

# Petroleum Business Briefing

December 2004



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# Overview of Today's Briefing

- **Introduction, Overview, Growth and Project Updates**

Philip Aiken, Group President, Energy

- **Production and Financial Performance**

Greg Robinson, Chief Financial Officer & Chief Development Officer, Energy

- **Exploration**

Steven Bell, President Exploration & Business Development, Petroleum

- **Gas Developments & Opportunities**

Rebecca McDonald, President Gas & Power, Petroleum

- **Conclusion & Questions**

Philip Aiken

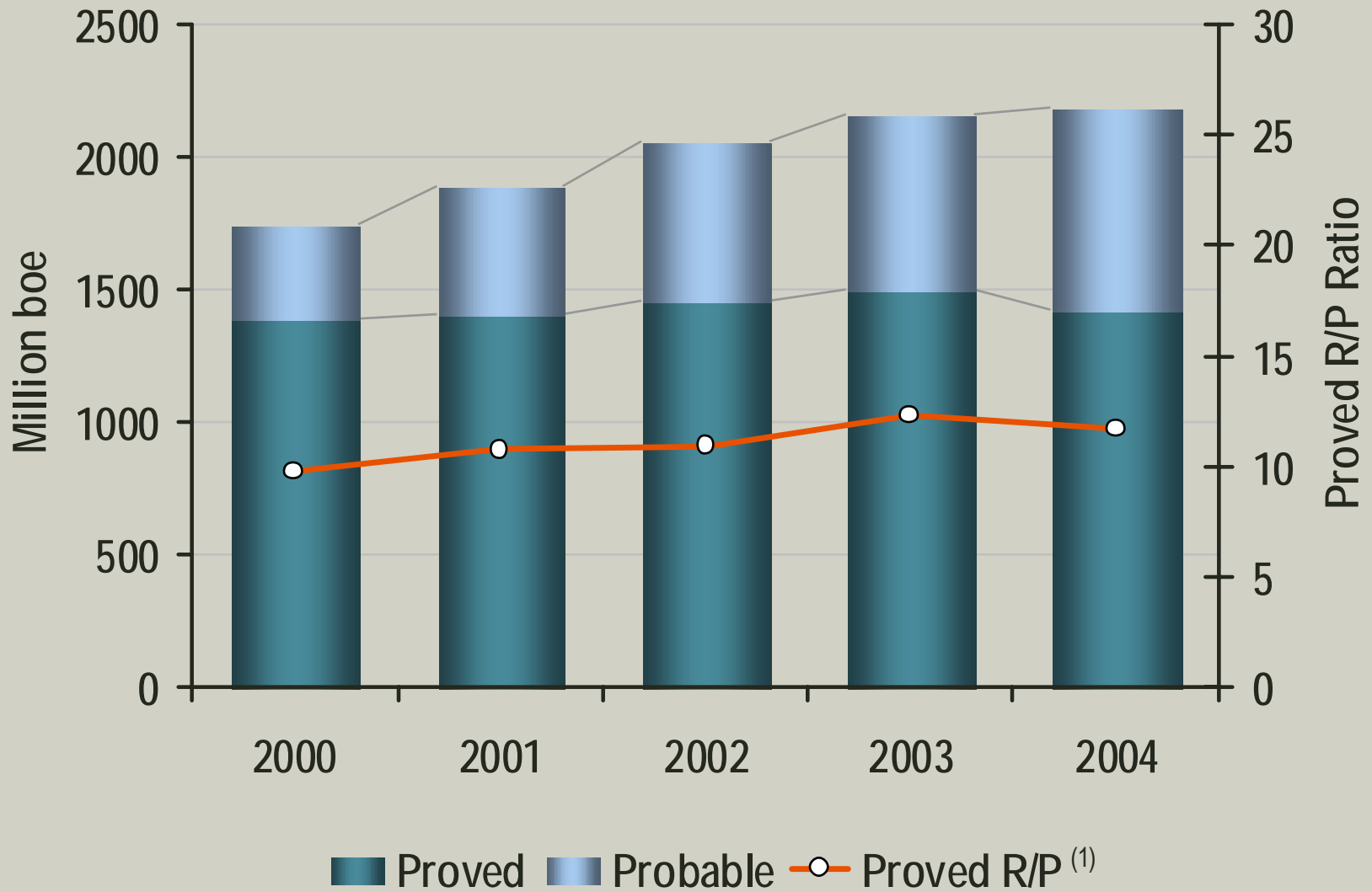
# BHP Billiton Energy

- Energy Group – Petroleum and Energy Coal Businesses
- Different businesses – overseen by Energy Executive Committee but operationally managed separately
- Advantages in bringing together:
  - Flexible response to changes in energy industry
  - Customers benefit from ‘one stop shop’
  - Some common processes and management practices

# Petroleum – Overview

	FY 2004	FY 2003
Turnover (Excluding third party)	\$3.2 billion	\$3.0 billion
EBIT	\$1.4 billion	\$1.2 billion
Operating capital employed	\$4.1 billion	\$3.3 billion
Total production	122.5 million boe	121.8 million boe
Average daily production	335,000 boe per day	334,000 boe per day
Total proved reserves	1.421 billion boe	1.504 billion boe
Staff and direct contractors	1,784	1,700
Main centres	Melbourne, Houston, London, Perth	

# Reserves Trends

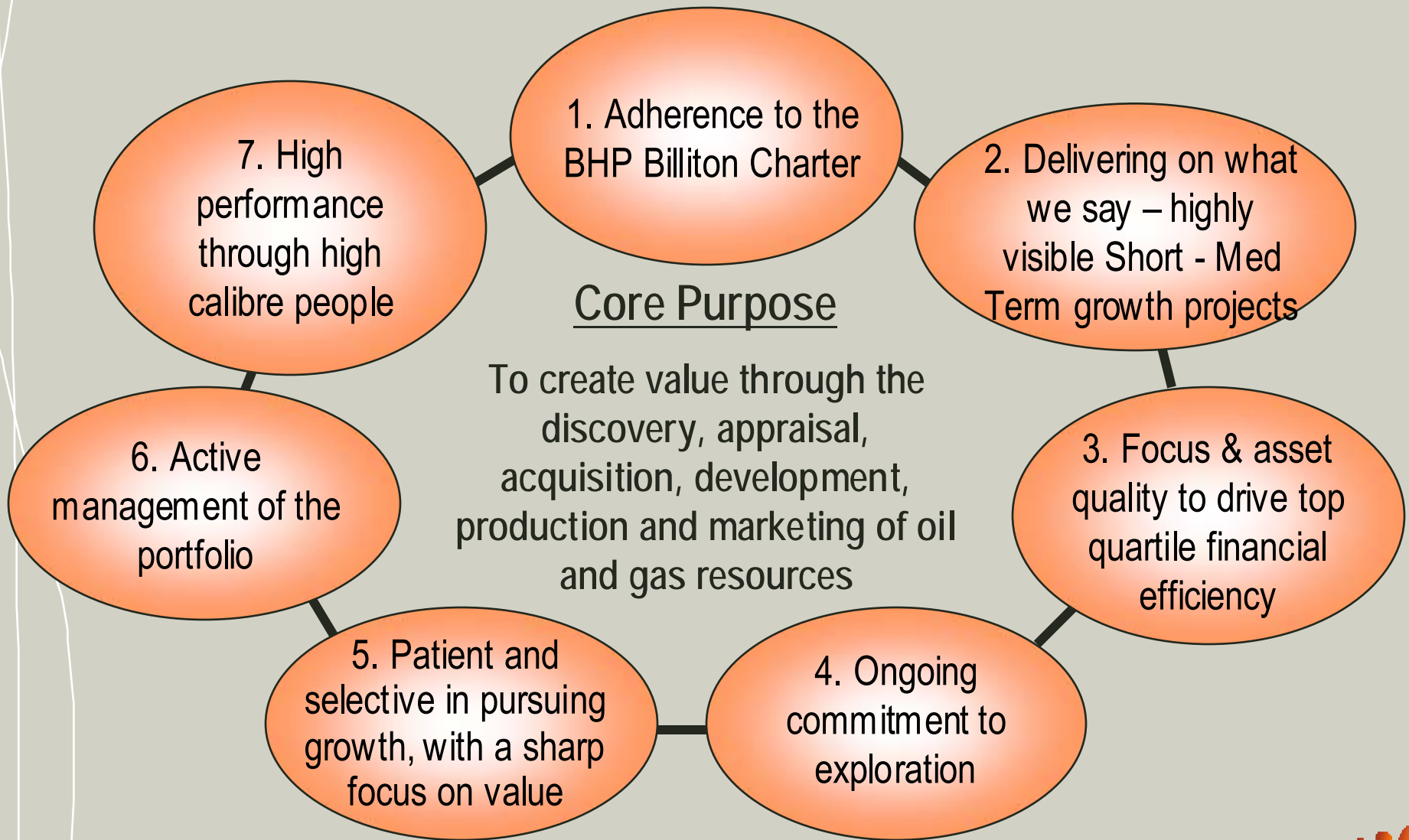


1. Proved R/P ratio refers to Reserves over Production

# Petroleum FY 2004 Health, Safety & Environment Performance

- BHP Billiton's goal is zero harm to people and the environment
- We are committed to continuous improvement in our HSEC performance. Over the year:
  - We outperformed our HSEC target
  - We had no major oil spills or environmental incidents
- Our HSEC highlights for the year include:
  - Pakistan and Global Drilling Teams achieved ISO and OSHAS certification
  - The company's Fatal Risk Control Protocols are being implemented
  - Favourable audits received against the HSEC Management Standards
  - Protocols in health and marine operations developed
  - HSEC leadership & information sharing initiatives progressed
  - Victorian Geosequestration pilot program progressed

# BHP Billiton Petroleum – Core Purpose / Core Values



# BHP Billiton Petroleum – Core Business

A Core Business is a coherent area of business that is material to BHP Billiton, meets financial objectives, and offers a long-term span of activity and many options for reinvestment

- Material for BHP Billiton
- Delivers against financial objectives
- Involves critical mass - multiple investment opportunities through multiple vehicles
- Plays to our capabilities and strategic aspirations - value is added by our participation
- Involves control & asset liquidity - we can control critical activities and decisions, and have reasonable freedom to optimally manage the asset portfolio

# BHP Billiton Petroleum's Goals & Aspirations

1. Fully exploit existing core businesses
  - Bass Strait/ Eastern Australia gas
  - Pacific Basin LNG/ W Australia oil & gas
2. Ensure the emergence of the Gulf of Mexico as a third core business
3. Develop a fourth core business over the coming decade
  - Exploration
  - Major resource holder opportunities
  - Gas
4. Proactively manage other high-quality assets

# Petroleum – core business and current operations



- Main Offices
- Marketing Offices
- Production
- Core/emerging core businesses

● Gas commercialisation

\* Production start end 2004

# Petroleum – Growth Highlights

## Projects delivered

- Ohanet
- Zamzama Phase I
- Boris-North
- NWS 4<sup>th</sup> Train
- ROD first oil

## Continued Gulf of Mexico success

- Mad Dog, Atlantis (and infrastructure) developments on track
- Appraisal success at Shenzi and Neptune
- Puma, Starlifter discoveries
- Strengthened acreage position

## Western Australia drilling success

- Exmouth Sub-Basin (Stybarrow, Ravensworth, Crosby, Stickle)

## Other projects progressed

- Minerva, Angostura



# Petroleum – Gulf of Mexico Projects

## Mad Dog

- On schedule for start-up in December 2004
- Production capacity\* 100,000 bbl of oil; 60 MMcf of gas per day
- Reserves estimate: 200-450 MMboe (gross)



Mad Dog Spar

## Atlantis

- On schedule for 2006 first oil
- Production capacity\* 200,000 bbl of oil; 180 MMcf of gas per day
- Reserves estimate: 635 MMboe (gross)



Atlantis Hull

## Caesar & Cleopatra Transportation System

- On schedule to begin operating in December 2004
- Caesar oil and Cleopatra gas pipelines will transport oil from Mad Dog and Atlantis into the Southern Green Canyon grid

\* Production capacity on 100% basis.

# Petroleum – Other Projects

## Angostura

- On schedule for start-up December 2004
- Production capacity (nameplate) 100,000 bbl/day
- Gross reserves estimate 90 – 300 MMbbl;  
1 to 2.3 Tcf gas
- Gas commercialisation next phase



## Minerva

- On schedule for start-up December 2004
- 2P gas (gross) 300 Bcf, 1.2 MMbbl condensate
- Gas supply to South Australia



# Petroleum /Sanctioned Delivered Projects

	Start-up	BHP Billiton Capex	Nameplate Capacity* (BHP Billiton boe/day)
Zamzama Phase 1 (Pak)	July 2003	\$40 M	21,000
Boris (GoM)	Sep 2003	\$70 M	11,000
Ohanet (Alg)	Oct 2003	\$464 M	N/A – Risk Sharing Contract
North West Shelf T4 (Aus)	Aug 2004	\$247 M	14,500
ROD (Alg)	Oct 2004	\$192 M	29,000
Mad Dog (GoM)	Dec 2004	\$368 M	23,600
Caesar/Cleopatra (GoM)	Dec 2004	\$132 M	Infrastructure
Angostura (T&T)	Dec 2004	\$327 M	45,000
Minerva (Aus)	Dec 2004	\$150 M	22,000
Atlantis (GoM)	Q3 2006	\$1.2 B	101,200

\* Nameplate capacity does not reflect actual production

# New Growth Opportunities

## Gulf of Mexico

- Shenzi, Neptune
- Other Appraisal at Puma, Cascade and Chinook

## Australia

- Stybarrow, Pyrenees
- Scarborough/Cabrillo Port (US)
- NWS Train 5

# New Growth Opportunities

## Exploration (existing)

- Algeria
- Australia – Gippsland & Western Australia
- Trinidad & Tobago
- US – Gulf of Mexico
- Pakistan

## Exploration (new test areas)

- Borneo, Canadian Maritime, Brazil, South Africa

## New Business Development

- Existing Assets
- North Africa/Middle East

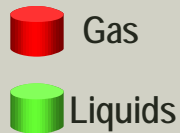
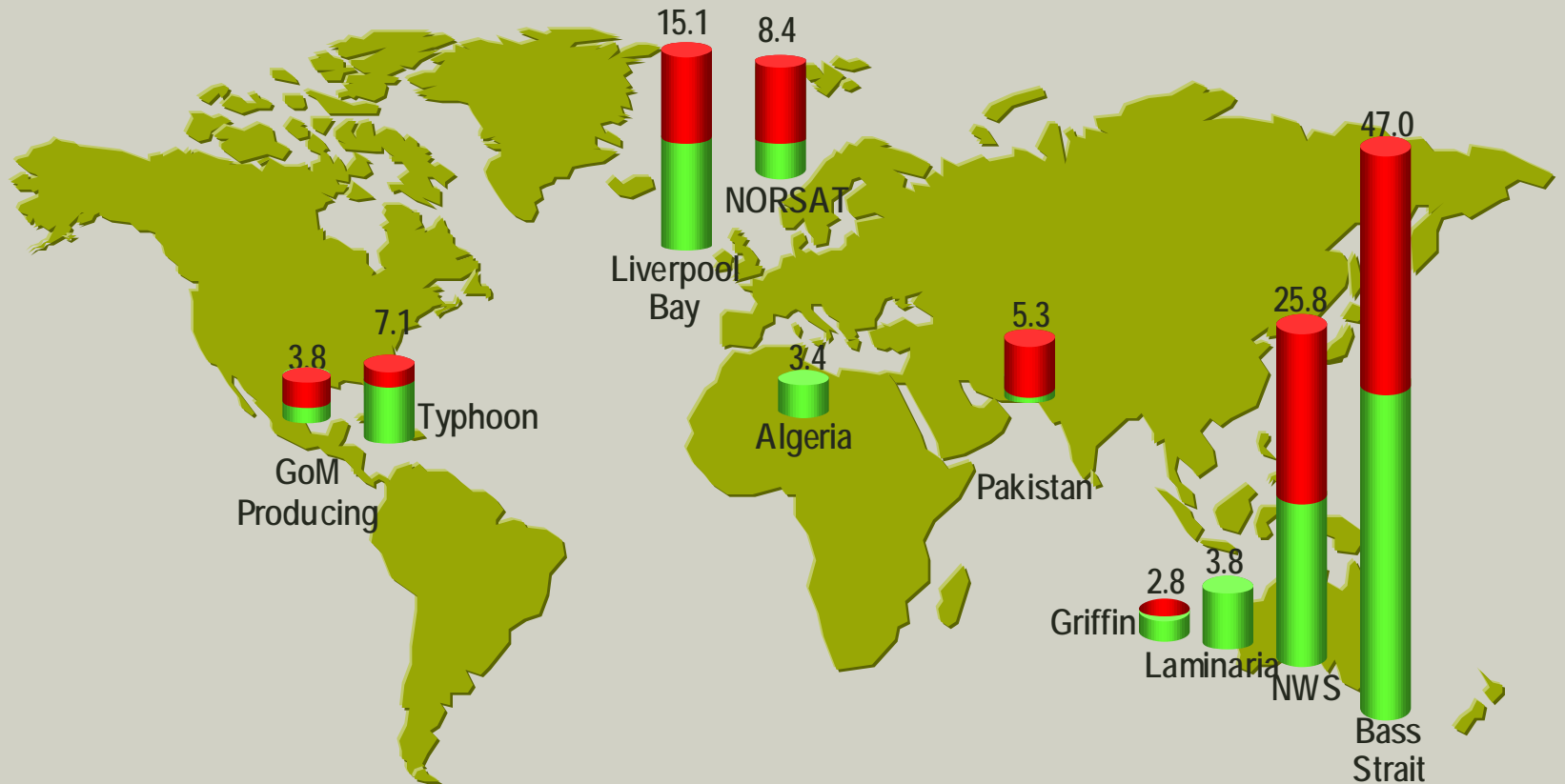
# Petroleum Business Briefing

## Financial and Production Performance

December 2004



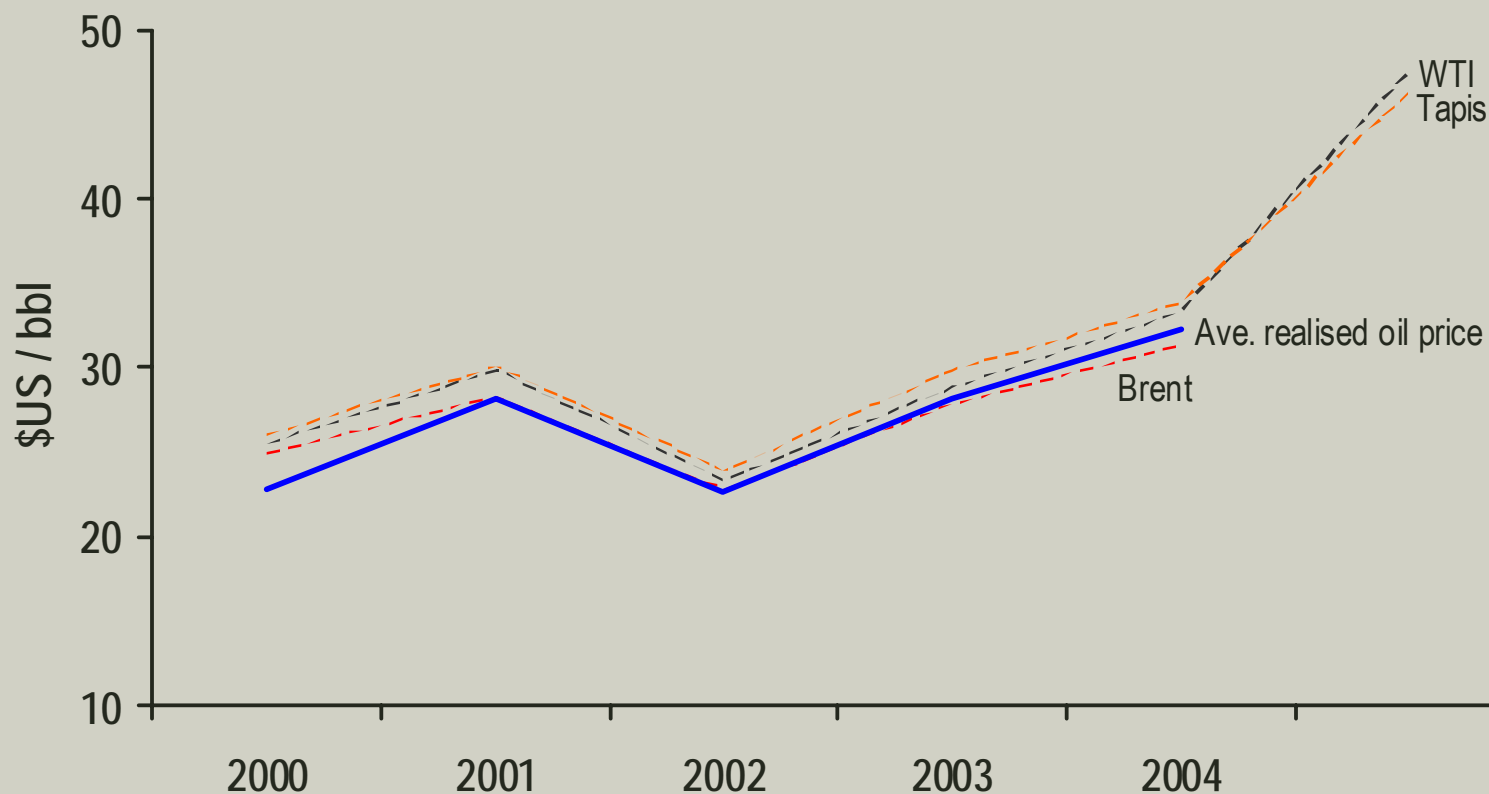
# FY 2004 Production by Asset



	FY 03	FY 04
Total	121.8	122.5
Gas %	38.8	44.5
Liquid %	61.2	55.5

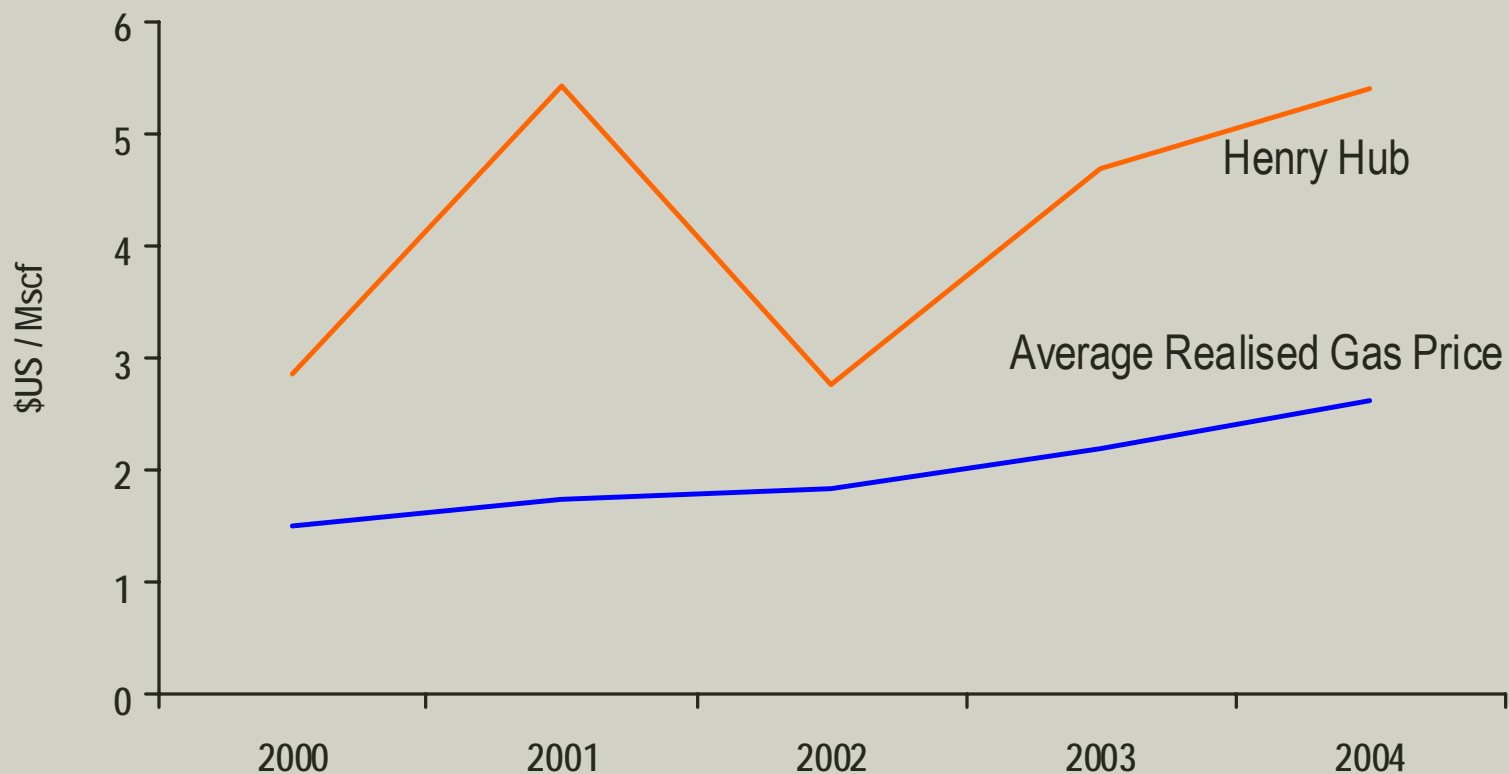
# WTI vs Average Realised Oil Price – US\$/bbl

	FY 00	FY 01	FY 02	FY 03	FY 04
WTI	25.93	30.03	23.78	29.77	33.69
Average realised oil price	22.86	28.04	22.58	28.14	32.24



# Henry Hub vs Average Realised Gas Price – US\$/Mcf

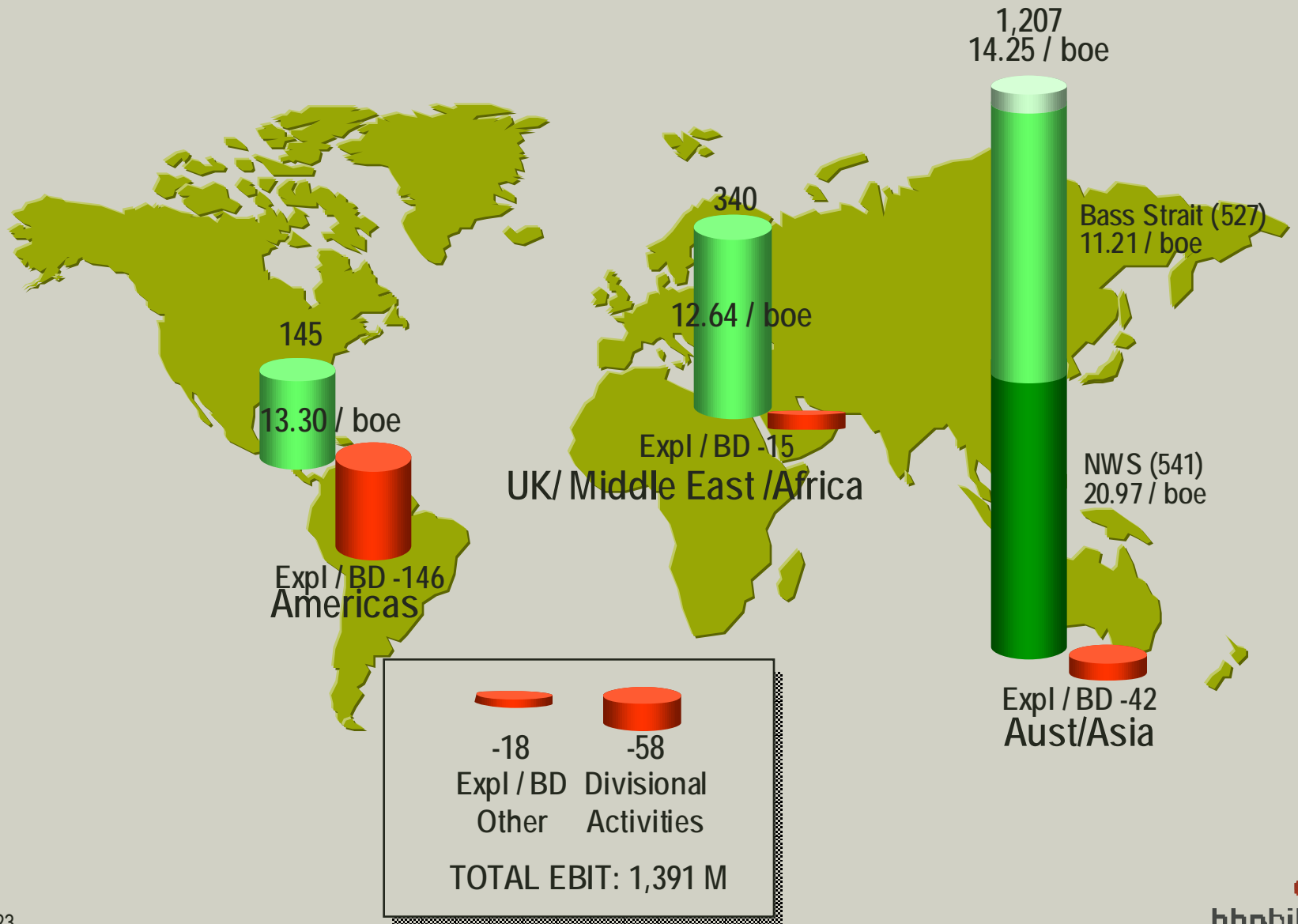
	FY 00	FY 01	FY 02	FY 03	FY 04
Henry Hub (Nominal Price)	2.86	5.42	2.77	4.68	5.41
Average realised gas price	1.50	1.73	1.84	2.21	2.62



# FY 2000 – FY 2004 Total Costs (Producing Assets)



# FY 2004 EBIT (US\$M)



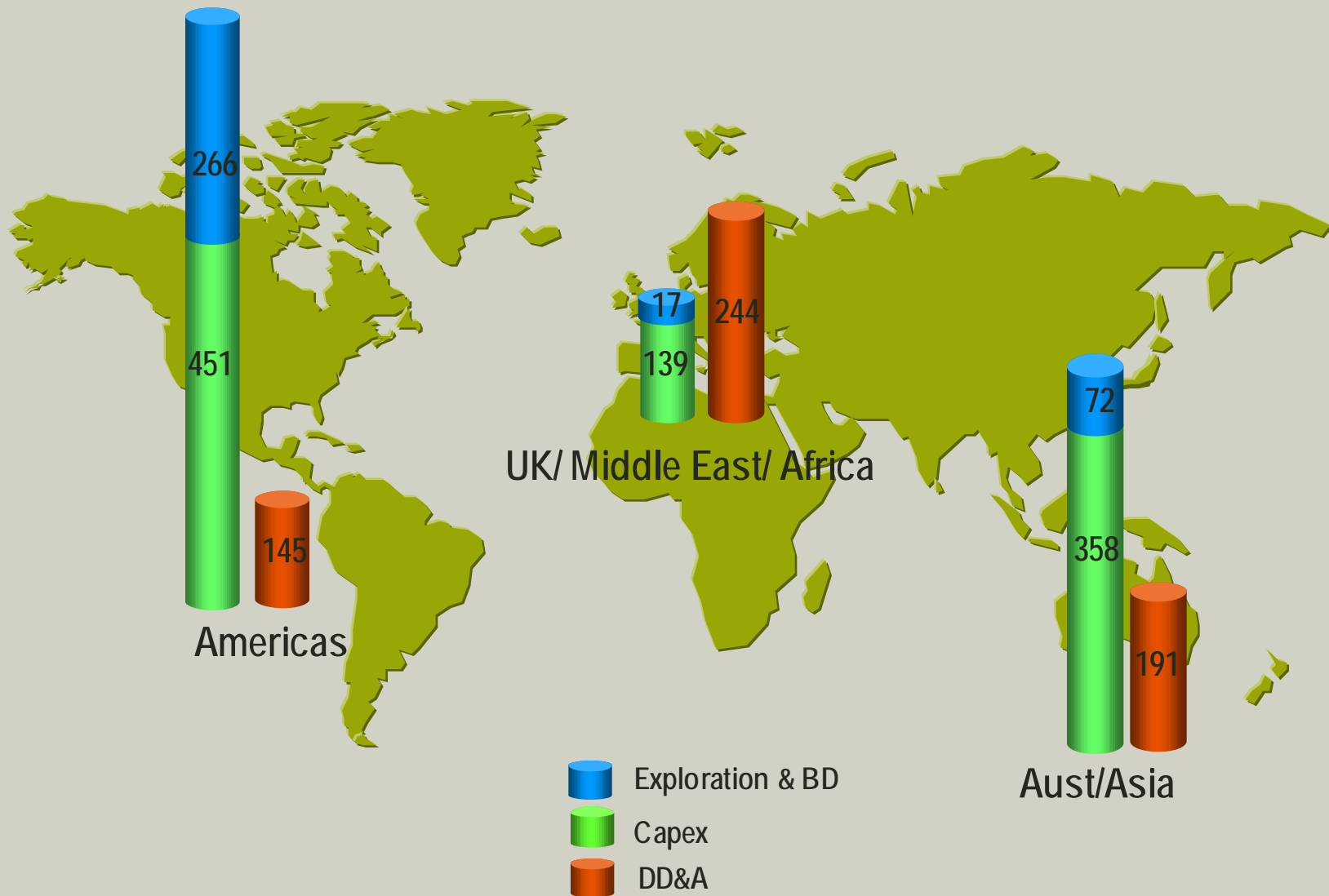
# EBIT Sensitivities FY 2005

- Price \$1/bbl (WTI)  
+/- US\$55M
- Price US10¢/Mcf (GoM Existing) \*  
+/- US\$1.5M
- Price 10 pence/Mcf (NORSAT) \*  
+/- US\$2.4M
- Exchange Rate  
US¢1/A\$  
+/- US\$6M Net Monetary Liabilities  
+/- US\$1M Operations
- No hedging

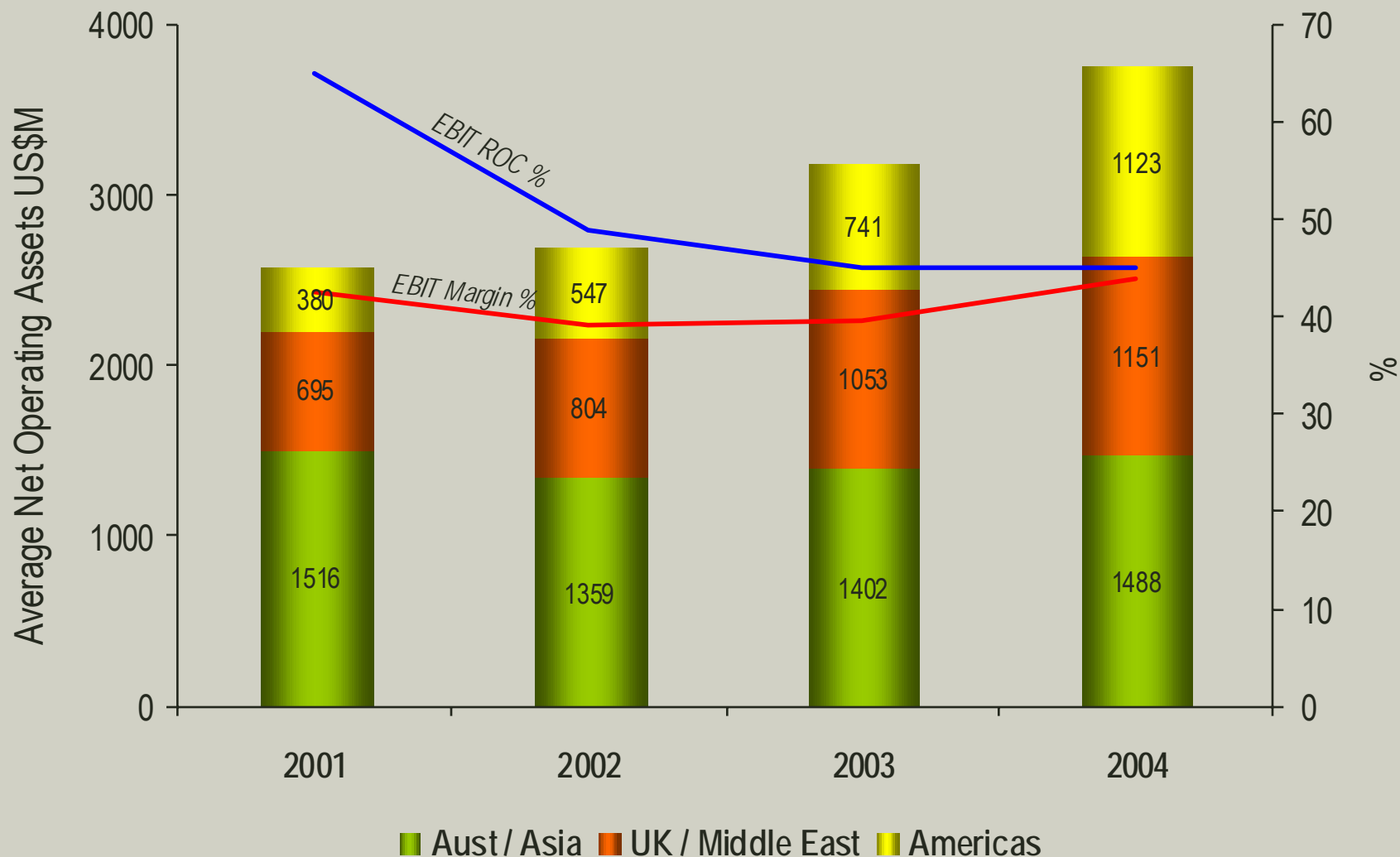
*\* Variability only occurs for North Sea and GoM. All other gas is contracted.  
Note: Mcf = 1,000 cubic feet.*

FY2004

# Capex, Exploration & Business Development vs DD&A (US\$M)

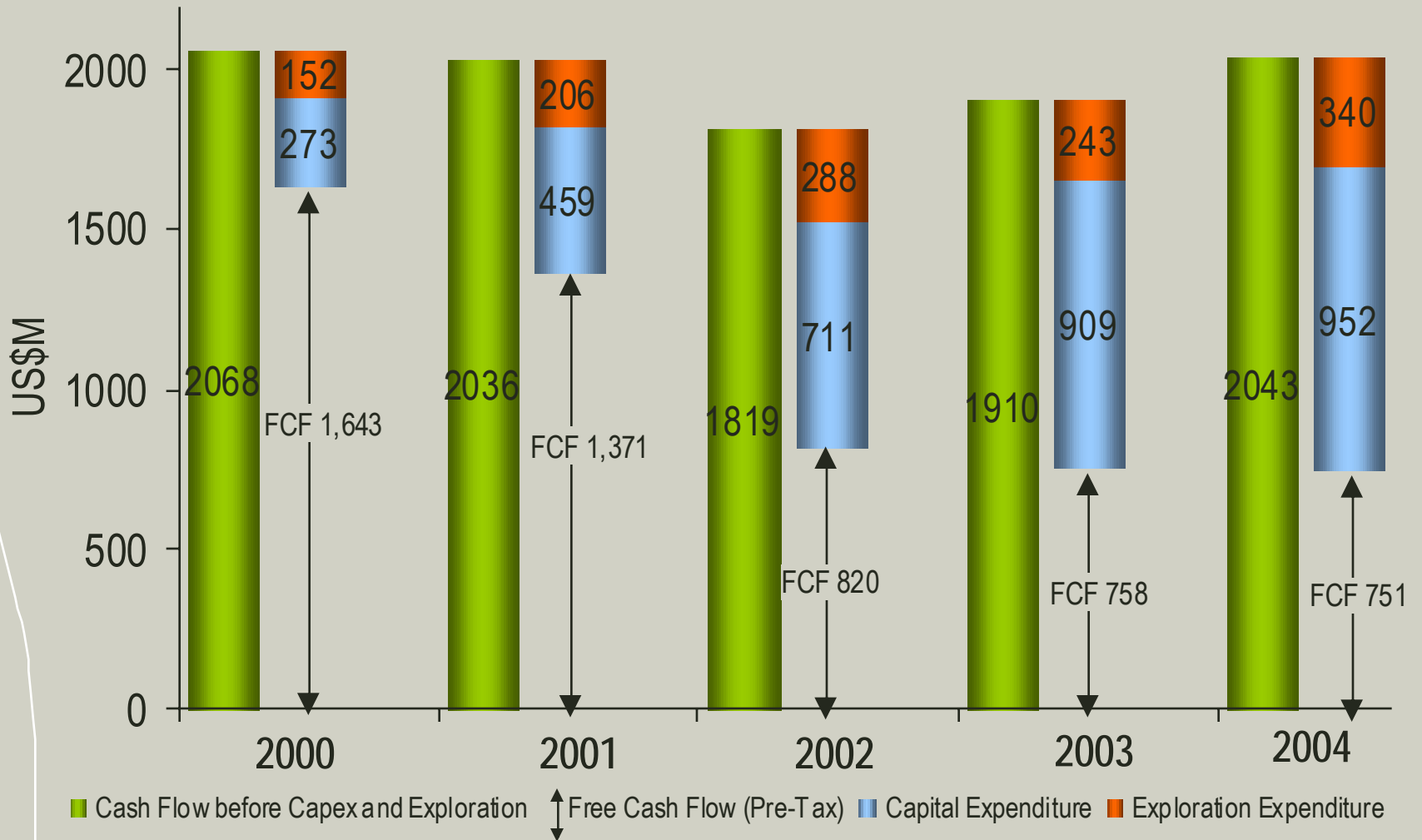


# FY 2001 – FY 2004 Total Capital vs % Returns



\*EBIT Margin % excludes third party products

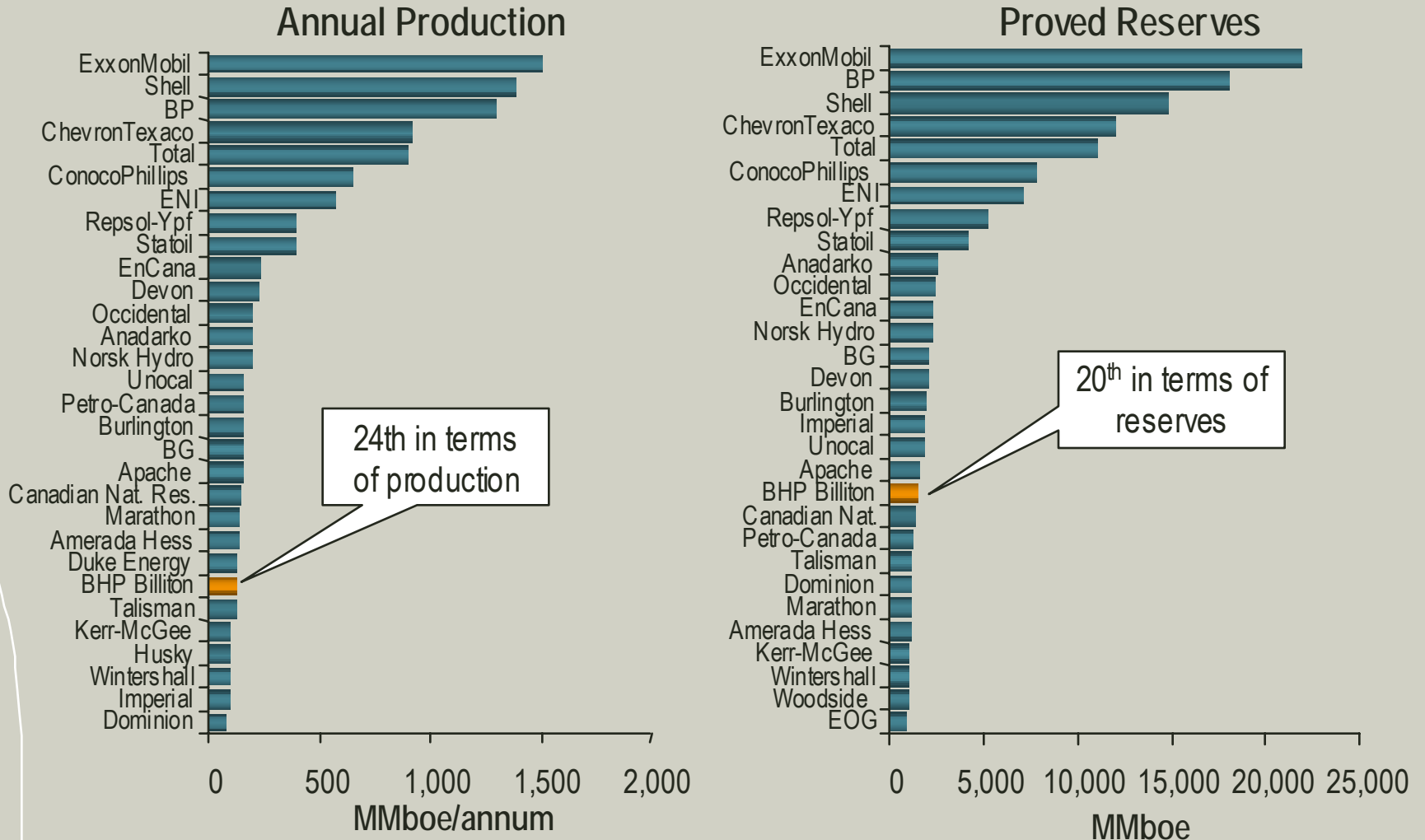
# Petroleum FY 2000 – FY 2004 Free Cash Flow



# PSC – General Principles

- Contractor pays for / bears risk of all exploration, development and production
- Contractor reimbursed for share of ‘agreed’ costs from production over a fixed term (consisting of capital and operating cost contributions)
- Remaining ‘profit oil’ is divided between Contractor and local government at an agreed rate
- Income tax remains the liability of the Contractor under domestic law but under the PSC this liability is assumed by local government
- ‘Tax Barrel’ concept:
  - Taxes paid on our behalf are grossed up through revenue with the offsetting entry recorded as tax expense
  - ‘Tax barrels’ are also reflected in production and booked reserves
  - Effect of methodology makes results more comparable to non-PSC regimes

# Petroleum Relative to the Industry Players

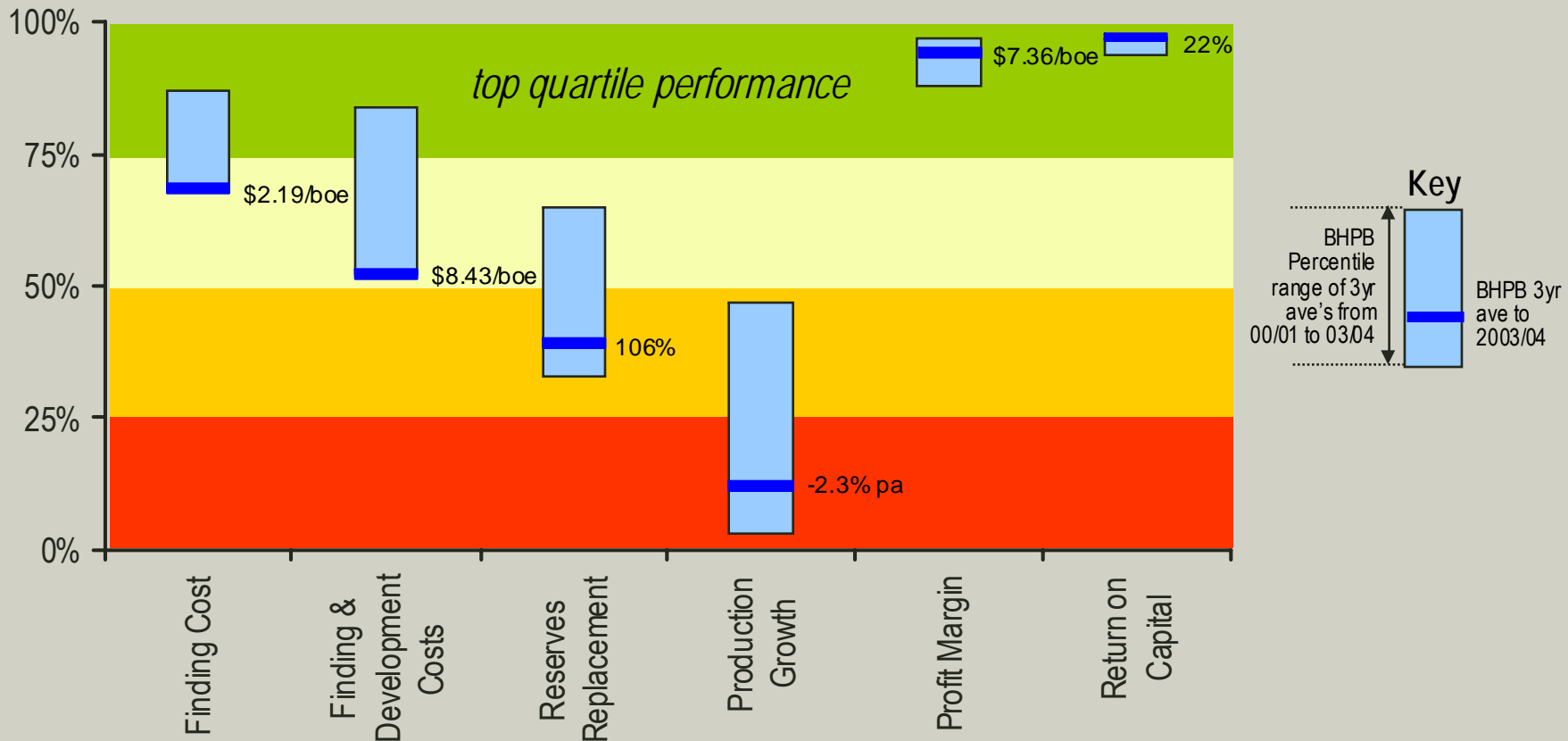


Excludes companies with significant state ownership or if uncertainty in reserves or production

BHPB shown with FY04 data & Other companies are CY03 data  
Source: Evaluate Energy

# Peer Group Benchmarking

## BHP Billiton Petroleum's Peer Group Ranking Range of 3 year averages from 2000/01 to 2003/04



# Petroleum Business Briefing

## Exploration

December 2004



# Overview

- BHP Billiton Exploration Overview
- BHP Billiton Exploration Activity update



# BHP Billiton Petroleum Exploration Aspirations and Goal

Creation of Value through the discovery & appraisal of hydrocarbon resources with the aim of establishing reserves to support commercially viable development projects, sustaining existing core areas and building new core businesses

On track to meet 5 Year Targets (to FY 06) based on discoveries made at top quartile resource based finding cost

## Exploration Discoveries FY 02 to Present

### GoM

- Cascade
- Boris North
- Shenzi
- Vortex
- Chinook
- Starlifter
- Puma

### AUSTRALIA

- Pyrenees (Ravensworth / Crosby / Stickle)
- Vincent
- Stybarrow

### TRINIDAD & TOBAGO

- Howler
- Delaware

Total E&A spend FY 02 – FY 04: ~ \$870 M

Total BHP Billiton share P50 risked resource added: ~ 550 MMboes

Finding Cost: ~\$1.60 / boe

# So how does Resource *convert* to Reserve-based FC?

A useful guide based on our past 3-5 years performance

*Discovered*

**P50 Resource**

@

<\$1.00 - 1.25 / boe

*Appraised*

**P50 Resource**

@

\$1.60 – 2.00 / boe

*Developed / Producing*

**P1 + P2 Reserves**

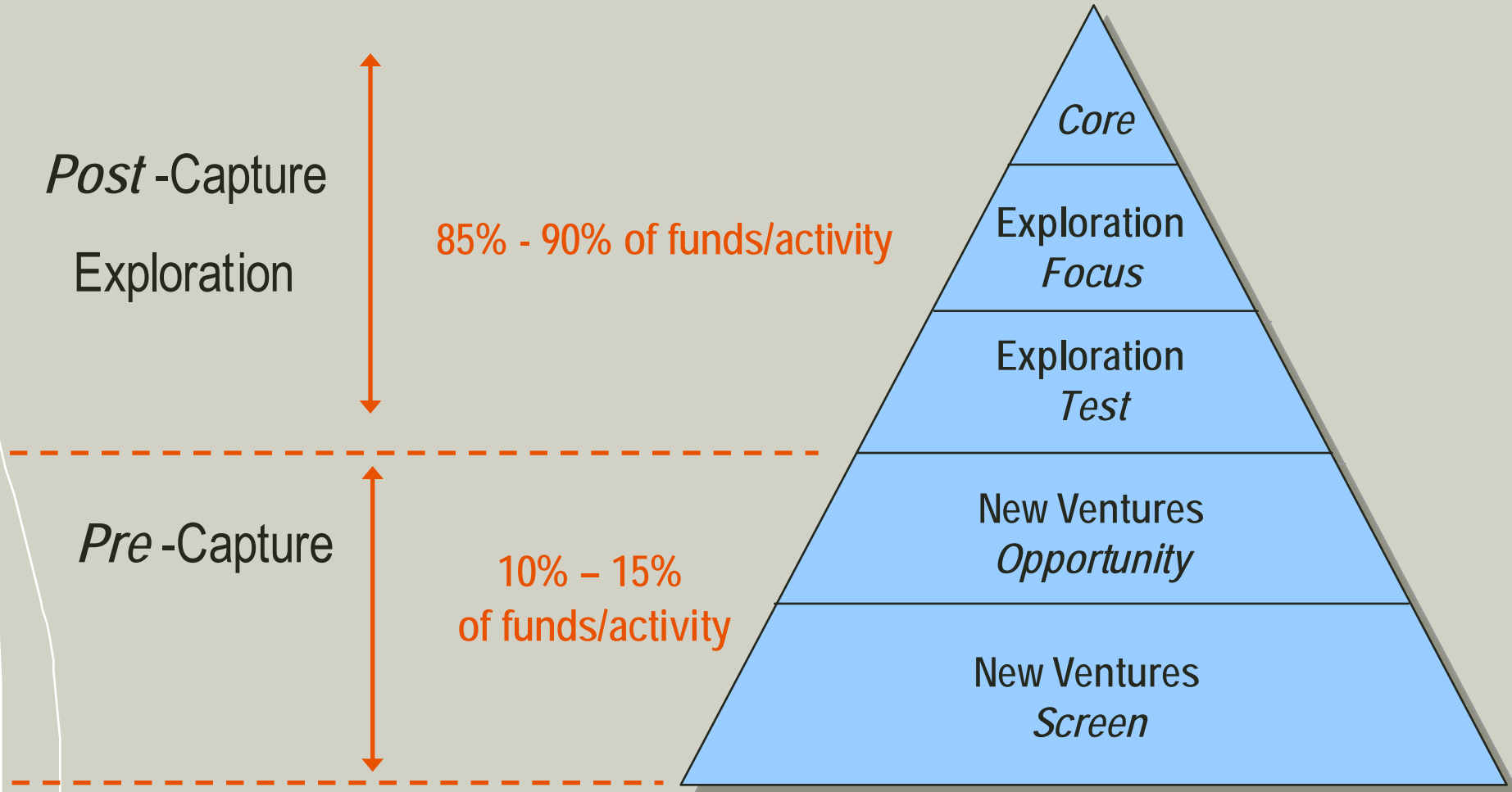
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Assuming 80% resource to  
reserve conversion  
across our global portfolio



Reserve-based External Finding Cost: \$2.00 – 2.50 / boe

Exploration involves screening of many opportunities but 85% to 90% of funds & effort are allocated to a few select areas

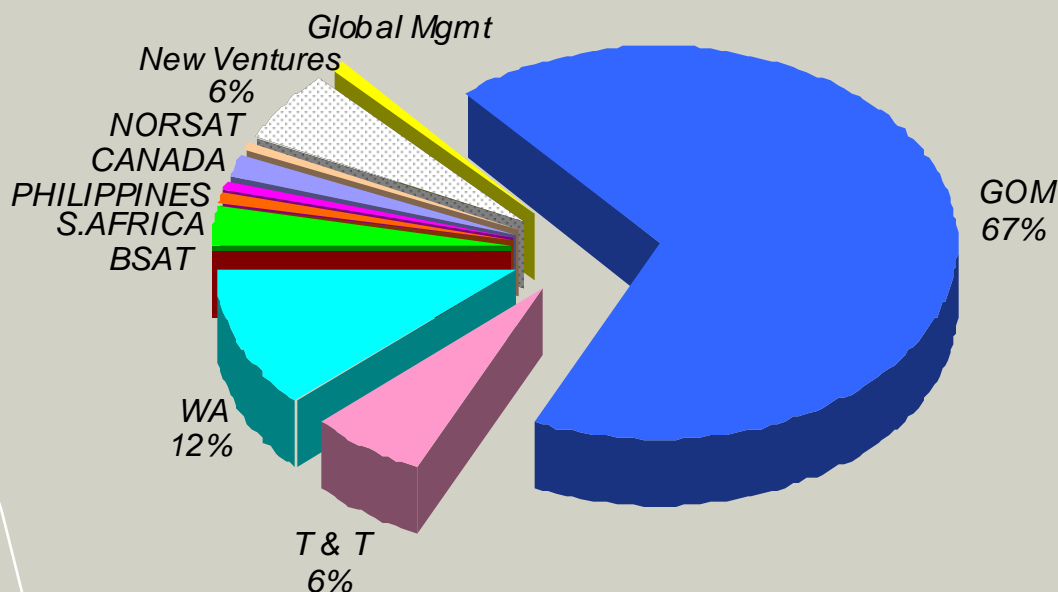


# Location of our current exploration screening, testing and executing activities



# Exploration and Appraisal Budget Breakdown for FY 05 demonstrates focus of expenditure

## ALLOCATED - BY GEOGRAPHY

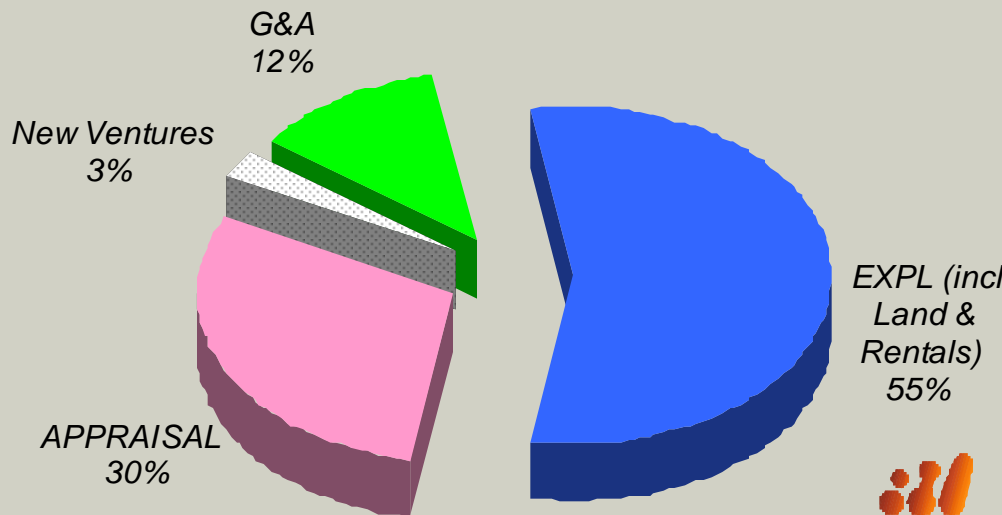


- Total gross exploration budget ~ US\$300 M
- 85% of spend in existing 3 core exploration areas
- 2/3rds within the GoM
- Anticipate increased spend in South Africa & Maritime Canada during CY 2005 / 2006

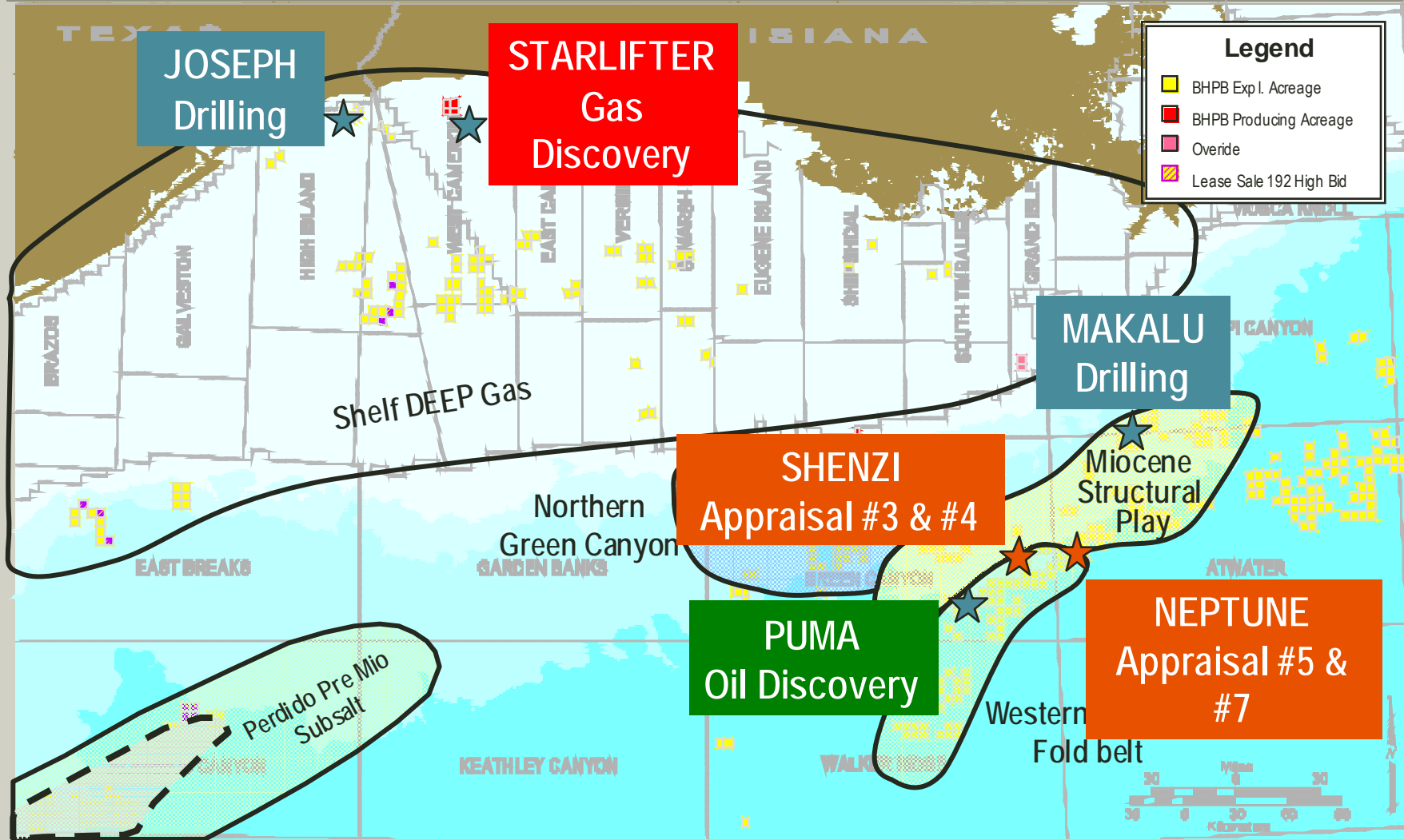
## Drilling Budget by Play Type

- New Plays: 10%
- Growth of Existing Plays: 30%
- Nearfield Exploration: 20%
- Appraisal: 40%

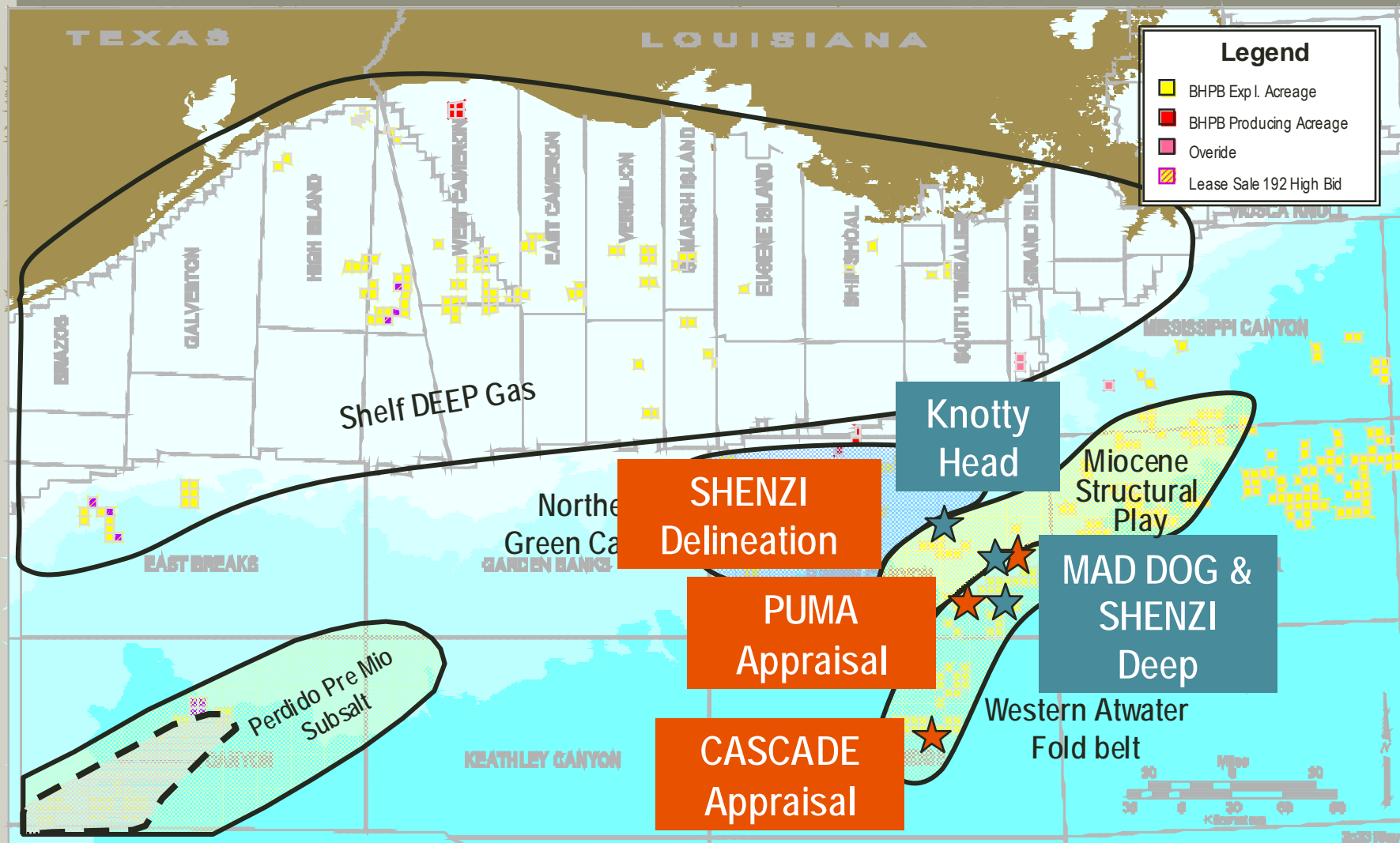
## ALLOCATED - BY CATEGORY



GoM: Drilling activity in past 12 months included appraisal wells at Neptune & Shenzi + 2 discoveries. 2 expl wells currently drilling

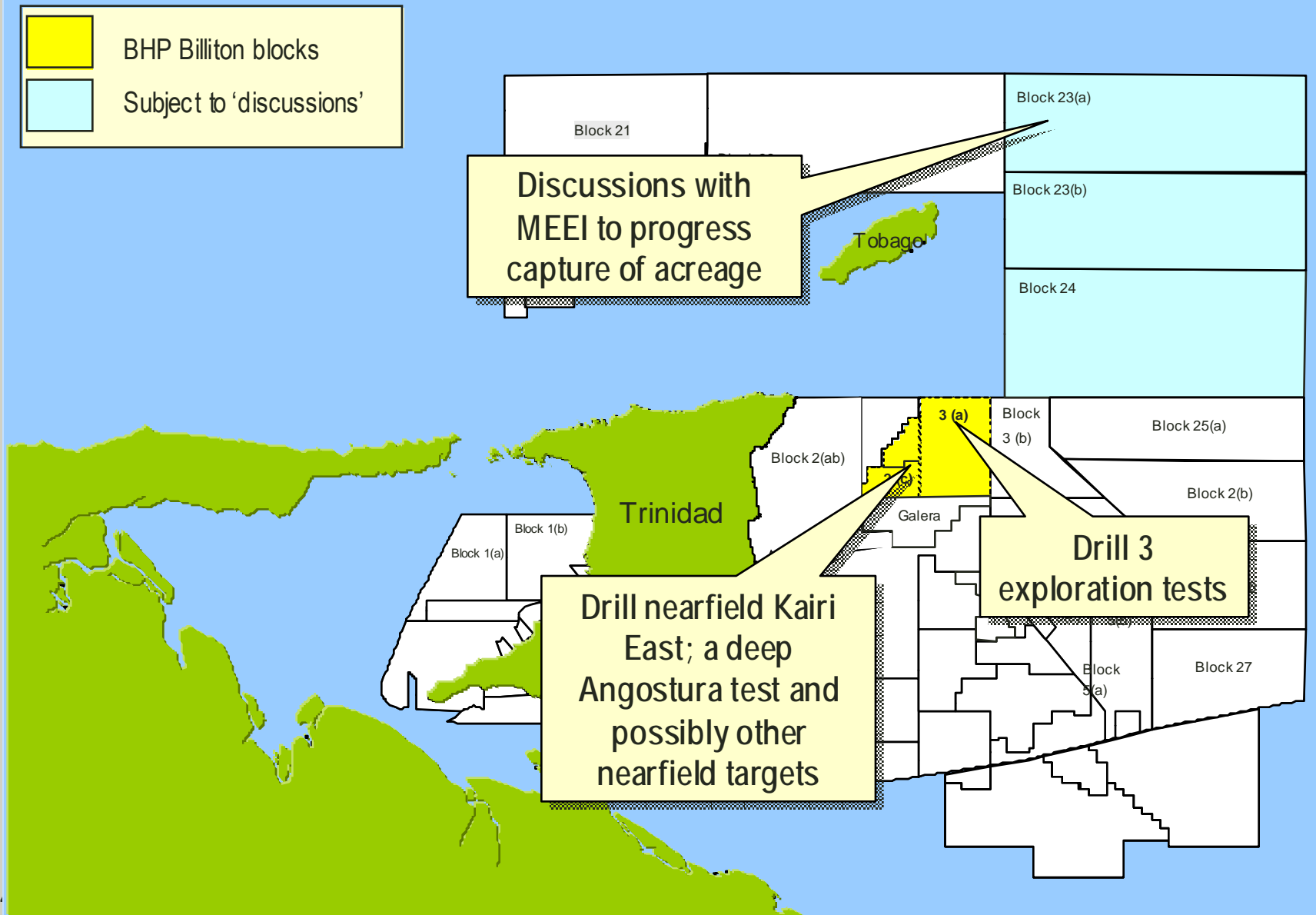


GoM: Over the next 12 months drilling at least 3 exploration wells along with 3 appraisal wells



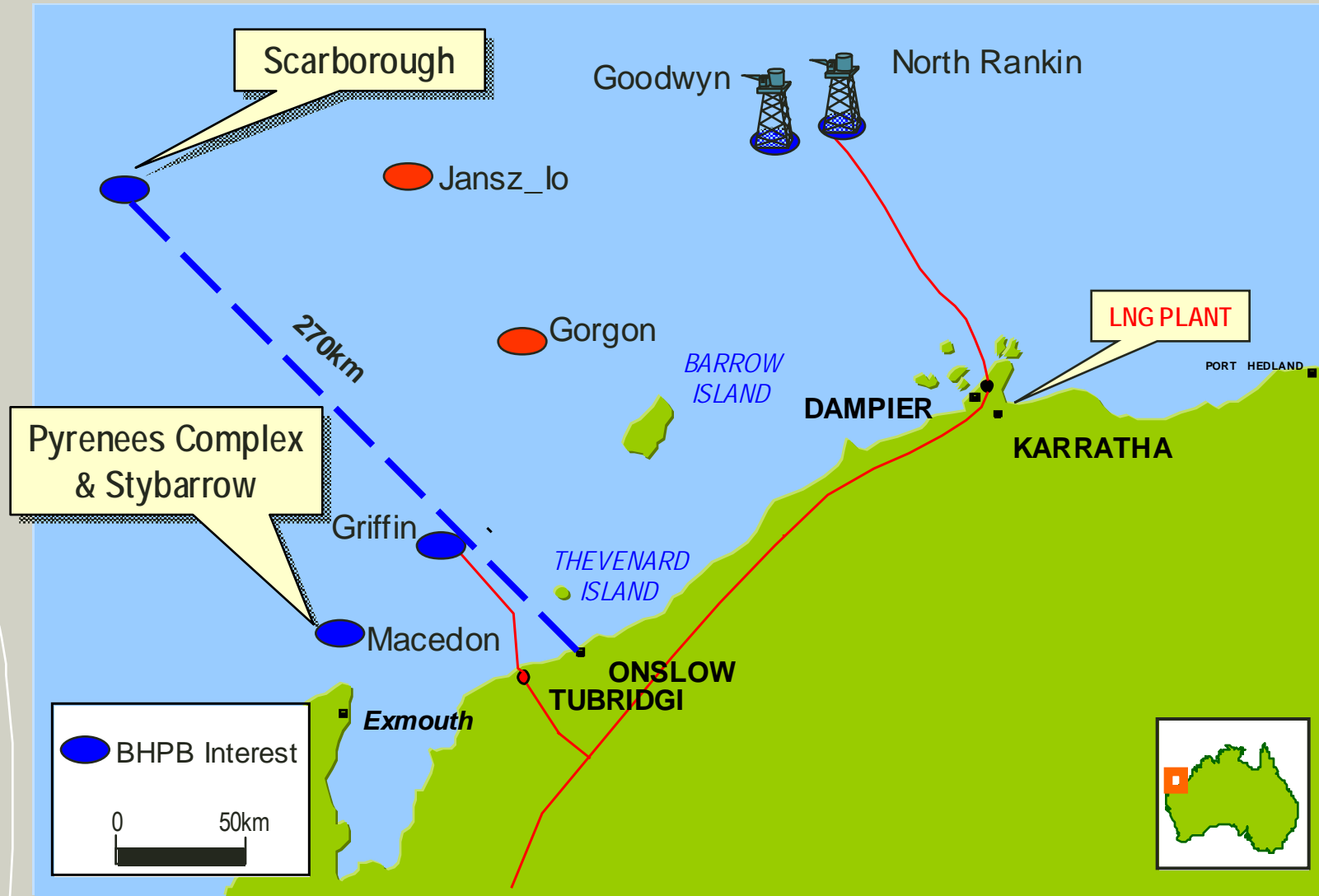


# Trinidad & Tobago: In the next 12 months a significant number of both nearfield and other targets will be drilled





W. Australia: An appraisal well will be drilled at Scarborough. Stybarrow & Pyrenees will be progressed towards sanction.



# New Ventures: Strategic Study, Capture and Execute Areas



# Summary

- Petroleum Exploration has delivered a consistent stream of sanctioned projects which contribute material cash flow and value and has organically built Petroleum's 3rd core area in the Gulf of Mexico
- Attractive exploration opportunities exist and BHP Billiton has the people, systems, processes and discipline so that Exploration will continue to deliver sanctioned projects and new core areas.

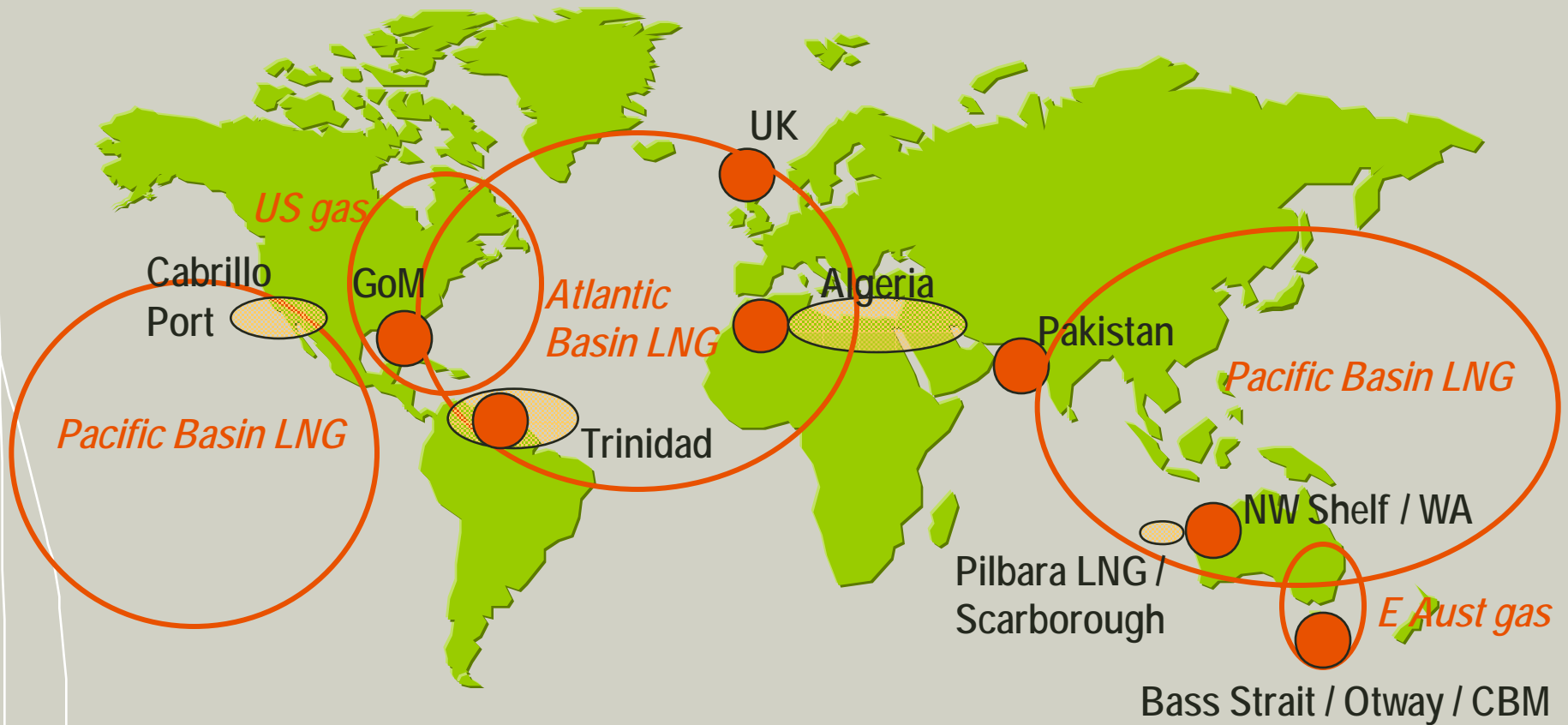
# Petroleum Business Briefing

## Gas Developments and Opportunities

December 2004



# Gas Assets and Regional Gas Strategies

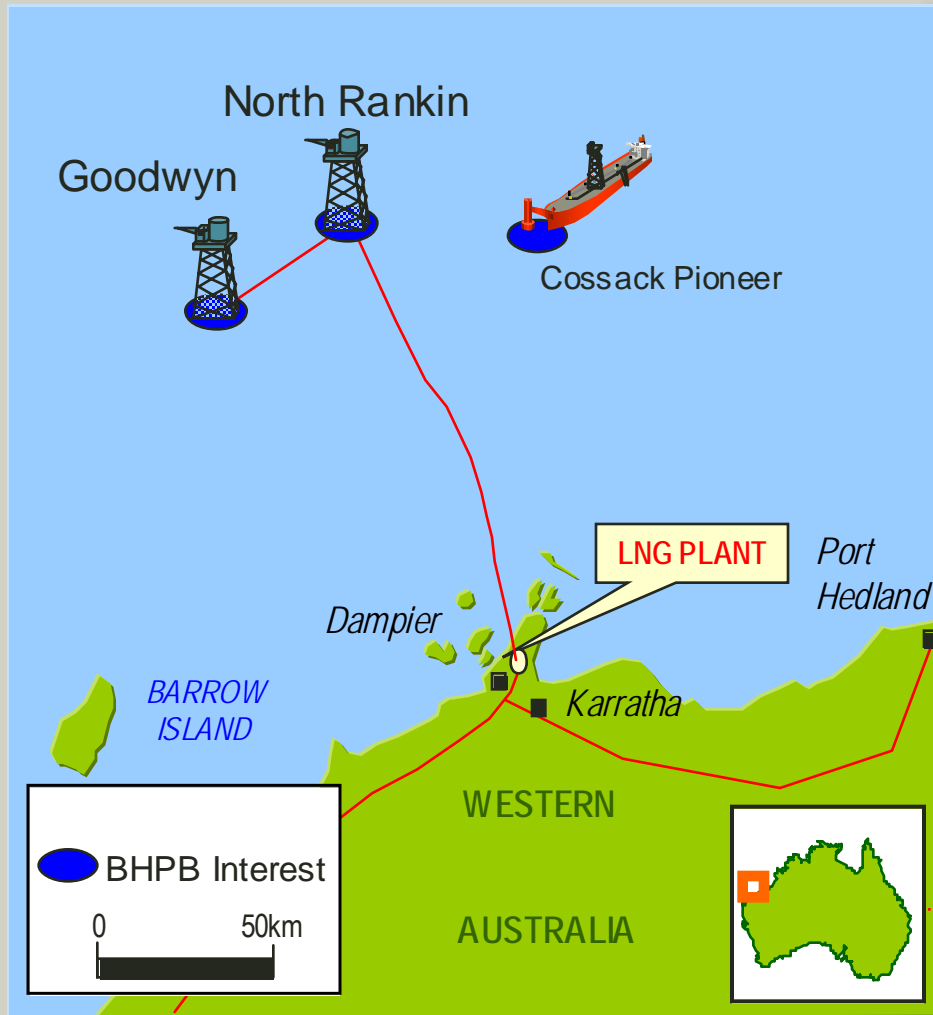


● Significant asset position

○ Growth opportunities

○ Regional gas strategy

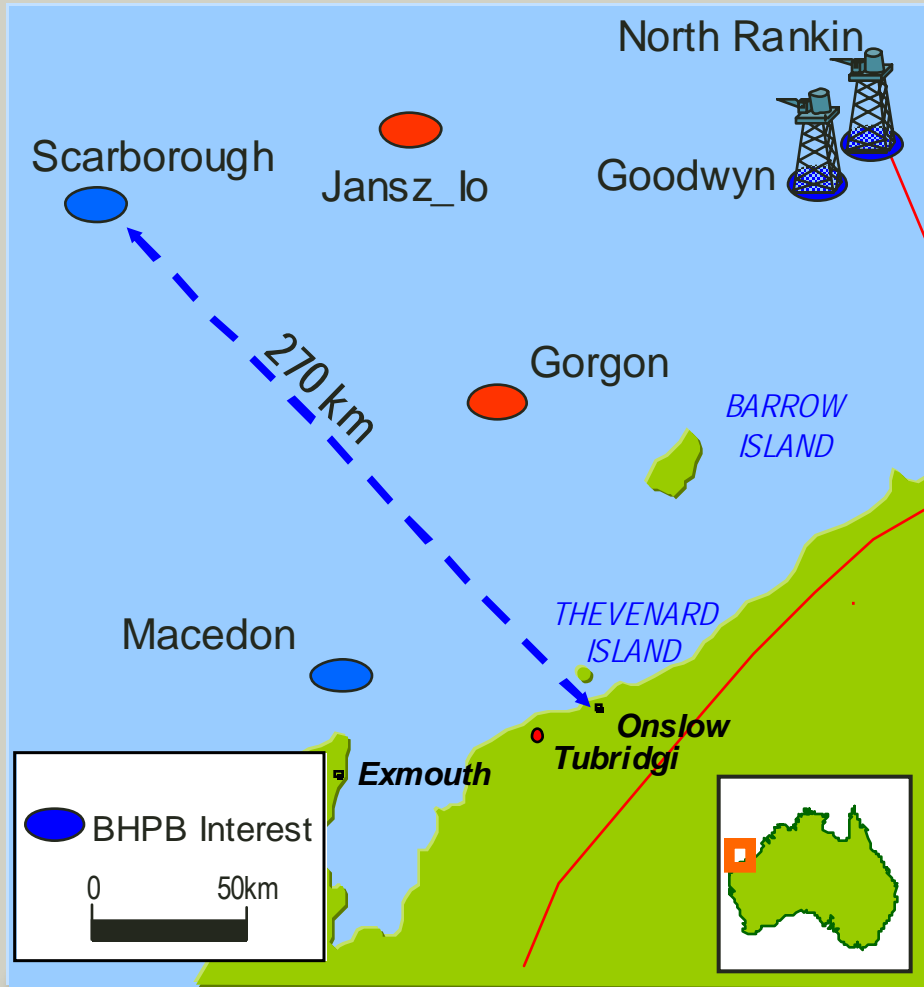
# Pacific Basin: Serving markets in Asia and West Coast Americas



## North West Shelf LNG

- Train 4 start up
- Korea supply tender – NWS short listed
- Japanese contracts renegotiations
- Spot cargoes
- Train 5 evaluation

# Pacific Basin: Serving markets in Asia and West Coast Americas



## Pilbara LNG

- ‘Pilbara LNG’ site selected
- BHP Billiton operator 6 Mtpa plant
- Initial supply from Scarborough
  - 3D Seismic complete
  - Appraisal Well Dec 04
- Strong Government /State Support
- Multiple Market opportunities

# Pacific Basin: Serving markets in Asia and West Coast Americas

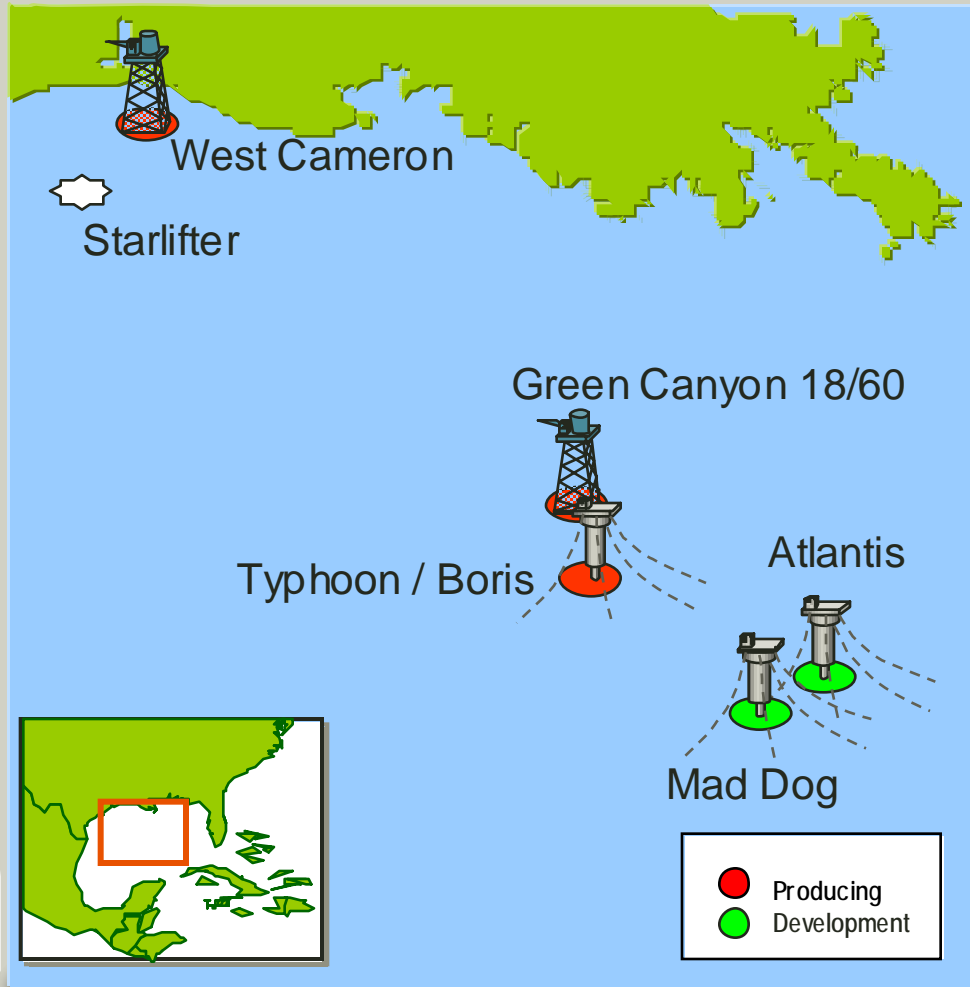


## Cabrillo Port

- Serves California market
- LNG Floating Storage and Regas Facility
- Regas capacity - 1.5 Bcf/day
- 800 MMcf/d average send out
- Connects to SoCal distribution infrastructure
- Draft Environment Impact Report released by US Coastguard and California State Lands Commission



# Atlantic Basin: Serving markets in North American East Coast and Europe



## Gulf of Mexico Gas

- Gas Production ramping up
  - West Cameron/other - 52 MMcf/d
  - Mad Dog Dec 04 ~ 25 MMcf/d
  - Atlantis 06 ~ 65 MMcf/d
  - Starlifter - potential development
- Pipeline and Customer Knowledge
- Shallow water shelf deep gas play potential
- Cleopatra infrastructure

# Atlantic Basin: Serving markets in North American East Coast and Europe



## Trinidad & Tobago

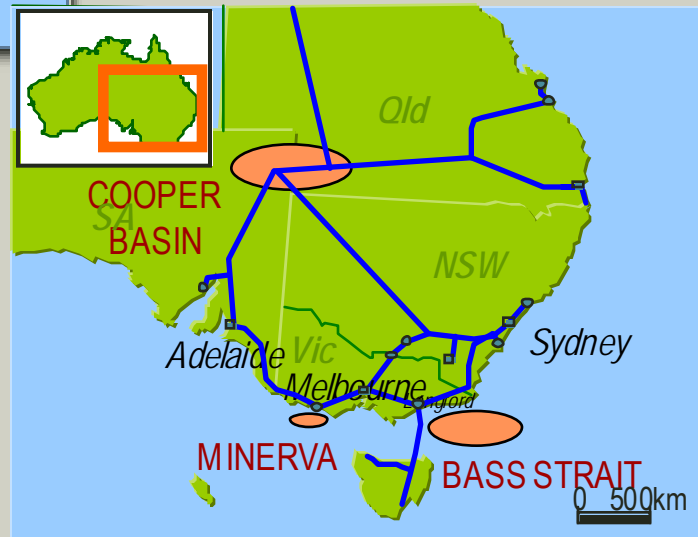
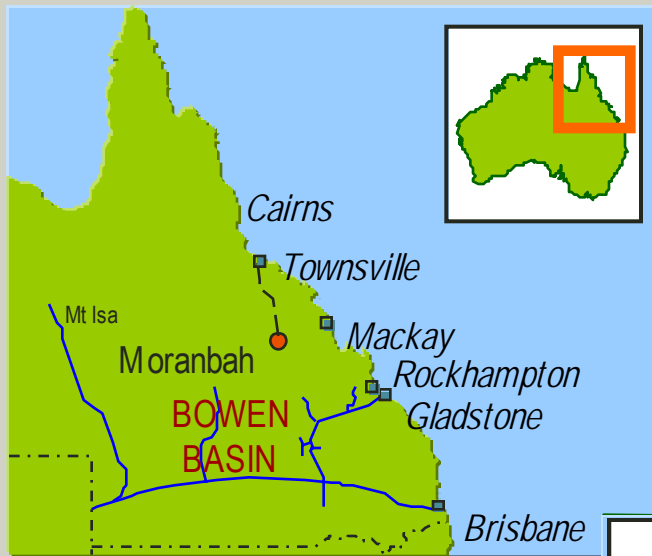
- Angostura – gas field with oil rim
- Current T&T gas P50 gas -1.5 Tcf
- Exploration ongoing
- Multiple market opportunities

# Atlantic Basin: Serving markets in North American East Coast and Europe

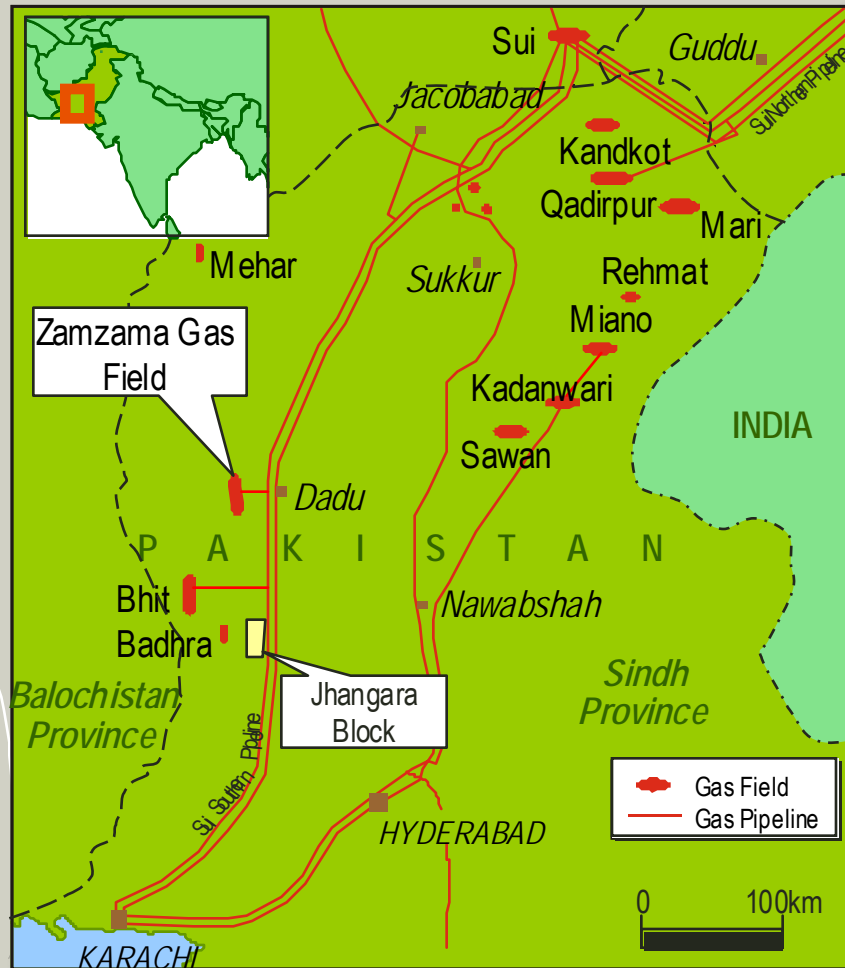
- UK
  - Liverpool Bay
    - BHP Billiton operated
    - 250 MMcf/d
  - North Sea
    - Bruce & Keith
    - 30 MMcf/d
  - Gas & Power Marketing in the Hague
- Algeria
  - Ohanet
    - BHP Billiton - led \$1B wet gas development
    - Sonatrach co-Operator
    - 700 MMcf/d gas; 56,000 bbl/d liquids
  - Blocks 408a/409
    - awarded July 2004
    - adjacent to Hassi R' Mel gas hub
    - seismic 2005; drilling 2006

# Eastern Australia Gas: Discrete domestic markets

- Bass Strait gas supplies >90% of Victoria market; 100% of Tasmania market; ~20% NSW
- TXU and AGL contracts to 2017
- Minerva start-up Dec 2004
- Gas from Victoria to supply four Australian states
- Further production options from Kipper, Turrum
- Coal Bed Methane – Queensland market



# Pakistan: Discrete domestic markets



## Zamzama

- Zamzama supplies 15% Pakistan gas demand
- Gas production – 2001: 80 MMcf/d  
2003: 300 MMcf/d  
2007: 450 MMcf/d
- Preferred operator in Pakistan
- Jhangara Block awarded August 2004

# Gas Developments and Opportunities – Conclusion

- 1997 – 2020 world energy demand 60% expected increase
- Gas – one third of that increase in demand
- Worldwide LNG market changing
  - Greater market acceptance
  - Increased flexibility
  - Increased liquidity, BUT
  - More players
- BHP Billiton has experience and ability to be successful in Gas

# Petroleum Business Briefing

## Conclusion and Questions

December 2004



# Summary

## Efficiency

- Top quartile net income per boe and return on capital
- Second quartile finding and finding and development costs

## Delivery

- 5 projects in 2003/2004 to date
- 3 projects to start before end CY 2004

## Growth

- Several opportunities maturing to project status
- Strong exploration portfolio and business development activities

## Strategy

- Core businesses will be a continuing feature

# Conclusion

- The Petroleum business is a value driver for BHP Billiton
- Petroleum is a differentiating factor for BHP Billiton
- We are a well established oil and gas business with:
  - solid performance
  - strong producing assets
  - value adding growth opportunities
  - consistent strategic direction



**bhpbilliton**