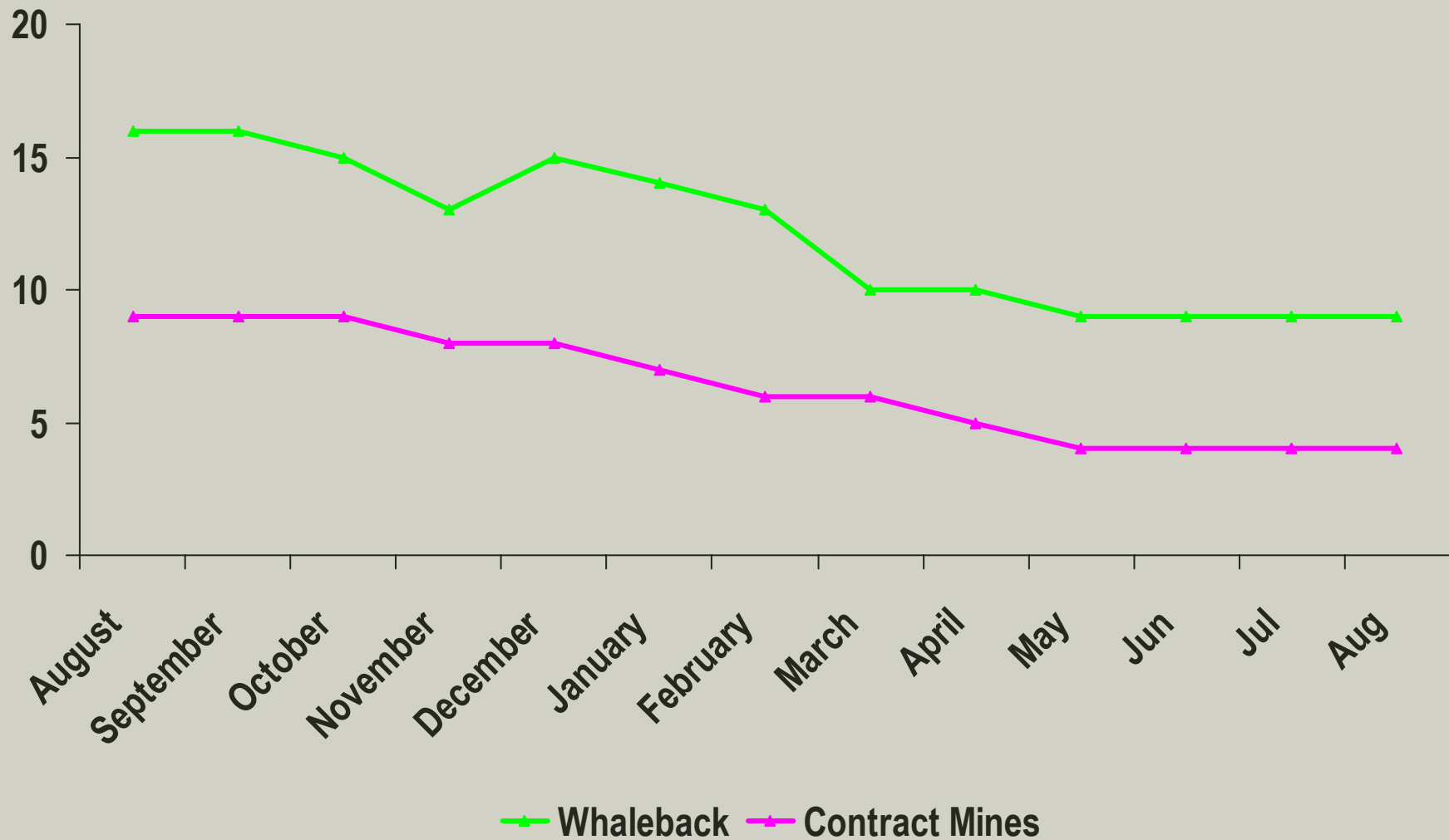
1. Stay with your BHP Billiton escort at all times.
2. Reflective vests, gloves and safety helmets are provided and you will be advised when to wear them.
3. Safety glasses are provided. You will be advised when it is necessary to wear them. Safety glasses will fit over prescription glasses.
4. Use handrails when using stairs.
5. Keep clear of all machinery.
6. In the event of an evacuation or emergency stay with your BHP Billiton escort
7. BHP Billiton has a NO-SMOKING policy inside buildings and vehicles.
8. You are most welcome to use cameras.

Enjoy your visit with us today

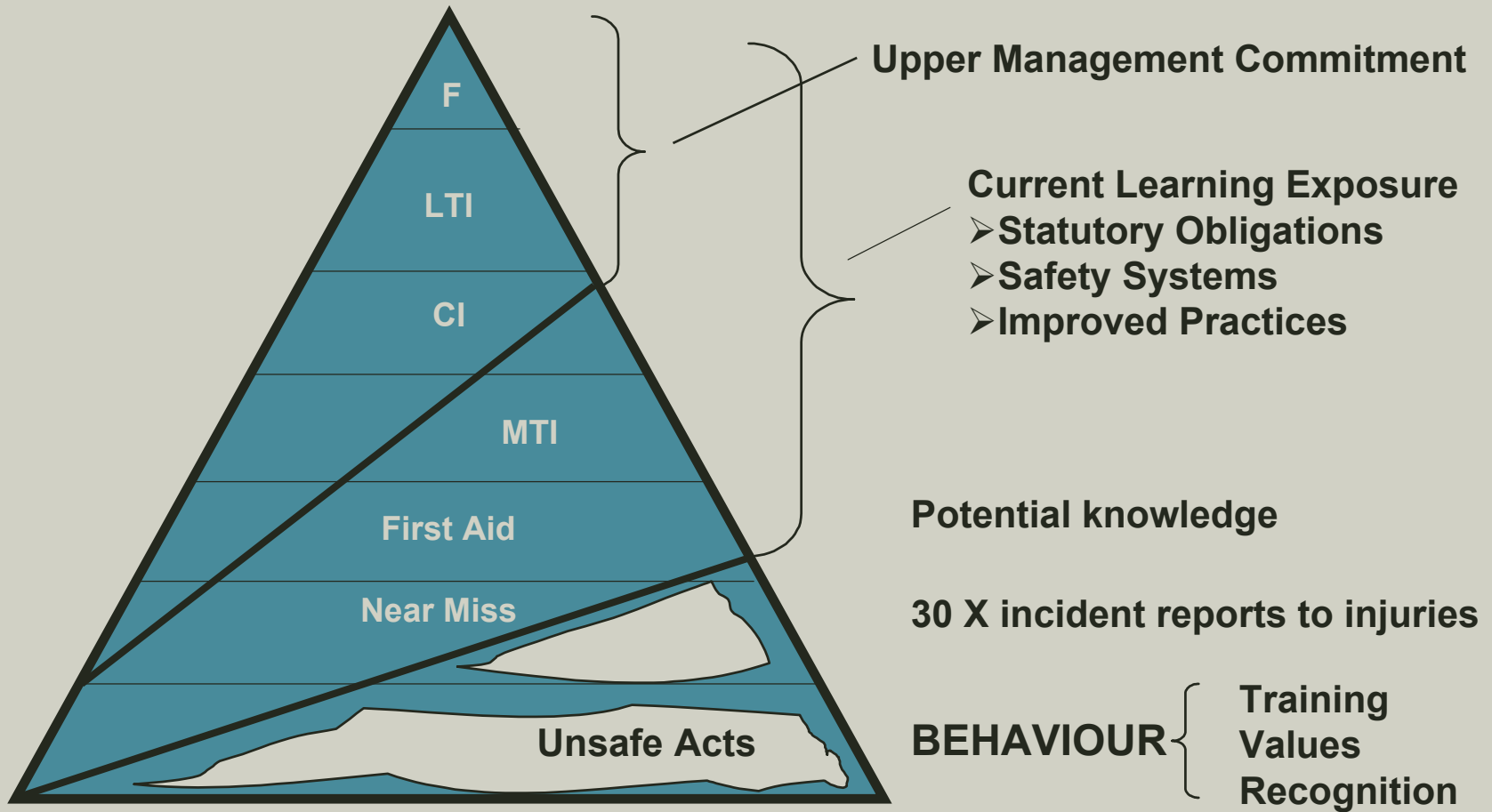
LTIFR – Whaleback and Contract Mines



CIFR – Whaleback & Contract Mines 2003



Behavioural Safety



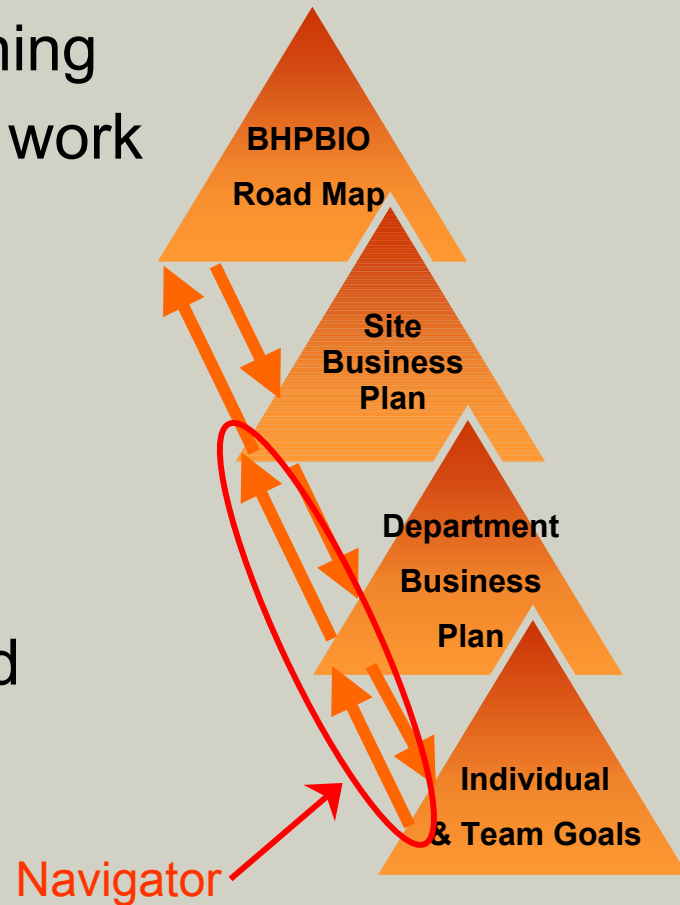
Mining Strategic Focus: 2003 - 2008

Key Points

- Achieve / exceed goals through good planning
- Think beyond short term / regional horizons
- Gain strategic benefits
- People management – become employer of choice
- Organisation consistency
- Secure support for business decisions
- Pace of restructuring
- Keep it simple
- **Growth**

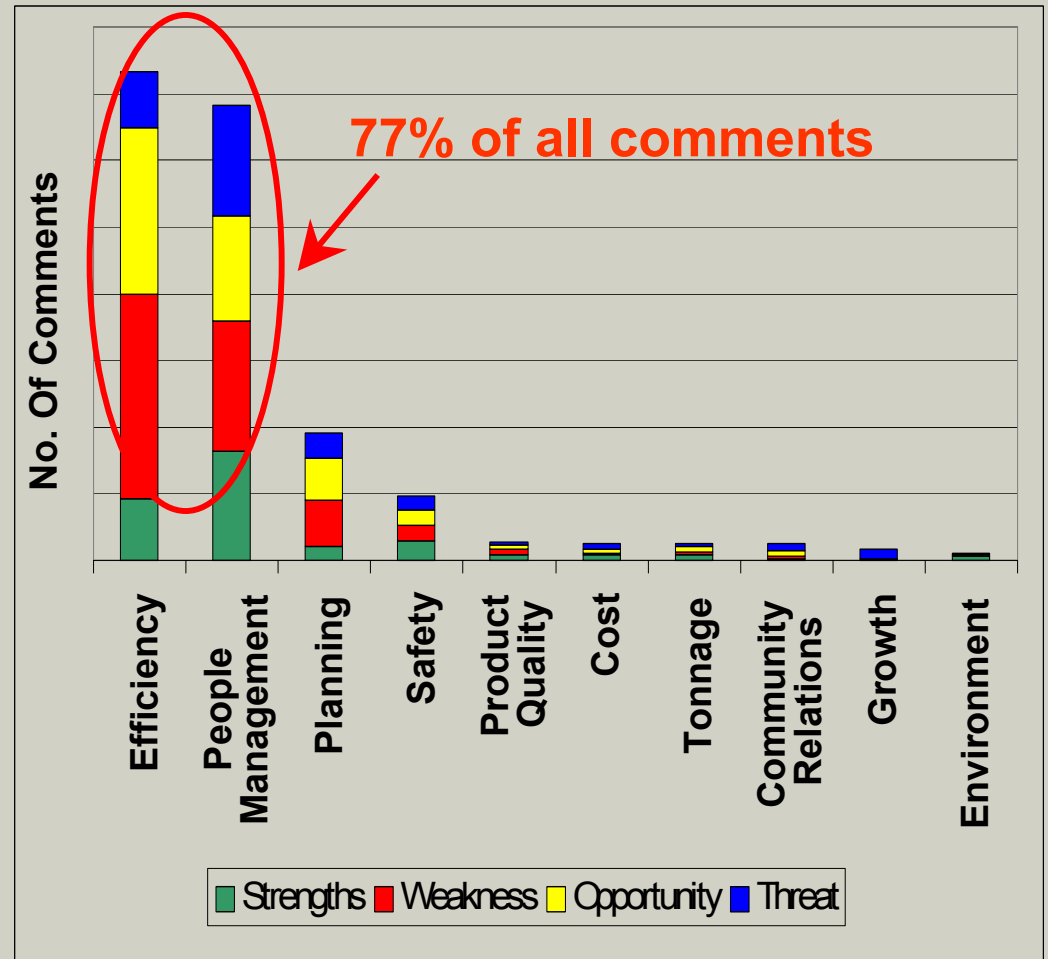
Navigator – Business Planning Alignment & Involvement

- Strengthening business planning through greater input from all work groups and OE processes
- 54 sessions across all workgroups
- 460 participants
- 1834 comments collected and analysed



Navigator - Results

- Efficiency
 - Communication
 - Systems & Processes
 - Maintenance & Equipment Availability
- People Management
 - Working Arrangements & Workload
 - Skills Development
- Operating Excellence projects are under way with workgroups



Location Map

Newman to Nelson Point - 426km

- Jimblebar spur line is 32km

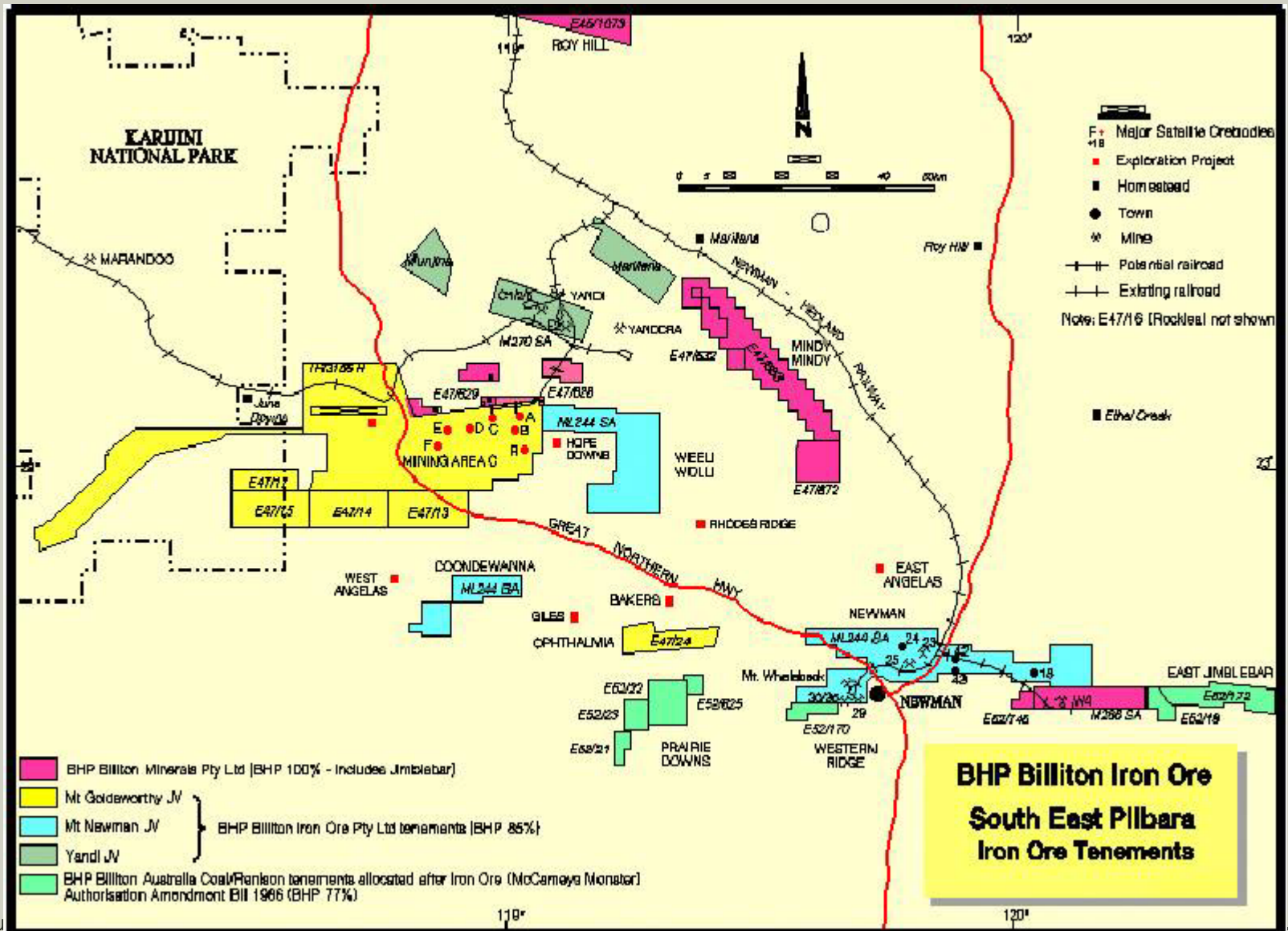
Yandi to Nelson Point - 310 km

- Yandi spur line is 30km
- Area C proposed spur line extension from Yandi is 38km

Yarrie to Finucane Island - 208km



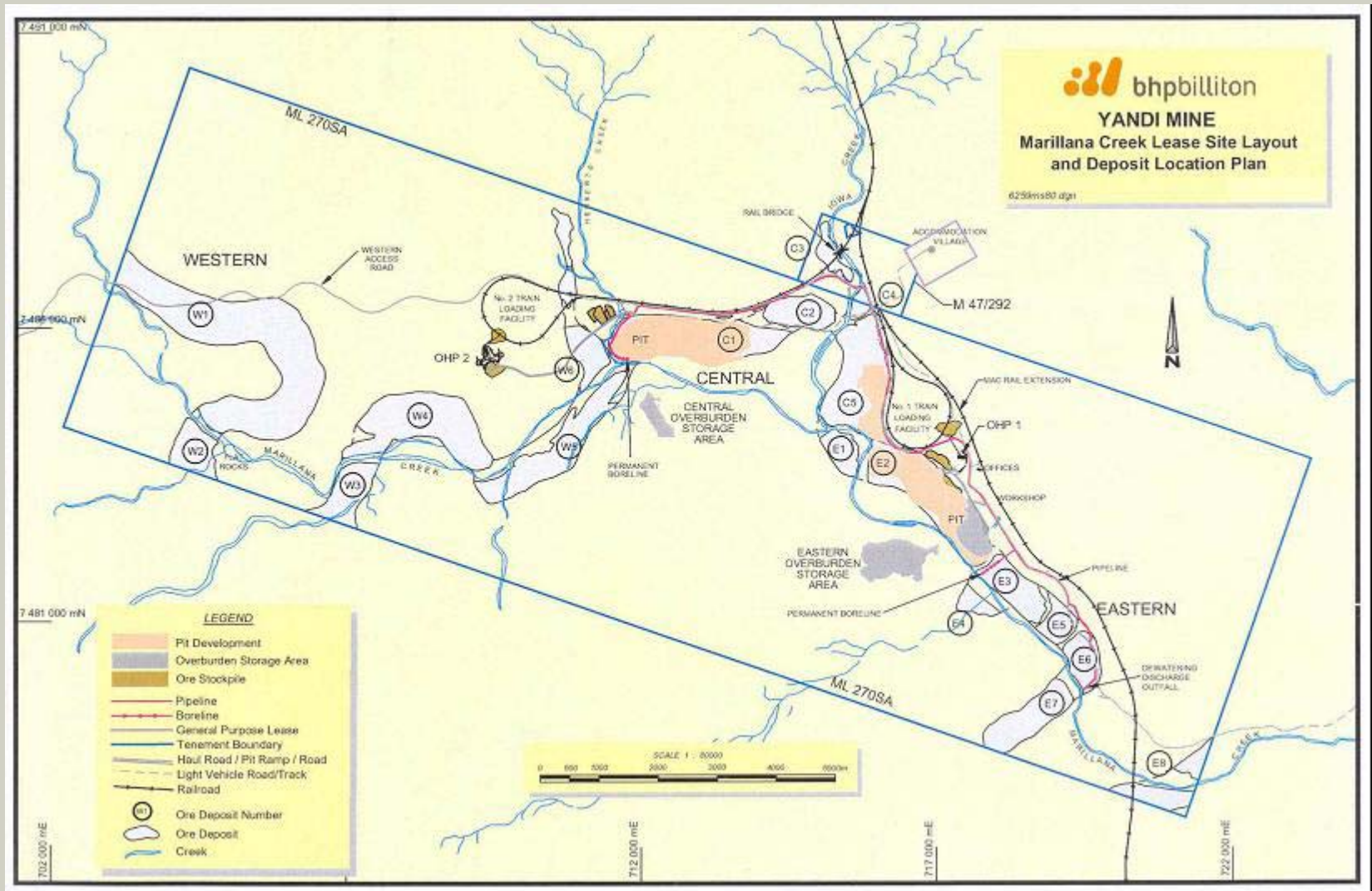
S.E. Pilbara Mining Tenements



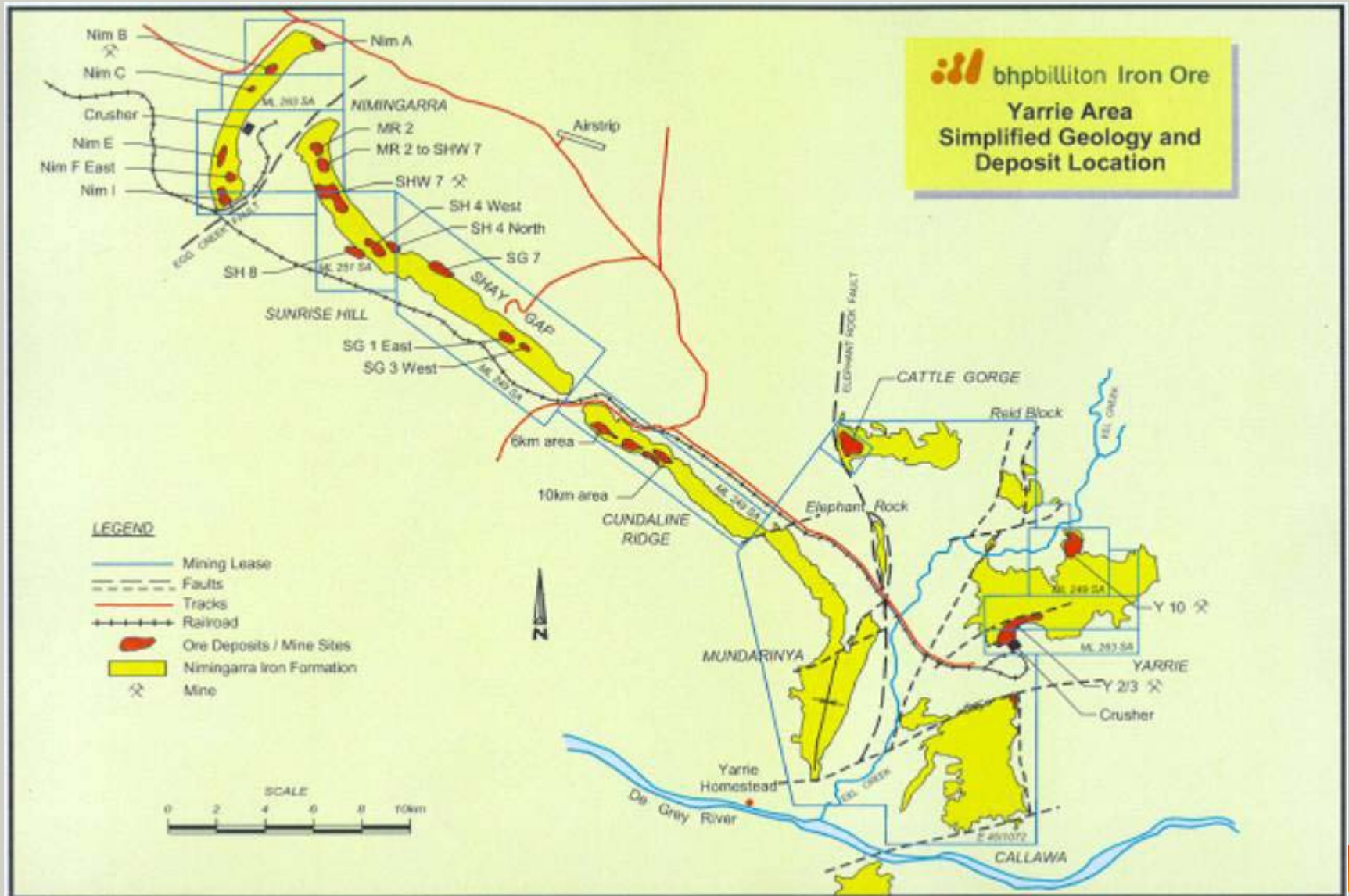
**BHP Billiton Iron Ore
South East Pilbara
Iron Ore Tenements**



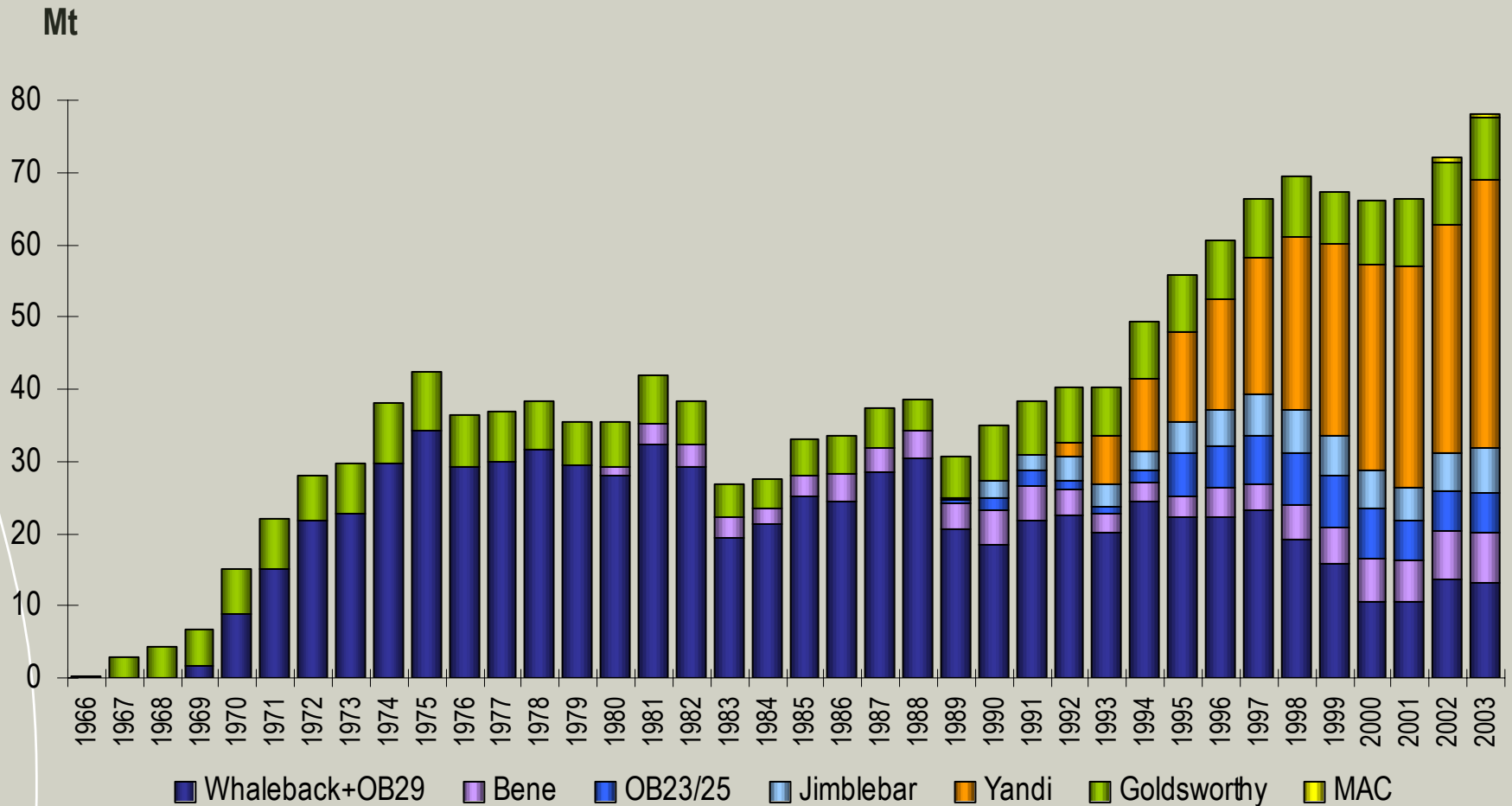
Yandi Mining Lease



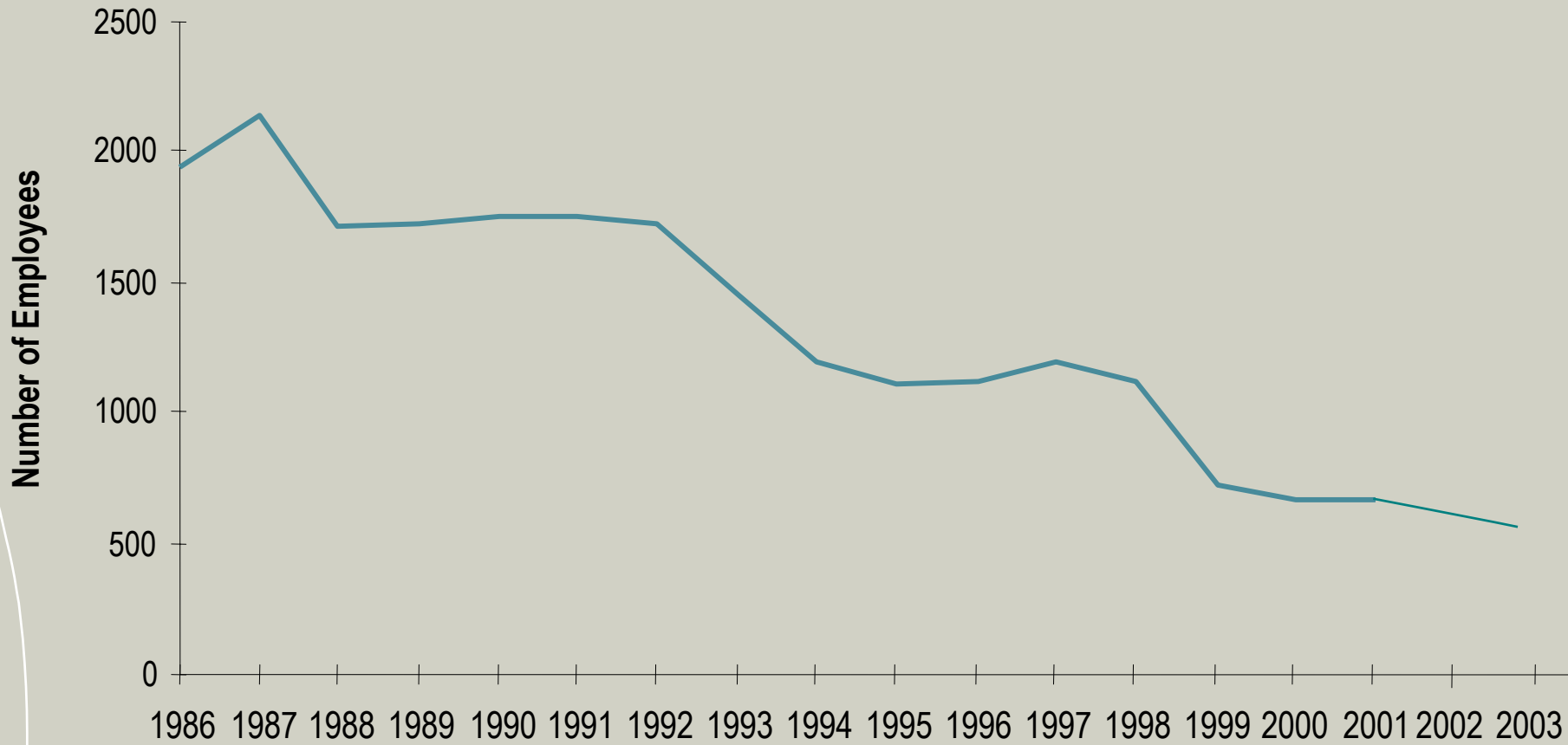
Goldsworthy Mining Leases



Mine Production – Million tonnes



Mt Whaleback Employee Numbers



Mt. Whaleback Pit



Current Pit Dimensions

- Length: 5km
- Width: 1.2km
- Depth : 400m

Mt. Whaleback

PUSHBACK OPTIMISATION ...

Better ore availability

Lower waste movement

Improved control over chemical and physical quality



Global
Positioning
System



◆ Optimises

✓ Production Control

✓ Quality Control

✓ Reconciliation Practices



Smarter use
of equipment

◆ Maximises

✓ Ore Recovery

✓ Resources

Mt. Whaleback Northwall Waste Removal – Project China

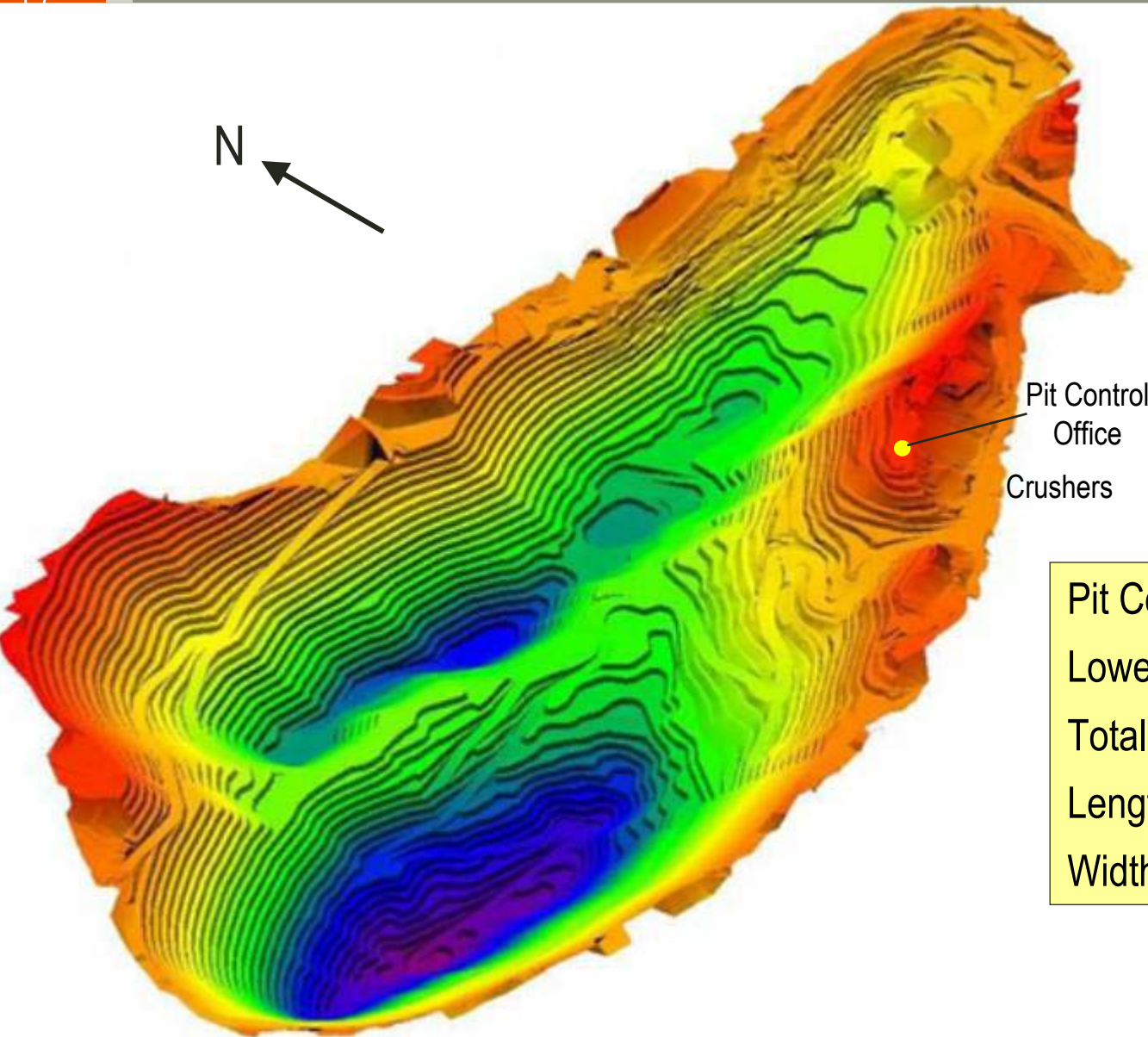


23 Mt approx

Waste

High Grade

Mt. Whaleback Ultimate Pit Design



- Core ore source for the next 30 years
- Controls chemical and physical properties of the blend

Pit Control Office	690 mRI
Lowest Point	190 mRI
Total Depth	≈ 500 m
Length	5 kms
Width	2 kms

Beneficiation Plant

- **Feed System Modification**
 - April 1999
- **Drum Capacity Increased – 340 to 550 tph/drum, 3.2 to 3.5 SG**
 - May 1999
- **Cyclone Circuit Upgrade**
 - June 1999
- **Replaced Cones Plant with Spiral Plant**
 - March 2000
- **Modified Chutes for Wet Feed Handling**
 - November 2000
- **Waste System Upgrade – higher tonnage/reduce spillage**
 - June 2001
- **Tailings System Upgrade**
 - October 2001

YEJ 1998 : 4.8Mwt
YEJ 2001 : 5.8Mwt
YEJ 2002 : 7.1Mwt
YEJ 2003 : 8.0Mwt

Orebody 25 & 23

Satellite Orebodies Offer Blending Flexibility

Orebody 25

- Flexible contractor mining operation
- Operational flexibility – crushing/screening options
- All ore reserves above water table

Orebody 23

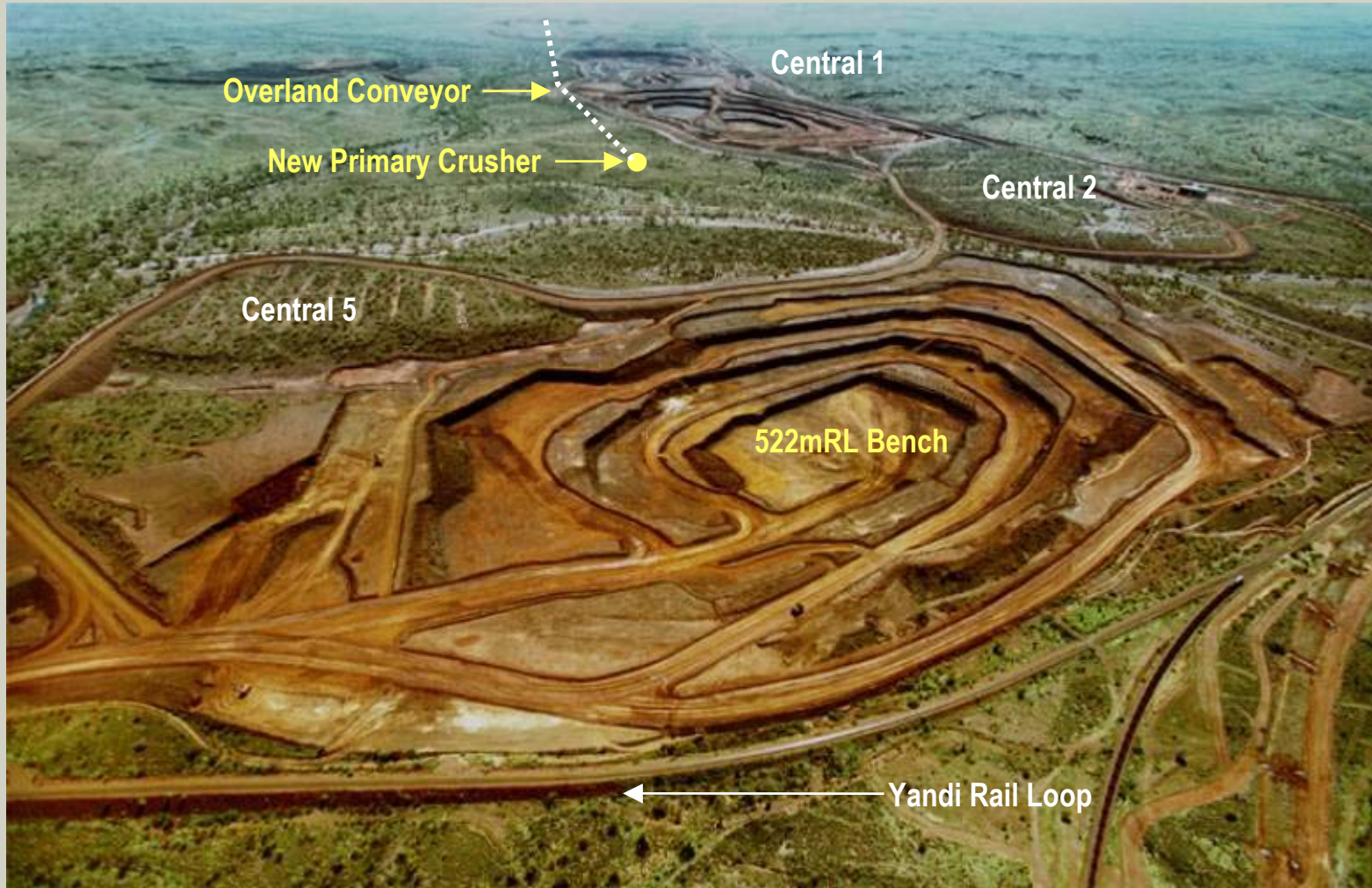
- Maintained as standby HGO source
- Advanced pit development
- Dewatering system designed to allow rapid start up

Jimblebar – Wheelarra 4 Pit

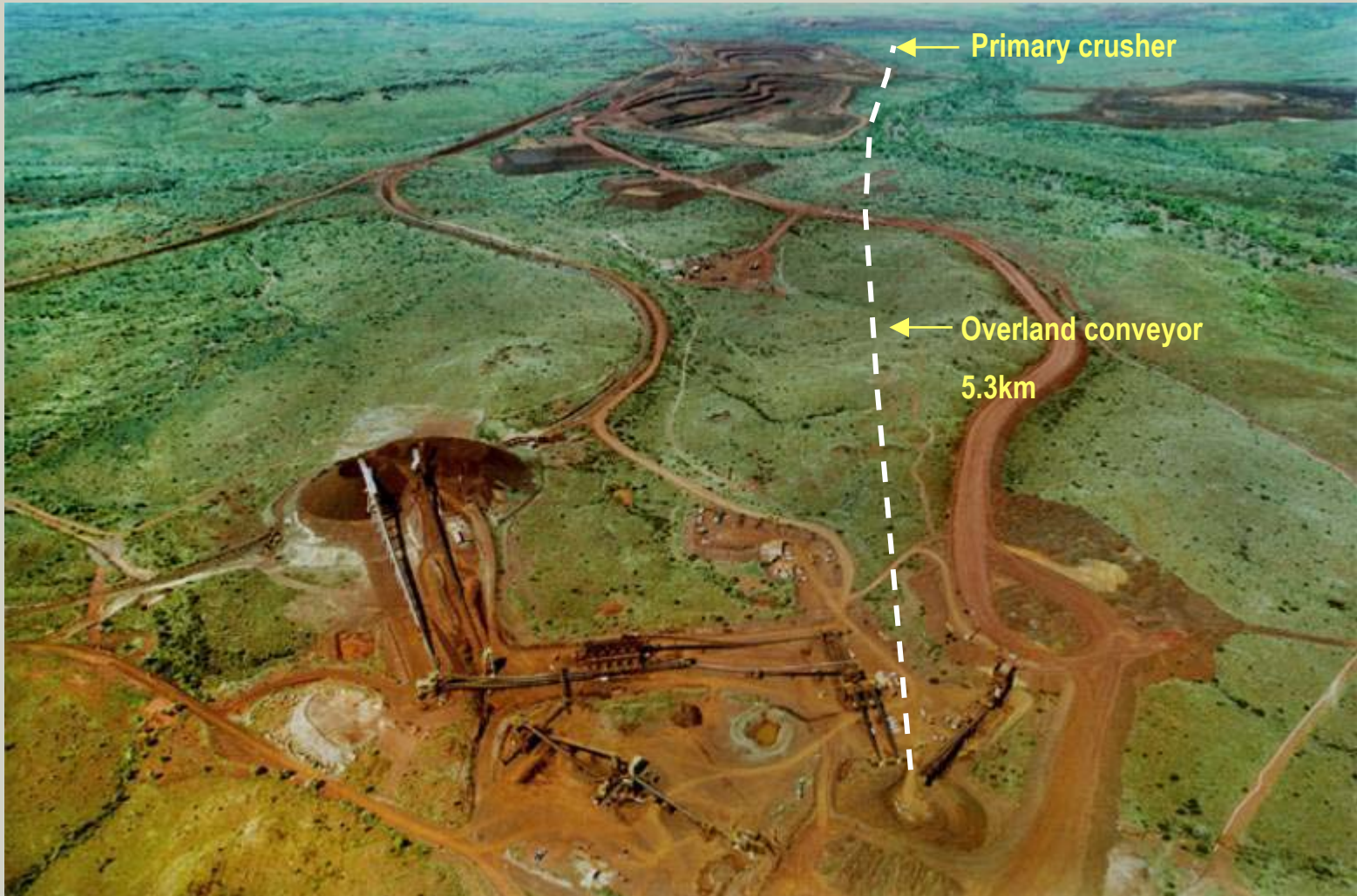
- Flexible contractor mining operation
- Ore handling plant capacity 8Mtpa
- Ore reserves in excess of 100Mt
- All ore reserves above water table
- Low Phosphorus ore reserves



Yandi Central 1 Central 5



Yandi OHP2 to Central 1



Area C Progress

- Mining Contract awarded 1 April 2003
- HWE mobilisation commenced 24 April 2003
- First Mining 15 May 2003
- First Ore crushed 21 July 2003
- Commissioning of reclaimer and train loading system began 8 August
- 1st loaded train departed 14 August 2003
- Providing feed from the Bulk Sample Stockpiles and direct from the pit to the Processing Plant as part of Load Commissioning
- Transfer of responsibilities from ADP to Mining Operations on 1 September 2003

Area C



Stacker & Reclaimer at Area C



Area C – Moisture Control Program



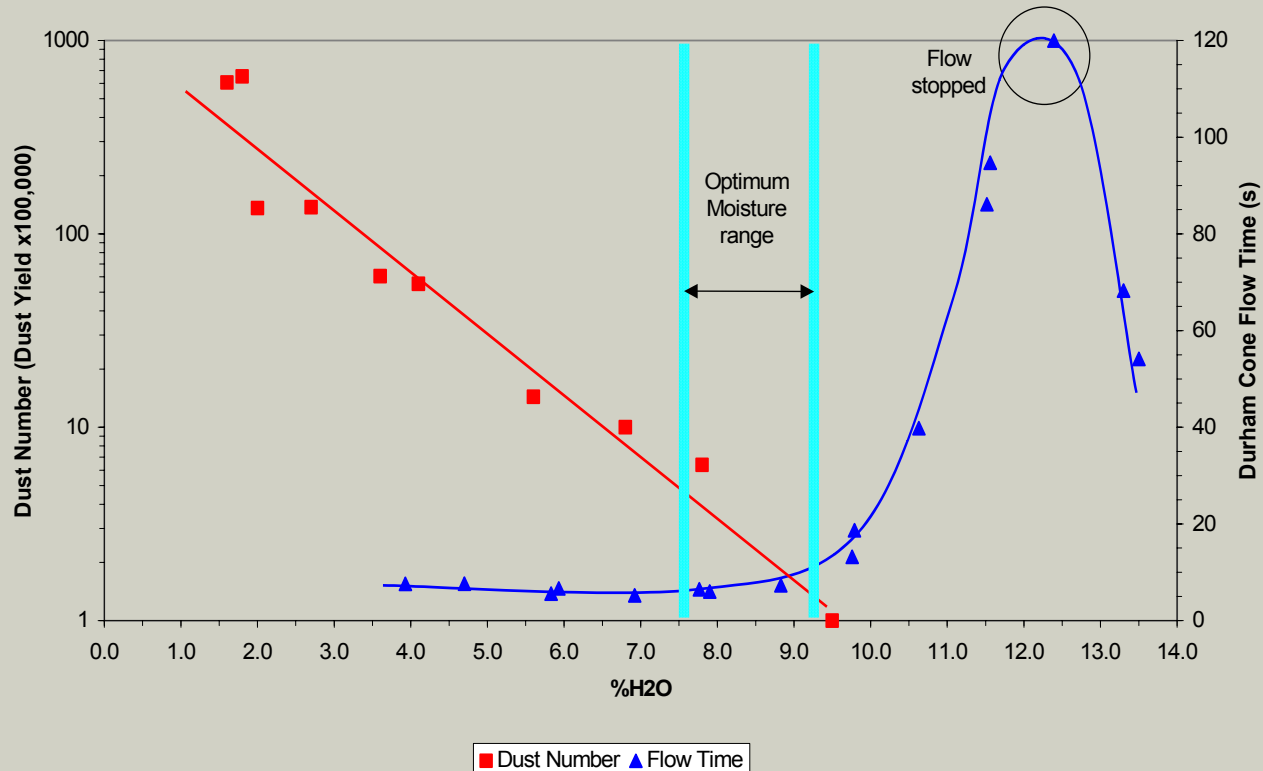
Bulk Ore Conditioning Sprays used to increase moisture and reduce overall dust levels.

Overall moisture conditioning levels of 3% for fines and 4% lump ores

Additional moisture controls are via train loadout, rail and port.

Area C Quality Control - Moisture

MAC™
Fines



- Fines moisture targets based on dust extinction and flow studies
 - Initially will target 7.5-8.0% moisture
 - Will be reviewed with customers based on operational experience
- On-line low frequency microwave moisture analysers in new processing plant will automate process for moisture control of fines

Goldsworthy Yarrie Mine



Yarrie Sunrise Hill West

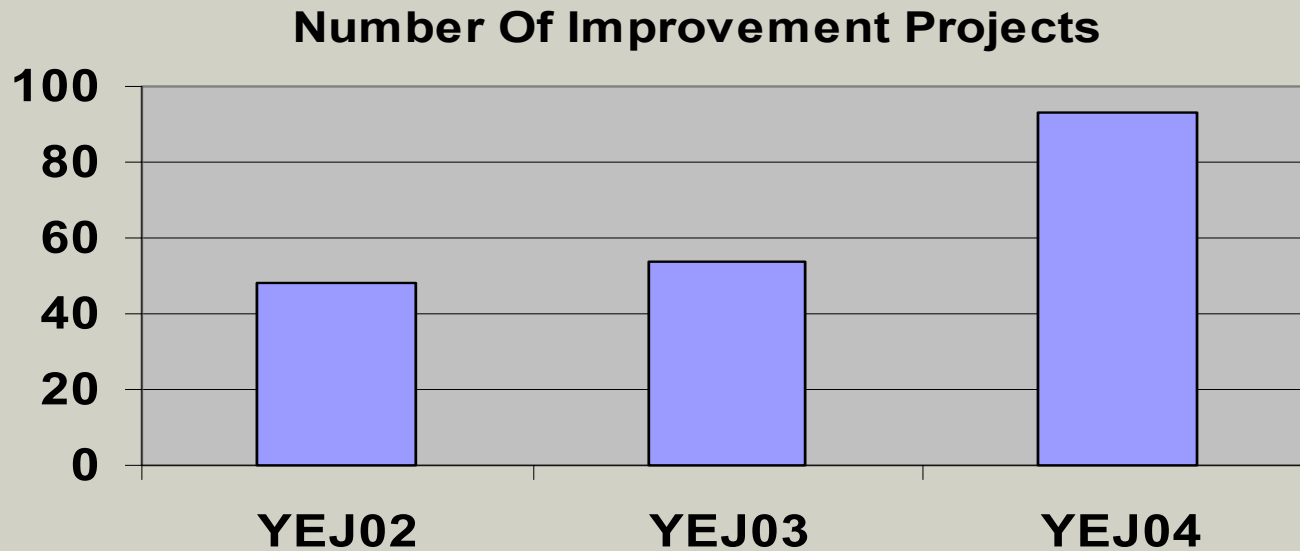


Mining Operations Improvement Initiatives



bhpbilliton

Business Improvement YEJ04



- Operating Excellence
 - 9 Full Time, 3 Part Time, Black Belt Coaches
 - 109 Attended OE Basics training
 - 28 OE Champions

Operating Excellence Project

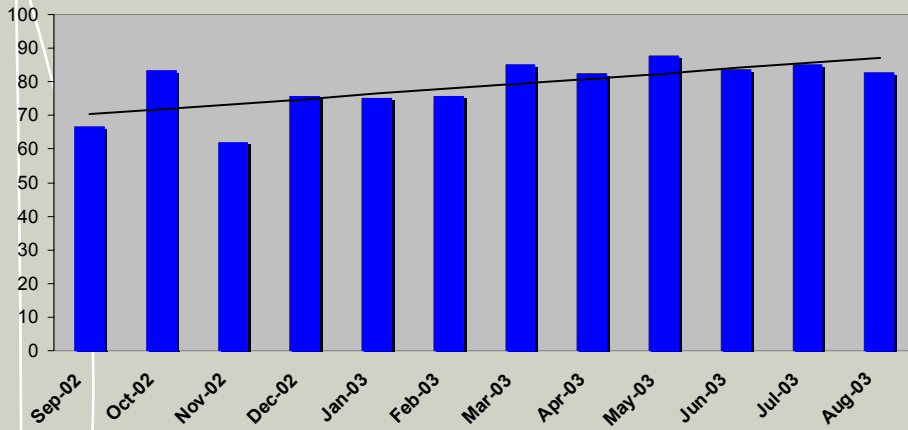
CAT 994 Loader Operator Driven Reliability

Improved Operating Techniques & Teamwork between Maintenance and Production Departments:

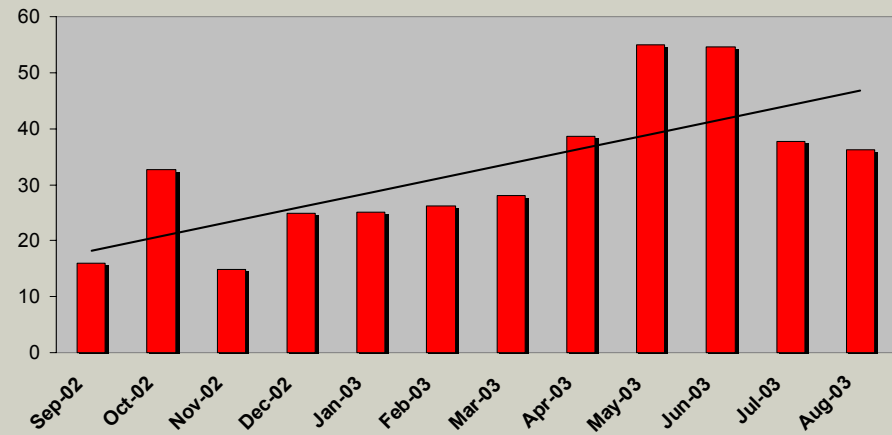
- Increased availability from 72% to 85%.
- Increased Mean Time Between Failure from 22 hours to 46 hours.

Next step is to roll out to our Shovel and Truck fleets.

Availability %



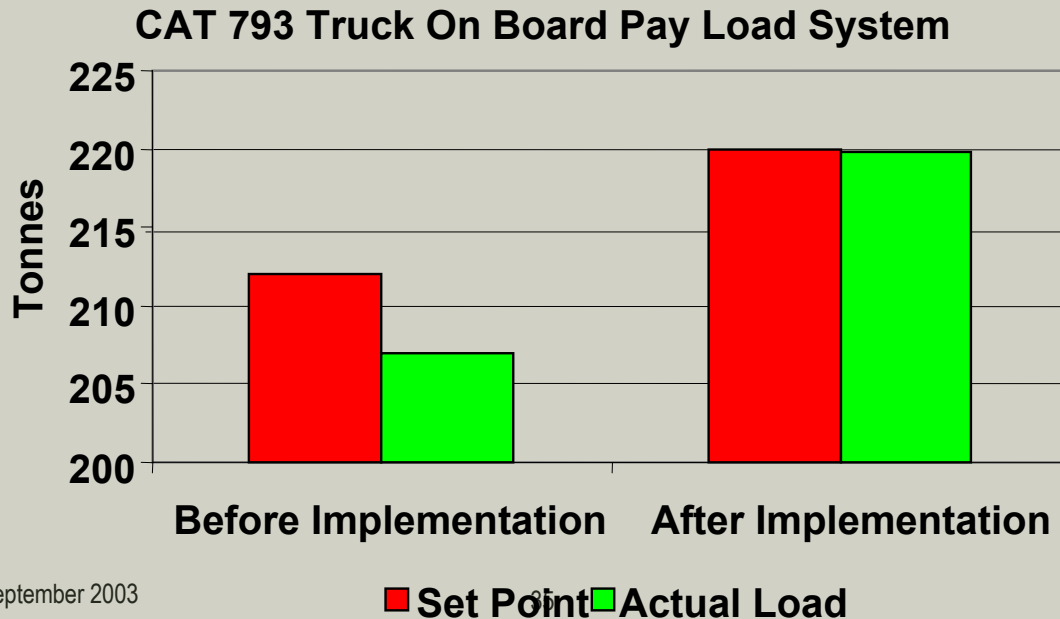
Reliability MTBF (Hours)



Operating Excellence Project

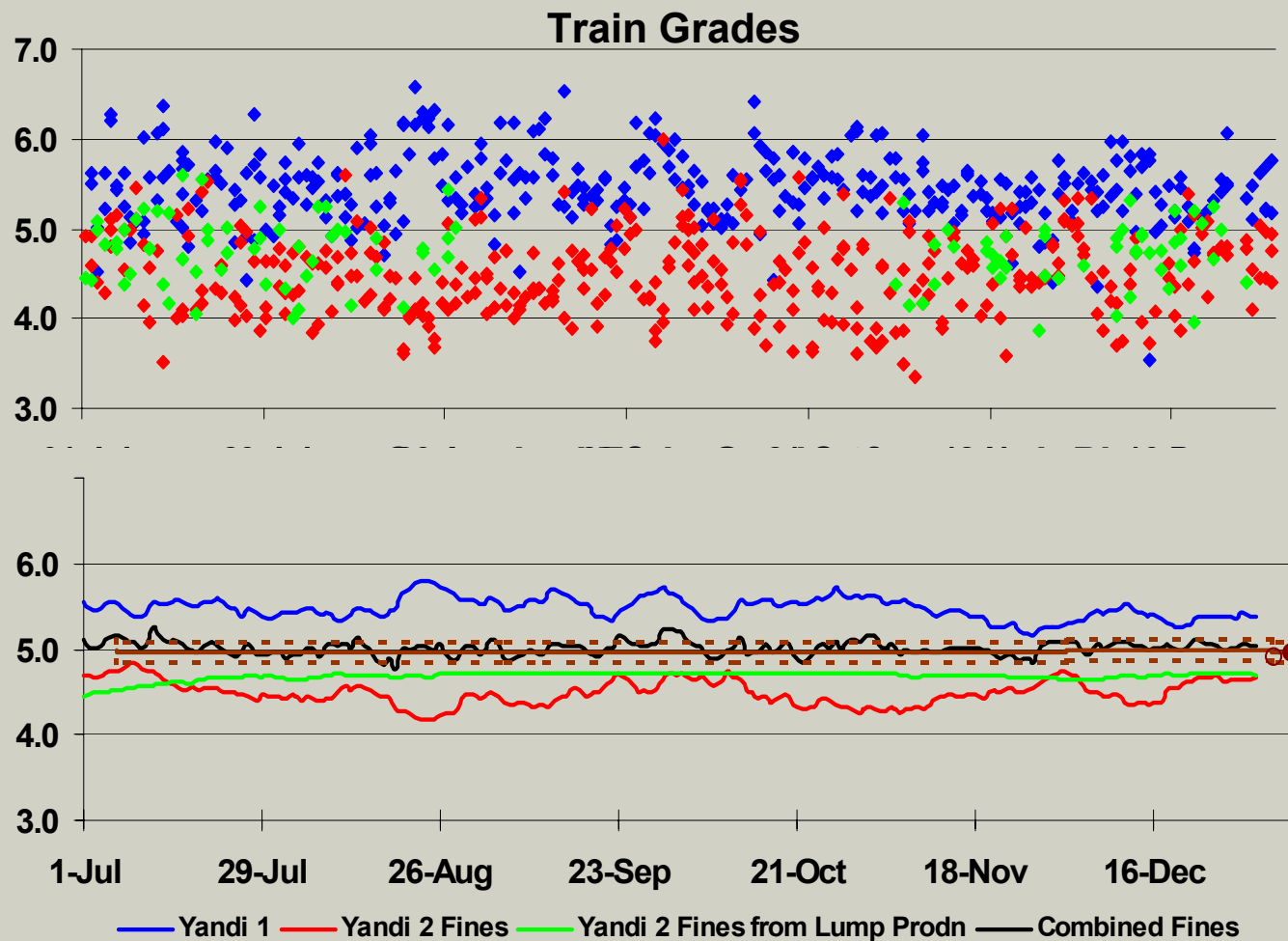
CAT 793 Truck Load Factor Study

- Onboard Load System critical to achieving truck tonnage targets – only effective measure for Shovel operators.
- Inaccuracies meant systematically underloading 793 trucks.
- Improvement in calibration technique achieved increased accuracy and therefore higher actual loads.
- Increased set point simultaneously.



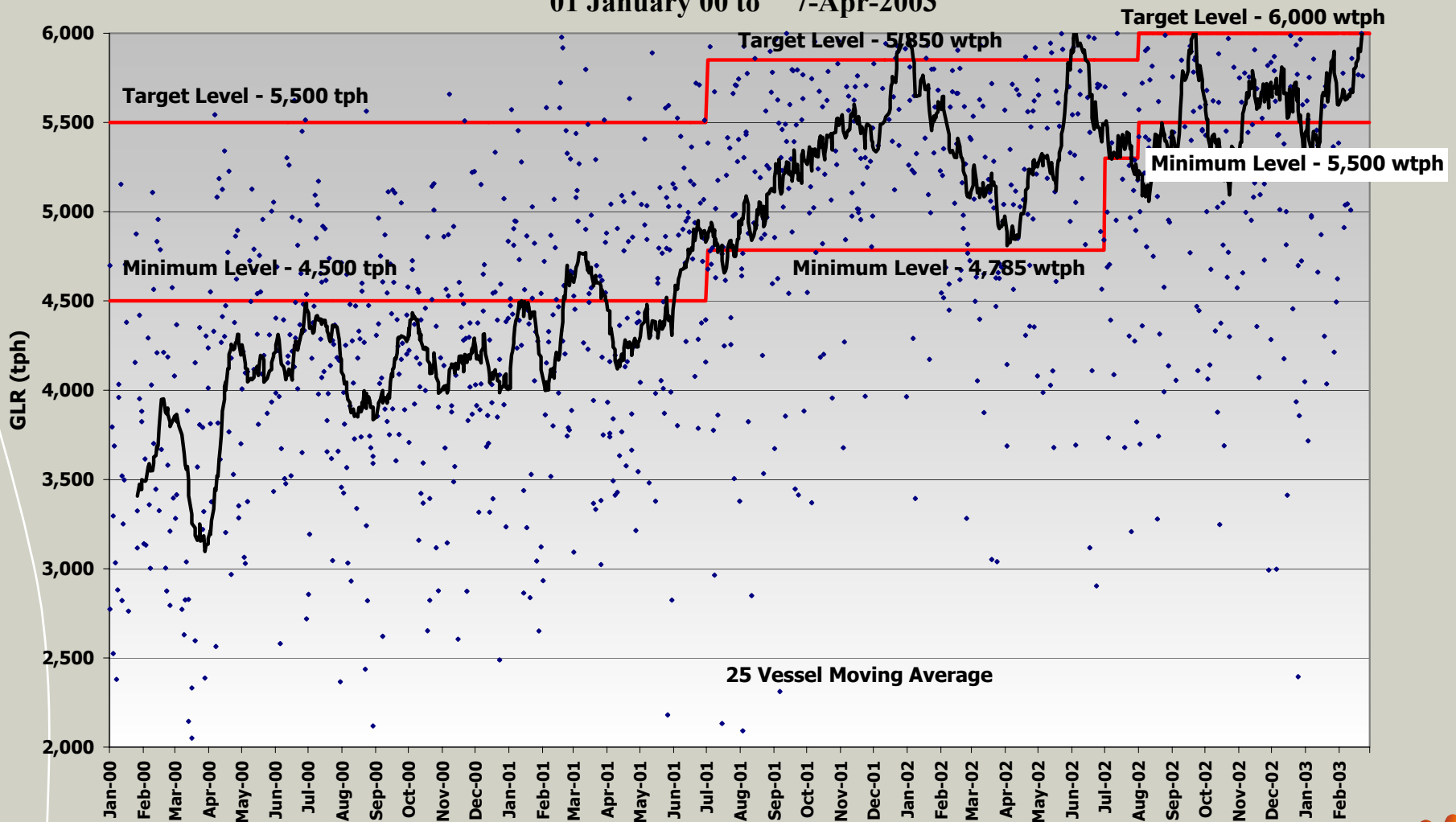
Operating Excellence

Exponentially Smoothed Grades from each Pit at Yandi



Operating Excellence Gross Loading Rate

Gross Loading Rate
01 January 00 to 7-Apr-2003



New Technology - Slope Stability Radar



Leadership Excellence

- Leadership Excellence is a customised BHP Billiton Iron Ore leadership development program
- Objectives
 - Develop a common leadership framework
 - “Attaining organisational goals through the development of people”
 - Assess current competence levels and implement improvement plans
 - All BHPBIO leaders meet competency benchmarks
 - Nationally accredited Frontline Management qualifications
 - 25 Managers and Superintendents completed 2002 program
 - 23 achieved Diploma (92% of target group)
 - 52 Supervisors completing 2003 program

Leadership Excellence 360° Feedback

Start of Program

