

BHP Billiton Iron Ore

Asset Development Projects



Iron Ore

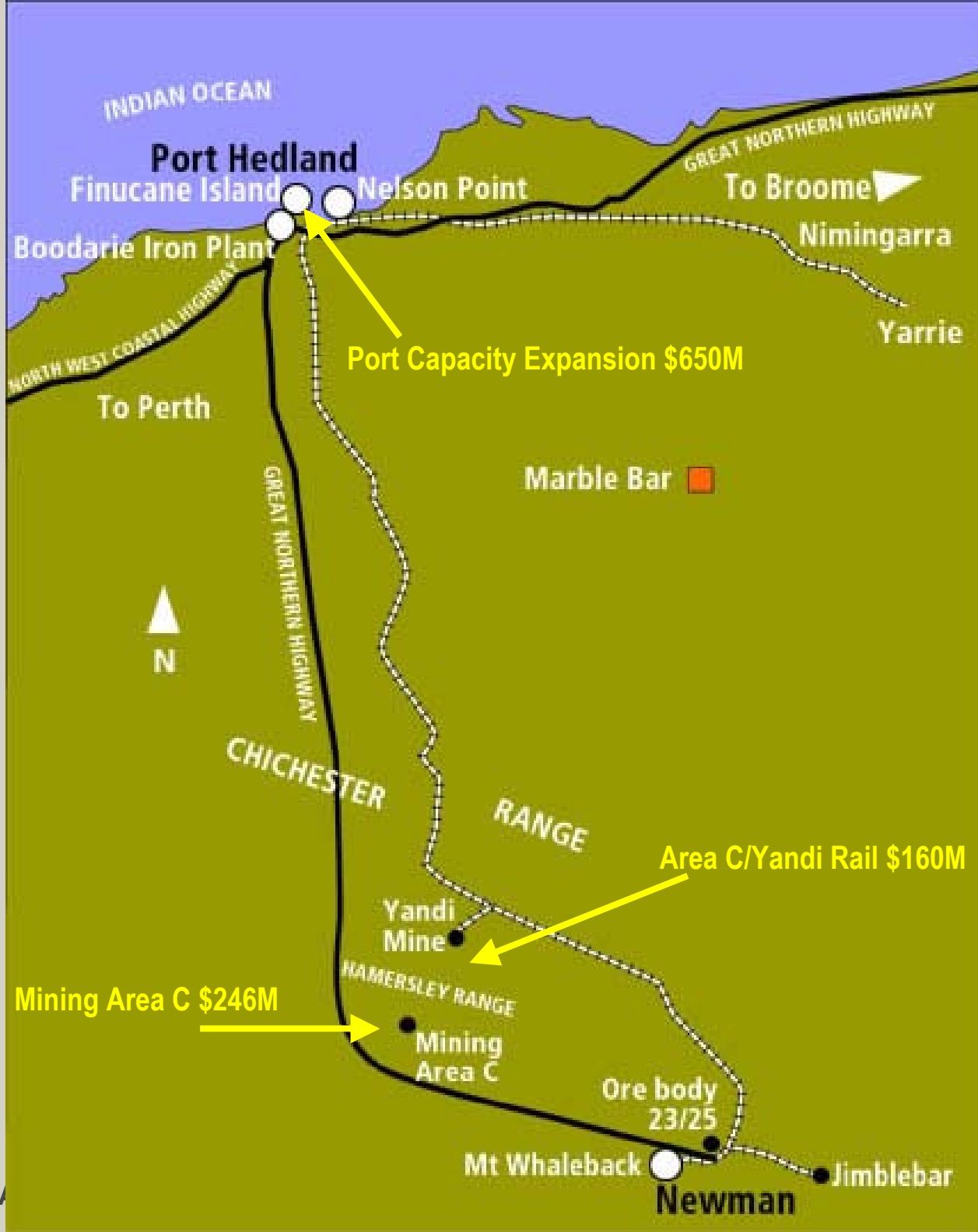
September 2003



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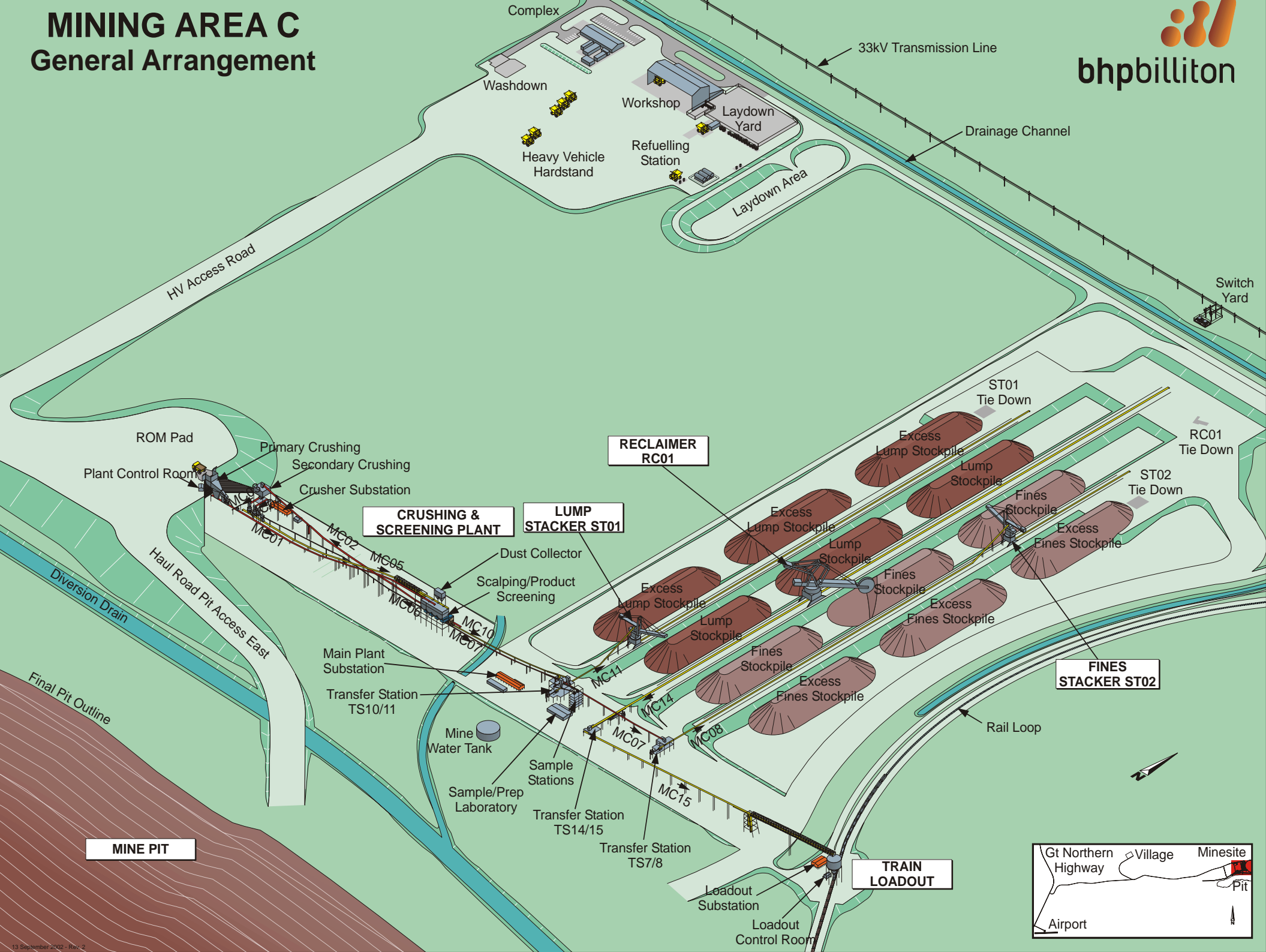
Agenda

- Mining Area C Project
- Area C to Yandi Rail Project
- Products and Capacity Expansion (PACE) Project
- System Capacity Increases to 100Mtpa
- Long Term Expansion (LTE) Study



MINING AREA C

General Arrangement



MINE PIT

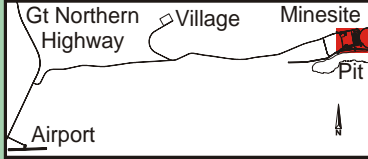
RECLAIMER RC01

CRUSHING & SCREENING PLANT

LUMP STACKER ST01

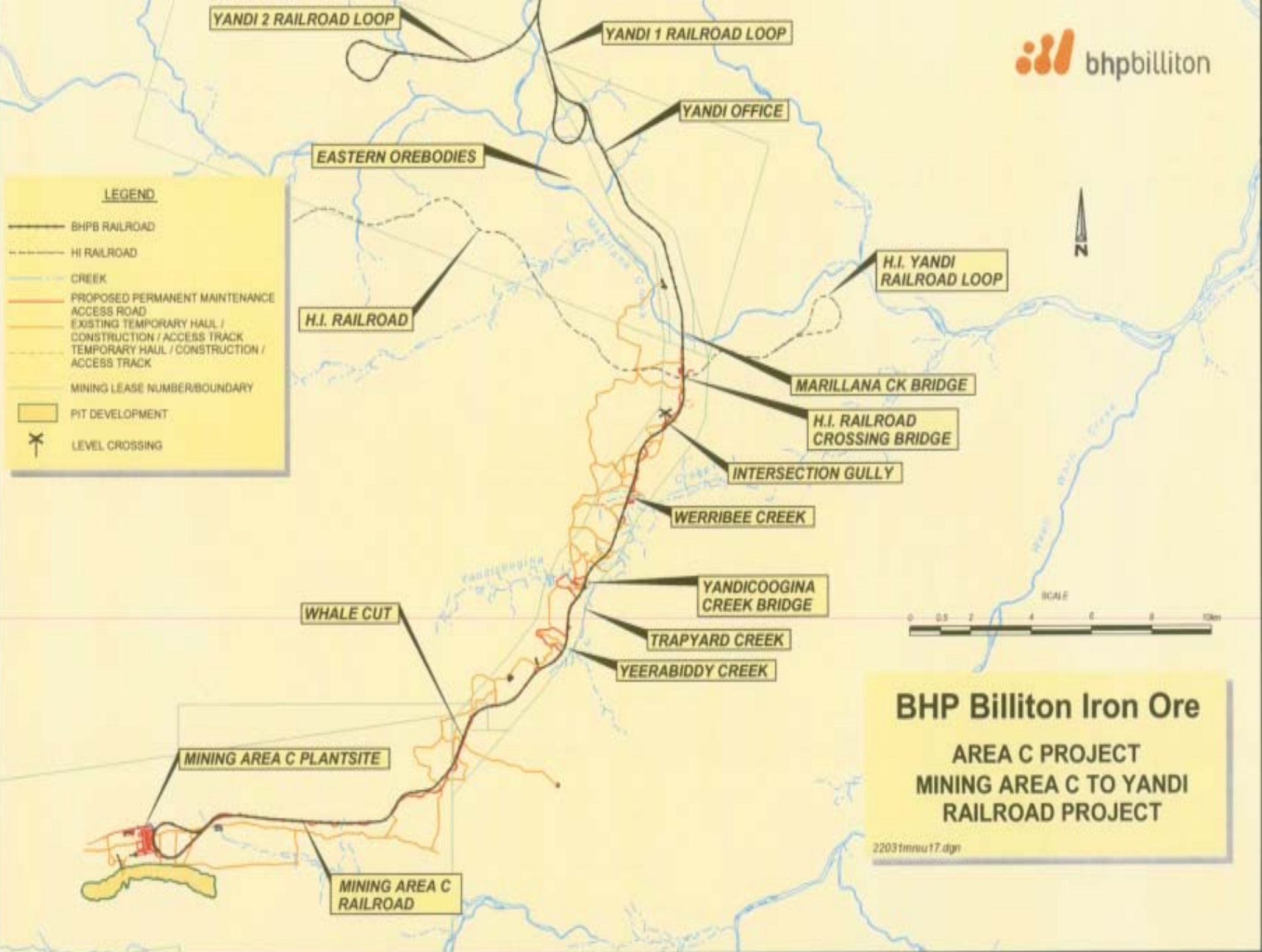
FINES STACKER ST02

TRAIN LOADOUT



LEGEND

- BHPB RAILROAD
- HI RAILROAD
- CREEK
- PROPOSED PERMANENT MAINTENANCE ACCESS ROAD
- EXISTING TEMPORARY HAUL / CONSTRUCTION / ACCESS TRACK
- TEMPORARY HAUL / CONSTRUCTION / ACCESS TRACK
- MINING LEASE NUMBER/BOUNDARY
- PIT DEVELOPMENT
- LEVEL CROSSING



YANDI 2 RAILROAD LOOP

YANDI 1 RAILROAD LOOP

YANDI OFFICE

EASTERN OREBODIES

H.I. RAILROAD

H.I. YANDI RAILROAD LOOP

MARILLANA CK BRIDGE

H.I. RAILROAD CROSSING BRIDGE

INTERSECTION GULLY

WERRIBEE CREEK

YANDICOOGINA CREEK BRIDGE

TRAPYARD CREEK

YEERABIDDY CREEK

WHALE CUT

MINING AREA C PLANTSITE

MINING AREA C RAILROAD

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AREA C PROJECT

MINING AREA C TO YANDI RAILROAD PROJECT

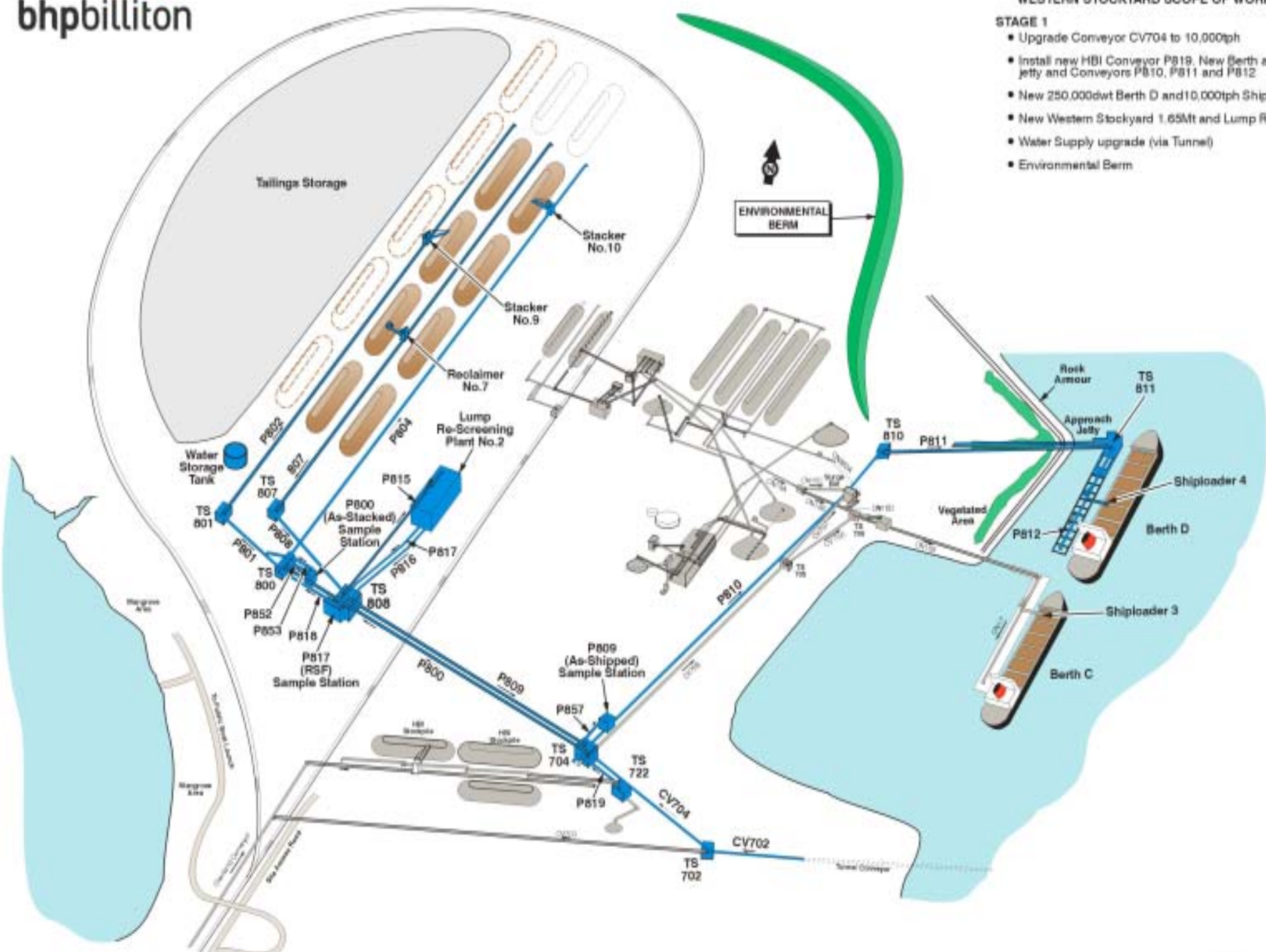
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PRODUCTS AND CAPACITY EXPANSION PROJECT WESTERN STOCKYARD WORKS

PRODUCTS AND CAPACITY EXPANSION PROJECT (PACE) WESTERN STOCKYARD SCOPE OF WORK

STAGE 1

- Upgrade Conveyor CV704 to 10,000tph
- Install new HBI Conveyor P819, New Berth approach jetty and Conveyors P810, P811 and P812
- New 250,000dwt Berth D and 10,000tph Shiploader No 4
- New Western Stockyard 1.65Mt and Lump Re-screening Plant
- Water Supply upgrade (via Tunnel)
- Environmental Berm



Asset Development Projects

KPI's

Financial KPI's	Mining Area C Project	PACE Project
Original Auth. Budget - 100% (AUD\$M)	398	653
Current Auth. Budget - 100% (AUD\$M)	406	647
Project Schedule KPI's		
Rail 1 st Ore	Nov-03	N/A
Ship 1 st Ore from Finucane Island	N/A	Feb-04
Facility Handover to Operations	Dec-03	Mar-04
Project HSEC KPI's		
Fatalities	0	0
LTIFR	<2	<2
Level 3 Environmental incidents	0	0
Indigenous Employment (% of site hours)	5%	5%
IR Lost Time (% of total hours)	2-3%	2-3%

All projects are currently running ahead of schedule and under budget – in A\$'s and in US\$'s

Asset Development Projects Schedule / Cost / Safety Performance

Project Milestones	Planned	Actual
Project Approval	22 Mar 02	22 Mar 02
Complete Nelson Point Commissioning	26 Jul 03	17 Jul 03
Rail track available for Commissioning Train	1 Sep 03	16 Aug 03
Complete Commissioning – Area C	11 Sep 03	26 Aug 03
Rail 1 st ore to Nelson Point from Area C	1 Oct 03	16 Aug 03
Ship 1 st ore ex Nelson Point	31 Oct 03	24 Sep 03
New Shiploader delivered to Finucane Island	27 Nov 03	25 Oct 03
Ship 1 st ore ex Finucane Island	28 Feb 04	26 Jan 04

	Current Budget	Progress
Area C	245,780	99%
Rail	159,985	99%
PACE	647,179	70%
TOTAL	1,052,944	85%

	Manhrs	LTI's	LTIFR	CI's	CIFR
Area C	1,092,152	1	0.9	4	3.6
Rail	1,109,200	0	0	2	1.8
PACE	1,674,192	0	0	7	4.2
TOTAL	3,875,544	1	0.2	13	3.4

Mining Area C Project Crushing Plant



Mining Area C Project Screening Building



Mining Area C Project Reclaimer



Mining Area C to Yandi Railroad Project Bulk Earthworks – Cut 28

Length 390m

Depth 35m

Batter Angle 3:1



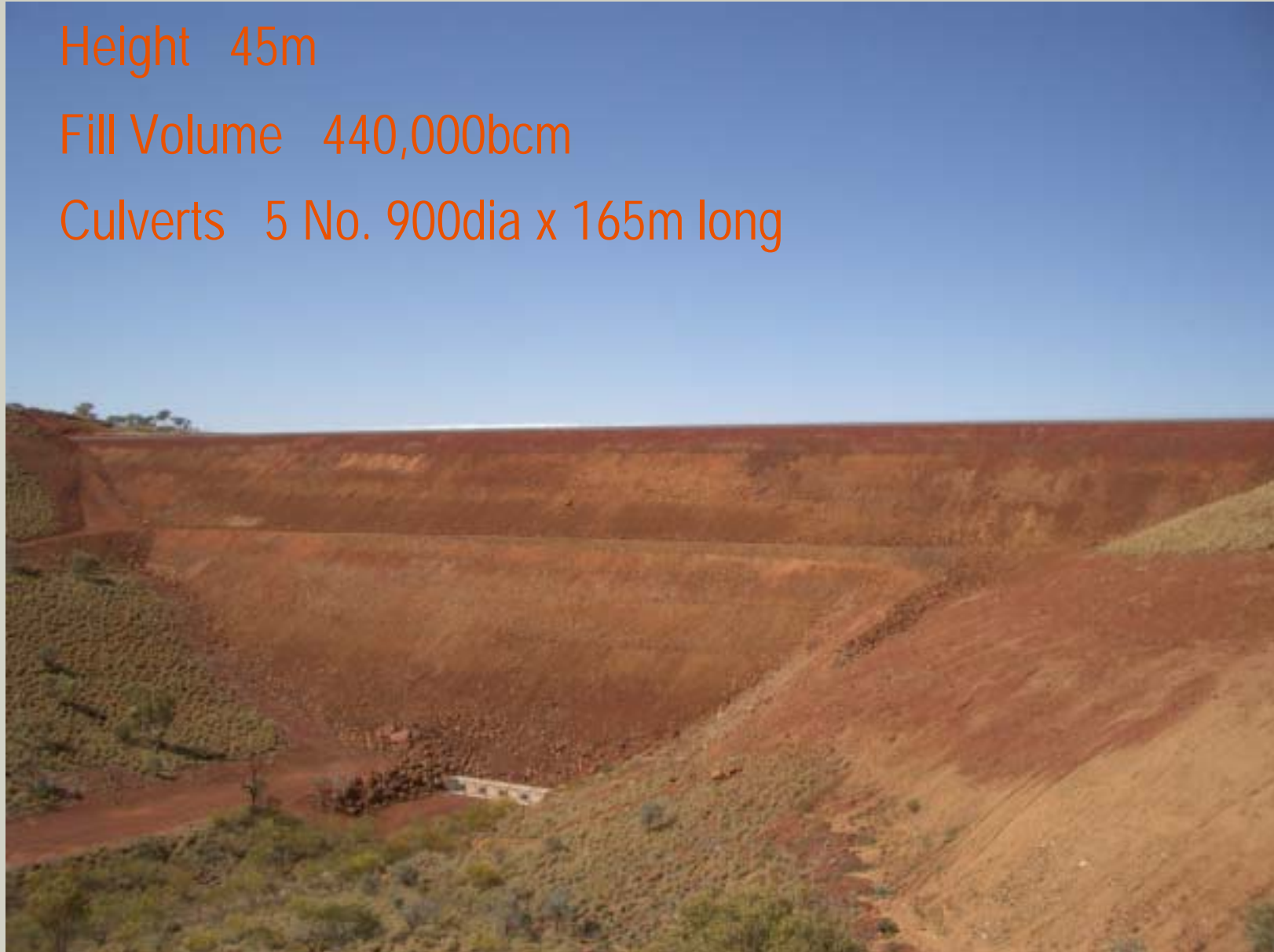
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Mining Area C to Yandi Railroad Project Yeerabiddy Creek

Height 45m

Fill Volume 440,000bcm

Culverts 5 No. 900dia x 165m long



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Mining Area C to Yandi Railroad Project Marillana Creek Bridge



1st train from Mining Area C – 16 August 2003



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PACE Project



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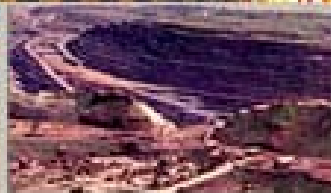






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Capacity Increases



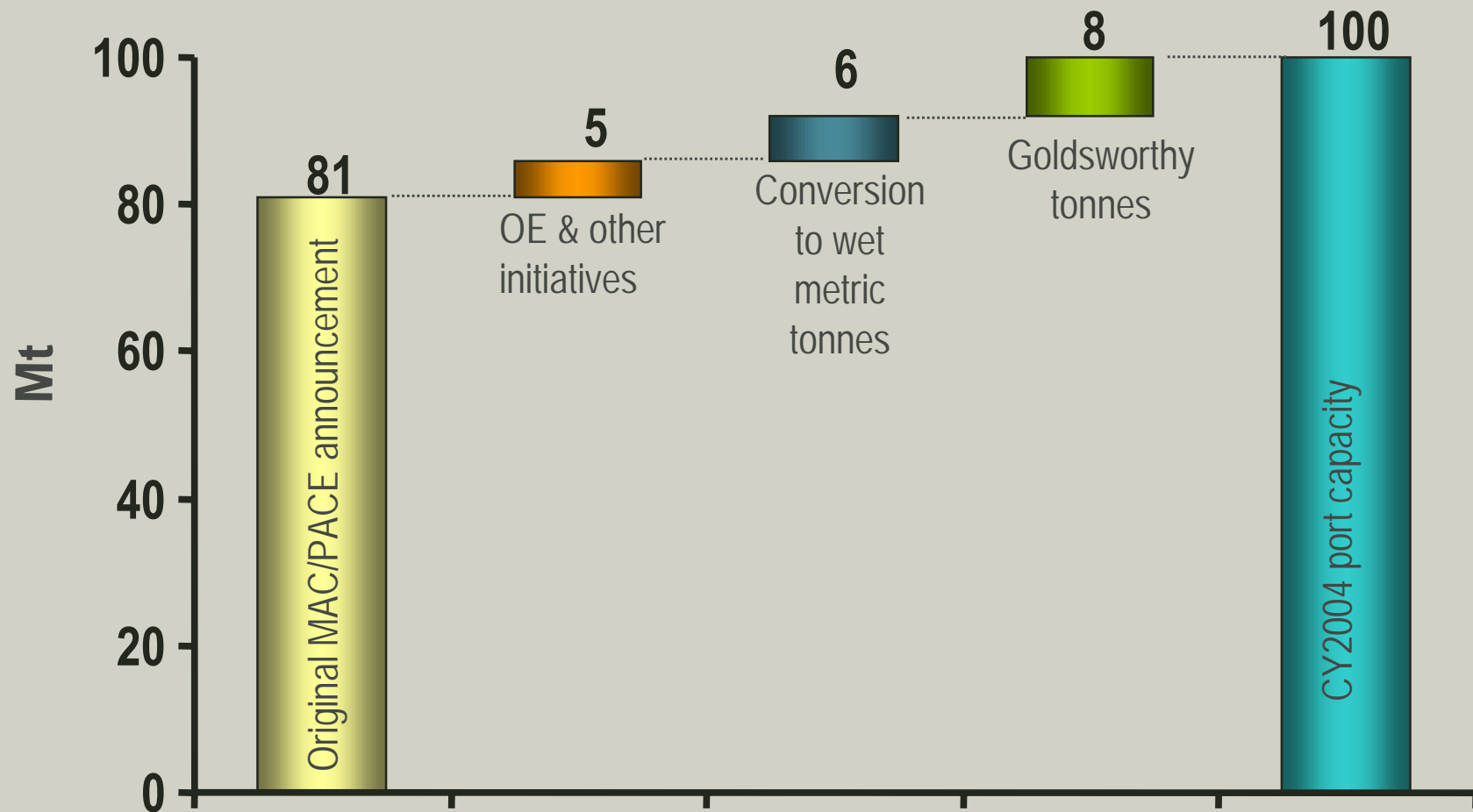
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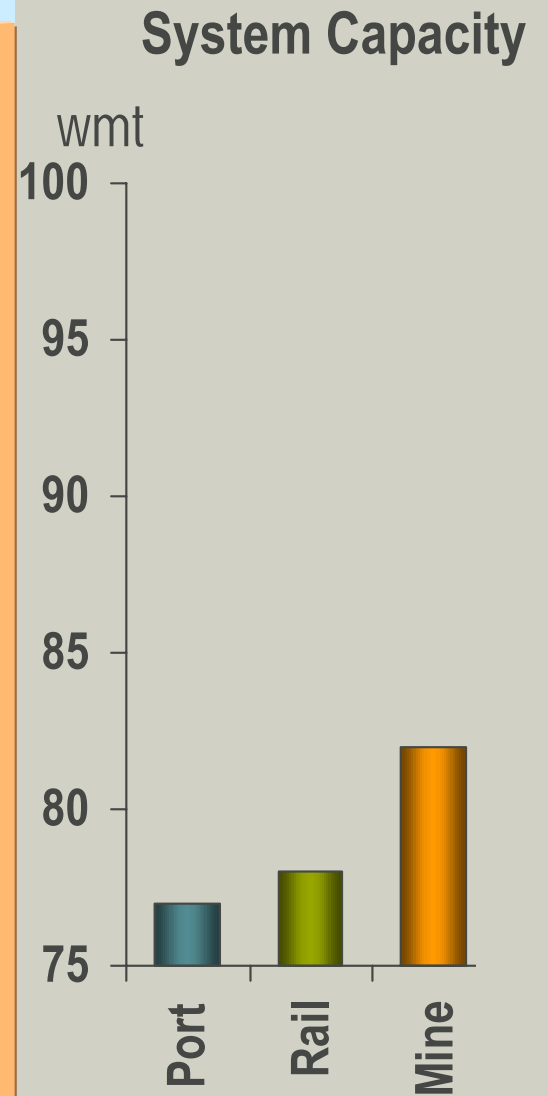
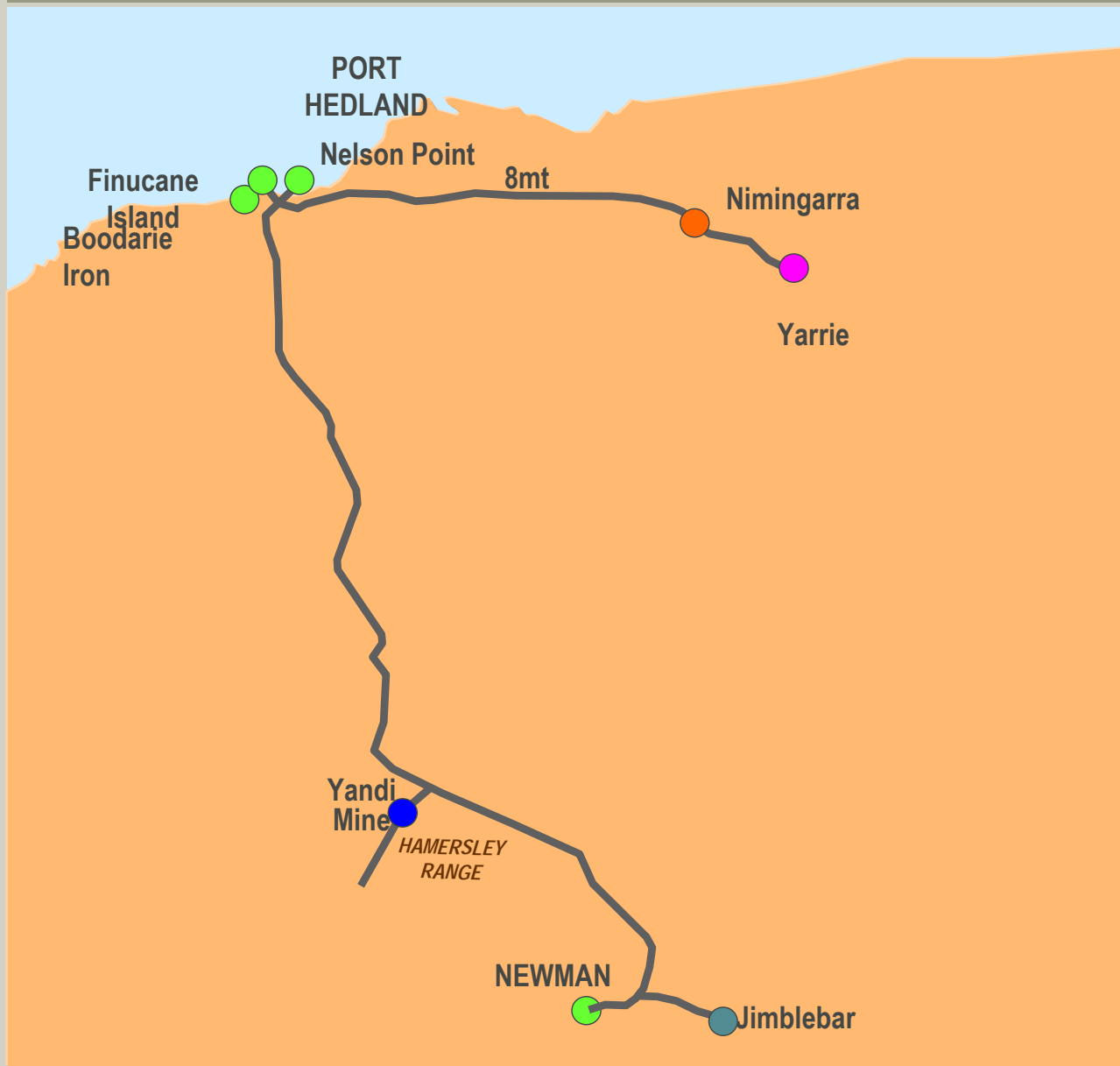
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Port Capacity Improvements 81Mt → 100Mt



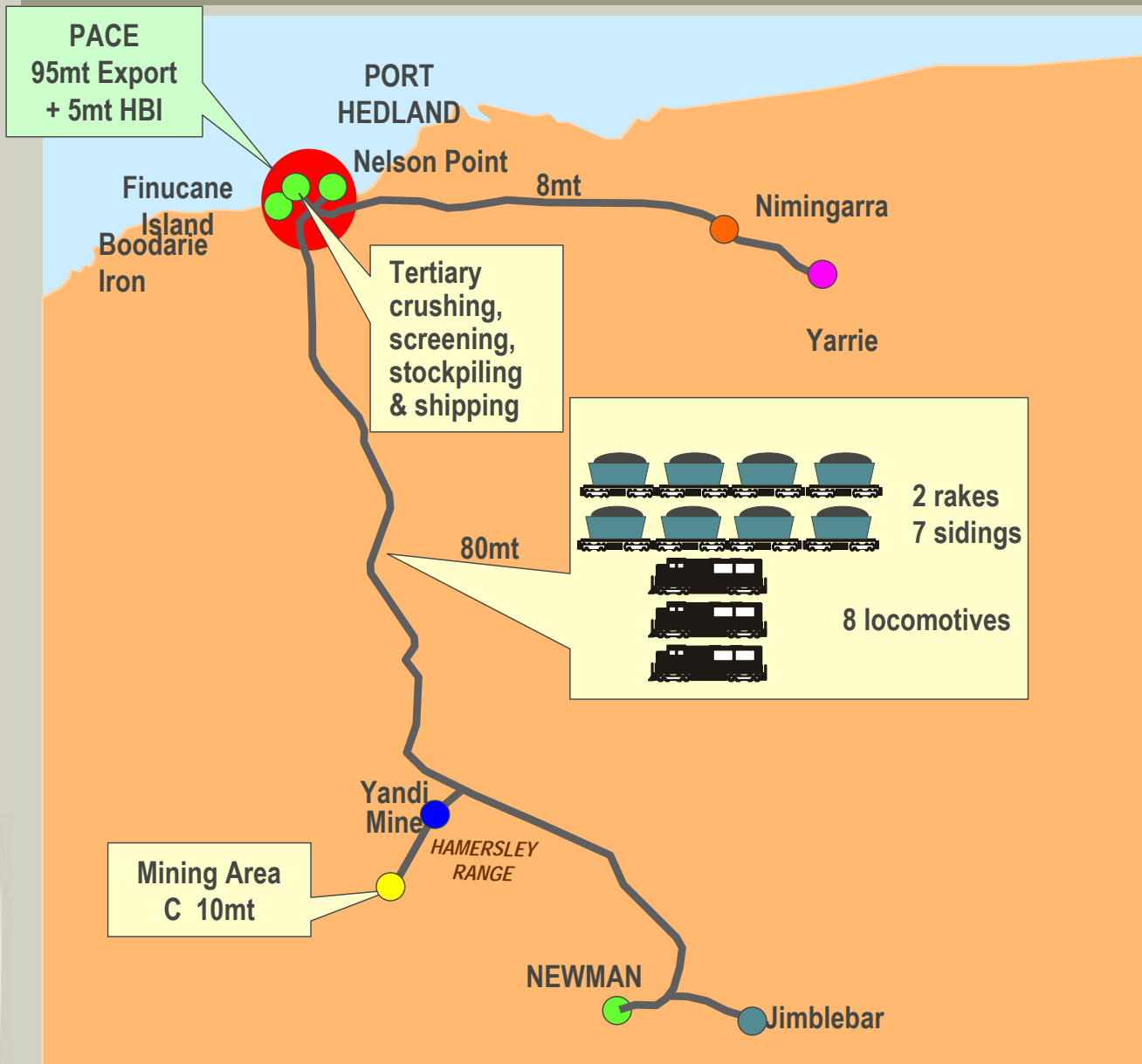
BHPB WA Iron Ore System Capacity

77mt

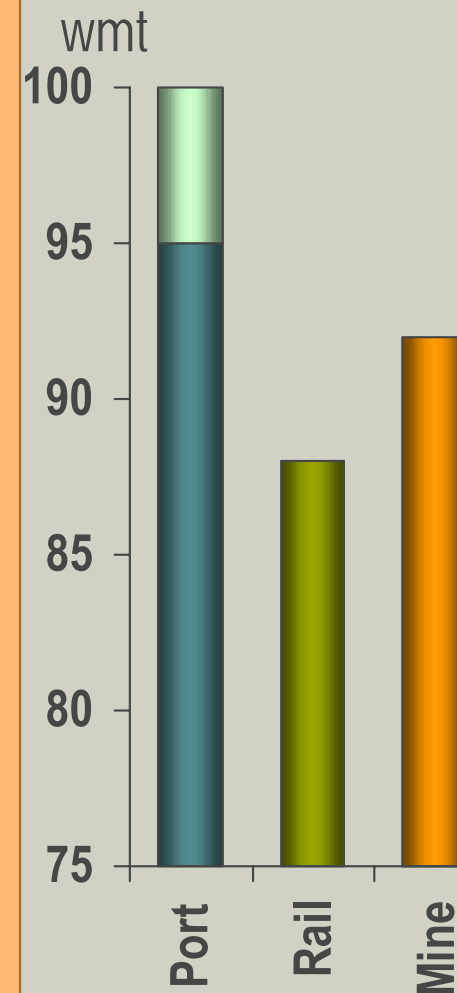


BHPB WA Iron Ore System Capacity

77mt → 88mt

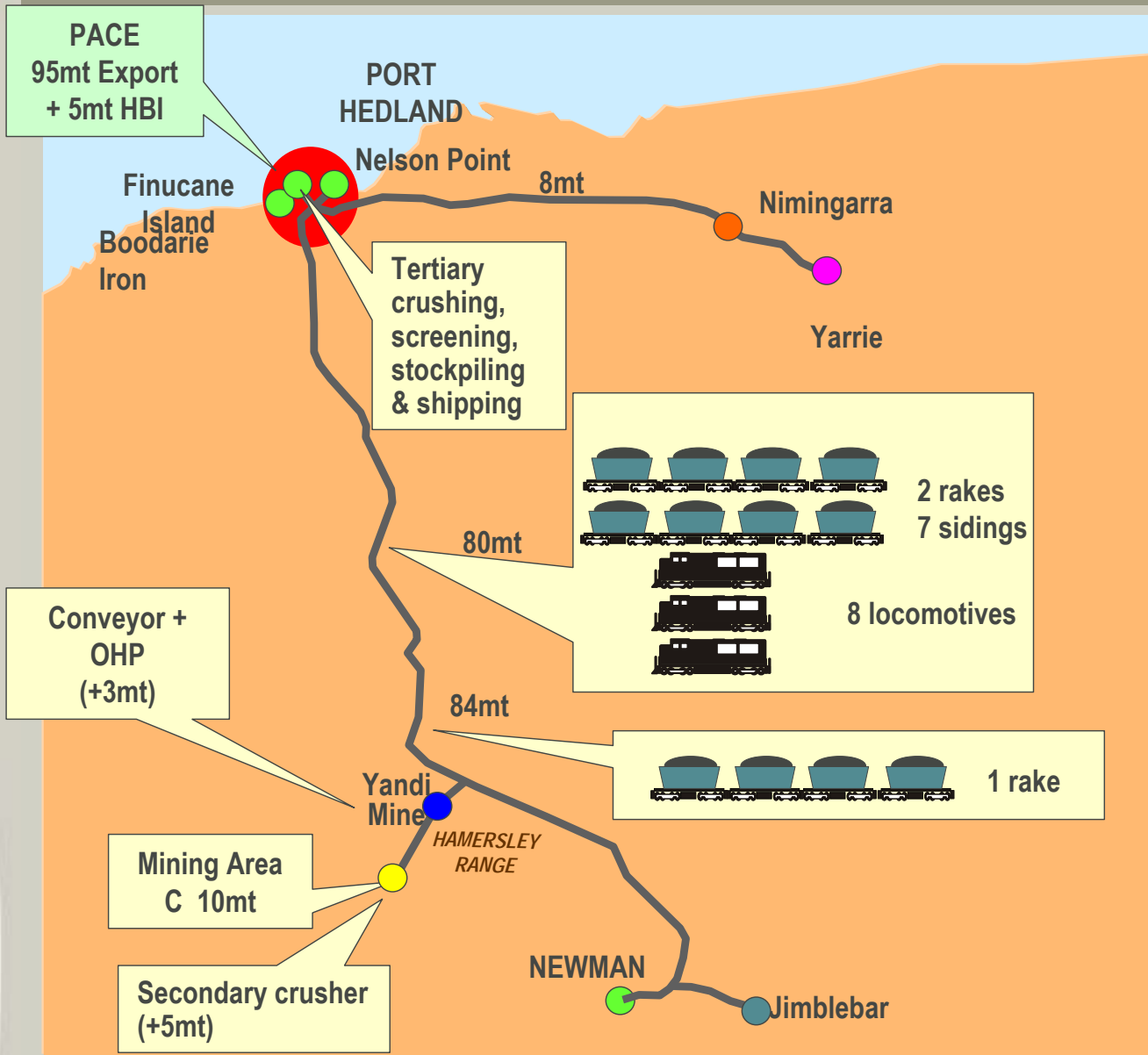


System Capacity

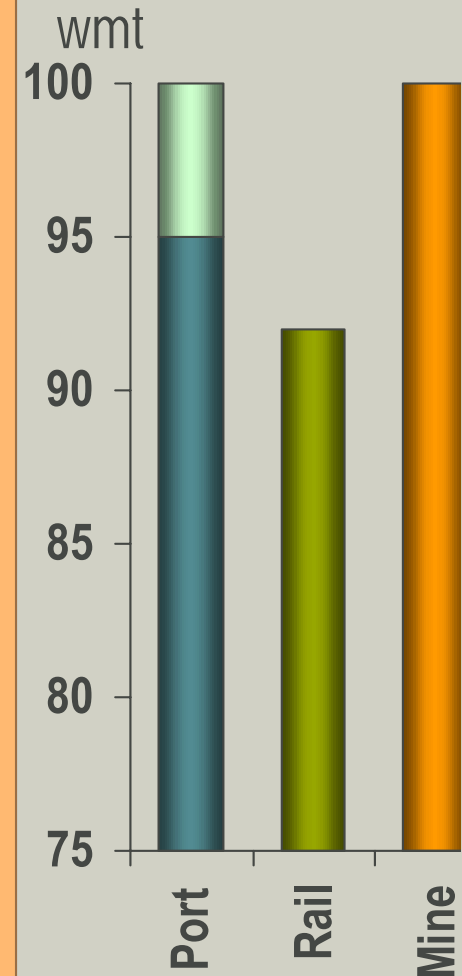


BHPB WA Iron Ore System Capacity

77mt → 92mt

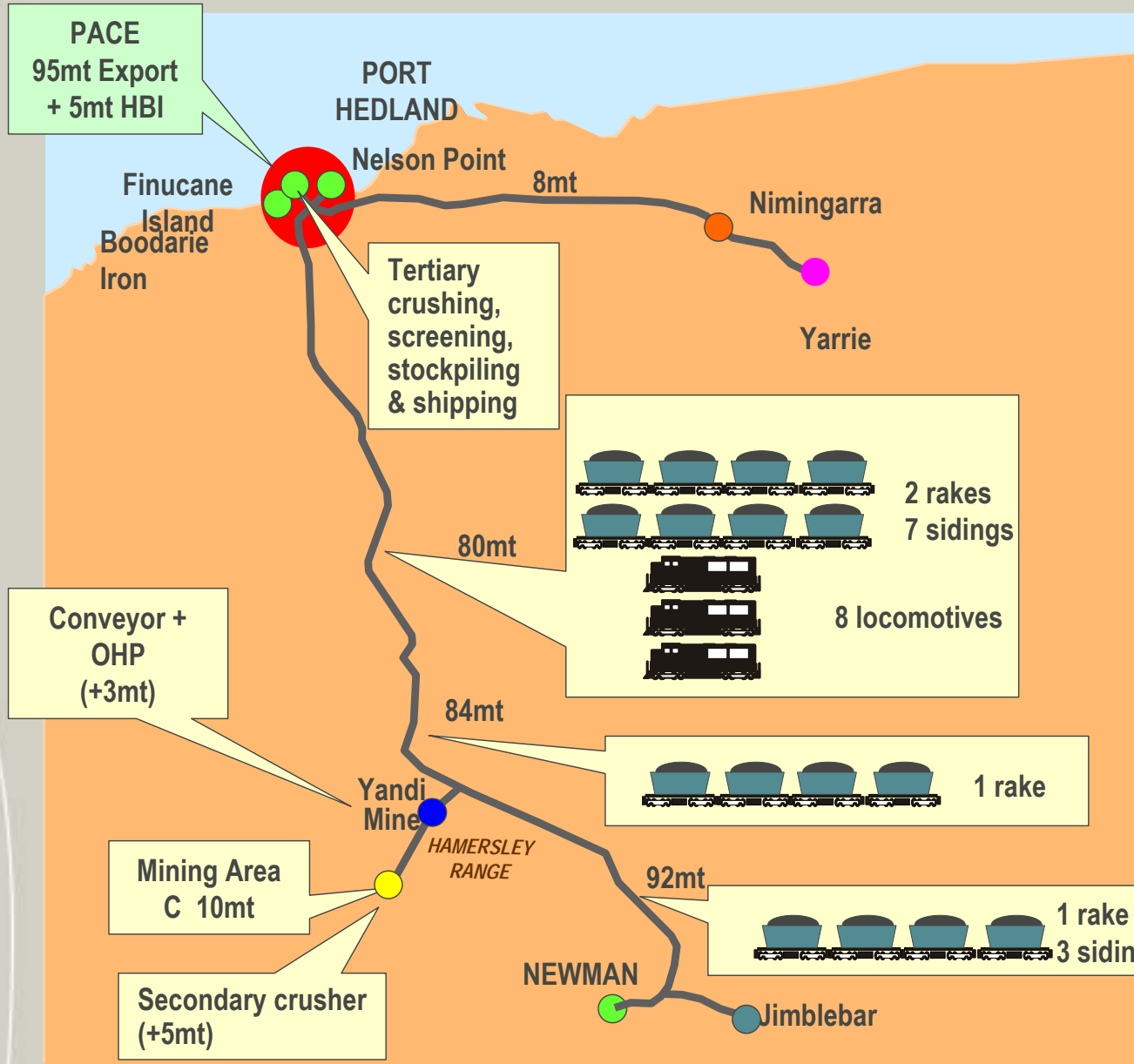


System Capacity

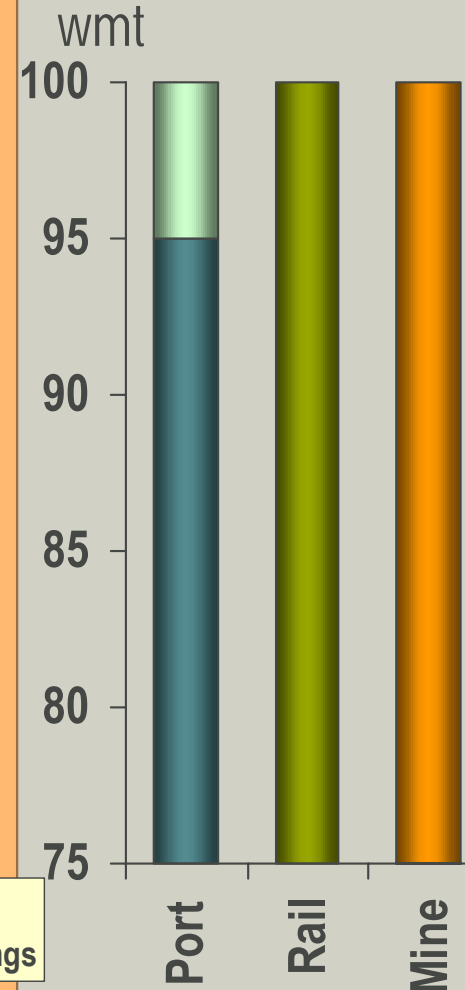


BHPB WA Iron Ore System Capacity

77mt → 100mt

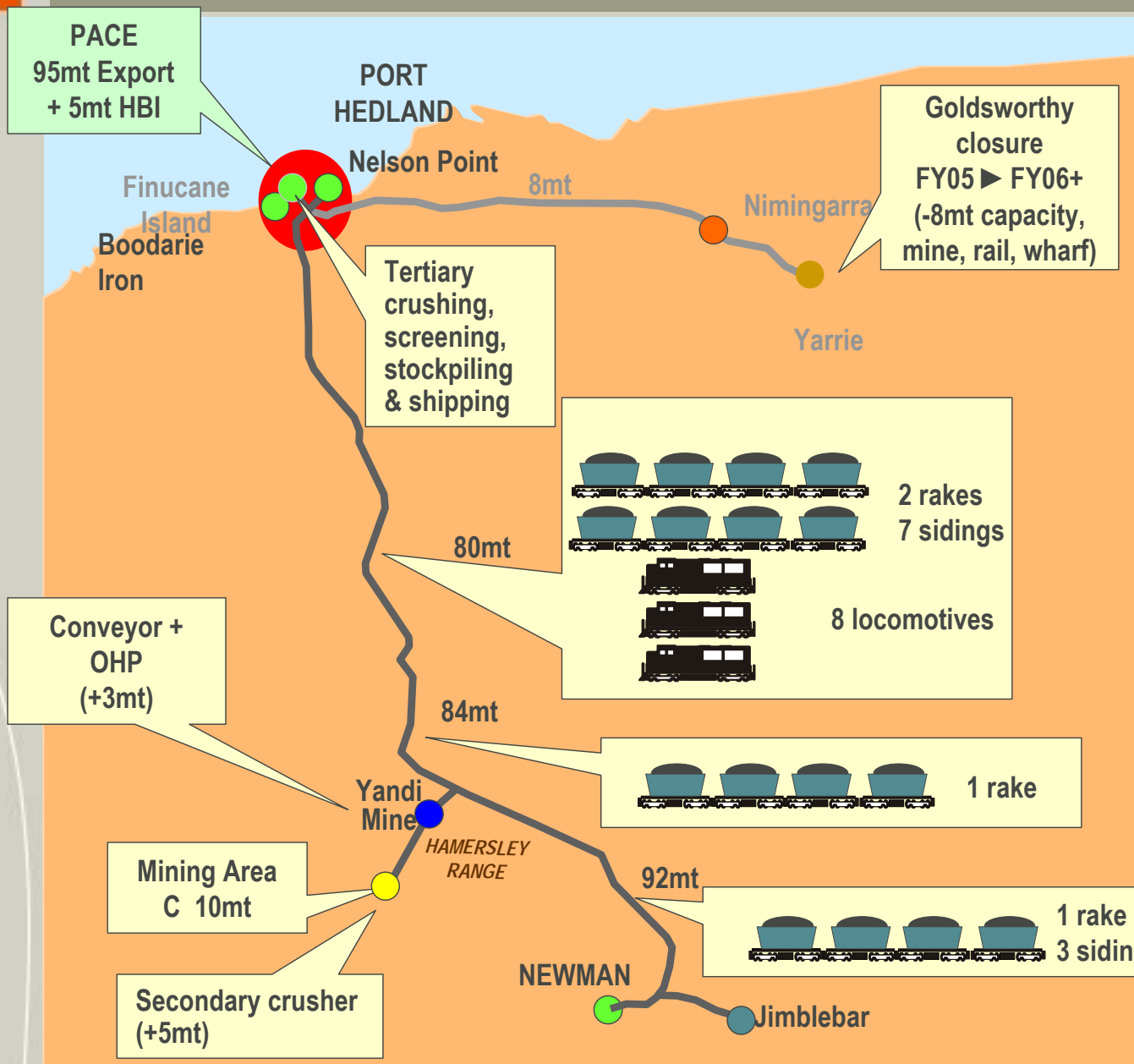


System Capacity

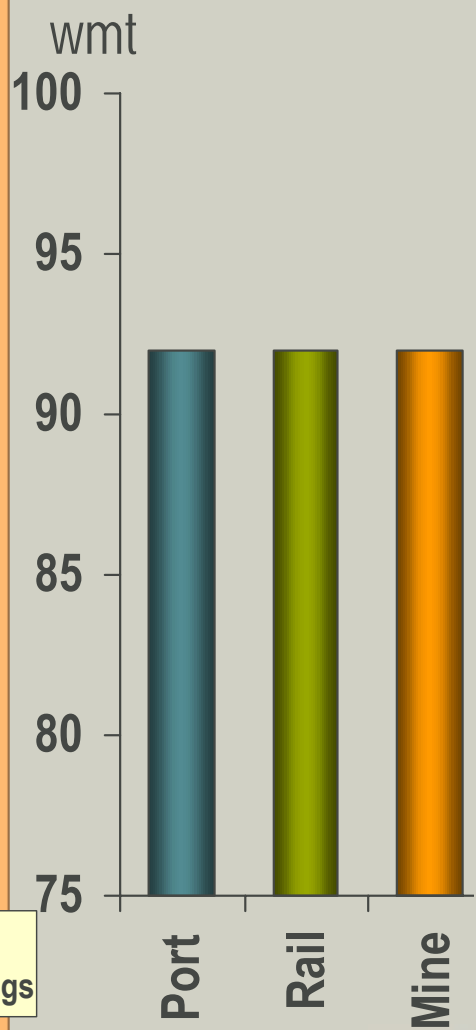


BHPB WA Iron Ore System Capacity

77mt → 92mt



System Capacity



Timing of Capacity increases

- Mining Capacity:

- Additional 5Mt at Area C 1st Qtr CY2004
- Additional 3Mt at Yandi (IOWA) 1st Qtr CY2004

- Rail Capacity

- 2nd rake (+ 4Mt) 4th Qtr CY2003
- 3rd rake (+ 4Mt) 1st Qtr CY2004
- Extra 3 sidings (+ 4Mt) 1st Qtr CY2004
- 4th rake (+ 4Mt) 2nd Qtr CY2004

BHP Billiton Iron Ore

Long Term Expansion Study



Iron Ore

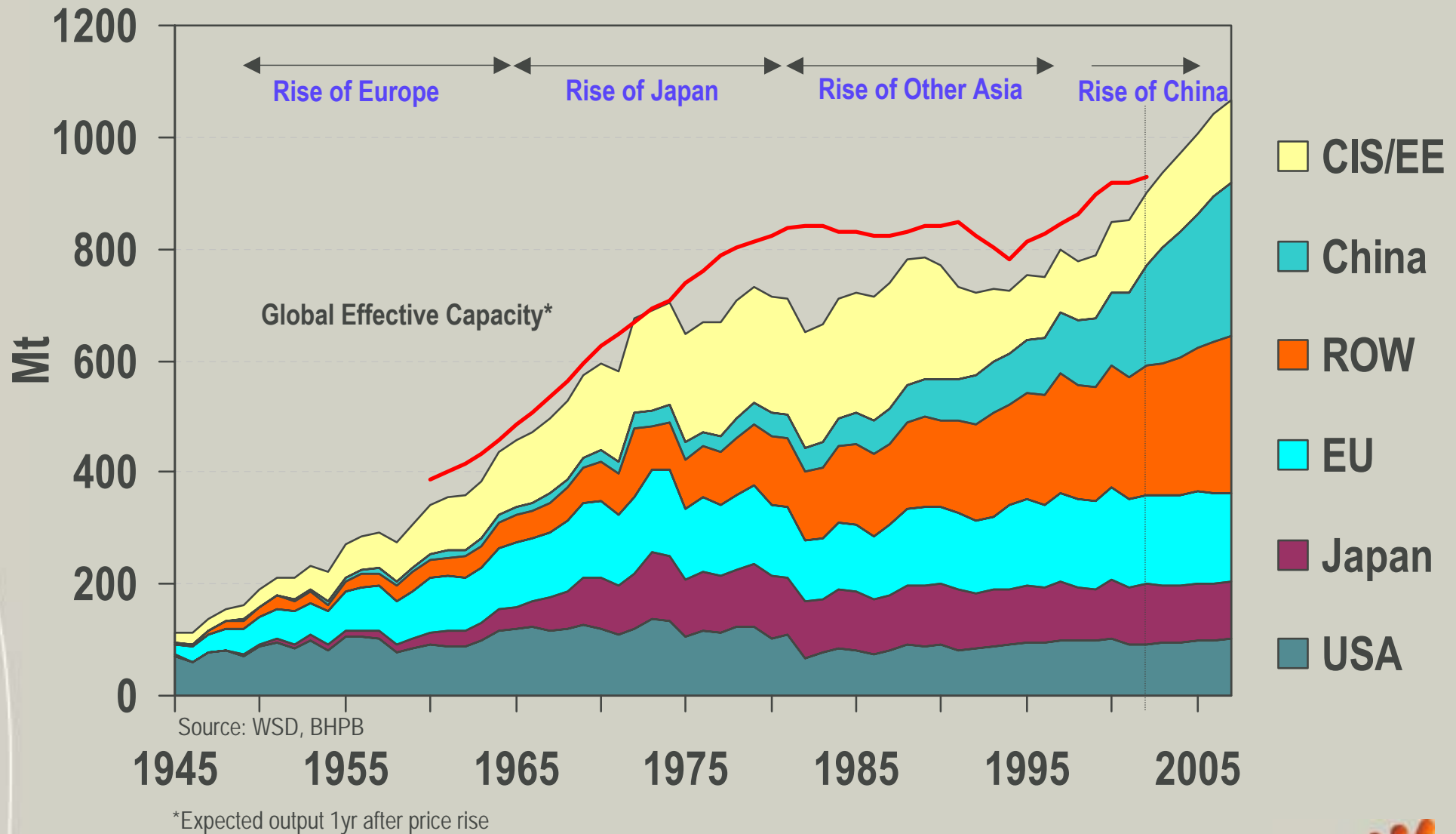
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LTE PFS

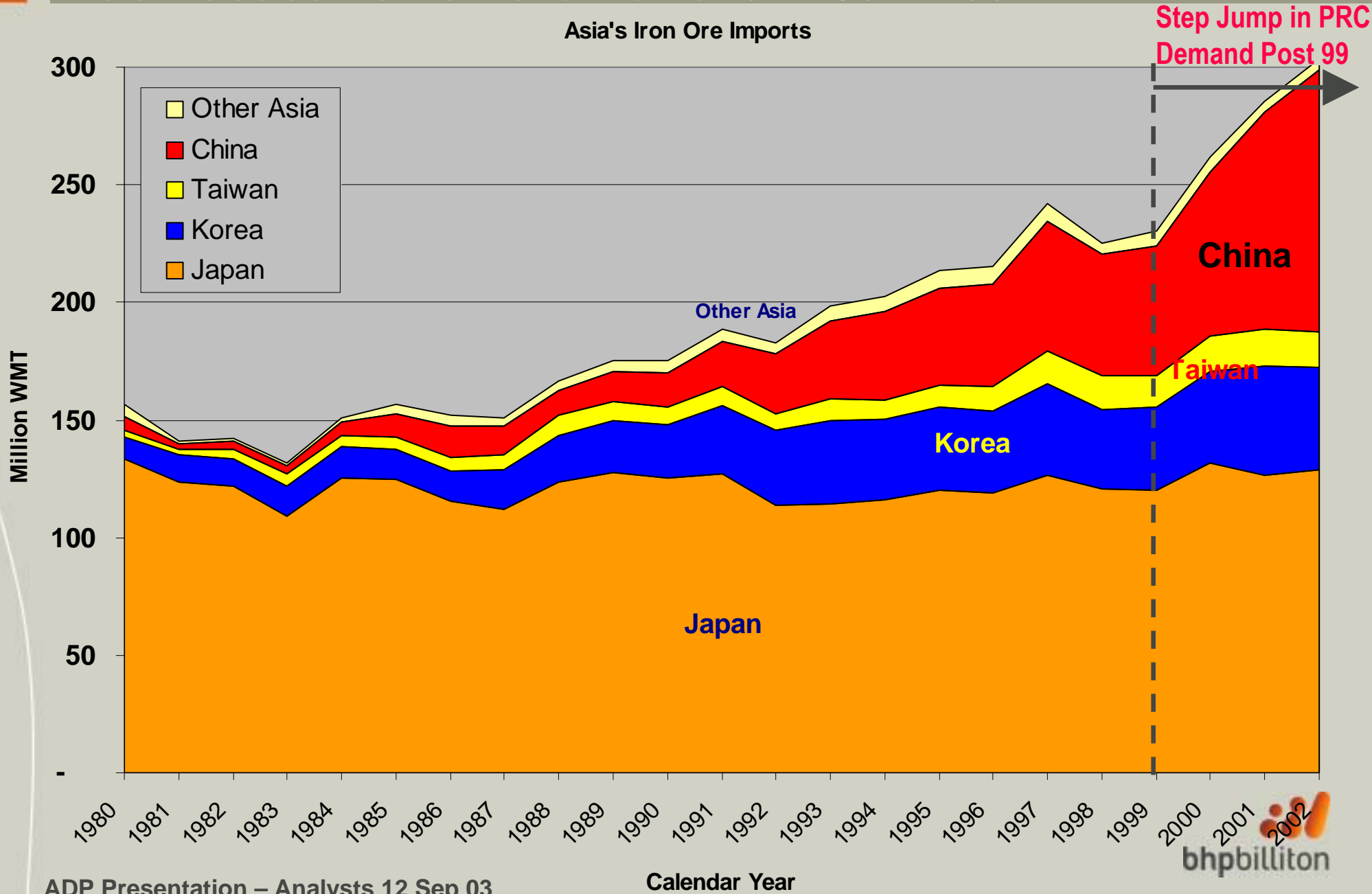
Global Crude Steel Production – Base Case



LTE PFS

Asian Seaborne Iron Ore Demand 1980 – 2001

Asia's Iron Ore Imports



LTE PFS

Catalyst / Initiator

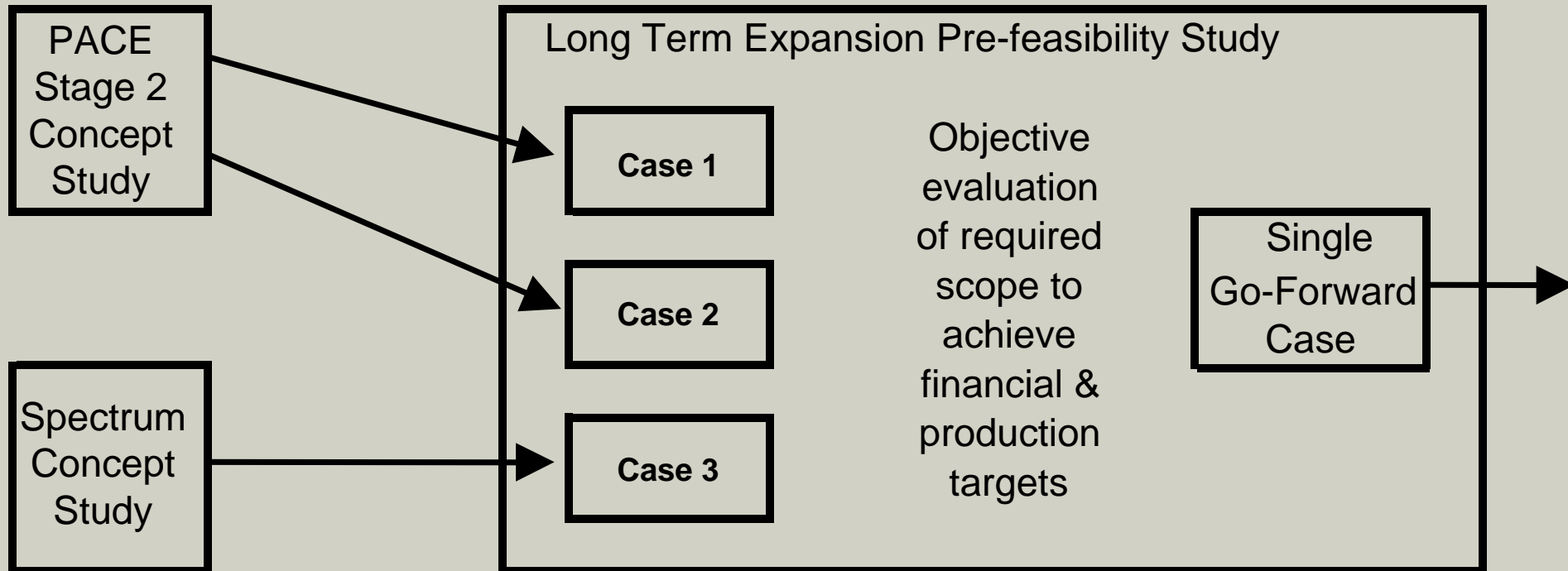
- Rapid, unprecedented and anticipated long-term sustainable increase in demand for Iron Ore that exceeds current supply capacity of major seaborne traders
- Growth centred on China
- Originally based on 120 Mtpa capacity with 40:40:40 split from Newman : Yandi : Area C. Expansion study will now consider possibilities closer to 140 Mtpa or beyond

LTE PFS

Purpose

To select a single go forward case for long term expansion based on 3 concept studies

Assessment of the concepts will be carried out on all parameters (not only NPV) in accordance with BHPBIO's Investment System Standard for a PFS



LTE PFS

The Cases

Case	Description
Case 1	Two Flexible Ports Based on a four car dumper / four berth port configuration at Port Hedland. Includes installation of Car Dumper 4 (CD4) and upgrading of Berth C at Finucane Island.
Case 2	Three Independent Ports Maintains three car dumpers and three export berths. The port material handling system is modified and expanded to maximise use of the three shiploading berths, by revising operating practices and dedicating stockyards to shiploaders.
Case 3	Spectrum Fundamentally changes the existing operation with crushing and screening of high grade ores undertaken at Newman. Lumps and fines for each product produced “on grade” at each mine hub.
Others	Hybrids adopting the best ideas in all options