

BHP BILLITON LTD  
Form 20-F  
September 21, 2011  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 20-F**

(Mark One)

**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**OR**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**FOR THE FISCAL YEAR ENDED 30 JUNE 2011**

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES AND EXCHANGE ACT OF 1934**

**SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**Date of event requiring this shell company report \_\_\_\_\_**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

Commission file number: 001-09526

Commission file number: 001-31714

**BHP BILLITON LIMITED**

(ABN 49 004 028 077)

(Exact name of Registrant as specified in its charter)

**VICTORIA, AUSTRALIA**

(Jurisdiction of incorporation or organisation)

**180 LONSDALE STREET, MELBOURNE, VICTORIA 3000  
AUSTRALIA**

(Address of principal executive offices)

**BHP BILLITON PLC**

(REG. NO. 3196209)

(Exact name of Registrant as specified in its charter)

**ENGLAND AND WALES**

(Jurisdiction of incorporation or organisation)

**NEATHOUSE PLACE, VICTORIA, LONDON,**

**UNITED KINGDOM**

(Address of principal executive offices)

**Securities registered or to be registered pursuant to section 12(b) of the Act.**

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>	<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
American Depositary Shares*	New York Stock Exchange	American Depositary Shares*	New York Stock Exchange
Ordinary Shares**	New York Stock Exchange	Ordinary Shares, nominal value US\$0.50 each**	New York Stock Exchange

\* Evidenced by American Depositary Receipts. Each American Depositary Receipt represents two ordinary shares of BHP Billiton Limited or BHP Billiton Plc, as the case may be.

\*\* Not for trading, but only in connection with the listing of the applicable American Depositary Shares.

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**Securities registered or to be registered pursuant to Section 12(g) of the Act.**

None

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.**

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

	<b>BHP Billiton Limited</b>	<b>BHP Billiton Plc</b>
Fully Paid Ordinary Shares	3,211,654,687	2,138,367,191

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Note: Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

If this is an annual report, indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No



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<b>1.</b>	<b>Identity of directors, senior management and advisors</b>	Not applicable
<b>2.</b>	<b>Offer statistics and expected timetable</b>	Not applicable
<b>3.</b>	<b>Key Information</b>	
A	Selected financial information	1.4.1
B	Capitalisation and indebtedness	Not applicable
C	Reasons for the offer and use of proceeds	Not applicable
D	Risk factors	1.5
<b>4.</b>	<b>Information on the company</b>	
A	History and development of the company	2.2.1, 2.2.2 to 2.2.10, 2.3, 2.10 and 3
B	Business overview	1, 2.2 to 2.8 and 3.1
C	Organisational structure	2.10 and Note 25 to the Financial Statements
D	Property, plant and equipment	2.1, 2.2.2 to 2.2.10, 2.3, 2.8, 2.13 and 3.7.2
<b>4A.</b>	<b>Unresolved staff comments</b>	None
<b>5.</b>	<b>Operating and financial review and prospects</b>	
A	Operating results	1.5, 2.7, 3.3, 3.4, 3.6
B	Liquidity and capital resources	3.7
C	Research and development, patents and licences etc	2.5, 2.6 and 7.16
D	Trend information	3.4.1 to 3.4.8
E	Off-balance sheet arrangements	3.8 and Notes 21 and 22 to the Financial Statements
F	Tabular disclosure of contractual obligations	3.8 and Notes 21 and 22 to the Financial Statements
<b>6.</b>	<b>Directors, senior management and employees</b>	
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D	Employees	2.9 and 7.8
E	Share ownership	6, 7.8, 7.20 and 7.21
<b>7.</b>	<b>Major shareholders and related party transactions</b>	
A	Major shareholders	11.2
B	Related party transactions	3.9 and Note 31 to the Financial Statements
C	Interests of experts and counsel	Not applicable
<b>8.</b>	<b>Financial Information</b>	
A	Consolidated statements and other financial information	8, 9, 11.3 and F-1 to F-101 and F-107 to F-114
B	Significant changes	3.10
<b>9.</b>	<b>The offer and listing</b>	
A	Offer and listing details	11.4
B	Plan of distribution	Not applicable
C	Markets	11.1
D	Selling shareholders	Not applicable
E	Dilution	Not applicable
F	Expenses of the issue	Not applicable

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Item Number	Description	Report section reference
<b>10.</b>	<b>Additional Information</b>	
A	Share capital	Not applicable
B	Memorandum and articles of association	2.7.3 and 2.12
C	Material contracts	2.11
D	Exchange controls	2.7.3
E	Taxation	11.6
F	Dividends and paying agents	Not applicable
G	Statement by experts	Not applicable
H	Documents on display	2.12.14
I	Subsidiary information	3.9 and Note 25 to the Financial Statements
<b>11.</b>	<b>Quantitative and qualitative disclosures about market risk</b>	3.7.4 and Note 28 to the Financial Statements
<b>12.</b>	<b>Description of securities other than equity securities</b>	
A	Debt Securities	Not Applicable
B	Warrants and Rights	Not applicable
C	Other Securities	Not applicable
D	American Depositary Shares	11.5
<b>13.</b>	<b>Defaults, dividend arrearages and delinquencies</b>	There have been no defaults, dividend arrearages or delinquencies
<b>14.</b>	<b>Material modifications to the rights of security holders and use of proceeds</b>	There have been no material modifications to the rights of security holders and use of proceeds since our last Annual Report
<b>15.</b>	<b>Controls and procedures</b>	5.5.1
<b>16.</b>		
A	Audit committee financial expert	4.1 and 5.5.1
B	Code of ethics	5.9
C	Principal accountant fees and services	5.5.1 and Note 34 to the Financial Statements
D	Exemptions from the listing standards for audit committees	Not applicable
E	Purchases of equity securities by the issuer and affiliated purchasers	7.2
F	Change in Registrant's Certifying Accountant	There has been no change of the Registrant's Certifying Accountant since our last Annual Report
G	Corporate Governance	5.11
J (proposed)	Mine Safety and Health Administration (MSHA) Disclosure	The information concerning mine safety violations or other regulatory matters required by section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act. This item is included in Exhibit 99.1
<b>17.</b>	<b>Financial statements</b>	Not applicable as Item 18 complied with
<b>18.</b>	<b>Financial statements</b>	F-1 to F-101 and F-107 to F-114, Exhibit 15.1
<b>19.</b>	<b>Exhibits</b>	12



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### **1 Key information**

#### **1.1 Our business**

We are the world's largest diversified natural resources company. Our corporate objective is to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources.

We pursue this through our consistent strategy of owning and operating large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market.

This strategy means more predictable business performance over time which, in turn, underpins the creation of value for our shareholders, customers, employees and, importantly, the communities in which we operate.

We are among the world's top producers of major commodities, including aluminium, energy coal, metallurgical coal, copper, manganese, iron ore, uranium, nickel, silver and titanium minerals, and have substantial interests in oil and gas.

We continue to invest in the future.

The Group is headquartered in Melbourne, Australia, and consists of the BHP Billiton Limited Group and the BHP Billiton Plc Group as a combined enterprise, following the completion of the Dual Listed Company (DLC) merger in June 2001.

BHP Billiton Limited and BHP Billiton Plc have each retained their separate corporate identities and maintained their separate stock exchange listings, but they are operated and managed as a single unified economic entity, with their boards and senior executive management comprising the same people.

BHP Billiton Limited has a primary listing on the Australian Securities Exchange (ASX) in Australia. BHP Billiton Plc has a premium listing on the London Stock Exchange (LSE) in the UK and a secondary listing on the Johannesburg Stock Exchange in South Africa. In addition, BHP Billiton Limited American Depositary Receipts (ADRs) and BHP Billiton Plc ADRs trade on the New York Stock Exchange (NYSE) in the US.

As at 30 June 2011, we had a market capitalisation of approximately US\$233.9 billion. For the FY2011, we reported net operating cash flow of US\$30.1 billion, profit attributable to shareholders of US\$23.6 billion and revenue of US\$71.7 billion. We have approximately 100,000 employees and contractors working in more than 100 locations worldwide.

We operate nine businesses, called Customer Sector Groups (CSGs), which are aligned with the commodities we extract and market:

Petroleum

Aluminium

Base Metals (including Uranium)

Diamonds and Specialty Products

Stainless Steel Materials

Iron Ore

Manganese

Metallurgical Coal

Energy Coal

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### **1.2 Chairman's Review**

Dear Shareholder

I am pleased to report that despite the challenges in the global economy, BHP Billiton performed well this past financial year.

Net attributable profit (excluding exceptional items) of US\$21.7 billion was up 74 per cent, with net operating cash flows of US\$30 billion and an underlying return on capital of 39 per cent. During the year, we invested about US\$18 billion in growth and exploration activities and returned US\$15 billion to shareholders in dividends and capital returns. More recently, we committed US\$15 billion to acquire additional tier one shale assets.

There are several reasons underpinning these good results, but let me highlight two key factors.

The first is the strength of our diversified portfolio of tier one natural resources. For many years, we have implemented our strategy of investing in large, high-quality assets that deliver growth and superior margins throughout the economic cycle to create long-term shareholder value. Our performance reflects our asset quality, our strategy to maximise production and our commitment to take market prices for our products. This year we achieved production records in four commodities, including an eleventh consecutive record in iron ore.

The second factor is robust demand underpinned by the urbanisation and industrialisation of China and other developing countries on a scale that is lifting hundreds of millions of people out of poverty. Resources are fundamental for the economic growth of developing countries as they are needed for buildings, transport and infrastructure. Over the past decade these economies have contributed more to global growth than the developed world.

However, we recognise that in the short term, global imbalances and high levels of debt in Europe and the United States create uncertainty, making volatility and a protracted recovery likely. At the same time, we are positive on the longer-term outlook for the global economy as overall growth will continue to be driven by the developing countries. We believe that the Chinese Government has the appropriate policy settings to sustain its long-term ambitions for economic growth. This level of economic development will support demand and operating margins for low-cost diversified producers like BHP Billiton.

As a result of our overall performance and outlook, we completed a US\$10 billion share buy-back and increased our dividend by 16 per cent to 101 US cents a share, or US\$5.5 billion.

During the year your Board also approved eleven major growth projects with a total investment value of around US\$13 billion in natural gas, iron ore, metallurgical and energy coal, copper and diamonds. Our organic growth program is expected to exceed US\$80 billion over five years to 2015.

Investments in products like potash in Canada and recent acquisitions in the United States demonstrate our ability to meet our customers changing needs by continuing to build our diversified tier one resources portfolio, which generates options for long-term value creation.

Our US\$4.8 billion acquisition of Chesapeake Energy's Fayetteville assets, followed by our recent US\$15 billion acquisition of Petrohawk Energy, provide us with a world-class on-shore shale gas and liquids resource in the US.

While the resources industry is critical for global economic development and growth, our commitment at the community level is just as significant. We create jobs, support local industry and invest capital in projects across communities and regions.

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As part of our commitment, we contribute one per cent of our pre-tax profit, on a three-year rolling average, to community programs. This year, we allocated US\$195.5 million to a wide range of community programs, some of which are detailed in our Sustainability Report.

We also pay taxes and royalties to governments. Last year our total tax and royalty expense (excluding the effects of exceptional items) was US\$12.3 billion, and while we recognise it is appropriate for countries to periodically review tax law, we also believe any change should ensure the resources sector remains globally competitive. At the same time, the industry's substantial and ongoing investment in jobs, skills, growth and development of new sectors of the economy should be recognised.

Your Board also recognises that we operate in an industry where the foundation for everything we do is our commitment to the health and safety of our people and sustainability of the environment and communities in which we work. We have a deep focus on both what we do and on how we do it. The safety and health of our employees, contractors and communities are values that will not be compromised. This year, we had two fatalities at our operations in South Africa; sadly, two fatalities too many. This is unacceptable and a tragedy for their families, friends and colleagues. On behalf of the Board, we extend our sincere sympathies.

It is important to outline some key changes to your Board. This year we announced the appointments of Baroness Shriti Vadera and Lindsay Maxsted who, together, bring deep expertise in finance, corporate restructuring, risk management, emerging markets and public policy. With regret, we also announced the retirement of Alan Boeckmann.

In summary, we face the future with some confidence. There continues to be robust demand for our products. Our tier one resource base is diverse, of high quality and not easy to duplicate. We have talented people at all levels and we have a solid balance sheet that gives us the flexibility to pursue high-return investment opportunities while rewarding shareholders.

On your behalf, I thank the BHP Billiton team, led by your Chief Executive, Marius Kloppers, for another year of strong performance. I also thank you, our shareholders, for your continued support.

**Jacques Nasser AO**

Chairman

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### **1.3 Chief Executive Officer's Report**

I am very pleased to report that in FY2011 BHP Billiton produced a record set of financial results and completed a significant capital management program while maintaining a strong balance sheet, allowing us to continue to grow and invest in our business.

This record result and sustained growth was achieved against the backdrop of a volatile global economy and a tightening of the regulatory environment worldwide. The strong performance was also delivered despite a number of unexpected operational challenges during the year, such as the severe wet weather that affected our Queensland metallurgical coal operations and the drilling moratorium imposed in the Gulf of Mexico, and capital cost pressure on some of our large-scale projects.

Tragically, we lost two of our colleagues to workplace accidents in FY2011. Every fatality has a lasting impact on family, friends and colleagues and we will never be truly successful unless we eliminate all risk of injury from our business. Safety is not an aspiration, it is something we need to live and breathe every day we are at work. Reducing the risks in our business requires strong, accountable leadership with a focus on identifying and managing hazards.

While the recovery of commodity prices and the global economy was a major factor in our excellent financial position, it is the commitment to our tier one strategy that has not only allowed BHP Billiton to continue to outperform today, but will entrench strong relative performance through all parts of the economic cycle.

Our consistent strategy of investing in large, long-life, low-cost, expandable assets, diversified by commodity, market and operating geography has left us in a position to continue to deliver value to our shareholders.

In our minerals businesses, we are particularly focused on our expandable resources basins – Western Australia Iron Ore, Queensland coal and Olympic Dam copper/uranium in Australia, potash in Saskatchewan Canada and Escondida copper in Chile – where large potential mineralisation can create significant options for growth. During the year, BHP Billiton outlined plans to invest in excess of US\$80 billion in the next five years on these key resource hubs, which includes more than US\$12.9 billion in project approvals in the last financial year.

In addition, BHP Billiton made an entry into the United States shale gas business with our acquisition of Chesapeake Energy Corporation's interest in the Fayetteville Shale, US, a world-class onshore natural gas resource. We followed this with our acquisition of Petrohawk Energy Corporation's natural gas and liquid rich shale asset.

The past year also saw the industry take a big step forward in its approach to bulk commodity pricing. We have for a long time held the view that the most open and transparent way to discover the price for our products is through simple supply and demand economics. We are seeing this evolution across our business and now have higher volumes of our commodities sold on shorter-term reference pricing. For those businesses that in the past had to negotiate long-term prices each year, such as iron ore and metallurgical coal, this is a fundamental and positive shift to a new model that we believe is beneficial to both customers and producers, providing a clearer signal of the supply and demand picture.

As we grow, the creation of a simple, accountable and scalable organisation will ensure we remain capable of managing the larger footprint that will result over time. To this end, through the BHP Billiton Operating Model, we have set up the organisation to be more scalable, more functionally specialised and in a position to deploy capital easily when required. By having a simple structure, we can organise work more effectively and let our people focus on doing what is important.

We must earn the right to grow our business by growing safely, through operating discipline and strong leadership. As an organisation, we are committed to the highest level of governance and strive to foster a culture that values and rewards exemplary ethical standards, personal and corporate integrity and respect for others.

I would like to take the opportunity to pass on my thanks to all those who deal with BHP Billiton. And, I would especially like to thank our employees and contractors whose commitment and work have contributed so much to the success of this Company.

**Marius Kloppers**

Chief Executive Officer



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Our selected financial information reflects the operations of the BHP Billiton Group, and should be read in conjunction with the 2011 financial statements, together with the accompanying notes.

We prepare our consolidated financial statements in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board, and as outlined in note 1 Accounting policies to the financial statements in this Annual Report. We publish our consolidated financial statements in US dollars.

	2011	2010	2009	2008	2007 <sup>(a)</sup>
<b>Consolidated Income Statement (US\$M except per share data)</b>					
Revenue	71,739	52,798	50,211	59,473	47,473
Profit from operations	31,816	20,031	12,160	24,145	19,724
Profit attributable to members of BHP Billiton Group	23,648	12,722	5,877	15,390	13,416
Dividends per ordinary share paid during the period (US cents)	91.0	83.0	82.0	56.0	38.5
Dividends per ordinary share declared in respect of the period (US cents)	101.0	87.0	82.0	70.0	47.0
Earnings per ordinary share (basic) (US cents) <sup>(b)</sup>	429.1	228.6	105.6	275.3	229.5
Earnings per ordinary share (diluted) (US cents) <sup>(b)</sup>	426.9	227.8	105.4	274.8	228.9
Number of ordinary shares (millions)					
At period end	5,350	5,589	5,589	5,589	5,724
Weighted average	5,511	5,565	5,565	5,590	5,846
Diluted	5,540	5,595	5,598	5,605	5,866
<b>Consolidated Balance Sheet (US\$M)</b>					
Total assets	102,891	88,852	78,770	76,008	61,404
Share capital (including share premium)	2,771	2,861	2,861	2,861	2,922
Total equity attributable to members of BHP Billiton Group	56,762	48,525	39,954	38,335	29,667
<b>Other financial information</b>					
Underlying EBIT (US\$M) <sup>(c)</sup>	31,980	19,719	18,214	24,282	20,067
Underlying EBIT margin <sup>(c)(d)(e)</sup>	47.0%	40.7%	40.1%	47.5%	48.4%
Return on capital employed <sup>(e)</sup>	38.5%	26.4%	24.6%	37.5%	38.4%
Net operating cash flow (US\$M) <sup>(f)</sup>	30,080	16,890	17,854	16,958	15,418
Project investment (US\$M) <sup>(e)</sup>	24,517	10,770	13,965	11,440	12,781
Gearing <sup>(e)</sup>	9.2%	6.3%	12.1%	17.8%	25.0%

(a) On 1 July 2007, the Group adopted the policy of recognising its proportionate interest in the assets, liabilities, revenues and expenses of jointly controlled entities within each applicable line item of the financial statements. All such interests were previously recognised using the equity method. Comparative figures for 2007 that were affected by the policy change have been restated.

(b) The calculation of the number of ordinary shares used in the computation of basic earnings per share is the aggregate of the weighted average number of ordinary shares outstanding during the period of BHP Billiton Limited and BHP Billiton Plc after deduction of the weighted average number of shares held by the Billiton share repurchase scheme and the Billiton Employee Share Ownership Plan Trust and the BHP Bonus Equity Plan Trust and adjusting for the BHP Billiton Limited bonus share issue. Included in the calculation of fully diluted earnings per share are shares contingently issuable under Employee Share Ownership Plans.





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- (c) Underlying EBIT is profit from operations, excluding the effect of exceptional items. See section 3.3 for more information about this measure, including a reconciliation to profit from operations.
- (d) Underlying EBIT margin is profit from operations, excluding the effect of exceptional items before taxation and excluding third party production, divided by revenue from Group production. See section 3.3 for more information about this measure.
- (e) See section 10 for glossary definitions.
- (f) Improvements to IFRSs 2009 /AASB 2009-4 Amendments to Australian Accounting Standards arising from the Annual Improvements Project and AASB 2009-5 Further Amendments to Australian Accounting Standards arising from the Annual Improvements Project include a requirement to classify expenditures which do not result in a recognised asset as a cash flow from operating activities. This has resulted in exploration cash flows which are not recognised as assets being reclassified from net investing cash flows to net operating cash flows for all comparative figures to 2011.

**1.4.2 Operational information**

Our Board and Group Management Committee monitor a range of financial and operational performance indicators, reported on a monthly basis, to measure performance over time. We also monitor a comprehensive set of health, safety, environment and community contribution indicators.

	2011	2010	2009
<b>People and Licence to operate</b>			
<b>Health, safety, environment and community</b>			
Total recordable injury frequency (TRIF) <sup>(a)</sup>	5.0	5.3	5.6
Community investment (US\$M) <sup>(a)(b)</sup>	195.5	200.5	197.8 <sup>(b)</sup>
<b>Production <sup>(c)</sup></b>			
Total Petroleum production (million barrels of oil equivalent)	159.38	158.56	137.97
Alumina ( 000 tonnes)	4,010	3,841	4,396
Aluminium ( 000 tonnes)	1,246	1,241	1,233
Copper cathode and concentrate ( 000 tonnes)	1,139.4	1,075.2	1,207.1
Nickel ( 000 tonnes)	152.7	176.2	173.1
Iron ore ( 000 tonnes)	134,406	124,962	114,415
Manganese alloys ( 000 tonnes)	753	583	513
Manganese ores ( 000 tonnes)	7,093	6,124	4,475
Metallurgical coal ( 000 tonnes)	32,678	37,381	36,416
Energy coal ( 000 tonnes)	69,500	66,131	66,401

- (a) See section 10 for glossary definitions.
- (b) In FY2009 we established a UK-based charitable company, BHP Billiton Sustainable Communities, registered with the UK Charities Commission for the purpose of funding community investment globally. In FY2011 our voluntary community contribution included the provision of US\$30 million (2010: US\$80 million, 2009: US\$60 million) to BHP Billiton Sustainable Communities.
- (c) Further details appear in section 2.3 of this Report.

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### **1.5 Risk factors**

We believe that, because of the international scope of our operations and the industries in which we are engaged, there are numerous factors which may have an effect on our results and operations. The following describes the material risks that could affect the BHP Billiton Group.

#### **Fluctuations in commodity prices and impacts of the global financial crisis may negatively affect our results**

The prices we obtain for our oil, gas, minerals and other commodities are determined by, or linked to, prices in world markets, which have historically been subject to substantial variations. The Group's usual policy is to sell its products at the prevailing market prices. The diversity provided by the Group's broad portfolio of commodities may not fully insulate the effects of price changes. Fluctuations in commodity prices can occur due to sustained price shifts reflecting underlying global economic and geopolitical factors, industry demand and supply balances, product substitution and national tariffs. The ongoing effects of the global financial and European sovereign debt crises have affected commodity market prices, demand and volatility. The ongoing uncertainty and impact on global economic growth, particularly in the developed economies, may adversely affect future demand and prices for commodities. The impact of potential longer-term sustained price shifts and shorter-term price volatility creates the risk that our financial and operating results and asset values will be materially and adversely affected by unforeseen declines in the prevailing prices of our products.

We seek to maintain a solid A credit rating as part of our strategy; however, fluctuations in commodity prices and the ongoing effects of the global financial and European sovereign debt crises may adversely impact our future cash flows, ability to adequately access and source capital from financial markets and our credit rating.

#### **Our financial results may be negatively affected by currency exchange rate fluctuations**

Our assets, earnings and cash flows are influenced by a wide variety of currencies due to the geographic diversity of the countries in which we operate. Fluctuations in the exchange rates of those currencies may have a significant impact on our financial results. The US dollar is the currency in which the majority of our sales are denominated. Operating costs are influenced by the currencies of those countries where our mines and processing plants are located and also by those currencies in which the costs of imported equipment and services are determined. The Australian dollar, South African rand, Chilean peso, Brazilian real and US dollar are the most important currencies influencing our operating costs. Given the dominant role of the US currency in our affairs, the US dollar is the currency in which we present financial performance. It is also the natural currency for borrowing and holding surplus cash. We do not generally believe that active currency hedging provides long-term benefits to our shareholders. We may consider currency protection measures appropriate in specific commercial circumstances, subject to strict limits established by our Board. Therefore, in any particular year, currency fluctuations may have a significant impact on our financial results.

#### **The commercial counterparties we transact with may not meet their obligations which may negatively impact our results**

We contract with a large number of commercial and financial counterparties including customers, suppliers, and financial institutions. The global financial and European sovereign debt crises have placed strains on global financial markets, reduced liquidity and impacted business conditions generally. Our existing counterparty credit controls may not prevent a material loss due to credit exposure to a major customer or financial counterparty. In addition, customers, suppliers, contractors or joint venture partners may fail to perform against existing contracts and obligations. Non-supply of key inputs or equipment may unfavourably impact our operations. Reduced liquidity and available sources of capital in financial markets may impact the cost and ability to fund planned investments. These factors could negatively affect our financial condition and results of operations.

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### **Failure to discover new reserves, maintain or enhance existing reserves or develop new operations could negatively affect our future results and financial condition**

The increased demand for our products and increased production rates from our operations in recent years has resulted in existing reserves being depleted at an accelerated rate. As our revenues and profits are related to our oil and gas and minerals operations, our results and financial condition are directly related to the success of our exploration and acquisition efforts, and our ability to replace existing reserves. Exploration activity occurs adjacent to established operations and in new regions, in developed and less developed countries. These activities may increase land tenure, infrastructure and related political risks. A failure in our ability to discover new reserves, enhance existing reserves or develop new operations in sufficient quantities to maintain or grow the current level of our reserves could negatively affect our results, financial condition and prospects.

There are numerous uncertainties inherent in estimating ore and oil and gas reserves, and geological, technical and economic assumptions that are valid at the time of estimation may change significantly when new information becomes available. The uncertain global financial outlook may affect economic assumptions related to reserve recovery and require reserve restatements. Reserve restatements could negatively affect our results and prospects.

### **Reduction in Chinese demand may negatively impact our results**

The Chinese market has become a significant source of global demand for commodities. In CY2010, China represented 59 per cent of global seaborne iron ore demand, 39 per cent of copper demand, 38 per cent of nickel demand, 41 per cent of aluminium demand, 42 per cent of energy coal demand and 10 per cent of oil demand. China's demand for these commodities has been driving global materials demand over the past decade.

Sales into China generated US\$20.3 billion (FY2010: US\$13.2 billion), or 28.2 per cent (FY2010: 25.1 per cent), of our revenue in the year ended 30 June 2011. A slowing in China's economic growth could result in lower prices and demand for our products and negatively impact our results.

In response to its increased demand for commodities, China is increasingly seeking strategic self-sufficiency in key commodities, including investments in existing businesses or new developments in other countries. These investments may adversely impact future commodity demand and supply balances and prices.

### **Actions by governments or political events in the countries in which we operate could have a negative impact on our business**

We have operations in many countries around the globe, which have varying degrees of political and commercial stability. We operate in emerging markets, which may involve additional risks that could have an adverse impact upon the profitability of an operation. These risks could include terrorism, civil unrest, nationalisation, renegotiation or nullification of existing contracts, leases, permits or other agreements, restrictions on repatriation of earnings or capital and changes in laws and policy, as well as other unforeseeable risks. Risks relating to bribery and corruption may be prevalent in some of the countries in which we operate. If any of our major projects is affected by one or more of these risks, it could have a negative effect on the operations in those countries, as well as the Group's overall operating results, financial condition and reputation.

Our operations are based on material long-term investments that anticipate long-term fiscal stability. Following the global financial crisis some governments face increased debt and funding obligations and may seek additional sources of revenue and economic rent by increasing rates of taxation, royalties or resource rent taxes to levels that are globally uncompetitive to the resource industry. Such taxes may negatively impact the financial results of existing businesses and reduce the anticipated future returns and overall level of prospective investment in those countries.

On 2 July 2010, the Australian Government proposed a Minerals Resource Rent Tax (MRRT), at a rate of 30 per cent (with a 25 per cent extraction allowance) effectively resulting in a 22.5 per cent additional tax on

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profits) for Australian iron ore and coal operations, while the current Petroleum Resource Rent Tax (PRRT) is proposed to be extended to all Australian oil and gas projects, including the North West Shelf. Legislation is proposed to be introduced into parliament in late CY2011, ahead of the proposed 1 July 2012 commencement date. The MRRT would operate in parallel with State and Territory royalty regimes, with all current and future royalties fully creditable against the MRRT. The proposed MRRT and PRRT extension will increase the effective tax rate of Australian coal and iron ore operations and the North West Shelf project. This could have a negative effect on the operating results of the Group's Australian operations. The MRRT and PRRT extension is subject to the passing of legislation by the Australian Parliament, and the final legislation may differ (wholly or in part) in its final form from current expectations.

Our business could be adversely affected by new government regulation, such as controls on imports, exports and prices. Increasing requirements relating to regulatory, environmental and social approvals can potentially result in significant delays in construction and may adversely impact upon the economics of new mining and oil and gas projects, the expansion of existing operations and results of our operations.

We have oil and gas operations located in the Gulf of Mexico region of the United States. In October 2010, the United States Government lifted the deepwater drilling moratorium in the Gulf of Mexico initially put in place in May 2010 in response to the oil spill from BP's Macondo well. Although the moratorium was lifted the industry now faces more stringent permitting requirements. Despite our management processes, delays or additional costs may occur in receiving future permits and the conduct of deepwater drilling activities in the Gulf of Mexico.

Infrastructure, such as rail, ports, power and water, is critical to our business operations. We have operations or potential development projects in countries where government provided infrastructure or regulatory regimes for access to infrastructure, including our own privately operated infrastructure, may be inadequate or uncertain. These may adversely impact the efficient operations and expansion of our businesses. On 30 June 2010, the Australian Competition Tribunal granted declaration of BHP Billiton's Goldsworthy rail line, but rejected the application for declaration of our Newman rail line under Part IIIA of the Trade Practices Act. Following the tribunal's decision, access seekers may now negotiate for access to the Goldsworthy railway. These negotiations, and the availability and terms of access, would be governed by the Part IIIA statutory framework, and either the access seeker or BHP Billiton could refer disputed matters to the Australian Competition and Consumer Commission for arbitration. The outcome of this process would govern whether access would be provided and on what terms.

In South Africa, the Mineral and Petroleum Resources Development Act (2002) (MPRDA) came into effect on 1 May 2004. The law provides for the conversion of existing mining rights (so called 'Old Order Rights') to rights under the new regime ('New Order Rights') subject to certain undertakings to be made by the company applying for such conversion. The Mining Charter requires that mining companies achieve 15 per cent ownership by historically disadvantaged South Africans of South African mining assets by 1 May 2009 and 26 per cent ownership by 1 May 2014. If we are unable to convert our South African mining rights in accordance with the MPRDA and the Mining Charter, we could lose some of those rights. Where New Order Rights are obtained under the MPRDA, these rights may not be equivalent to the Old Order Rights in terms of duration, renewal, rights and obligations.

We operate in several countries where ownership of land is uncertain and where disputes may arise in relation to ownership. In Australia, the Native Title Act (1993) provides for the establishment and recognition of native title under certain circumstances. In South Africa, the Extension of Security of Tenure Act (1997) and the Restitution of Land Rights Act (1994) provide for various landholding rights. Such legislation could negatively affect new or existing projects.

These regulations are complex, difficult to predict and outside of our control, and could negatively affect our business and results.

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### **We may not be able to successfully integrate our acquired businesses**

We have grown our business in part through acquisitions. We expect that some of our future growth will stem from acquisitions. There are numerous risks encountered in business combinations. These include adverse regulatory conditions and obligations, commercial objectives not achieved due to minority interests, unforeseen liabilities arising from the acquired businesses, retention of key staff, sales revenues and the operational performance not meeting our expectations, anticipated synergies and cost savings being delayed or not being achieved, uncertainty in sales proceeds from planned divestments, and planned expansion projects being delayed or costing more than anticipated. These factors could negatively affect our future results and financial condition.

### **Our human resource talent pool may not be adequate to support our growth**

Our existing operations and especially our pipeline of development projects in regions of numerous large projects, such as Western Australia and Queensland, when activated, require many highly skilled staff with relevant industry and technical experience. In the competitive labour markets that exist in these regions, the inability of the Group and industry to attract and retain such people may adversely impact our ability to adequately meet demand in projects. Skills shortages in engineering, technical service, construction and maintenance may adversely affect activities. These shortages may adversely impact the cost and schedule of development projects and the cost and efficiency of existing operations.

### **Increased costs and schedule delays may adversely affect our development projects**

Although we devote significant time and resources to our project planning, approval and review process, we may underestimate the cost or time required to complete a project. In addition, we may fail to manage projects as effectively as we anticipate, and unforeseen challenges may emerge. Any of these may result in increased capital costs and schedule delays at our development projects impacting anticipated financial returns.

### **We may not recover our investments in mining and oil and gas projects**

Our operations may be impacted by changed market or industry structures, commodity prices, technical operating difficulties, inability to recover our mineral, oil or gas reserves and increased operating cost levels. These may impact the ability for assets to recover their historical investment and may require financial write-downs adversely impacting our financial results.

### **Our non-controlled assets may not comply with our standards**

Some of our assets are controlled and managed by joint venture partners or by other companies. Some joint venture partners may have divergent business objectives which may impact business and financial results. Management of our non-controlled assets may not comply with our management and operating standards, controls and procedures (including our health, safety, and environment standards). Failure to adopt equivalent standards, controls and procedures at these assets could lead to higher costs and reduced production and adversely impact our results and reputation.

### **Operating cost pressures and shortages could negatively impact our operating margins and expansion plans**

Increasing cost pressures and shortages in skilled personnel, contractors, materials and supplies that are required as critical inputs to our existing operations and planned developments may occur across the resources industry. As the prices for our products are determined by the global commodity markets in which we operate, we may not have the ability to offset these cost increases resulting in operating margins being reduced. Notwithstanding our efforts to reduce costs and a number of key cost inputs being commodity price-linked, the inability to reduce costs and a timing lag may adversely impact our operating margins for an extended period. Our Australian-based operations may continue to be affected by the Australian Fair Work Act 2009 as labour

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agreements expire and businesses are required to negotiate labour agreements with unions. There is some evidence that labour unions are increasingly likely to pursue claims in the bargaining process about union access and involvement in operational decision-making relating to the implementation of change. These claims may adversely affect workplace flexibility, productivity and costs. Industrial action in pursuit of claims associated with the bargaining process has occurred in a number of businesses and is likely to continue to occur as unions press for new claims as part of the negotiation around new agreements.

A number of our operations are energy or water intensive and, as a result, the Group's costs and earnings could be adversely affected by rising costs or by supply interruptions. These could include the unavailability of energy, fuel or water due to a variety of reasons, including fluctuations in climate, significant increases in costs, inadequate infrastructure capacity, interruptions in supply due to equipment failure or other causes and the inability to extend supply contracts on economical terms.

These factors could lead to increased operating costs at existing operations and could negatively impact our operating margins and expansion plans.

### **Health, safety, environmental and community incidents or accidents and related regulations may adversely affect our operations and reputation or licence to operate**

We are a major producer of carbon-related products such as energy and metallurgical coal, oil, gas, and liquefied natural gas. Our oil and gas operations are both onshore and offshore.

The nature of the industries in which we operate means that many of our activities are highly regulated by health, safety and environmental laws. As regulatory standards and expectations are constantly developing, we may be exposed to increased litigation, compliance costs and unforeseen environmental rehabilitation expenses.

Potential health, safety, environmental and community events that may have a material adverse impact on our operations include rockfall incidents in underground mining operations, aircraft incidents, light vehicle incidents, well blowouts, explosions or gas leaks, incidents involving mobile equipment, uncontrolled tailings breaches, escape of polluting substances, uncontrolled releases of hydrocarbons, human rights breaches and community protests or civil unrest.

Longer-term health impacts may arise due to unanticipated workplace exposures or historical exposures to employees or site contractors. These effects may create future financial compensation obligations.

We may continue to be exposed to increased operational costs due to the costs and lost time associated with infectious diseases such as HIV/AIDS and malaria mainly within our African workforce and the increasing global burden of chronic disease. Because we operate globally, we may be affected by potential pandemic influenza outbreaks, such as A(H1N1) and avian flu, in any of the regions in which we operate.

Legislation requiring manufacturers, importers and downstream users of chemical substances, including metals and minerals, to establish that the substances can be used without negatively affecting health or the environment may impact our operations and markets. These potential compliance costs, litigation expenses, regulatory delays, rehabilitation expenses and operational costs could negatively affect our financial results.

During FY2011, BHP Billiton acquired Chesapeake Energy Corporation's interests in the Fayetteville Shale operation. On 14 July 2011, BHP Billiton announced an agreement to acquire Petrohawk Energy Corporation, an independent oil and natural gas company engaged in the exploration, development and production of US shale gas, and on 21 August 2011, we announced that the tender offer had been completed successfully. Both businesses include operations which involve hydraulic fracturing – a process of pumping water, sand and a small amount of chemical additives into the shale formation to fracture the rock and release the resource. In response to expressed health and environmental concerns, various states in which shale operations

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occur have recently adopted disclosure regulations requiring companies to disclose the chemicals used in the fracturing operations. Additionally, some states have adopted, and other states are considering adopting, regulations that could restrict hydraulic fracturing in certain circumstances. Additional costs may result from more demanding regulatory requirements and potential class action claims.

We provide for operational closure and site rehabilitation. Our operating and closed facilities are required to have closure plans. Changes in regulatory or community expectations may result in the relevant plans not being adequate. This may impact financial provisioning and costs at the affected operations.

We contribute to the communities in which we operate by providing skilled employment opportunities, salaries and wages, taxes and royalties and community development programs. Notwithstanding these actions, local communities may become dissatisfied with the impact of our operations, potentially affecting costs and production, and in extreme cases viability.

Despite our best efforts and best intentions, there remains a risk that health, safety, environmental and/or community incidents or accidents and related regulations may adversely affect our reputation or licence to operate.

### **Unexpected natural and operational catastrophes may adversely impact our operations**

We operate extractive, processing and logistical operations in many geographic locations both onshore and offshore. Our operational processes may be subject to operational accidents such as port and shipping incidents, fire and explosion, pitwall failures, loss of power supply, railroad incidents, loss of well control, environmental pollution and mechanical failures. Our operations may also be subject to unexpected natural catastrophes such as earthquakes, flood, hurricanes and tsunamis. Based on our claims, insurance premiums and loss experience, our risk management approach is not to purchase insurance for property damage, business interruption and construction related risk exposures. Existing business continuity plans may not provide protection for all of the costs that arise from such events. The impact of these events could lead to disruptions in production, increased costs and loss of facilities more than offsetting premiums saved which would adversely affect our financial results and prospects. Third party claims arising from these events may exceed the limit of liability insurance policies we have in place.

### **Climate change and greenhouse effects may adversely impact our operations and markets**

Carbon-based energy is a significant input in a number of the Group's mining and processing operations and we have significant sales of carbon-based energy products.

A number of governments or governmental bodies have introduced or are contemplating regulatory change in response to the impacts of climate change. Under the December 2009 Copenhagen Accord, developed countries established individual greenhouse gas targets and developing countries established national mitigation actions. The European Union Emissions Trading System (EU ETS), which came into effect on 1 January 2005, has had an impact on greenhouse gas and energy-intensive businesses based in the EU. Our Petroleum assets in the UK are currently subject to the EU ETS, as are our EU based customers. Elsewhere, there is current and emerging climate change regulation that will affect energy prices, demand and margins for carbon intensive products. The Australian Government's plan of action on climate change includes the introduction of a fixed price on carbon emissions beginning 1 July 2012 and converting to an emissions trading scheme after three years, and a mandatory renewable energy target of 20 per cent by the year 2020. From a medium to long-term perspective, we are likely to see some changes in the cost position of our greenhouse-gas-intensive assets and energy-intensive assets as a result of regulatory impacts in the countries in which we operate. These proposed regulatory mechanisms may impact our operations directly or indirectly via our suppliers and customers. Inconsistency of regulations particularly between developed and developing countries may also change the competitive position of some of our assets. Assessments of the potential impact of future climate change regulation are uncertain given the wide scope of potential regulatory change in the many countries in which we operate.

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The physical impacts of climate change on our operations are highly uncertain and will be particular to the geographic circumstances. These may include changes in rainfall patterns, water shortages, rising sea levels, increased storm intensities and higher average temperature levels. These effects may adversely impact the productivity and financial performance of our operations.

### **Breaches in our information technology (IT) security processes may adversely impact the conduct of our business activities**

We maintain global IT and communication networks and applications to support our business activities. IT security processes protecting these systems are in place and subject to assessment as part of the review of internal control over financial reporting. These processes may not prevent future malicious action or fraud by individuals or groups, resulting in the corruption of operating systems, theft of commercially sensitive data, misappropriation of funds and disruptions to our business operations.

### **A breach of our governance processes may lead to regulatory penalties and loss of reputation**

We operate in a global environment straddling multiple jurisdictions and complex regulatory frameworks. Our governance and compliance processes, which include the review of internal control over financial reporting, may not prevent future potential breaches of law, accounting or governance practice. The *BHP Billiton* Code of Business Conduct, together with our anti-bribery and corruption, and anti-trust standards may not prevent instances of fraudulent behaviour and dishonesty nor guarantee compliance with legal or regulatory requirements. This may lead to regulatory fines, litigation, loss of operating licences or loss of reputation.

## **1.6 Forward looking statements**

This Annual Report contains forward looking statements, including statements regarding:

estimated reserves

trends in commodity prices and currency exchange rates

demand for commodities

plans, strategies and objectives of management

closure or divestment of certain operations or facilities (including associated costs)

anticipated production or construction commencement dates

expected costs or production output

anticipated productive lives of projects, mines and facilities

provisions and contingent liabilities



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tax and regulatory developments.

Forward looking statements can be identified by the use of terminology such as intend , aim , project , anticipate , estimate , plan , believe , may , should , will , continue or similar words. These statements discuss future expectations concerning the results of operations or financial condition, or provide other forward looking statements.

These forward looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this Annual Report. Readers are cautioned not to put undue reliance on forward looking statements.

For example, our future revenues from our operations, projects or mines described in this Annual Report will be based, in part, upon the market price of the minerals, metals or petroleum produced, which may vary

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significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing operations.

Other factors that may affect the actual construction or production commencement dates, costs or production output and anticipated lives of operations, mines or facilities include our ability to profitably produce and transport the minerals, petroleum and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals, petroleum or metals we produce; activities of government authorities in some of the countries where we are exploring or developing these projects, facilities or mines, including increases in taxes, changes in environmental and other regulations and political uncertainty; and other factors identified in the description of the risk factors above.

We cannot assure you that our estimated economically recoverable reserve figures, closure or divestment of such operations or facilities, including associated costs, actual production or commencement dates, cost or production output or anticipated lives of the projects, mines and facilities discussed in this Annual Report, will not differ materially from the statements contained in this Annual Report.

Except as required by applicable regulations or by law, the Group does not undertake any obligation to publicly update or review any forward looking statements, whether as a result of new information or future events.

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**2 Information on the Company**

**2.1 BHP Billiton locations**

*Projects and exploration activities are not shown on this map.*

**Table of Contents****Petroleum**

Ref	Country	Fields	Description	Ownership	
1	Algeria	Ohanet	Joint operator with Sonatrach for onshore wet gas production <sup>(a)</sup>	45%	
2	Algeria	ROD Integrated Development	Onshore oil production <sup>(a)</sup>	38%	
3	Australia	Bass Strait	Offshore Victoria oil, condensate, LPG, natural gas and ethane production <sup>(a)</sup>	50%	
4	Australia	Minerva	Operator of offshore Victoria natural gas production	90%	
5	Australia	North West Shelf	Offshore Western Australia oil, condensate, LPG, natural gas and LNG production <sup>(a)</sup>	8.3	16.7%
6	Australia	Pyrenees	Operator of offshore Western Australia oil production	40	71.4%
7	Australia	Stybarrow	Operator of offshore Western Australia oil production	50%	
8	Pakistan	Zamzama	Operator of onshore natural gas production	38.5%	
9	Trinidad and Tobago	Angostura	Operator of offshore oil and natural gas production	45%	
10	UK	Bruce/Keith	Offshore North Sea oil and natural gas production <sup>(a)</sup>	Bruce	1%
				Keith	31%
11	UK	Liverpool Bay	Operator of offshore Irish Sea oil and natural gas production	46.1%	
12	US	Fayetteville	Operator of onshore natural gas production	.03	100%
13	US	Gulf of Mexico	Offshore oil, LPG and natural gas production from several fields		
			- Shenzi 44%		
			- Neptune 35%		
			- Starlifter 31%		
			- WestCameron 33.8%		
			- Atlantis 44% <sup>(a)</sup>		
			- MadDog 23.9% <sup>(a)</sup>		
			- Genesis 5% <sup>(a)</sup>		

**Aluminium**

Ref	Country	Asset	Description	Ownership	
14	Australia	Aluminium Australia	A joint venture where we operate the Worsley alumina refinery and Boddington bauxite mine in Western Australia	86%	
15	Brazil	Alumar	Integrated alumina refinery and aluminium smelter <sup>(a)</sup>	36	40%
16	Brazil	Mineração Rio do Norte	An open-cut bauxite mine <sup>(a)</sup>	14.8%	
17	Mozambique	Aluminium Mozambique	A joint venture where we operate the aluminium smelter (Mozal), located near Maputo	47.1%	

18	South Africa	Aluminium South Africa	Hillside and Bayside aluminium smelters, located in Richards Bay	100%
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**Table of Contents****Base Metals**

Ref	Country	Asset	Description	Ownership
19	Australia	Cannington	Underground silver, lead and zinc mine, located in northwest Queensland	100%
20	Chile	Pampa Norte	Cerro Colorado and Spence open-cut mines producing copper cathode in the Atacama Desert, northern Chile	100%
21	Chile	Escondida	Comprises the world's largest copper mine, concentrators and solvent extraction plants and port operations	57.5%
22	Peru	Antamina	A joint venture open-cut copper and zinc mine, located in the Andes north-central Peru <sup>(a)</sup>	33.8%
23	US	Base Metals North America	Includes the Pinto Valley open-cut copper mine, located in Arizona	100%

**Uranium <sup>(b)</sup>**

Ref	Country	Asset	Description	Ownership
24	Australia	Olympic Dam	Large poly-metallic orebody and the world's largest uranium deposit, producing copper, uranium, gold and silver	100%

**Diamonds and Specialty Products**

Ref	Country	Asset	Description	Ownership
25	Canada	EKATI Diamond Mine	Open-cut and underground diamond mines, located in the Northwest Territories of Canada	80%
26	South Africa	Richards Bay Minerals	Integrated titanium smelter and mineral sands mining operation <sup>(a)</sup>	37.8%

**Stainless Steel Materials**

Ref	Country	Asset	Description	Ownership
27	Australia	Nickel West	Mt Keith and Leinster nickel-sulphide mines, Kalgoorlie nickel smelter, Kambalda nickel concentrator and the Kwinana nickel refinery	100%
28	Colombia	Cerro Matoso	Integrated laterite ferronickel mining and smelting operation in northern Colombia	99.9%

**Iron Ore**

Ref	Country	Asset	Description	Ownership
29	Australia	Western Australia Iron Ore	Integrated iron ore mines (Area C, Jimblebar, Yandi, Newman and Yarrie), and rail and port operations in the Pilbara region of Western Australia	85 100%
30	Brazil	Samarco	Open-cut mine that produces iron ore pellets <sup>(a)</sup>	50%

**Table of Contents****Manganese**

Ref	Country	Asset	Description	Ownership
31	Australia	Manganese Australia	Producer of manganese ore in the Northern Territory (GEMCO) and manganese alloys in Tasmania (TEMCO)	60%
32	South Africa	Manganese South Africa	Mamatwan open-cut and Wessels underground manganese mines and the Metalloys manganese alloy plant	44.4 60%

**Metallurgical Coal**

Ref	Country	Asset	Description	Ownership
33	Australia	Illawarra	Underground coal mines (West Cliff, Dendrobium, Appin) in southern NSW, with access to rail and port facilities	100%
34	Australia	BHP Billiton Mitsubishi Alliance	Saraji, Goonyella Riverside, Peak Downs, Norwich Park, Gregory Crinum, Blackwater and Broadmeadow open-cut and underground mines in the Queensland Bowen Basin and Hay Point Coal Terminal	50%
35	Australia	BHP Billiton Mitsui Coal	South Walker Creek and Poitrel open-cut coal mines in the Queensland Bowen Basin	80%

**Energy Coal**

Ref	Country	Asset	Description	Ownership
36	Australia	NSW	Mt Arthur open-cut coal mine	100%
		Energy Coal		
37	Colombia	Cerrejón	An open-cut coal mine, with integrated rail and port operations <sup>(a)</sup>	33.3%
38	South Africa	Energy Coal South Africa	Khutala, Middelburg, Klipspruit, Wolvekrans open-cut and underground mines and coal processing operations	50 100%
39	US	New Mexico Coal	Navajo open-cut and San Juan underground mines	100%

**Table of Contents*****BHP Billiton office locations***

<b>Ref</b>	<b>Country</b>	<b>Office Location</b>	<b>Business Area</b>
40	Australia	Adelaide	Uranium Head Office Marketing Office
41	Australia	Brisbane	Metallurgical Coal Head Office Marketing Office Project Hub
42	Australia	Melbourne	Global Headquarters Marketing Office
43	Australia	Newcastle	Marketing Office
44	Australia	Perth	Iron Ore Head Office Stainless Steel Materials Head Office Marketing Office Minerals Exploration Office Project Hub
45	Australia	Sydney	Energy Coal Head Office
46	Belgium	Antwerp	Marketing Office
47	Brazil	Rio de Janeiro	Marketing Office
48	Canada	Saskatoon	Diamonds and Specialty Products Head Office
49	Canada	Toronto	Project Hub
50	Chile	Santiago	Base Metals Head Office Marketing Office Minerals Exploration Office Project Hub
51	China	Shanghai	Marketing Office
52	India	New Delhi	Marketing Office
53	Japan	Tokyo	Marketing Office
54	Malaysia	Kuala Lumpur	Global Shared Services Centre
55	Netherlands	The Hague	Marketing Office
56	Pakistan	Islamabad	Marketing Office
57	Russia	Moscow	Representative Office



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58	Singapore	Singapore	Corporate Centre Marketing Head Office Minerals Exploration Head Office
59	South Africa	Johannesburg	Manganese Head Office Marketing Office Minerals Exploration Office
60	South Africa	Richards Bay	Marketing Office
61	South Korea	Seoul	Marketing Office
62	Switzerland	Baar	Marketing Office
63	UK	London	Aluminium Head Office Corporate Centre
64	US	Farmington	Marketing Office
65	US	Houston	Petroleum Head Office Marketing Office Project Hub
66	US	Pittsburgh	Marketing Office

- (a) Jointly or non-operated BHP Billiton Assets or Fields.  
 (b) Uranium forms part of the Base Metals Customer Sector Group.  
*Percentage ownership figures have been rounded to one decimal place.*

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### **2.2 Business overview**

#### **2.2.1 History and development**

Since 29 June 2001, we have operated under a Dual Listed Company (DLC) structure. Under the DLC structure, the two parent companies, BHP Billiton Limited (formerly BHP Limited and before that The Broken Hill Proprietary Company Limited) and BHP Billiton Plc (formerly Billiton Plc) operate as a single economic entity, run by a unified Board and management team. More details of the DLC structure are located under section 2.10 of this Report.

BHP Billiton Limited was incorporated in 1885 and is registered in Australia with ABN 49 004 028 077. BHP Billiton Plc was incorporated in 1996 and is registered in England and Wales with registration number 3196209. Successive predecessor entities to BHP Billiton Plc have operated since 1860.

The registered office of BHP Billiton Limited is 180 Lonsdale Street, Melbourne, Victoria 3000, Australia, and its telephone number is 1300 55 47 57 (within Australia) or +61 3 9609 3333 (outside Australia). The registered office of BHP Billiton Plc is Neathouse Place, London SW1V 1BH, UK, and its telephone number is +44 20 7802 4000. Our agent for service in the United States is Marisa I. Reuter at 1360 Post Oak Boulevard, Suite 150, Houston, TX 77056.

#### **2.2.2 Petroleum Customer Sector Group**

Our Petroleum CSG comprises a base of large, long-life, low-unit cost operations that are located in six countries throughout the world. We pursue significant upstream opportunities with multiple options for growth to ensure continued success.

During FY2011, Petroleum delivered our fourth consecutive annual production record by realising 159.4 million barrels of oil equivalent (MMboe) from our diverse global portfolio. Our operations achieved continued high uptime rates with strong reservoir performance from the operated Pyrenees (Australia) and Shenzi (US) fields. The Angostura Gas facility (Trinidad and Tobago) was brought on stream during the fourth quarter of FY2011. New production volumes were realised from the acquisition of the Fayetteville onshore shale gas operations (US) during the fourth quarter of FY2011. Continued high margins were achieved due to operating costs being maintained on average close to US\$6 per barrel on the entire global portfolio.

Production from our Gulf of Mexico projects was materially impacted through FY2011 by a drilling moratorium imposed by the US Department of the Interior on all offshore oil and gas industry activities following the oil spill from BP's Macondo well. Despite regulatory delays, BHP Billiton led the industry in returning to deepwater drilling operations and bringing the first new production on stream from our operated Shenzi field following the lifting of the moratorium on 12 October 2010. Drilling has not yet commenced in the Mad Dog and Atlantis fields operated by BP where we have a significant interest. Production in FY2011 was also adversely impacted by an active tropical cyclone season in Western Australia affecting our operated Pyrenees and Stybarrow oil operations and non-operated North West Shelf operations.

We continue to invest through economic cycles and maintain a long-term view. Our consistently strong project execution over the past five years has led us to successfully deliver five major operated projects, the latest one being the Angostura Gas platform offshore Trinidad and Tobago. This has continued our track record of delivering our projects safely, within budget and on schedule. We remain committed to growth through exploration and commenced a major international drilling campaign in FY2011 that will extend through FY2012

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and beyond. We continue to build our inventory of acreage, leads and prospects as well as progressing our major capital projects. In February 2011, we successfully executed a major acquisition of the Fayetteville Shale gas interests in Arkansas for US\$4.8 billion. On 21 August 2011, we announced the successful completion of the cash tender offer to acquire Petrohawk Energy Corporation, an independent oil and natural gas company engaged in the exploration, development and production of primarily shale gas and oil in Texas and Louisiana. The total price of the offer was approximately US\$12.1 billion and the total enterprise value was approximately US\$15.1 billion, including the assumption of net debt. We will continue to evaluate other commercial opportunities for growth as we move forward.

Our production operations are as follows:

### **Bass Strait**

Together with our 50-50 joint venture partner, Esso Australia (a subsidiary of ExxonMobil), we have been producing oil and gas from Bass Strait, off the south-eastern coast of Australia, for over 40 years, having participated in the original discovery of hydrocarbons in 1965. We dispatch the majority of our Bass Strait crude oil and condensate production to refineries along the east coast of Australia. Gas is piped onshore to our Longford processing facility, from which we sell our production to domestic distributors under contracts with periodic price reviews.

### **North West Shelf**

We are a joint venture participant in the North West Shelf Project in Western Australia. The North West Shelf Project was developed in phases: the domestic gas phase supplies gas to the Western Australian domestic market mainly under long-term contracts, and a series of liquified natural gas (LNG) expansion phases supplying LNG to buyers in Japan, Korea and China under a series of long-term contracts. The project also produces LPG and condensate.

We are also a joint venture participant in four nearby oil fields. Both the North West Shelf gas and oil ventures are operated by Woodside Petroleum Ltd.

### **Australia operated**

We operate two oil fields offshore Western Australia and one gas field in Victoria.

The Pyrenees oil development consists of three fields, two of which (Crosby and Stickle) are located in blocks WA-42-L (71.43 per cent interest), while the third (Ravensworth) straddles blocks WA-42-L and WA-43-L (40 per cent interest). The project uses a floating production storage and off-take (FPSO) facility.

The Stybarrow operation (50 per cent BHP Billiton share) is an oil development located offshore Western Australia. The project uses a FPSO facility.

The Minerva operation (90 per cent BHP Billiton share) is a gas field located offshore Victoria. The operation consists of two subsea producing wells which pipe gas onshore to a processing plant. The gas is delivered into a pipeline and sold domestically.

### **Gulf of Mexico**

We operate three fields in the Gulf of Mexico (Neptune, Shenzi and consolidated operations in the West Cameron area), and hold non-operating interests in a further three fields (Atlantis, Mad Dog and Genesis). We also own 25 per cent and 22 per cent, respectively, of the companies that own and operate the Caesar oil pipeline and the Cleopatra gas pipeline which transport oil and gas from the Green Canyon area, where a number of our fields are located, to connecting pipelines that transport product to the mainland. We deliver our oil production to refineries along the Gulf Coast of the United States.

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### **Fayetteville**

Fayetteville Shale operations in central Arkansas in the US consist of approximately 504,451 net acres of leasehold and producing natural gas properties and extensive infield gathering pipelines and several compression stations.

### **Liverpool Bay and Bruce/Keith**

The Liverpool Bay integrated development consists of six offshore gas and oil fields in the Irish Sea, the Point of Ayr onshore processing plant in north Wales, and associated infrastructure. We deliver the Liverpool Bay gas by pipeline to E.ON's Connah's Quay power station.

We own 46.1 per cent of and operate Liverpool Bay. We also hold a 16 per cent non-operating interest in the Bruce oil and gas field in the North Sea and operate the Keith field (31.83 per cent share), a subsea tie-back, that is processed via the Bruce platform facilities.

### **Algeria**

Our Algerian operations comprise our effective 45 per cent interest in the Ohanet wet gas development and our effective 38 per cent interest in the ROD Integrated Development, which consists of six satellite oil fields that pump oil back to a dedicated processing train.

Our interest in ROD is subject to a contractual determination to ensure interest from participating association leases is accurately reflected. Future redetermination of our interest may be possible under certain conditions.

### **Trinidad and Tobago**

The Greater Angostura project is an integrated oil and gas development located offshore east Trinidad. We operate the field and have a 45 per cent interest in the production sharing contract for the project. Gas sales from the gas export platform commenced in May 2011.

### **Zamzama**

We hold a 38.5 per cent working interest in and operate the Zamzama gas project in Sindh province of Pakistan. Both gas and condensate are sold domestically.

**Table of Contents****Information on Petroleum operations**

The following table contains additional details of our production operations. This table should be read in conjunction with the production (see section 2.3.1) and reserve tables (see section 2.13.1).

<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
<b>Australia</b>						
<b>Bass Strait</b>	Oil and gas	BHP Billiton 50%	Esso Australia	20 production licences (of which 4 are under renewal process), 2 retention leases (under renewal process) issued by Australian Government	Oil: 200 Mbbbl/d Gas: 1,075 MMcf/d LPG: 5,150 tpd Ethane: 850 tpd	20 producing fields with 21 offshore developments (14 steel jacket platforms, 3 subsea developments, 2 steel gravity based mono towers, 2 concrete gravity based platforms)
Offshore Victoria		Esso Australia (Exxon Mobil subsidiary) 50%				
		Oil Basins Ltd 2.5% royalty interest in 19 production licences		Expire between 2016 and end of life of field		Onshore infrastructure: Longford Facility (3 gas plants, liquid processing facilities)
				One production licence held with Santos Ltd		Interconnecting pipelines Long Island Point LPG and oil storage facilities Ethane pipeline
<b>North West Shelf (NWS) gas, LNG, LPG and condensate</b>	Domestic gas, LPG, condensate, LNG	North West Shelf Project is an unincorporated JV	Woodside Petroleum Ltd	9 production licences issued by Australian Government	North Rankin A platform: 2,300 MMcf/d gas 60 Mbbbl/d condensate	Production from North Rankin and Perseus processed through North Rankin A platform
Offshore Western Australia		BHP Billiton: 8.33% of original domestic gas JV, will progressively increase to 16.67%		6 expire in 2022 and 3 expire 5 years from end of production	Goodwyn A platform: 1,450 MMcf/d gas	Production from Goodwyn, Searipple and Echo-Yodel processed through Goodwyn A platform
North Rankin, Goodwyn, Perseus, Echo-Yodel, Angel, Searipple fields		16.67% of Incremental Pipeline Gas (IPG) domestic gas JV 16.67% of original LNG JV			110 Mbbbl/d condensate	4 subsea wells in Perseus field tied into Goodwyn A platform
		12.5% of China LNG JV 16.67% of LPG JV			Angel platform: 960 MMcf/d gas	

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Approximately 15%  
of current condensate  
production

50 Mbbl/day  
condensate

Production from Angel  
field processed through  
Angel platform

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<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
		Other participants: subsidiaries of Woodside Energy, Chevron, BP, Shell, Mitsubishi/Mitsui and China National Offshore Oil Corporation			Withnell Bay gas plant: 600 MMcf/d gas	Onshore gas treatment plant at Withnell Bay processes gas for domestic market
					5-train LNG plant: 45,000 tpd LNG	5-train LNG plant
<b>North West Shelf oil</b>	Oil	BHP Billiton 16.67%	Woodside Petroleum Ltd	3 production licences issued by Australian Government expire 2012 2018	Production capacity: 60 Mbb/d Storage capacity: 1 MMbbl	FPSO
Offshore Western Australia		Woodside Energy 33.34%				
Wanaea, Cossack, Lambert and Hermes fields		BP, Chevron, Japan Australia LNG (MIMI) 16.67% each				
<b>Minerva</b>	Gas and condensate	BHP Billiton 90%	BHP Billiton	Production licence issued by Australian Government expires 5 years after production ceases	150 TJ/d gas 600 bbl/d condensate	2 well completions Single flow line transports gas to onshore gas processing facility
Offshore Victoria		Santos (BOL) 10%				
Gas plant located approximately 4 km inland from Port Campbell						
<b>Stybarrow</b>	Oil and gas	BHP Billiton 50%	BHP Billiton	Production licence issued by Australian Government expires 5 years after production ceases	Production: 80 Mbb/d oil Storage: 900 Mbbbl	10 subsea well completions (6 producers, 3 water injectors, 1 gas injector)
Offshore Western Australia		Woodside Energy 50%				
Stybarrow and Eskdale fields						Gas production is reinjected
<b>Pyrenees</b>	Oil	WA-42-L permit:	BHP Billiton	Production licence issued by Australian Government expires 5 years after production ceases	Production: 96 Mbb/d oil	17 subsea well completions (13 producers, 3 water injectors, 1 gas injector), FPSO
Offshore Western Australia		BHP Billiton 71.43%				
Western Australia		Apache PVG 28.57%				

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Crosby, Stickle and Ravensworth fields	WA-43-L permit: BHP Billiton 40% Apache Permits 31.5% Inpex Alpha 28.5%	Storage: 920 Mbbbl	WA-42-L production commenced third quarter of FY2010  WA-43-L production commenced first quarter of FY2011
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<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
<b>US Neptune (Green Canyon 613)</b>	Oil and gas	BHP Billiton 35%	BHP Billiton	Lease from US Government as long as oil and gas produced in paying quantities	50 Mbbl/d oil 50 MMcf/d gas	Permanently moored tension-leg platform (TLP)
Offshore		Marathon Oil 30%				
Deepwater Gulf of Mexico		Woodside Energy 20%				
(1,300 m)		Maxus US Exploration 15%				
<b>Shenzi (Green Canyon 653)</b>	Oil and gas	BHP Billiton 44%	BHP Billiton	Lease from US Government as long as oil and gas produced in paying quantities	100 Mbbl/d oil 50 MMcf/d gas	Stand-alone TLP
Offshore		Hess Corporation 28%				Genghis Khan field (part of same geological structure) tied back to Marco Polo TLP
Deepwater Gulf of Mexico		Repsol 28%				
(1,310 m)						
<b>West Cameron 76</b>	Gas and condensate	BHP Billiton 33.76%	BHP Billiton	Lease from US Government as long as oil and gas produced in paying quantities	120 MMcf/d gas 800 bbl/d condensate	2 conventional gas platforms
Offshore Gulf of Mexico		ENI Petroleum 40%				
		Black Elk Energy Offshore Operations 15%				
		Ridgewood Energy Company 11.24%				
<b>Starlifter (West Cameron 77)</b>	Gas and condensate	BHP Billiton 30.95%	BHP Billiton	Lease from US Government as long as oil and gas produced in paying quantities	40 MMcf/d gas 450 bbl/d condensate	Single conventional gas platform
Offshore		McMoRan 33.75%				
Gulf of Mexico		Black Elk Energy Offshore Operations 13.75%				
		Ridgewood Energy Company 10.3%				
		Castrex Offshore Inc 5.625%				
		Walter Oil and Gas Corporation 5.625%				

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<b>Atlantis (Green Canyon 743)</b>	Oil and gas	BHP Billiton 44% working interest	BP	Lease from US Government as long as oil and gas produced in paying quantities	200 Mbb/d oil  180 MMcf/d gas	Permanently moored semi-submersible platform
Offshore Deepwater		BP 56%				
Gulf of Mexico						
(2,155 m)						

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<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
<b>Mad Dog (Green Canyon 782)</b>	Oil and gas	BHP Billiton 23.9%	BP	Lease from US Government as long as oil and gas produced in paying quantities	100 Mbb/d oil 60 MMcf/d gas	Permanently moored integrated truss spar, facilities for simultaneous production and drilling operations
Offshore Deepwater Gulf of Mexico		BP 60.5% Chevron 15.6%				
(1,310 m)						
<b>Genesis (Green Canyon 205)</b>	Oil and gas	BHP Billiton 4.95%	Chevron	Lease from US Government as long as oil and gas produced in paying quantities	55 Mbb/d oil 72 MMcf/d gas	Floating cylindrical hull (spar) moored to seabed with integrated drilling facilities
Offshore Deepwater Gulf of Mexico		Chevron 56.67% ExxonMobil 38.38%				
(approximately 790 m)						
<b>Fayetteville</b>	Gas	BHP Billiton working interests in leases range from 0.03% to 98.94%	BHP Billiton 787 wells Partners 2,311 wells	In excess of 40,000 leases, which are predominantly held with private parties  Leases associated with producing wells remain in place as long as oil and gas produced in paying quantities	Maximum net production achieved during FY2011 423 MMcf/d	Gas transported via extensive pipeline infrastructure and associated compression (100% owned) or third party gathering systems
Onshore Arkansas		BHP Billiton 58.31% average interest in 787 wells and 10.58% average interest in 2,311 wells				
		Largest partners  Southwestern Energy,  XTO Energy and  BP				
<b>Other</b>						
<b>Liverpool Bay</b>	Oil and gas	BHP Billiton 46.1%	BHP Billiton	3 production licences issued by UK Government expire 2016, 2025 and 2027	308 MMcf/d gas 70 Mbb/d oil and condensate	Integrated development of 6 fields  Oil treated at Douglas complex then piped to oil storage barge for export by tankers
Offshore northwest England, Irish Sea		ENI 53.9%				

Douglas and  
Douglas West  
oil fields,  
Hamilton,  
Hamilton North  
and Hamilton  
East gas fields,  
Lennox oil and  
gas field

Gas processed at Douglas  
complex then piped by  
subsea pipeline to Point  
of Ayr gas terminal for  
further processing

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<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
<b>Bruce/Keith</b>	Oil and gas	Bruce:	Keith BHP Billiton	3 production licences issued by UK Government expire 2011, 2015 and 2018	920 MMcf/d	Integrated oil and gas platform
Offshore North Sea, UK		BHP Billiton 16%				
		BP 37%				
		Total 43.25%	Bruce BP	We expect to renew the licence expiring in November 2011		Keith developed as tie-back to Bruce facilities
		Marubeni 3.75%				
		Keith:				
		BHP Billiton 31.83%				
		BP 34.84% Total 25%				
		Marubeni 8.33%				
<b>Ohanet</b>	Gas and condensate	BHP Billiton effective 45% interest	Sonatrach/BHP Billiton staffed organisation	JV is party to risk service contract with Sonatrach (title holder), expires October 2011 at which time BHP Billiton will exit the licence	20 MMcm/d wet gas 61 Mbbl/d associated liquids (LPG, condensate)	Wet gas (LPG and condensate) development comprising 4 gas and condensate fields and gas processing plant
Onshore		Japan Ohanet Oil and Gas 30%				
Approximately 1,300 km southeast of Algiers, Algeria		Woodside Energy 15%				
		Petrofac Energy Developments 10%		Under the contract JV is reimbursed and remunerated for its investments in liquids		
<b>ROD Integrated Development</b>	Oil	BHP Billiton 45% interest in 401a/402a production sharing contract ENI 55%	Joint Sonatrach/ENI entity	Production sharing contract with Sonatrach (title holder)	Approximately 80 Mbbl/d oil	Development and production of 6 oil fields
Onshore						
Berkine Basin, 900 km southeast of Algiers, Algeria		BHP Billiton effective 38% interest in ROD unitised integrated development ENI 62%		Expires 2016 with option for two 5-year extensions under certain conditions		2 largest fields (ROD and SFNE) extend into neighbouring blocks 403a, 403d
						Production through dedicated processing train on block 403

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<b>Operation &amp; Location</b>	<b>Product</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>Nominal Production Capacity</b>	<b>Facilities, Use &amp; Condition</b>
<b>Greater Angostura</b>	Oil and gas	BHP Billiton 45%	BHP Billiton	Production sharing contract with Trinidad and Tobago	100 Mbb/d oil 280 MMcf/d gas	Integrated oil and gas development: central processing platform connected to the Kairi-2 platform and gas export platform with 3 satellite wellhead protector platforms and flow lines
Offshore Trinidad and Tobago		Total 30% Chaoyang 25%		Government entitles us to operate Greater Angostura until 2021		
						Oil pipeline from processing platform to storage and export at Guayaguayare
						Gas exported to Trinidad and Tobago domestic markets
<b>Zamzama</b>	Gas	BHP Billiton 38.5%	BHP Billiton	20-year development and production lease from Pakistan	500 MMcf/d gas 3,350 bbl/d condensate	8 production wells, 4 process trains
Onshore Sindh Province, Pakistan		ENI Pakistan 17.75% PKP Exploration Ltd 9.375% PKP Exploration Ltd 2 9.375%		Government expires 2022 (option to extend 5 years)		
		Government Holdings (Private) Limited 25%				

Note: Deepwater Gulf of Mexico relates to fields in water depths of over approximately 150 metres.

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### **Development projects**

#### **Australia**

##### ***North West Shelf North Rankin gas compression project***

The North West Shelf gas compression project was approved by the Board in March 2008 to recover remaining lower pressure gas from the North Rankin and Perseus gas fields. The project consists of a new gas compression platform, North Rankin B, capable of processing 2,500 million cubic feet per day (MMcf/d) of gas, which will be constructed adjacent to the existing North Rankin A platform, 135 kilometres offshore from Karratha on the northwest coast of Western Australia. The two platforms will be connected by a 100 metre long bridge and operate as a single facility. Our 16.67 per cent share of development costs is approximately US\$850 million, of which US\$390 million was incurred as of 30 June 2011. First gas is expected in CY2013.

##### ***North West Shelf Cossack, Wanaea, Lambert, Hermes (CWLH) life extension***

In December 2008, approval was announced to undertake a redevelopment project to replace and refurbish CWLH facilities as a result of the longer than originally planned field life. The project involves replacing the existing Cossack Pioneer FPSO vessel and selectively refurbishing subsea infrastructure and the riser turret mooring. Our 16.67 per cent share of the cost is approximately US\$245 million, of which US\$223 million was incurred as of 30 June 2011. First production through the redeveloped facilities is expected in the second half of CY2011.

##### ***Bass Strait Kipper gas field development***

Initial development of the Kipper gas field in the Gippsland Basin located offshore Victoria was approved by the Board in December 2007. A supplemental approval of the development was granted in January 2011. The first phase of the project includes two new subsea wells, three new pipelines and platform modifications to supply 10 thousand barrels per day (Mbbbl/d) of condensate and 80 MMcf/d of gas. Gas and liquids will be processed via the existing Gippsland Basin Joint Venture facilities. Our share of development costs is approximately US\$900 million, of which US\$515 million was incurred as of 30 June 2011. Facilities are expected to be ready for first production in CY2012 pending resolution of mercury content. Mercury has been encountered in the reservoir and a solution is being developed separately. The initial production target date is CY2014. The Kipper gas field development is comprised of the Kipper Unit Joint Venture and the Gippsland Basin Joint Venture. We own a 32.5 per cent interest in the Kipper Unit Joint Venture, with Esso Australia and Santos owning the remaining 67.5 per cent. We own a 50 per cent interest in the Gippsland Basin Joint Venture with Esso Australia owning the remaining 50 per cent.

##### ***Bass Strait Turrum field development***

Further expansion of the Gippsland Basin facilities is underway following approval by the Board in July 2008 of the full field development of the Turrum oil and gas field. A supplemental approval of the development was obtained in January 2011. The project consists of a new platform, Marlin B, linked by a bridge to the existing Marlin A platform. The Turrum field, which has a capacity of 11 Mbbbl/d and 200 MMcf/d of gas, is located 42 kilometres from shore in approximately 60 metres of water. Our share of development costs is approximately US\$1,350 million, of which US\$640 million was incurred as of 30 June 2011. Initial production is targeted for CY2013. The Turrum field development operates under the Gippsland Basin Joint Venture in which we own a 50 per cent interest.

#### ***Macedon***

Macedon is a domestic gas development in Western Australia. The project will consist of a 200 MMcf/d of stand-alone gas plant, four subsea production wells, a 90 kilometre, 20 inch wet gas pipeline and a 67 kilometre, two inch sales gas pipeline. In August 2010, the project was approved at an investment level of US\$1,050 million (net BHP Billiton share). Execution phase work, including award of principal Engineering Procurement and

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Construction Management (EPCM) onshore and offshore installation contracts, has commenced. We are the operator, with a 71.43 per cent interest and Apache PVG Pty Ltd holds the remaining 28.57 per cent interest. First gas is expected in CY2013.

### **Exploration and appraisal**

We focus on capturing and operating large acreage positions in areas that are material to the Group. We have exploration interests around the world, particularly in the Gulf of Mexico, Australia, and the South China Sea. During FY2011, our gross expenditure on exploration was US\$557 million, of which US\$404 million was expensed. Our major exploration interests are as follows:

#### **Australia**

We have a 50 per cent interest in the Gippsland Basin Joint Venture with Esso Australia Ltd. In November 2010, the Yellowfin well was plugged and abandoned and expensed as a dry hole. Operations for the South East Longtom well started the same month and encountered hydrocarbons. The well has been plugged and abandoned and continues being evaluated for development potential.

In June 2011, we increased our interest in block WA-351-P offshore Western Australia to 80 per cent by exercising a pre-emption right to acquire a 25 per cent interest from our joint venture partner Tap (Shelfal) Pty Ltd. The block is located on the Exmouth Plateau south of the Scarborough gas field. Tap holds the remaining 20 per cent.

Also in June 2011, we exercised our option to acquire an additional 16 per cent interest in block WA-335-P offshore Western Australia, taking our total participating interest to 46 per cent. In addition, we exercised our right to assume operatorship from Apache (35.1 per cent). Kufpec holds the remaining 18.9 per cent.

The Argus-2 appraisal well was spud in early June 2011 in the AC/RL8 retention lease over the Argus gas field. Woodside Browse Pty Ltd operates the AC/RL8 retention lease with 60 per cent interest while we hold the remaining 40 per cent.

#### **United States**

##### ***Deep Blue Green Canyon 723***

We currently own a 31.875 per cent interest in the Deep Blue prospect located in the Green Canyon area. Partners in the well are Noble (33.75 per cent), Statoil (15.625 per cent), Samson (9.375 per cent) and Murphy (9.375 per cent). Deep Blue exploration well-1 was drilled in November 2009 and concluded in May 2010. The sidetrack drilling started in May and was suspended in June 2010 due to the Gulf of Mexico drilling moratorium issued by the US Government. The Green Canyon 723 #1 original hole was drilled to a total depth of 32,684 feet and encountered hydrocarbons. Following the lifting of the drilling moratorium in October 2010, the forward plan is to complete the sidetrack operations once required permitting is granted and a rig is available. There is insufficient information to confirm the extent of hydrocarbons until drilling operations have been completed.

#### **Other**

##### ***Colombia***

In September 2008, we entered into a technical evaluation of hydrocarbon potential in Block 5 in the Llanos basin onshore Colombia. We operate the project and hold a 71.4 per cent working interest in the joint venture, with SK Energy Co holding the remaining 28.6 per cent interest. The minimum work program includes the acquisition of 1,000 kilometres of 2D seismic plus the drilling of five stratigraphic wells. The airborne survey was completed in January 2010, and 621 kilometres of 2D seismic were acquired from December 2010 to May 2011. In addition, four stratigraphic wells were drilled.



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### ***Falkland Islands***

In December 2007, we farmed into Northern and Southern area licences offshore the Falkland Islands. We acquired a 51 per cent interest from our joint venture partner Falkland Oil and Gas Limited (FOGL) and assumed operatorship in January 2008. The minimum exploration work program included drilling two wells in the first phase by the end of CY2010. Site surveys on both blocks were completed in 2009. The first exploration well began drilling in June 2010 and was plugged and abandoned and expensed as a dry hole in July 2010. A one year extension to the first phase of the licences was granted by the Falkland Islands Government in September 2010. In April 2011, we sent a request to the Falkland Islands Government to allow us to transfer our 51 per cent working interest and operatorship to FOGL. Final approval for the transfer was received from the Foreign Commonwealth Office in June 2011.

### ***India***

In December 2008, we were awarded seven offshore blocks in India. We are the operator of all seven blocks, each with its own production sharing contract. The minimum exploration program includes the acquisition and processing of 2D seismic data across the seven blocks and a small 3D seismic acquisition in one block. We currently own a 26 per cent interest in all seven blocks, with our partner GVK holding the remaining 74 per cent. In June 2010, we were awarded three additional offshore blocks. The minimum work program associated with the three blocks includes the acquisition and processing of 2D and 3D seismic data. We hold a 100 per cent interest in each of these three blocks. We have met the commitment for acquiring the 2D seismic in all 10 blocks and are processing the data for interpretation. The 3D seismic acquisition, processing and interpretation is being planned for a future date which will complete the committed exploration work program. We are currently working on permit issues with the Indian government.

### ***Malaysia***

In March 2007, we were awarded offshore Blocks N and Q in Malaysia with a 60 per cent interest and operatorship. Petronas Carigali holds the remaining 40 per cent. The minimum exploration program includes the acquisition and processing of seismic data across the two blocks and the drilling of four Block N exploration wells within the first seven years. The initial seismic acquisition program commenced in June 2008 and was completed in September 2008. The first exploration well was drilled in February 2010 and was plugged, abandoned and expensed as a dry hole. The second exploration well was spud at the beginning of May 2011 and was in the process of drilling at the end of FY2011.

### ***Philippines***

In November 2009, we acquired a 75 per cent interest in Service Contract 59, located offshore Philippines and we assumed operatorship in April 2010. PNOG Exploration Corp owns the remaining 25 per cent interest. As part of the minimum work program, the joint venture completed the acquisition and processing of a 2D seismic survey in April 2010. A 3D seismic acquisition was completed in January 2011 and processing is currently ongoing. The remaining obligations on the current work program require us to drill an exploration well prior to July 2012.

In May 2011, we exercised an option to farm-in to Service Contract 55, located offshore Philippines to acquire a 60 per cent working interest and assume operatorship of the block. The remaining interest will be divided between Otto Energy, which will own 33.18 per cent interest, and Trans-Asia, which will own 6.82 per cent interest. 3D seismic acquisition and processing were completed during the year.

In August 2009, we exercised our option with partner Mitra Energy (25 per cent) to acquire a 25 per cent non-operating interest in Service Contract 56 located offshore Philippines. The joint venture completed drilling the first exploration well in December 2009, and the second exploration well in February 2010. Both wells were expensed as dry holes. The drilling of these wells fulfilled our minimum work commitment against the service contract. The block is operated by ExxonMobil (50 per cent).

**Table of Contents*****Vietnam***

In October 2009, we became operator of Vietnam Blocks 28 and 29/03 located approximately 200 kilometres offshore southern Vietnam. We have a 50 per cent interest in each of the blocks, with Mitra Energy holding the remaining 50 per cent. The minimum work program for the first sub-phase includes 2D seismic data and two wells. We also acquired and processed 3D data. The first exploration well was drilled in May 2011 while drilling of the second well commenced in June 2011. Both wells were plugged, abandoned and expensed as dry holes in FY2011.

***Brunei***

In September 2010, we entered into a Deed of Amendment with respect to Block CA1 (formerly Block J) following the settlement of the maritime dispute between Brunei and Malaysia. We own a 22.5 per cent interest in the block, with the residual interests held by Total Deep Offshore Borneo (54 per cent and operator), Hess (Borneo Block J) Ltd (13.5 per cent), Petronas Carigali (five per cent) and Canam Brunei Oil Ltd (Murphy Oil) (five per cent). The minimum work obligation includes the drilling of seven exploration wells.

***South Africa***

In September 2010, we entered into exploration agreements for two blocks offshore South Africa. We own and operate a 60 per cent interest in Block 3A/4A, and a 90 per cent interest in block 3B/4B. The remaining interest in Block 3A/4A is held by PetroSA (30 per cent) and Sasol Petroleum International (10 per cent). Global Offshore Oil Exploration South Africa holds a 10 per cent interest in Block 3B/4B. The minimum work program includes the drilling of one exploration well within each block.

**Present activities****Drilling**

The number of wells in the process of being drilled (including temporarily suspended wells) as of 30 June 2011 was as follows:

	Exploratory wells		Development wells		Total	
	Gross	Net <sup>(1)</sup>	Gross	Net <sup>(1)</sup>	Gross	Net <sup>(1)</sup>
Australia	1				1	
United States	1		106	38	107	38
Other	2	1	1		3	1
Total	4	1	107	38	111	39

<sup>(1)</sup> Represents our share of the gross well count

**Other significant activities****Australia*****Browse***

The Browse LNG Development comprises development of the Torosa, Brecknock and Calliance gas fields, which were discovered in 1971, 1979, and 2000, respectively. The fields are located approximately 440 kilometres north-north-west of Broome, Western Australia in water depths up to 800 metres. Evaluation of the in-place resources continues together with definition of the on and offshore facilities required to extract hydrocarbons and produce and export LNG.

Woodside is the operator and we own 8.33 per cent of the East Browse resources and 20 per cent of West Browse. Efforts are ongoing to align equity interests for the overall development.



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### ***Scarborough***

Development planning for the large Scarborough gas field offshore Western Australia is in progress. We are evaluating development options for a LNG plant and offshore production facilities. Esso is the operator of the WA-1-R lease and we hold a 50 per cent working interest. We also have a 100 per cent working interest in the WA-346-P block.

### ***Greater Western Flank A***

Planning is underway for the Greater Western Flank a phased development of selected core undeveloped resources to the west of existing North West Shelf production infrastructure. The first phase of development, termed Greater Western Flank A, consists of two core fields, Goodwyn GHA/B and Tidepole, and has progressed to the feasibility stage in the second half of CY2011. Woodside is the operator and we own a 16.67 per cent share.

### **United States**

#### ***Shenzi Water Injection***

The Shenzi Water Injection program includes drilling and completion of five water injection wells and provides facilities to inject up to 125 Mbbl/d of water at 7,000 per square inch (psi). The program was approved as part of the original sanctioned Shenzi project, which began production in 2009 to supplement aquifer pressure for additional recovery. To date, Water Injector (WI) #1 has been drilled and completed and WI #2 has been drilled; plans to complete WI #2 and drill and complete WI #3 in FY2012 are underway.

#### ***Atlantis South Water Injection***

The Atlantis South Water Injection project is in the execution phase and involves drilling four subsea water injectors, tying them into the existing infrastructure and commissioning the 75 Mbbl/d of water injection facilities. This water injection project mitigates low aquifer pressure which could result in a swift production decline. BP is the operator and we hold a 44 per cent working interest.

#### ***Atlantis North Phase 2B***

The Atlantis North Flank began production in July 2009. The North Phase 2B is a brownfield capital investment program being developed to improve production rates. Phase 2B includes a one well program and associated subsea infrastructure. As with the original Atlantis North project, BP is the operator, and we hold a 44 per cent working interest.

#### ***Mad Dog Phase 2***

The Mad Dog Phase 2 project is in response to the successful Mad Dog South appraisal well, which confirmed significant hydrocarbons in the southern portion of the Mad Dog field. Mad Dog Phase 2 will be a spar development with all subsea production and injection wells and includes water injection capability to provide support to the east, west and south of the field.

### **Other**

#### ***Zamzama Front End Compression***

Zamzama Front End Compression is a brownfield project in Pakistan which allows for the additional drawdown of the reservoir, adding reserves and maintaining plateau production levels. Development is currently underway and project completion is expected in 2011.

### **Delivery commitments**

We have delivery commitments of natural gas and LNG of approximately 3,147 billion cubic feet through 2031 (78 per cent Australia and 22 per cent Other) and crude, condensate and natural gas liquids (NGL)



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commitments of 15.6 million barrels through 2012 (74 per cent Australia, eight per cent United States and 18 per cent Other). We have sufficient proved reserves and production capacity to fulfil these delivery commitments. Further information can be found in Section 2.13.1.

### **2.2.3 Aluminium Customer Sector Group**

Our Aluminium CSG is a portfolio of assets at three stages of the aluminium value chain: mining bauxite, refining bauxite into alumina, and smelting alumina into aluminium metal. We are the world's seventh-largest producer of aluminium, with total production in FY2011 of 1.2 million tonnes (Mt) of aluminium. We also produced 13.6 Mt of bauxite and 4.0 Mt of alumina.

During FY2011, we consumed 35 per cent of our alumina production in our aluminium smelters and we sold the balance to other smelters. Our alumina sales are a mixture of long-term contract sales at LME-linked prices and spot sales at negotiated prices. Prices for our aluminium sales are generally linked to prevailing LME prices.

#### **Boddington/Worsley**

Boddington/Worsley is an integrated bauxite mining/alumina refining operation. The Boddington bauxite mine in Western Australia supplies bauxite ore to the Worsley alumina refinery via a 51 kilometre long conveyor. We own 86 per cent of the mine and the refinery. It is our sole integrated bauxite mining/alumina refining asset. Worsley, one of the largest and lowest-cost refineries in the world, is undergoing a major expansion (see Development projects below). Our share of Worsley's FY2011 production was 2.9 Mt of alumina. Worsley's export customers include our own Hillside, Bayside and Mozal smelters in southern Africa. Boddington has a reserve life of 18 years.

#### **Mineração Rio do Norte**

We own 14.8 per cent of Mineração Rio do Norte (MRN), which owns and operates a large bauxite mine in Brazil.

#### **Alumar**

Alumar is an integrated alumina refinery/aluminium smelter. We own 36 per cent of the Alumar refinery and 40 per cent of the smelter. Alcoa operates both facilities. The operations, and their integrated port facility, are located at São Luís in the Maranhão province of Brazil. Alumar sources bauxite from MRN. During FY2011 approximately 31 per cent of Alumar's alumina production was used to feed the smelter, while the remainder was exported. Our share of Alumar's FY2011 saleable production was 1,108 kilotonnes (kt) of alumina and 174 kt of aluminium. The Alumar refinery completed a significant expansion in October 2009.

#### **Hillside and Bayside**

Our Hillside and Bayside smelters are located at Richards Bay, South Africa. Hillside's capacity of approximately 715 kilotonnes per annum (ktpa) makes it the largest aluminium smelter in the southern hemisphere and it is one of the most efficient. Following the mothballing of the potlines B and C in support of a national energy conservation scheme, Bayside has reduced smelting capacity to approximately 95 ktpa since 2009. Hillside imports alumina from our Worsley refinery and both Hillside and Bayside source power from Eskom, the South African state utility, under long-term contracts with prices linked to the LME price of aluminium (except for Hillside Potline 3, the price of which is linked to the South African and US producer price indices).

#### **Mozal**

We own 47.1 per cent of and operate the Mozal aluminium smelter in Mozambique, which has a total capacity of approximately 563 ktpa. Mozal sources power generated by Hydro Cahora Basa via Motraco, a transmission joint venture between Eskom and the national electricity utilities of Mozambique and Swaziland. Our share of Mozal's FY2011 production was 264 kt.

**Table of Contents****Information on Aluminium mining operations**

The following table contains additional details of our mining operations. This table should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Boddington bauxite mine</b>	Public road Ore transported to Worsley alumina refinery by a 51 km conveyor	BHP Billiton 86%  Sojitz Alumina 4% Japan Alumina Associates 10%	BHP Billiton Worsley Alumina Pty Ltd	Mining lease from Western Australia Government expires 2025, 21-year renewal available	Opened 1983  Significantly extended 2000	Open-cut  Surficial gibbsite-rich lateritic weathering of Darling Range rocks	JV owned powerline connected to Worsley alumina refinery site	Crushing plant Nominal capacity: 13 mtpa bauxite
		Ownership structure of operator as per Worsley JV		2 sub-leases from Alcoa of Australia				
<b>Mineração Rio do Norte Porto Trombetas, Pará, Brazil</b>	Sealed road and rail connects mine area with Porto Trombetas village, accessed by air or river	BHP Billiton 14.8%  Alcoa and affiliates 18.2%  Vale 40%  Rio Tinto Alcan 12%  Votorantim 10%  Hydro 5%	MRN	Mining rights granted by Brazilian Government until reserves exhausted	Production commenced 1979 Expanded 2003	Open-cut  Lateritic weathering of nepheline syenite occurring primarily as gibbsite in a clay matrix overlain by clay sediments	On-site fuel oil generators	Crushing facilities, long distance conveyors, wash plant  Nominal capacity: 18 mtpa washed bauxite  Village and airport  Drying and ship loading facilities near Porto Trombetas





**Table of Contents****Information on Aluminium smelters and refineries**

Smelter,

Refinery or

Processing

Plant	Location	Ownership	Operator	Title, Leases or		Product	Nominal Production Capacity	Power Source
				Options				
<b>Aluminium and alumina</b>								
<b>Hillside Aluminium smelter</b>	Richards Bay, 200 km north of Durban, KwaZulu-Natal province, South Africa	100%	BHP Billiton	Freehold title to property, plant, equipment		Standard aluminium ingots	715 ktpa primary aluminium	Eskom (national power supplier) under long-term contracts
				Leases over harbour facilities				Contract prices for Hillside 1 and 2 linked to LME aluminium price Prices for Hillside 3 linked to SA and US producer price index
<b>Bayside Aluminium smelter</b>	Richards Bay, 200 km north of Durban, South Africa	100%	BHP Billiton	Freehold title to property, plant, equipment		Primary aluminium, slab products	95 ktpa primary aluminium on remaining Potline A	Eskom, under long-term contract
								Contract price linked to LME aluminium price
<b>Mozal Aluminium smelter</b>	17 km from Maputo, Mozambique	BHP Billiton 47.1%  Mitsubishi 25%  Industrial Development Corporation of South Africa Ltd 24% Mozambique Government 3.9%	BHP Billiton	50-year government concession to use the land		Standard aluminium ingots	563 ktpa	Motraco
				Renewable for 50 years				
<b>Worsley Alumina refinery</b>	55 km northeast of Bunbury, Western Australia	BHP Billiton 86%  Sojitz Alumina 4%  Japan Alumina Associates 10%	BHP Billiton Worsley Alumina Pty Ltd	2,480 ha refinery lease from Western Australian Government Expires 2025		Metallurgical grade alumina	3.5 mtpa	JV owned on-site coal power station, third party on-site gas-fired steam power generation plant
				21-year renewal available				

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		Ownership structure of operator as per Worsley JV					
<b>Alumar</b>	São Luis, Maranhão, Brazil	Aluminium smelter: BHP Billiton 40%	Alcoa operates both facilities	All assets held freehold	Alumina and aluminium ingots	Refinery: 3.5 mtpa alumina	Electronorte (Brazilian public power generation concessionaire), 20-year contract
<b>Alumina refinery and aluminium smelter</b>		Alcoa 60%					
		Alumina refinery: BHP Billiton 36%				Smelter: 450 ktpa primary aluminium	
		Alcoa 35.1%					
		Abalco SA (Alcoa affiliate) 18.9%					
		Rio Tinto 10%					

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### **Development projects**

#### **Worsley Efficiency and Growth project**

In May 2008, we announced the Board's approval of an expansion project to increase the capacity of the Worsley refinery from 3.5 million tonnes per annum (mtpa) of alumina to 4.6 mtpa (100 per cent capacity) through expanded mining operations at Boddington, additional refinery capacity and upgraded port facilities. The capital cost estimate for the project, encompassing the development of the Marradong mine, refinery expansion and connection to a multi-fuel cogeneration unit, has increased from US\$1.964 billion to US\$2.995 billion (BHP Billiton share). First production is now scheduled for the first quarter of CY2012.

#### **Guinea Alumina**

We have a one-third interest in a joint venture that is undertaking a feasibility study into the construction of a 10 mtpa bauxite mine, an alumina refinery with processing capacity exceeding 3.3 mtpa and associated infrastructure approximately 110 kilometres from the port of Kamsar in Guinea.

#### **2.2.4 Base Metals Customer Sector Group**

Our Base Metals CSG is one of the world's premier producers of copper, silver, lead and uranium, and a leading producer of zinc. Our portfolio of large, low-cost mining operations includes the Escondida mine in Chile, the world's largest single producer of copper, and Olympic Dam in South Australia, already a major producer of copper and uranium and with the potential for significant expansion.

Our total copper production in FY2011 was 1.1 million tonnes (Mt). In addition to conventional mine development, we continue to pursue advanced treatment technologies, such as leaching low-grade chalcopyrite ores which we believe have the potential to recover copper from ores previously uneconomic to treat.

We market five primary products: copper concentrates, copper cathodes, uranium oxide, lead concentrates and zinc concentrates.

We sell most of our copper, lead and zinc concentrates to smelters under long-term volume contracts at prices based on the LME price for the contained metal, typically set three or four months after shipment, less treatment charges and refining charges (collectively referred to as TCRCs) that are negotiated with the smelters mostly on an annual or bi-annual basis. Some of the ores we mine contain quantities of silver and gold, which remain in the base metal concentrates we sell. We receive payment credits for the silver and gold recovered by our customers in the smelting and refining process.

We sell most of our copper cathode production to wire rod mills, brass mills and casting plants around the world under annual contracts with prices at premiums to LME prices. We sell uranium oxide to electricity generating utilities, principally in western Europe, North America and north Asia. Uranium is typically sold under a mix of longer-term and shorter-term contracts. A significant portion of our uranium production is sold into fixed price contracts, although increasingly sales are based on flexible pricing terms.

We have six assets, with Pampa Norte having two operations:

#### **Escondida**

Our 57.5 per cent owned and operated Escondida mine is the largest and one of the lowest-cost copper producers in the world. In FY2011, our share of Escondida production was 390.5 kilotonnes (kt) of payable copper in concentrate and 179.1 kt of copper cathode. Our reserves will support mining for a further 35 years at the current production rates. The availability of key inputs like power and water at competitive prices is an important focus at Escondida. To ensure security of supply and competitive power costs in the long-term, we

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supported the construction of an LNG facility to supply gas to the Northern grid system, which has been operating since June 2010. We have also signed off-take agreements underwriting the construction of a 460 megawatt (MW) coal-fired power plant, with supply beginning in CY2012. To address limitations on the availability of water, we desalinate and carefully manage our use and re-use of available water, and are exploring alternative sources including further desalination of seawater.

### **Olympic Dam**

Olympic Dam is already a significant producer of copper cathode and uranium oxide and a refiner of smaller amounts of gold and silver bullion. We are exploring a series of staged development options that would make our wholly owned Olympic Dam operation one of the world's largest producers of copper, the largest producer of uranium and a significant producer of gold (see Development projects below).

Production in FY2011 was higher than in FY2010 when the haulage system in the Clark Shaft at Olympic Dam was damaged. Olympic Dam produced 194.1 kt (FY2010 103.3 kt) of copper cathode, 4,045 tonnes (FY2010 2,279 tonnes) of uranium oxide, 111,368 ounces (FY2010 65,494 ounces) of refined gold and 982 kilo-ounces (FY2010 500 kilo-ounces) of refined silver in FY2011.

### **Antamina**

We own 33.75 per cent of Antamina, a large, low-cost, long-life copper/zinc mine in Peru. Opened in 2001, its reserves will support mining at current rates for a further 17 years. Our share of Antamina's FY2011 production was 97.8 kt of copper in concentrate, and 91,470 tonnes of zinc in concentrate. Antamina also produces smaller amounts of molybdenum and lead/bismuth concentrate.

### **Pampa Norte Spence Operation**

Our wholly owned Spence copper mine produces copper cathode. During FY2011, we produced 179.8 kt of copper cathode. Spence's current reserves will support mining at current rates for a further 12 years.

### **Pampa Norte Cerro Colorado Operation**

Our wholly owned Cerro Colorado mine in Chile remains a significant producer of copper cathode, although production levels have declined in recent years as grades have declined. Production in FY2011 was 92.4 kt of copper cathode. Our current mine plan sees production continuing until FY2021.

In addition, we are currently evaluating the extent of deeper chalcopyrite mineralisation that may support further mine plan extension options in both the Spence and Cerro mines.

### **Cannington**

Our wholly owned Cannington mine in northwest Queensland is one of the world's largest producers of silver. In FY2011, Cannington produced concentrates containing 243,364 tonnes of lead, 60,657 tonnes of zinc and approximately 35,225 kilo-ounces of silver. The current mine plan sees production continuing until 2019.

### **North America Pinto Valley**

As a result of the global economic slowdown in FY2009, we made the decision to cease sulphide mining and milling operations at our Pinto Valley Mine located in Arizona, US, placing the operations on care and maintenance.

We continue to produce copper cathode at Pinto Valley and the neighbouring Miami Unit from our residual solvent extraction electrowinning (SXEW) operations. Current reserves are expected to support these operations for approximately four years.

**Table of Contents****Information on Base Metals mining operations**

The following table contains additional details of our mining operations. This table should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Escondida</b>	Public road	BHP Billiton 57.5% of Minera Escondida Limitada (MEL)	BHP Billiton	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Original construction completed 1990	2 open-cut pits: Escondida and Escondida Norte	Escondida owned transmission lines connect to Chile's northern power grid	2 concentrator plants extract copper concentrate from sulphide ore by flotation extraction process
Atacama Desert, 170 km southeast of Antofagasta, Chile	Copper cathode transported by privately owned rail to ports at Antofagasta and Mejillones	Rio Tinto 30% JECO Corporation consortium comprising Mitsubishi, Nippon Mining and Metals 10% Jeco 2 Ltd 2.5%			Subsequent expansion projects cost US\$3.0 billion (100%)	Escondida and Escondida Norte mineral deposits are adjacent but distinct supergene enriched porphyry copper deposits	Electricity purchased under contract	2 solvent extraction plants produce copper cathode
	Copper concentrate transported by Escondida-owned pipeline to its Coloso port facilities				Sulphide Leach copper project cost US\$1.0 billion (100%)			Nominal capacity: 3.2 mtpa copper concentrate 330 ktpa copper cathode
					First production 2006			
<b>Spence</b>	Public road	100%	BHP Billiton	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Development cost of US\$1.1 billion approved 2004	Open-cut	Group-owned transmission lines connect to Chile's northern power grid	Processing and crushing facilities, separate dynamic (on-off) leach pads, solvent extraction plant, electrowinning plant
Atacama Desert, 150 km northeast of Antofagasta, Chile	Copper cathode transported by rail to ports at Mejillones and Antofagasta				First copper produced 2006	Supergene enriched porphyry copper deposit that includes copper oxide ores overlying a sulphide zone	Electricity purchased under contract	Nominal capacity: 200 ktpa <sup>(1)</sup> copper cathode

- (1) Current production approximately 180 ktpa due to lower copper grades.

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<b>Mine &amp; Location</b>	<b>Means of Access</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>History</b>	<b>Type of Mine and Mineralisation Style</b>	<b>Power Source</b>	<b>Facilities, Use &amp; Condition</b>
<b>Cerro Colorado</b>	Public road	100%	BHP Billiton	Mining concession from Chilean Government valid indefinitely (subject to payment of annual fees)	Commercial production commenced 1994  Expansions 1995 and 1998	Open-cut  Supergene enriched and oxidised porphyry copper deposit that consists of a sulphide enrichment zone overlaid by oxide ore (chrysocolla + brochantite)	Long-term contracts with northern Chile power grid	2 primary, secondary and tertiary crushers, leaching pads, solvent extraction plant, electrowinning plant  Nominal capacity: 120 ktpa <sup>(2)</sup>
Atacama Desert, 120 km east of Iquique, Chile	Copper cathode trucked to port at Iquique							
<sup>(2)</sup> Current production approximately 92.4 ktpa due to lower copper grades.								
<b>Pinto Valley</b>	Public road	100%	BHP Billiton	Freehold title to the land	Acquired 1996 as part of Magma Copper acquisition  Sulphide mining operations discontinued 1998 <sup>(3)</sup>  Residual SXEW production continues	Pinto Valley: open-pit  Miami Unit: in-situ leach  Porphyry copper deposit of low-grade primary mineralisation	Salt River Project	2 SXEW operations at Pinto Valley and Miami
125 km east of Phoenix, Arizona, US	Copper cathode trucked to domestic customers							

<sup>(3)</sup> Mining operations restarted 2007, discontinued 2009.

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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Olympic Dam</b>	Public road	100%	BHP Billiton	Mining lease granted by	Acquired 2005 as part of WMC acquisition	Underground	Supplied via a 275 kV powerline from Port Augusta, transmitted by ElectraNet	Automated train and trucking network. Crushing, storage and ore hoisting facilities
560 km northwest of Adelaide, South Australia	Copper cathode trucked to ports Uranium oxide transported by road and rail to ports			South Australian Government expires 2036  Right of extension for 50 years	Copper production began 1988  Throughput raised to 9 mtpa in 1999  Optimisation project completed 2002  New copper solvent extraction plant commissioned 2004	Large poly-metallic deposit of iron oxide-copper-gold mineralisation		2 grinding circuits to extract copper concentrate from sulphide ore Flash furnace produces copper anodes, which are then refined to produce copper cathodes <sup>(4)</sup>  Nominal capacity: 200 ktpa copper cathode

<sup>(4)</sup> Electrowon copper cathode and uranium oxide concentrate produced by leaching and solvent extracting flotation tailings.



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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Antamina</b>	Public road	BHP Billiton 33.75% of Compañía Minera Antamina S.A.	Compañía Minera Antamina S.A.	Mining rights from Peruvian Government held indefinitely, subject to payment of annual fees and supply of information on investment and production	Commercial production commenced 2001	Open-cut	Long-term contracts with individual power producers	Primary crusher, concentrator (nominal capacity 94,000 tpd), copper and zinc flotation circuits, bismuth/moly cleaning circuit
Andes mountain range, 270 km north of Lima, north-central Peru	Copper and zinc concentrates transported by pipeline to port of Huarmey	Xstrata 33.75% Teck Cominco 22.5%  Mitsubishi 10%			Capital cost US\$2.3 billion (100%)	Zoned porphyry and skarn deposit with central Cu-only ores and an outer band of Cu-Zn ore zone		300 km concentrate pipeline (design throughput 2.3 dry mtpa)
	Molybdenum and lead/bismuth concentrates transported by truck							Port facilities at Huarmey
<b>Silver, Lead and Zinc</b>								
<b>Cannington</b>	Public road and Group-owned airstrip	100%	BHP Billiton	Mining leases granted by Queensland Government expire 2029	Concentrate production commenced 1997, subsequent projects	Underground Broken Hill-type silver-lead-zinc sulphide deposit	On-site power station operated under contract	Beneficiation plant: primary and secondary grinding circuits, pre-flotation circuits, flotation circuits, leaching circuits, concentrate filtration circuit, paste plant
300 km southeast of Mt Isa, Queensland, Australia	Product trucked to Yurbi, then by rail to public port				improved mill throughput and metal recovery			Nominal milling capacity: 3.2 mtpa

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### **Development projects**

#### **Olympic Dam**

The first phase of the Olympic Dam Project (ODP1) to develop an open-pit mine moved into feasibility stage in March 2011. The proposed expansion would be a progressive development requiring construction activity to increase production to up to 750,000 tonnes per annum (tpa) of copper, 19,000 tpa of uranium oxide and 800,000 ounces of gold. The Group released a draft Environmental Impact Statement (EIS) in May 2009 and prepared and submitted a supplementary EIS in December 2010 for review by the Australian, South Australian and Northern Territory Governments in response to more than 4,000 public submissions on the project. The final supplementary EIS was released in May 2011. Government decisions on the project are expected in the second half of CY2011. After that, the expansion project will depend on successfully completing all required feasibility studies and on Board approval of the final investment case.

#### **Yeelirrie**

The project at the proposed Yeelirrie uranium oxide mine is in pre-feasibility stage, with a focus on technology developments, resource size and improving project economics. The work currently includes resource definition and estimation, processing test work, ongoing environment studies, community consultation and capital and operating cost evaluation.

#### **Escondida**

Exploration of the Escondida lease and early drilling results have resulted in an announcement of extensive additional mineralisation in close proximity to existing infrastructure and processing facilities, including the Pampa Escondida and Pinta Verde prospects. In FY2011, Escondida has expensed US\$128 million (US\$74 million our share) in exploration.

The Escondida Ore Access project provides access to higher-grade ore and moved into execution phase during FY2011. In addition, the Laguna Seca Debottlenecking project which will provide additional processing capacity also moved into execution phase. Organic Growth Project 1, which is the replacement of the Los Colorados concentrator allowing access to higher-grade ore and additional processing capacity, moved into the feasibility phase.

#### **Antamina**

In FY2011, Antamina continued execution of the expansion project. With a total investment of US\$1.3 billion (US\$434.7 million our share), the project will expand milling capacity by 38 per cent to 130,000 tonnes per day (tpd). The expansion project includes a new SAG mill, a new 55 kilometre power transmission line, an expanded truck shop facility and upgrades to the crushing and tailing systems, flotation circuit and port capacity. Commissioning of the project is scheduled to start at the end of CY2011. Our share of the capital expenditures in the project totalled US\$147 million in FY2011. In addition, Antamina announced an increase to its estimated Ore Reserves during the second half of FY2011. Refer to section 2.13.2 for further details.

#### **Resolution Copper**

We hold a 45 per cent interest in the Resolution Copper project in Arizona, US, operated by Rio Tinto (55 per cent interest). Resolution Copper is undertaking a pre-feasibility study into a substantial underground copper mine and processing facility.

Resolution Copper continued to advance the sinking of the No. 10 Shaft in order to gain access to the ore deposit for characterisation work of mineralisation and geotechnical conditions. Work also continued towards gaining approval from the US Congress for a Federal Land Exchange to access the ore deposit.

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### **2.2.5 Diamonds and Specialty Products Customer Sector Group**

Our Diamonds and Specialty Products CSG operates our diamonds and titanium minerals businesses and the exploration and development of a potash business.

#### **Diamonds**

The EKATI diamond mine in the Northwest Territories of Canada is the cornerstone of our diamonds business. EKATI has produced on average more than three million carats per year of rough diamonds over the last four years. The grade of ore we process fluctuates from year to year, resulting in variations in carats produced. In addition, the proportion of our production consisting of high-value carats (larger and/or higher-quality stones) and low-value carats (smaller and/or lower-quality stones) fluctuates from year to year. The mine life based on the mine plan is seven years from 30 June 2011.

EKATI consists of our 80 per cent interest in the Core Zone Joint Venture, comprising existing operations and our 58.8 per cent interest in the Buffer Zone Joint Venture, primarily focusing on exploration targets.

Annual sales from EKATI (100 per cent terms) represented approximately three per cent of current world rough diamond supply by weight and approximately 11 per cent by value in FY2011. We sell most of our rough diamonds to international diamond buyers through our Antwerp sales office. We also offer for sale, an amount of the EKATI production to Canadian manufacturers based in the Northwest Territories.

#### **Titanium minerals**

Our principal interest in titanium minerals consists of our 37.76 per cent economic interest in Richards Bay Minerals (RBM). RBM is one of the largest and lowest-cost producers of titania slag, high-purity pig iron, rutile and zircon from mineral sands. Approximately 90 per cent of the titanium dioxide slag produced by RBM is suitable for the chloride process of titanium dioxide pigment manufacture and is sold internationally under a variety of short, medium and long-term contracts.

#### **Potash**

Our potash strategy is to build a material industry position over the long term. We continue advancing the Jansen Project, a greenfield potash project, in Saskatchewan, Canada. Jansen progressed into the feasibility study phase (an advanced stage of our project approvals process) in February 2011.

Based on the current schedule, Jansen is expected to start producing saleable potash in CY2015. Jansen is designed ultimately to produce approximately eight million tonnes per annum (mtpa) of agricultural grade potash with an estimated 70-year life.

We are also continuing to study other potential projects in the Saskatchewan potash basin, including Young, Boulder and Melville, and are progressing these projects in the context of our development portfolio. We are conducting an extensive potash exploration program including 3D seismic survey and drilling programs.

Our permit positions for potash extend over 14,500 square kilometres in the Saskatchewan basin and have expiry dates between 2013 and 2016.

On 15 November 2010, we announced the withdrawal of our offer to acquire all of the issued and outstanding common shares of Potash Corporation of Saskatchewan Inc. We determined that the condition of our offer relating to receipt of a net benefit determination by the Minister of Industry under the Investment Canada Act could not be satisfied, and accordingly, the offer was withdrawn.

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**Information on Diamonds and Specialty Products mining operations**

The following table contains additional details of our mining operations. This table should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location Diamonds	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>EKATI diamond mine</b>	Aircraft	Core Zone JV BHP Billiton 80%	BHP Billiton	Mining leases granted by Canadian Government until 2019	Production began 1997	Fox: open-cut  Koala and Koala North: underground	JV owned and operated diesel power station	Crushers, washers/scrubber and grinder and heavy media separator
310 km northeast of Yellowknife, Northwest Territories, Canada	Ice road open approximately 10 weeks per year	Buffer Zone JV BHP Billiton 58.8%			Mine and processing plant began operating 1998	Eocene age kimberlite pipes dominantly volcanoclastic infill		Magnetics and X-ray sorters for diamond recovery  Fuel storage
		Remaining interest held by 2 individuals			Ownership increased with acquisition of Dia Met Minerals Ltd in 2001			
<b>Titanium minerals</b>								
<b>Richards Bay Minerals</b>	Public road	BHP Billiton 37.76% economic interest through 50% interest in the 2 legal entities that comprise RBM, Richards Bay Mining (Pty) Ltd and Richards Bay Titanium (Pty) Ltd	Rio Tinto	Long-term renewable mineral leases from South African Government subject to South African Mining Charter	RBM formed 1976	Beach sand dredging	Eskom (national utility company)	4 beach sand dredge mines, minor supplementary dry mining
10-50 km north of Richards Bay, KwaZulu- Natal, South Africa	Product transported by public rail to port			Application lodged for conversion to New Order Mining Rights (see section 2.7.1)	Fifth mine added 2000  In 2006 one mining pond closed	Quaternary age coastal dune deposits heavy mineral sands concentrated by wave and wind action		Gravity separation produces heavy mineral concentrate which is trucked to central processing plant to produce rutile, zircon and ilmenite
		RBM functions as a single economic entity						Smelter processes ilmenite to produce titanium dioxide slag and

high-purity iron

Nominal titanium  
slag capacity:

1.05 mtpa

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### **Development projects**

#### **Jansen Potash Project**

We are currently executing the ground freezing program. The ground will be frozen using a closed system of refrigeration pipes through which brine is circulated. On 24 June 2011, we approved US\$488 million of pre-commitment spending to fund early-stage site preparation for surface construction, procurement of long lead time items and the first 350 metres of shaft sinking at Jansen. On 30 June 2011, the Saskatchewan Ministry of Environment approved our Environmental Impact Statement for the development of the Jansen project.

#### **Diamonds**

On 9 May 2011, we approved the Misery open-pit project at the EKATI diamond mine in the Northwest Territories, Canada. This project consists of a pushback of the existing Misery open-pit which was mined from 2001 to 2005. Stripping operations are expected to begin in October 2011, with ore production beginning late 2015 and final production from Misery in mid 2017. The estimated capital expenditure required to complete the execution phase is US\$323 million (BHP Billiton share).

#### **2.2.6 Stainless Steel Materials Customer Sector Group**

Our Stainless Steel Materials CSG is primarily a supplier of nickel to the stainless steel industry. Nickel is an important component of the most commonly used types of stainless steel. We also supply nickel to other markets, including the specialty alloy, foundry, chemicals and refractory material industries. We are the world's fourth-largest producer of nickel and we sell our nickel products under a mix of long-term, medium-term and spot volume contracts, with prices linked to the LME nickel price.

Our nickel business comprises two assets:

#### **Nickel West**

Nickel West is the name for our wholly owned Western Australian nickel asset, which consists of an integrated system of mines, concentrators, a smelter and a refinery. We mine nickel-bearing sulphide ore at our Mt Keith, Leinster and Cliffs operations north of Kalgoorlie. We operate concentrator plants at Mt Keith and at Leinster, which also concentrate ore from Cliffs. Leinster and Mt Keith have reserve lives of eight and 13 years respectively, both have options for further expansion. Cliffs is a high-grade underground mine with a reserve life of three years. The extraction of ore at Cliffs commenced in FY2008.

We also operate the Kambalda concentrator south of Kalgoorlie, where we source ore through tolling and concentrate purchase arrangements with third parties in the Kambalda region. We also have regular purchase agreements in place for the direct purchase of concentrate, which we re-pulp, dry and blend with other concentrate processed at Kambalda.

We transport concentrate from Leinster, Mt Keith and Kambalda to our Kalgoorlie smelter, where it is processed into nickel matte, containing approximately 67 per cent nickel. In FY2011, we exported approximately 60 per cent of our nickel matte production. We processed the remaining nickel matte at our Kwinana nickel refinery, which produces nickel metal in the form of LME grade briquettes, and nickel powder together with a range of saleable by-products.

During FY2011, production of nickel metal from the Kwinana nickel refinery continued to be impacted by a restriction in hydrogen supply, resulting in the redirection of matte feed stocks for external sale. We are constructing a new hydrogen plant at the Kwinana nickel refinery and construction is expected to be completed in FY2012. Production in FY2011 was 112,700 tonnes of contained nickel.

**Table of Contents****Cerro Matoso**

Cerro Matoso, our 99.94 per cent owned nickel asset in Colombia, combines a lateritic nickel ore deposit with a low-cost ferronickel smelter. Cerro Matoso is the world's second-largest producer of ferronickel and is one of the lowest-cost producers of ferronickel. The smelter produces high-purity, low-carbon ferronickel granules. Cerro Matoso has an estimated current reserve life of 31 years. Production in FY2011 was 40 kilotonnes (kt) of nickel in ferronickel form, which was below the nominal capacity of 50 kilotonnes per annum (ktpa) of nickel in ferronickel form as production was impacted by the planned Line 1 furnace replacement.

**Information on Stainless Steel Materials mining operations**

The following table contains additional details of our mining operations. This table should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Nickel</b>								
<b>Mt Keith</b>	Private road	100%	BHP Billiton	Leases over the land from Western Australian Government	Officially commissioned 1995 by WMC	Open-cut	On-site third party gas-fired turbines	Concentration plant with a nominal capacity: 11.5 mtpa of ore
Western Australia	Nickel concentrate transported by road to Leinster nickel operations for drying and on-shiping			Key leases expire 2012-2032  Renewals at government discretion	Mt Keith was acquired as part of acquisition of WMC in 2005	Disseminated textured magmatic nickel-sulphide mineralisation, associated with a metamorphosed ultramafic intrusion	Natural gas sourced from North West Shelf (NWS) gas fields  Transported through Goldfields Gas Pipeline under contract to 2037	
<b>Leinster</b>	Public road	100%	BHP Billiton	Leases over the land from Western Australian Government	Production commenced 1967	Underground and open-cut	On-site third party gas-fired turbines	Concentration plant with a nominal capacity: 3 mtpa of ore
Western Australia	Nickel concentrate shipped by road and rail to Kalgoorlie nickel smelter			Key leases expire 2013 -2031  Renewals at government discretion	Leinster was acquired as part of acquisition of WMC in 2005	Steeply dipping disseminated and massive textured nickel-sulphide mineralisation, associated with metamorphosed ultramafic lava flows and intrusions	Natural gas sourced from NWS gas fields  Transported through Goldfields Gas Pipeline under contract to 2037	

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<b>Mine &amp; Location</b>	<b>Means of Access</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>History</b>	<b>Type of Mine and Mineralisation Style</b>	<b>Power Source</b>	<b>Facilities, Use &amp; Condition</b>
<b>Cliffs</b>	Private road	100%	BHP Billiton	Leases over the land from Western Australian Government Key leases expire 2025-2028  Renewals at government discretion	Production commenced 2008  Cliffs was acquired as part of acquisition of WMC in 2005	Underground  Steeply dipping massive textured nickel-sulphide mineralisation, associated with metamorphosed ultramafic lava flows	Supplied from Mt Keith	Mine site
Western Australia	Nickel ore transported by road to Leinster nickel operations for further processing							
<b>Cerro Matoso S.A.</b>	Public road	BHP Billiton 99.94% Employees and former employees 0.06%	BHP Billiton	Existing mining concessions renewable in 2012 with 30-year extension until 2042  Further extension is possible at that time	Mining commenced 1980  Nickel production started 1982  Ownership increased to 53% in 1989 and to 99.94% in 2007  Expansion project to double installed capacity completed 2001	Open-cut  Nickel-laterite mineralisation formed from residual weathering of ophiolitic peridotite	National electricity grid under contracts expiring December 2012  Domestic natural gas for drier and kiln operation supplied by pipeline from national grid  Gas supply contracts expire over next 10 years	Ferronickel smelter and refinery integrated with the mine  Beneficiation plant: primary and secondary crusher  Nominal capacity: 50 ktpa of nickel in ferronickel form  Actual capacity depends on nickel grade from the mine
Montelibano, Córdoba, Colombia								



**Table of Contents****Information on Stainless Steel Materials smelters, refineries and processing plants**

Smelter, Refinery or Processing Plant	Location	Ownership	Operator	Title, Leases or Options	Product	Nominal Production Capacity	Power source
<b>Nickel</b>							
<b>Kambalda Nickel concentrator</b>	56 km south of Kalgoorlie, Western Australia	100%	BHP Billiton	Mineral leases over the land from Western Australian Government expire 2028  Renewals at government discretion	Concentrate containing approximately 13% nickel	1.6 mtpa ore  Ore sourced through tolling and concentrate purchase arrangements with third parties in Kambalda region	On-site third party gas-fired turbines  Natural gas sourced from NWS gas fields.  Gas transported through Goldfields Gas Pipeline under contract to 2037
<b>Kalgoorlie Nickel smelter</b>	Kalgoorlie, Western Australia	100%	BHP Billiton	Freehold title over the property	Matte containing approximately 67% nickel	110 ktpa nickel matte	On-site third party gas-fired turbines  Natural gas sourced from NWS gas fields  Gas transported through Goldfields Gas Pipeline under contract to 2037
<b>Kwinana Nickel refinery</b>	30 km south of Perth, Western Australia	100%	BHP Billiton	Freehold title over the property	LME grade nickel briquettes, nickel powder  Also intermediate products, including copper sulphide, cobalt-nickel-sulphide, ammonium-sulphate	65 ktpa nickel metal	Power generated by Southern Cross Energy, distributed via Western Power's network

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## **Table of Contents**

### **Development projects**

#### **Cerro Matoso Nickel Ore Smelting System**

In 2010, the Nickel Ore Smelting System project was approved to progress into execution phase. The project replaces the 27-year-old Line 1 furnace to improve operational reliability and accommodate changes in the mineralogy of the ore feed. Construction completion and ramp-up to stable production is expected during the first half of FY2012.

#### **Cerro Matoso expansion options**

Cerro Matoso has undertaken conceptual studies on options for expanding production. During the second half of FY2011, the Cerro Matoso Heap Leach project progressed into feasibility.

#### **Mt Keith Talc co-processing**

In 2009, the Mt Keith Talc redesign project was approved to move into execution phase. This will enable Mt Keith to process talcose ore to supplement the current ore supply. The project involves the installation of additional grinding and flotation equipment within the existing circuits at Mt Keith and the addition of a high-magnesium oxide concentrate flotation circuit. This project will allow Mt Keith to treat talcose ores, which make up approximately 25 per cent of the remaining Mt Keith ore reserve and which were not previously able to be processed economically. The project is expected to be commissioned in FY2012.

### **2.2.7 Iron Ore Customer Sector Group**

Our Iron Ore CSG consists of our Western Australia Iron Ore (WAIO) asset and a 50 per cent interest in the Samarco joint venture in Brazil. We are one of the leading iron ore producers in the world. We sell lump and fines product produced in Australia and pellets from our operations in Brazil.

#### **Western Australia Iron Ore (WAIO)**

WAIO's operations involve a complex integrated system of mines and more than 1,000 kilometres of rail infrastructure and port facilities in the Pilbara region of northern Western Australia. Our strategy is to maximise output utilising available infrastructure at our disposal.

We have been expanding our WAIO operations in response to increasing demand for iron ore. Since 2001, we have completed six expansion projects to increase our system production capacity from 69 million tonnes per annum (mtpa) to 155 mtpa (100 per cent basis). Our share of FY2011 production was 122.7 million tonnes (Mt) of ore. We now have additional projects in various stages of the project life cycle (including construction) to further increase system capacity (see Development projects below).

Our Pilbara reserve base is relatively concentrated, allowing us to plan our development around a series of integrated mining hubs joined to the orebodies by conveyors or spur lines. This approach enables us to maximise the value of installed infrastructure by using the same processing plant and rail infrastructure for a number of orebodies. Blending ore at the hub gives us greater flexibility to respond to changing customer requirements as well as changing properties in the ore being mined and reduces the risk of port bottlenecks.

We have also continued to explore and refine our understanding of existing tenements. Our proven ore reserves are high-grade, with average iron content ranging from 57.1 per cent at Yandi to 63.8 per cent at Mt Newman. The reserve lives of our mines at current production levels range from 13 years at Mt Goldsworthy (JV Northern) to 42 years at Jimblebar.

**Table of Contents****Samarco**

We are a 50/50 joint venture partner with Vale at the Samarco operations in Brazil. During FY2008, Samarco completed an expansion project consisting of the construction of a third pellet plant, a mine expansion, a new concentrator, port enhancements and a second slurry pipeline.

In FY2011, our share of production was 10.9 Mt of pellets. Samarco's total ore reserve is about 2.0 billion tonnes. During FY2011, Samarco introduced the use of natural gas at its pelletising plants allowing for cleaner production and better quality products.

In April 2011, Samarco shareholders approved a US\$3.5 billion (BHP Billiton share US\$1.75 billion) expansion project consisting of a fourth pellet plant, a new concentrator and a third slurry pipeline. The project will increase Samarco's iron ore pellet production capacity by 8.3 Mt to 30.5 mtpa (100 per cent share). First pellet production is expected in the first half of CY2014.

**Information on Iron Ore mining operations**

The following table contains additional details of our mining operations. This table should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Mt Newman JV</b>	Public road	BHP Billiton 85%	Mt Whaleback orebodies 29 and 30 operated by BHP Billiton	Mining lease under the Iron Ore (Mt Newman) Agreement Act 1964 expires 2030 with right to successive renewals of 21 years	Production began Mt Whaleback orebody 1969	Open-cut	Alinta Dewap's Newman gas-fired power station via Mt Newman JV owned power lines	Newman Hub: primary and secondary crushing and screening plants (nominal capacity 58 mtpa); heavy media beneficiation plant, stockyard blending facility, single cell rotary car dumper, train-loading facility
Pilbara region, Western Australia	Iron ore shipped by Mt Newman rail to JV's Nelson Point shipping facilities and Finucane Island shipping facilities, Port Hedland	Mitsui ITOCHU Iron 10% ITOCHU Minerals and Energy of Australia 5%	Orebodies 18, 23 and 25 operated by independent contractors		Production from orebodies 18, 23, 25, 29 and 30 complements production from Mt Whaleback	Bedded ore types classified as per the host Archean or Proterozoic iron formation, which are Brockman, Marra Mamba and Nimingarra		Orebody 23/25: primary and secondary crushing and screening plant

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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Yandi JV</b>	Road	BHP Billiton 85%	Independent contract mining company	Mining lease under the Iron Ore (Marillana Creek) Agreement Act 1991 expires 2012 with renewal rights to a further 42 years	Development began 1991	Open-cut	Alinta Dewap s Newman gas-fired power station via Mt Newman JV owned power lines	2 processing plants, primary crusher and overland conveyor  Ore delivered to 2 train-loading facilities  A third processing plant is in the commissioning phase (expected capacity 45 mtpa)
Pilbara region, Western Australia	Iron ore shipped by operating joint venture owned rail to Finucane Island and Nelson Point shipping facilities, Port Hedland  Our railway spur links Yandi mine to Newman main line	Mitsui Iron Ore Corporation 7% ITOCHU Minerals and Energy of Australia 8%			First shipment 1992 Capacity expanded between 1994 2003	Bedded and channel ore types. Bedded ores are classified as per the host Proterozoic banded iron formation names, which for Yandi is Brockman and Channel Iron Deposits are Cainozoic fluvial sediments		
<b>Jimblebar</b>	Road	Jimblebar lease: 100%	Independent contract mining company	Mining lease under the Iron Ore (McCamey s Monster) Agreement Authorisation Act 1972 expires 2030 with rights to successive renewals of 21 years	Production commenced 1989  Ore blended with ore from Mt Whaleback and satellite orebodies 18, 23, 25, 29 and 30 to create Mt Newman blend	Open-cut	Alinta Dewap s Newman gas-fired power station via Mt Newman JV owned power lines	Primary and secondary crushing plant  Nominal capacity: 14 mtpa
Pilbara region, Western Australia	Iron ore shipped by Mt Newman JV owned rail to Port Hedland via 32 km spur line linking to Newman main line	Entitled to 85% production from Wheelara deposit under sublease with ITOCHU Minerals and Energy of Australia, Mitsui Iron Ore and 4 separate subsidiaries of Chinese steelmakers				Bedded ore types classified based on the host Archaean or Proterozoic banded iron formation names, which are Brockman and Marra Mamba		



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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Mt Goldsworthy JV</b>	Road	BHP Billiton 85%	Independent contract mining company	4 mineral leases under the Iron Ore (Mt Goldsworthy) Agreement Act 1964 and the Iron Ore (Goldsworthy Nimingarra) Agreement Act 1972, expire between 2014 and 2028, with rights to successive renewals of 21 years.	Operations commenced Mt Goldsworthy 1966, at Shay Gap 1973	Open-cut mine includes Area C, Yarrie and Nimingarra	Yarrie and Nimingarra: Alinta Dewap Port Hedland gas-fired power station under long-term contracts	Area C: ore processing plant, primary crusher and overland conveyor Nominal capacity: 42 mtpa
Pilbara region, Western Australia	Iron ore shipped by Mt Goldsworthy JV owned rail to JV s	Mitsui Iron Ore Corporation 7% and ITOCHU Minerals and Energy of Australia 8%			Original Goldsworthy mine closed 1982	Bedded ore types classified as per the host Archaean or Proterozoic iron formation names, which are Brockman, Marra Mamba and Nimingarra		Yarrie: mobile in-pit crushing plant Nominal capacity: 1.5 mtpa
Area C Yarrie Nimingarra	Goldsworthy JV railway spur links Area C mine to Newman main line			A number of smaller mining leases granted under the Mining Act 1978 expire in 2026	Shay Gap mine closed 1993  Mining at Nimingarra mine ceased 2007, has since continued from adjacent Yarrie area		Area C: Alinta Dewap s Port Newman gas-fired power station under long-term contracts	Primary crushers at Yarrie and Nimingarra in care and maintenance
								Combined nominal capacity: 8 mtpa
<b>Samarco</b>	Public road	BHP Billiton 50%	Mining concessions granted by Brazilian Government as long as Alegria complex mined according to agreed plan	Operates as independent business with own management team	Production began at Germano mine 1977, at Alegria complex 1992	Open-cut	Samarco holds interests in 2 hydroelectric power plants which supply 20% of its electricity	Facilities with capacity to process and pump 24 mtpa ore concentrate and produce and ship 22.2 mtpa pellets (100% basis)
Southeast Brazil	Conveyors transports iron ore to beneficiation plant	Vale 50%			Two expansions completed with a second pellet plant built in 1997 and a third pellet plant and second pipeline built in 2008	Itabirites (metamorphic quartz-hematite rock) and friable hematite ores	Additional power from other hydro-electric power plants under long-term contracts expiring CY2014	
	Two slurry pipelines transport pellet feed to pellet plants on coast				In April 2011, Samarco s shareholders approved the fourth pellet plant			
	Iron pellets exported via							

port facilities

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### **Development projects**

#### **Western Australia Iron Ore**

Construction of Rapid Growth Project 5 (RGP5) is ongoing. Our share of project expenditure to 30 June 2011 amounted to US\$4.8 billion. This project, which was announced in November 2008, will substantially double track the Newman main rail line, construct two new shipping berths on the Finucane Island side of the Port Hedland harbour and add crushing, screening and stockpiling facilities at Yandi.

In March 2011, we announced approval of an additional US\$7.4 billion (BHP Billiton share US\$6.6 billion) of capital expenditure to continue production growth in our WAIO operations. This investment is the final approval of projects initiated in 2010, with pre-commitment funding of US\$2.3 billion (BHP Billiton share US\$2.1 billion). It will deliver an integrated operation with a minimum capacity of 220 mtpa (100 per cent basis), with first production expected from Jimblebar early in CY2014.

This additional investment includes:

US\$3.4 billion (BHP Billiton share US\$3.3 billion) to develop the Jimblebar mine and rail links, and procure mining equipment and rolling stock to deliver an initial capacity of 35 mtpa, expandable to 55 mtpa;

US\$2.3 billion (BHP Billiton share US\$1.9 billion) to further develop Port Hedland, including two additional berths and shiploaders, a car dumper, connecting conveyor routes and associated rail works and rolling stock;

US\$1.7 billion (BHP Billiton share US\$1.4 billion) for port blending facilities and rail yards to enable ore blending, expand resource life and prepare for the future growth of the business beyond the inner harbour.

#### **Western Australia Iron Ore Rio Tinto joint venture**

On 5 June 2009, together with Rio Tinto, we signed core principles to establish a production joint venture covering the entirety of both companies' Western Australia Iron Ore assets. This resulted in the signing of definitive agreements on 5 December 2009. The completion of these agreements was subject to a number of conditions, including regulatory approvals.

After the agreements were signed, it became apparent that the necessary regulatory approvals required to allow the deal to close were unlikely to be achieved. As a result, both parties agreed to dissolve the proposed joint venture.

#### **Western Australia Iron Ore Acquisition of HWE Mining Subsidiaries**

On 9 August 2011, BHP Billiton signed a non-binding Heads of Agreement with Leighton Holdings to acquire the HWE Mining subsidiaries that provide contract mining services to its Western Australia Iron Ore operations. The Heads of Agreement relates to the mining equipment, people and related assets that service the Area C, Yandi and Orebody 23 and 25 operations. These operations collectively account for almost 70 per cent of WAIO's total material movement. The purchase price is US\$735 million (A\$705 million), subject to working capital adjustments. Subject to due diligence, definitive agreements and relevant internal and regulatory approvals, the transaction is expected to close during the fourth quarter of CY2011.

#### **West Africa**

We are carrying out exploration activities in Guinea and Liberia, West Africa. At Nimba, in Guinea, we have completed our concept study and are now undertaking a pre-feasibility study to determine the optimal investment alternative by assessing viability, sustainability impacts and management implications of operations.



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in this area. During the year, our Mineral Development Agreement with the Government of Liberia was ratified by the Liberian Legislature and became effective. This agreement enables the further exploration and development of our mineral leases in Liberia.

### **2.2.8 Manganese Customer Sector Group**

Our Manganese CSG produces a combination of ores and alloys from sites in South Africa and Australia. We are the world's largest producer of manganese ore and among the top three global producers of manganese alloy. Manganese alloy is a key input into the steelmaking process. Manganese high-grade ore is particularly valuable to alloy producers because of the value in use differential over low-grade ore, which is the degree to which high-grade ore is proportionately more efficient than low-grade ore in the alloying process.

Our strategy is to focus on upstream resource businesses. Manganese alloy smelters are a key conduit of manganese units into steelmaking and enable us to access markets with an optimal mix of ore and alloy, optimise production to best suit market conditions and give us technical insight into the performance of our ores in smelters.

Approximately 80 per cent of ore production is sold directly to external customers and the remainder is used as feedstock in our alloy smelters.

We own and manage all manganese mining operations and alloy plants through a joint venture with Anglo American in which we own 60 per cent. Our joint venture interests are held through Samancor Manganese, which operates our global Manganese assets. In South Africa, Samancor owns 74 per cent of Hotazel Manganese Mines (Pty) Ltd (HMM) and 100 per cent of Metalloys. This gives BHP Billiton an effective interest of 44.4 per cent in HMM and 60 per cent in Metalloys. The remaining 26 per cent of HMM is owned under the terms of South African Black Economic Empowerment (BEE) legislation, which reflects our commitment to economic transformation in South Africa. In Australia, we have an effective interest of 60 per cent in Groote Eylandt Mining Company Pty Ltd (GEMCO) and Tasmanian Electro Metallurgical Company Pty Ltd (TEMCO).

## **Mines**

### **HMM**

HMM owns the Mamatwan open-cut mine and the Wessels underground mine. The ore from these mines only requires crushing and screening to create saleable product. In FY2011, the total manganese production was 3,007 kilotonnes (kt), 10.6 percent higher than FY2010 production.

### **GEMCO**

As a result of its location near our own port facilities and its simple, open-cut mining operation, GEMCO is one of the world's lowest-cost manganese ore producers. These simple operations, combined with its high-grade ore and relative proximity to Asian export markets, make GEMCO unique among the world's manganese mines. FY2011 production of manganese was 4,086 kt, 20 per cent higher than FY2010 production.

## **Alloy Plants**

### **Metalloys**

The Samancor Manganese Metalloys alloy plant is one of the largest manganese alloy producers in the world. Due to its size and access to high-quality feedstock from Hotazel operations, it is also one of the lowest-cost alloy producers. Metalloys produces high and medium-carbon ferromanganese and silicomanganese.

### **TEMCO**

TEMCO is a medium-sized producer of high-carbon ferromanganese, silicomanganese and sinter using ore shipped from GEMCO, primarily using hydroelectric power.



**Table of Contents****Information on Manganese mining operations**

The following table contains additional details of our mining operations. These tables should be read in conjunction with the production (see section 2.3.2) and reserve tables (see section 2.13.2).

Mine & Location	Means of		Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
	Access	Ownership						
<b>Hotazel Manganese Mines (Pty) Ltd (HMM)</b>	Public road	BHP Billiton	BHP Billiton	Existing New Order Rights valid until 2035	Mamatwan commissioned 1964	Mamatwan: open-cut	Eskom (national power supplier)	Mamatwan beneficiation plant: primary, secondary and tertiary crushing with associated screening plants
Kalahari Basin, South Africa	Most ore and sinter products transported by rail	44.4%	Anglo American		Wessels commissioned 1973	Wessels: underground		
Mamatwan and Wessels mines	Approximately 33% of ore beneficiated locally, balance exported via Port Elizabeth, Richards Bay, Durban	29.6%	Ntsimbintle 9%			Banded Iron Manganese ore type		Dense medium separator and sinter plant (capacity 1 mtpa sinter) <sup>(1)</sup>
			NCAB 7%					
			Iziko 5%					
			HMM					
			Education Trust 5%					Wessels: primary and secondary crushing circuits with associated screening <sup>(1)</sup>

<sup>(1)</sup> Capacity: Mamatwan approximately 3.5 mtpa of ore; Wessels approximately 1 mtpa of ore.

<b>Groote Eylandt Mining Company Pty Ltd (GEMCO)</b>	Ore transported from concentrator by road train to port at Milner Bay	BHP Billiton 60%	BHP Billiton	All leases on Aboriginal land held under Aboriginal Land Rights (Northern Territory) Act 1976 Valid until 2031	Commissioned 1965	Open-cut	On-site diesel power generation	Beneficiation process: crushing, screening, washing and dense media separation
Groote Eylandt, Northern Territory, Australia			Anglo American 40%			Sandstone claystone sedimentary Manganese ore type		

Produces lump  
and fines  
products  
Capacity: 4.2  
wet mtpa

**Table of Contents****Information on Manganese smelters, refineries and processing plants**

Smelter, Refinery or Processing Plant	Location	Ownership	Operator	Title, Leases or Options	Product	Nominal Production Capacity	Power source
<b>Manganese alloy</b>							
<b>Metalloys</b>	Meyerton, South Africa	BHP Billiton 60%	BHP Billiton	Freehold title over property, plant and equipment	Manganese alloys including high-carbon ferromanganese, silicomanganese, refined (medium-carbon ferromanganese) alloy	400 ktpa high-carbon ferromanganese (including hot metal) 135 ktpa silicomanganese 90 ktpa medium-carbon ferromanganese	Eskom
Manganese alloy plant (division of Samancor Manganese (Pty) Ltd)		Anglo American 40%					30 MW of internal power generated from furnace off-gases
<b>Tasmanian Electro Metallurgical Company Pty Ltd (TEMCO)</b>	Bell Bay, Tasmania, Australia	BHP Billiton 60%	BHP Billiton	Freehold title over property, plant and equipment	Ferroalloys, including high-carbon ferromanganese, silicomanganese and sinter	130 ktpa high-carbon ferromanganese 125 ktpa silicomanganese 350 ktpa sinter	Aurora Energy On-site energy recovery unit generates 11 MW for internal use
Manganese alloy plant		Anglo American 40%					

**Development projects****GEMCO expansion**

The partners in Samancor Manganese have approved the second expansion of the GEMCO operation in the Northern Territory of Australia. This follows the successful commissioning of the GEMCO expansion phase 1 (GEEP1) project in April 2009. The US\$279 million GEEP2 project (BHP Billiton share US\$167 million) will increase GEMCO's beneficiated product capacity from 4.2 million tonnes per annum (mtpa) to 4.8 mtpa through the introduction of a dense media circuit by-pass facility. The project is expected to be completed in late CY2013. The expansion will also address infrastructure constraints by increasing road and port capacity to 5.9 mtpa, creating 1.1 mtpa of additional capacity for future expansions.

**HMM**

The central block development project at Wessels mine is expected to be completed during the last quarter of FY2013. The project will enable the mine to increase current production from 1 mtpa to 1.5 mtpa of capacity (100 per cent, or about 0.7 mtpa BHP Billiton share). The remaining forecast capital expenditure to completion of the project is an estimated US\$26 million (BHP Billiton share).

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### **Metalloids**

The High Carbon Ferro Manganese (HCFMn) furnace M14 at the Metalloids West Plant was approved for execution in November 2010 with a total approved investment of US\$91 million (US\$54.6 million BHP Billiton share). This furnace would add an additional 130 kilotonnes per annum (ktpa) capacity (100 per cent or about 78 ktpa BHP Billiton share) of HCFMn and replace smaller, less efficient furnaces from the South Plant with a current capacity of 55 ktpa. The M14 furnace will contribute to power efficiency at Metalloids site as it will add to the site's own generation capacity utilising the furnace off-gases.

### **Samancor Gabon Manganese project**

The feasibility phase study for the establishment of a 300 ktpa mine in Franceville, Gabon, commenced in July 2010 and the study is expected to be completed in the first quarter of FY2012.

The pre-feasibility phase study for phase 2 to increase the production capacity to 1.8 mtpa is expected to commence in the second quarter of FY2012.

### **2.2.9 Metallurgical Coal Customer Sector Group**

Our Metallurgical Coal CSG is the world's largest supplier of seaborne metallurgical coal. Metallurgical coal, along with iron ore and manganese, is a key input in the production of steel.

Our export customers are steel producers around the world. In FY2011, most of our contracts were annual or long-term volume contracts with prices largely negotiated on a quarterly basis or monthly basis.

We have assets in two major resource basins: the Bowen Basin in Central Queensland, Australia, and the Illawarra region of New South Wales, Australia.

### **Bowen Basin**

In comparison with many other coal mining regions, the Bowen Basin is well positioned to supply the seaborne market because of its high-quality metallurgical coals, which are ideally suited to efficient blast furnace operations, relatively low cost of production from extensive near-surface deposits and geographical proximity to Asian customers.

We also have access to key infrastructure, including a modern, integrated electric rail network and our own coal loading terminal at Hay Point, Mackay. This infrastructure enables us to maximise throughput and blending of products from multiple mines to optimise the value of our production and satisfy customer requirements.

Our Bowen Basin mines are owned through a series of joint ventures. We share 50/50 ownership with Mitsubishi Development Pty Ltd in BHP Billiton Mitsubishi Alliance (BMA), which operates the Goonyella Riverside, Broadmeadow, Peak Downs, Saraji, Norwich Park, Blackwater and Gregory Crinum mines, together with the Hay Point Coal terminal through the Central Queensland Coal Associates (CQCA) joint venture and the Gregory joint venture. Our BHP Billiton Mitsui Coal (BMC) asset operates South Walker Creek and Poitrel mines. BMC is owned by BHP Billiton (80 per cent) and Mitsui and Co (20 per cent).

The reserve lives of the Bowen Basin mines range from six years to 62 years. Total attributable production in FY2011 was approximately 25.7 million tonnes (Mt) compared with 30.8 Mt in FY2010. Production in FY2011 was significantly impacted by persistent and severe wet weather in the Bowen Basin.

Production figures for the Bowen Basin include some energy coal (less than 11 per cent).

**Table of Contents****Illawarra**

We own and operate three underground coal mines in the Illawarra region of New South Wales, which supply metallurgical coal to the nearby BlueScope Port Kembla steelworks, and other domestic and export markets. Total production in FY2011 was approximately 6.9 Mt compared with 6.5 Mt in FY2010. The reserve lives of the Illawarra mines range from three years to 19 years.

Production figures for Illawarra include some energy coal (less than 18 per cent).

**Information on Metallurgical Coal mining operations**

The following table contains additional details of our mining operations. The tables should be read in conjunction with the production (see section 2.3.2) and reserves tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Metallurgical coal</b>								
<b>Central Queensland Coal Associates (CQCA) joint venture</b>	Public road	BHP Billiton 50%	BMA	Mining leases including undeveloped tenements, expire between 2011 2037, renewable for further periods as Queensland Government/legislation allows	Goonyella mine commenced 1971, merged with adjoining Riverside mine 1989 Operates as Goonyella Riverside	All open-cut except Broadmeadow: longwall underground	Queensland electricity grid	On-site beneficiation facilities
Bowen Basin, Queensland, Australia	Coal transported by rail to Hay Point and Gladstone ports	Mitsubishi Development 50%		Mining is permitted to continue under the legislation during the application period. Application lodged to renew mining lease expiring in 2011	Production commenced: Peak Downs 1972 Saraji 1974 Norwich Park 1979	Bituminous coal is mined from the Permian Moranbah and Rangal Coal measures		Combined nominal capacity: in excess of 53.5 mtpa
Goonyella, Riverside, Peak Downs, Saraji, Norwich Park, Blackwater and Broadmeadow mines					Blackwater 1967 Broadmeadow (longwall operations) 2005	Products range from premium-quality, low volatile, high vitrinite, hard coking coal to medium volatile hard coking coal, to weak coking coal, and some medium ash thermal coal as a by-product		Hay Point Coal Terminal

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<b>Mine &amp; Location</b>	<b>Means of Access</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>History</b>	<b>Type of Mine and Mineralisation Style</b>	<b>Power Source</b>	<b>Facilities, Use &amp; Condition</b>
<b>Gregory joint venture</b>	Public road	BHP Billiton 50%	BMA	Mining leases, including undeveloped tenements, expire between 2014 - 2027, renewable for further periods as Queensland Government/legislation allows	Production commenced: Gregory 1979	Gregory: open-cut	Queensland electricity grid	On-site beneficiation processing facility
Bowen Basin, Queensland, Australia	Coal transported by rail to Hay Point and Gladstone ports	Mitsubishi Development 50%			Crinum mine (longwall) 1997	Crinum: longwall underground		Nominal capacity: in excess of 5 mtpa
Gregory and Crinum mines						Bituminous coal is mined from the Permian German Creek Coal measures		
						Product is a high volatile, low ash hard coking coal, and a medium ash thermal coal		
<b>BHP Billiton Mitsui Coal Pty Limited</b>	Public road	BHP Billiton 80%	During FY2011 management transferred from BMA to BMC	Mining leases, including undeveloped tenements expire in 2020, renewable for further periods as Queensland Government/legislation allows	South Walker Creek commenced 1996	Open-cut	Queensland electricity grid	South Walker Creek coal beneficiated on-site
Bowen Basin, Queensland, Australia	Coal transported by rail to Hay Point port	Mitsui and Co 20%			Poitrel commenced 2006	Bituminous coal is mined from the Permian Rangal Coal measures		Nominal capacity: 3.5 mtpa
South Walker Creek and Poitrel mines						Produces a range of coking coal, pulverised coal injection (PCI) coal, and thermal coal products with medium to high phosphorus and ash properties		Poitrel Mine has Red Mountain joint venture with adjacent Millennium Coal mine to share processing and rail loading facilities



Nominal  
capacity:  
3 mtpa

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<b>Mine &amp; Location</b>	<b>Means of Access</b>	<b>Ownership</b>	<b>Operator</b>	<b>Title, Leases or Options</b>	<b>History</b>	<b>Type of Mine and Mineralisation Style</b>	<b>Power Source</b>	<b>Facilities, Use &amp; Condition</b>
<b>Illawarra Coal</b>	Public road	100%	BHP Billiton	Mining leases expire between 2011-2026, renewable for further periods as NSW Government/legislation allows	Production commenced:  Appin 1962 (longwall operations 1969)  West Cliff 1976	Underground	New South Wales electricity grid	2 beneficiation facilities    Nominal capacity: approximately 8 mtpa
Illawarra, New South Wales, Australia	Coal transported by road or rail to BlueScope Steel s Port			Mining is permitted to continue under the legislation during the application period		Bituminous coal is mined from the Permian Illawarra Coal Measures		
Dendrobium, Appin and West Cliff mines	Kembla steelworks or Port Kembla for export			Applications lodged to renew mining leases expiring in 2011	Dendrobium 2005	Produces premium quality hard coking coal and some thermal coal from the Wongawilli and Bulli seams		

**Development projects****Bowen Basin Expansions**

In March 2011, approval was given for three key metallurgical coal projects located in the Bowen Basin in Central Queensland, Australia. The projects are expected to add 4.9 Mt of annual mine capacity (100 per cent basis) through development of the Daunia operation and a new mining area at Broadmeadow. In addition, 11 Mt of annual port capacity (100 per cent basis) will be developed at the Hay Point Coal terminal. The total investment is expected to be US\$5 billion, of which BHP Billiton s share is US\$2.5 billion.

The Daunia mine, adjacent to BMC s Poitrel mine, will have the capacity to produce 4.5 million tonnes per annum (mtpa) of export metallurgical coal through a new processing facility. First coal is expected in 2013. The investment will also extend the life of the Broadmeadow mine by a further 21 years and increase production capacity by 0.4 mtpa to a new total capacity of 4.8 mtpa. The project is due for completion in 2013. The expansion at Hay Point terminal will increase its capacity from 44 mtpa to 55 mtpa and includes the replacement of the existing jetty to increase its ability to withstand high seas and winds. First shipments from the expanded terminal are expected in 2014.

Metallurgical Coal is continuing to investigate a number of brownfield and greenfield expansion and logistics options in the Bowen Basin, including the construction of the proposed Caval Ridge Mine which will utilise the expanded Hay Point terminal capacity.

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### **IndoMet Coal Project (Indonesia)**

IndoMet Coal comprises seven coal contracts of work (CCoWs) covering a large metallurgical coal resource in Kalimantan, Indonesia, which was discovered by BHP Billiton in the 1990s. Following an assessment of the importance of local participation in developing the project in 2010, we sold a 25 per cent interest in the project to a subsidiary of PT Adaro Energy TBK. We retain 75 per cent of the project and hold management responsibility for the project.

Study work is underway to identify development options across our CCoWs.

### **2.2.10 Energy Coal Customer Sector Group**

Our Energy Coal CSG is one of the world's largest producers and marketers of export energy coal (also known as thermal or steaming coal) and is also a significant domestic supplier to the electricity generation industry in Australia, South Africa and the US. Our global portfolio of energy coal assets and our insights into the broader energy market through our sales of other fuels (gas, uranium and oil) provide our business with substantial advantages as a supplier. We generally make our domestic sales under long-term fixed-price contracts with nearby power stations. We make export sales to power generators and some industrial users in Asia, Europe and the US, usually under contracts for delivery of a fixed volume of coal. Pricing is either index-linked or fixed, in which case we use financial instruments to swap our fixed-price exposure for exposure to market indexed prices.

We operate three assets: a group of mines and associated infrastructure collectively known as BHP Billiton Energy Coal South Africa; our New Mexico Coal operations in the US; and our NSW Energy Coal operations in Australia. We also own a 33.33 per cent share of the Cerrejón Coal Company, which operates a coal mine in Colombia.

### **BHP Billiton Energy Coal South Africa (BECSA)**

BECSA operates four coal mines Khutala, Klipspruit, Middelburg and Wolvekrans in the Witbank region of Mpumalanga province of South Africa, which in FY2011 produced approximately 34 million tonnes (Mt). In FY2011, BECSA sold approximately 62 per cent of its production to Eskom, the government-owned electricity utility in South Africa and exported the rest via the Richards Bay Coal Terminal (RBCT), in which we own a 22 per cent share. The reserve lives of the BECSA mines range from nine to 30 years.

### **New Mexico Coal**

We own and operate the Navajo mine, located on Navajo Nation land in New Mexico, and the nearby San Juan mine located in the state of New Mexico. Each mine transports its production directly to a nearby power station. The reserve lives of Navajo Mine and San Juan Mine are 5 and 7 years, respectively. New Mexico Coal produced approximately 12 Mt in FY2011.

### **NSW Energy Coal**

NSW Energy Coal's operating asset is the Mt Arthur open-cut coal mine in the Hunter Valley region of New South Wales, which produced approximately 14 Mt in FY2011 and has a reserve life of 50 years. We commenced the first stage of our long-term mine expansion project (RX1) in FY2011 (see Development projects below). In FY2011, we delivered approximately nine per cent of Mt Arthur's production to a local power station and exported the rest via the port of Newcastle. We are also a 35.5 per cent shareholder in Newcastle Coal Infrastructure Group a joint controlled entity that is operating the Newcastle Third Port export coal loading facility.

**Table of Contents****Cerrejón Coal Company**

Cerrejón Coal Company owns and operates one of the largest open-cut export coal mines in the world in La Guajira province of Colombia, as well as integrated rail and port facilities through which the majority of production is exported to European and Middle Eastern customers. Cerrejón has a current capacity of 32 million tonnes per annum (mtpa) (100 per cent terms) and has a reserve life of 23 years.

**Information on Energy Coal mining operations**

The following table contains additional details of our mining operations. The table should be read in conjunction with the production (see section 2.3.2) and reserves tables (see section 2.13.2).

Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Khutala</b>	Public road	100%	BHP Billiton	BECSA holds Old Order Mining Right Application for conversion to New Order Right, submitted 2004 and being processed (see section 2.7.1)	Production commenced 1984  Open-cut operations 1996  Commenced mining thermal/metallurgical coal for domestic market 2003	Combination open-cut and underground  Produces a medium rank bituminous thermal coal (non-coking)	Eskom (national power supplier) under long-term contracts	Crushing plant for energy coal  Nominal capacity: 18 mtpa  Smaller crusher and wash plant to beneficiate metallurgical coal Nominal capacity: 0.6 mtpa
100 km east of Johannesburg, Gauteng Province, South Africa	Domestic coal transported by overland conveyor to Kendal Power Station							
<b>Middelburg/Wolvekrans</b>	Public road	100%	BHP Billiton	BECSA and Tavistock are joint holders of 3 Old Order Mining Rights in the previous JV ratio (84:16) BECSA is the 100% holder of a fourth Old Order Mining Right	Production commenced 1982 Middelburg Mine Services (MMS) and Duvha Opencast became one operation in 1995  Douglas-Middelburg Optimisation project completed in July 2010  During the year the mine was split into Middelburg and Wolvekrans	Open-cut  Produces a medium rank bituminous thermal coal, most of which can be beneficiated for the European or Asian export markets	Eskom under long-term contracts	Beneficiation facilities: tips and crushing plants, 2 export wash plants, middlings wash plant, de-stone plant  Nominal capacity: 44.5 mtpa
20 km southeast of Witbank, Mpumalanga Province, South Africa	Export coal transported to RBCT by rail Domestic coal transported by conveyor to Duvha Power Station	Previous JV (84:16) with Xstrata Plc (through Tavistock Collieries Plc) dissolved effective 1 December 2009						

All 4 Rights  
were lodged  
with the  
Department  
of Mineral  
Resources  
for  
conversion  
in  
December  
2008 <sup>(1)</sup>

<sup>(1)</sup> JV agreement has been amended such that upon conversion of the Mining Rights, the mining area will be divided into an area wholly owned and operated by Tavistock and an area wholly owned and operated by BECSA as the new Douglas-Middelburg mine (see section 2.7.1)

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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>Klipspruit</b>	Public road	100%	BHP Billiton	BECSA holds an Old Order Mining Right Application for conversion to New Order Mining Right submitted 2004, being processed (see section 2.7.1)	Production commenced 2003  Expansion Project completed FY2010, includes 50% share in Phola Coal Plant Expected ROM capacity: 8.0 mtpa at full ramp-up	Open-cut  Produces a medium rank bituminous thermal coal, most of which can be beneficiated for the European or Asian export markets	Eskom, under long-term contracts	Beneficiation facilities: tip and crushing plant, export wash plant  Nominal capacity Phola Coal Processing Plant: 16 mtpa
30 km west of Witbank, Mpumalanga Province, South Africa	Export coal transported to RBCT by rail	50% of Phola Coal Plant in JV with Anglo Inyosi Coal						
<b>Mt Arthur Coal</b>	Public road	100%	BHP Billiton	Various mining leases and licences expire 2011- 2032  Renewal is being sought for our tenement that expired in 2010	Production commenced 2002  Government approval permits extraction of up to 36 mt of run of mine coal from underground and open-cut operations, with open-cut extraction limited to 32 mtpa	Open-cut  Produces a medium rank bituminous thermal coal (non- coking)	Local energy providers	Beneficiation facilities: coal handling, preparation, washing plants  Nominal capacity: in excess of 16 mtpa see Development projects below
Approximately 125 km from Newcastle, New South Wales, Australia	Domestic coal transported by conveyor to Bayswater Power Station  Export coal transported by rail to Newcastle port							
<b>Navajo</b>	Public road	100%	BHP Billiton	Long-term lease from Navajo Nation continues for as long as coal can be economically produced and sold in paying quantities	Production commenced 1963	Open-cut  Produces a medium rank bituminous thermal coal (non-coking suitable for the domestic market only)	Four Corners Power Plant	Stackers and reclaimers used to size and blend coal to contract specifications  Nominal capacity: 8.1 mtpa
30 km southwest of Farmington, New Mexico, US	Coal transported by rail to Four Corners Power Plant (FCPP)							



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Mine & Location	Means of Access	Ownership	Operator	Title, Leases or Options	History	Type of Mine and Mineralisation Style	Power Source	Facilities, Use & Condition
<b>San Juan</b>	Public road	100%	BHP Billiton	Mining leases from federal and state governments	Surface mine operations commenced 1973 Development of underground mine to replace open-cut mine approved 2000	Underground	San Juan Generation Station	Coal sized and blended to contract specifications using stockpiles
25 km west of Farmington, New Mexico, US	Coal transported by truck and conveyor to San Juan Generating Station (SJGS)			Leases viable as long as minimum production criteria achieved		Produces a medium rank bituminous thermal coal (non-coking suitable for the domestic market only)		Nominal capacity: 6.0 mtpa
<b>Carrejón Coal Company</b>	Public road	BHP Billiton 33.33%	Carrejón Coal Company	Mining leases expire 2034	Original mine began producing in 1976	Open-cut	Local Colombian power system	Beneficiation facilities: crushing plant with capacity of 32 mtpa and washing plant
La Guajira province, Colombia	Coal exported by rail to Puerto Bolivar	Anglo American 33.33% Xstrata 33.33%			BHP Billiton interest acquired in 1999	Produces a medium rank bituminous thermal coal (non-coking, suitable for the export market)		Nominal capacity: 3 mtpa

**Development projects****Mt Arthur open-cut expansions (RX1)**

On 25 March 2011, we announced the first stage of the Mt Arthur Coal mine expansion which is intended to increase run-of-mine thermal coal production by approximately 4 Mt, to approximately 24 mtpa and follows our investment in capacity at the Port of Newcastle. Known as the RX1 Project, it is expected to commence operation in the second half of 2013 at an estimated capital investment of US\$400 million.

The environmental assessment approval granted in September 2010 will allow us to develop additional coal reserves in the future with studies underway to examine the expansion of the mine.



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**Expansion of Cerrejón Coal (P40 Project)**

On 18 August 2011, we announced a \$US437 million (BHP Billiton share) investment in the expansion of Cerrejón Coal, known as the P40 Project, which will enable Cerrejón Coal's saleable thermal coal production to increase by eight mtpa to approximately 40 mtpa. The expansion project will see our 33.3 per cent share of production and sales increase from 10.7 mtpa to 13.3 mtpa. Construction will commence in CY2011 with completion expected in CY2013. The project scope includes a second berth and dual quadrant ship loader at Cerrejón's 100 per cent owned and operated Puerto Bolivar, along with necessary mine, rail and associated supply chain infrastructure.

**Newcastle Port Third Phase Expansion**

On 31 August 2011, we announced a US\$367 million (BHP Billiton share) investment in the third stage development of the Newcastle Coal Infrastructure Group's coal handling facility in Newcastle, Australia, in which, NSW Energy Coal is a 35.5 per cent shareholder. The port expansion project will increase total capacity at the coal terminal from 53 mtpa to 66 mtpa. This will increase NSW Energy Coal's allocation by a further 4.6 mtpa to 19.2 mtpa supporting the future expansions of the Mt Arthur Coal mine. The first coal on the new ship loader is scheduled to occur in FY2014, with the terminal expected to operate at full capacity within the following 12 months.

**Table of Contents****2.3 Production****2.3.1 Petroleum**

The table below details Petroleum's historical net crude oil and condensate, natural gas and natural gas liquids production, primarily by geographic segment, for each of the three years ended 30 June 2011, 2010 and 2009. We have shown volumes of marketable production after deduction of applicable royalties, fuel and flare. We have included in the table average production costs per unit of production and average sales prices for oil and condensate and natural gas for each of those periods.

	BHP Billiton Group share of production Year ended 30 June		
	2011	2010	2009
Production volumes			
<b>Crude oil and condensate</b> ( 000 of barrels)			
Australia	40,447	31,540	32,496
United States	30,157	41,522	20,818
Other	9,987	11,325	13,014
<b>Total crude oil and condensate</b>	<b>80,591</b>	84,387	66,328
<b>Natural gas</b> (billion cubic feet)			
Australia	274.74	259.65	258.14
United States	49.09	17.68	11.91
Other	81.23	91.24	92.75
<b>Total natural gas</b>	<b>405.06</b>	368.57	362.80
<b>Natural Gas Liquids</b> <sup>(1)</sup> ( 000 of barrels)			
Australia	7,962	8,652	7,977
United States	1,980	2,545	1,128
Other	1,341	1,552	2,071
<b>Total NGL</b> <sup>(1)</sup>	<b>11,283</b>	12,749	11,176
<b>Total petroleum products production</b> (million barrels of oil equivalent) <sup>(2)</sup>			
Australia	94.20	83.47	83.50
United States	40.32	47.01	23.93
Other	24.86	28.08	30.54
<b>Total petroleum products production</b> (million barrels of oil equivalent) <sup>(2)</sup>	<b>159.38</b>	158.56	137.97
Average sales price			
<b>Crude oil and condensate</b> (US\$ per barrel)			
Australia	96.32	74.12	70.32
United States	90.01	71.55	62.90
Other	90.69	75.57	60.69
<b>Total crude oil and condensate</b>	<b>93.29</b>	73.05	66.18
<b>Natural gas</b> (US\$ per thousand cubic feet)			
Australia	4.21	3.52	3.07

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United States	<b>3.48</b>	4.80	6.61
Other	<b>3.92</b>	3.05	4.08
<b>Total natural gas</b>	<b>4.00</b>	3.43	3.57
<b>Natural Gas Liquids (US\$ per barrel)</b>			
Australia	<b>58.05</b>	48.20	44.71
United States	<b>49.79</b>	39.51	48.19
Other	<b>59.54</b>	49.40	38.88
<b>Total NGL</b>	<b>56.77</b>	46.47	43.91

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	BHP Billiton Group share of production Year ended 30 June		
	2011	2010	2009
<b>Average Production Cost (US\$ per barrel of oil equivalent) <sup>(3)</sup></b>			
Australia	5.75	5.59	4.51
United States	6.45	5.62	7.20
Other	8.39	7.48	6.74
<b>Average Production Cost (US\$ per barrel of oil equivalent) <sup>(3)</sup></b>	<b>6.34</b>	5.93	5.47

(1) LPG and Ethane are reported as Natural Gas Liquids (NGL).

(2) Total boe conversion is based on the following: 6,000 scf of natural gas equals 1 boe.

(3) Average production costs include direct and indirect costs relating to the production of hydrocarbons and the foreign exchange effect of translating local currency denominated costs into US dollars but excludes ad valorem and severance taxes.

**2.3.2 Minerals**

The table below details our mineral and derivative product production for all CSGs except Petroleum for the three years ended 30 June 2011, 2010 and 2009. Production shows our share unless otherwise stated.

	BHP Billiton Group interest %	BHP Billiton Group share of production Year ended 30 June		
		2011	2010	2009
<b>Aluminium</b>				
<b>Alumina</b>				
<i>Production ( 000 tonnes)</i>				
Worsley, Australia	86.0	2,902	3,054	2,924
Paranam, Suriname <sup>(1)</sup>	45.0		78	935
Alumar, Brazil	36.0	1,108	709	537
<b>Total alumina</b>		<b>4,010</b>	3,841	4,396
<b>Aluminium</b>				
<i>Production ( 000 tonnes)</i>				
Hillside, RSA	100.0	711	710	702
Bayside, RSA	100.0	97	98	99
Alumar, Brazil	40.0	174	174	177
Mozal, Mozambique	47.1	264	259	255
<b>Total aluminium</b>		<b>1,246</b>	1,241	1,233
<b>Base Metals <sup>(2)</sup></b>				
<b>Copper</b>				
<i>Payable metal in concentrate ( 000 tonnes)</i>				
Escondida, Chile	57.5	390.5	448.1	417.6

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Antamina, Peru	33.8	<b>97.8</b>	98.6	109.0
Pinto Valley, US <sup>(3)</sup>	100.0			33.3
<b>Total copper concentrate</b>		<b>488.3</b>	546.7	559.9
<b>Cathode ( 000 tonnes)</b>				
Escondida, Chile	57.5	<b>179.1</b>	174.2	172.1
Pampa Norte, Chile <sup>(4)</sup>	100.0	<b>272.2</b>	244.8	274.8
Pinto Valley, US <sup>(3)</sup>	100.0	<b>5.7</b>	6.2	6.2

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	BHP Billiton Group interest %	BHP Billiton Group share of production Year ended 30 June		
		2011	2010	2009
Olympic Dam, Australia	100.0	194.1	103.3	194.1
<b>Total copper cathode</b>		<b>651.1</b>	528.5	647.2
<b>Total copper concentrate and cathode</b>		<b>1,139.4</b>	1,075.2	1,207.1
<b>Lead</b>				
<i>Payable metal in concentrate ( 000 tonnes)</i>				
Cannington, Australia	100.0	243.4	245.4	226.8
Antamina, Peru	33.8	1.2	3.0	3.3
<b>Total lead</b>		<b>244.6</b>	248.4	230.1
<b>Zinc</b>				
<i>Payable metal in concentrate ( 000 tonnes)</i>				
Cannington, Australia	100.0	60.7	62.7	54.8
Antamina, Peru	33.8	91.5	135.6	108.4
<b>Total zinc</b>		<b>152.2</b>	198.3	163.2
<b>Gold</b>				
<i>Payable metal in concentrate ( 000 ounces)</i>				
Escondida, Chile	57.5	84.7	76.4	67.3
Olympic Dam, Australia (refined gold)	100.0	111.4	65.5	108.0
Pinto Valley, US <sup>(3)</sup>	100.0			0.9
<b>Total gold</b>		<b>196.1</b>	141.9	176.2
<b>Silver</b>				
<i>Payable metal in concentrate ( 000 ounces)</i>				
Escondida, Chile	57.5	2,849	2,874	2,765
Antamina, Peru	33.8	3,600	4,712	4,090
Cannington, Australia	100.0	35,225	37,276	33,367
Olympic Dam, Australia (refined silver)	100.0	982	500	937
Pinto Valley, US <sup>(3)</sup>	100.0			182
<b>Total silver</b>		<b>42,656</b>	45,362	41,341
<b>Uranium oxide</b>				
<i>Payable metal in concentrate (tonnes)</i>				
Olympic Dam, Australia	100.0	4,045	2,279	4,007
<b>Total uranium oxide</b>		<b>4,045</b>	2,279	4,007
<b>Molybdenum</b>				
<i>Payable metal in concentrate (tonnes)</i>				
Antamina, Peru	33.8	1,445	813	1,363
Pinto Valley, US <sup>(3)</sup>	100.0			159
<b>Total molybdenum</b>		<b>1,445</b>	813	1,522

**Diamonds and Specialty Products**

**Diamonds**

*Production ( 000 carats)*

EKATI, Canada	80.0	<b>2,506</b>	3,050	3,221
<b>Total diamonds</b>		<b>2,506</b>	3,050	3,221

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	BHP Billiton Group interest %	BHP Billiton Group share of production Year ended 30 June		
		2011	2010	2009
<b>Titanium minerals <sup>(5)</sup></b>				
<i>Production ( 000 tonnes)</i>				
<b>Titanium slag</b>				
Richards Bay Minerals, RSA <sup>(6)</sup>	37.76	366	317	490
<b>Rutile</b>				
Richards Bay Minerals, RSA <sup>(6)</sup>	37.76	32	34	44
<b>Zircon</b>				
Richards Bay Minerals, RSA <sup>(6)</sup>	37.76	83	83	120
<b>Total titanium minerals</b>		<b>481</b>	434	654
<b>Stainless Steel Materials</b>				
<b>Nickel</b>				
<i>Production ( 000 tonnes)</i>				
Cerro Matoso, Colombia	99.9	40.0	49.6	50.5
Yabulu, Australia <sup>(7)</sup>	100.0		2.8	33.9
Nickel West, Australia	100.0	112.7	123.8	88.7
<b>Total nickel</b>		<b>152.7</b>	176.2	173.1
<b>Cobalt</b>				
<i>Production ( 000 tonnes)</i>				
Yabulu, Australia <sup>(7)</sup>	100.0		0.1	1.4
<b>Total cobalt</b>		<b>0.0</b>	0.1	1.4
<b>Iron Ore <sup>(8)</sup></b>				
<i>Production ( 000 tonnes)</i>				
Newman, Australia <sup>(9)</sup>	85.0	45,245	32,097	31,350
Mt Goldsworthy, Australia	85.0	1,198	1,688	1,416
Area C Australia	85.0	39,794	38,687	35,513
Yandi, Australia	85.0	36,460	41,396	37,818
Samarco, Brazil	50.0	11,709	11,094	8,318
<b>Total iron ore</b>		<b>134,406</b>	124,962	114,415
<b>Manganese</b>				
<b>Manganese ores</b>				
<i>Saleable production ( 000 tonnes)</i>				
HMM, RSA <sup>(10)</sup>	44.4	3,007	2,718	2,191
GEMCO, Australia <sup>(10)</sup>	60.0	4,086	3,406	2,284
<b>Total manganese ores</b>		<b>7,093</b>	6,124	4,475
<b>Manganese alloys</b>				
<i>Saleable production ( 000 tonnes)</i>				
Metalloys, RSA <sup>(10)(11)</sup>	60.0	486	364	301
TEMCO, Australia <sup>(10)</sup>	60.0	267	219	212
<b>Total manganese alloys</b>		<b>753</b>	583	513



**Metallurgical Coal** <sup>(12)</sup>

*Production ( 000 tonnes)*

Blackwater, Australia	50.0	<b>4,589</b>	5,733	5,382
Goonyella Riverside, Australia <sup>(13)</sup>	50.0	<b>5,359</b>	6,668	6,685
Peak Downs, Australia	50.0	<b>3,402</b>	4,332	4,390
Saraji, Australia	50.0	<b>2,779</b>	3,402	3,505

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	BHP Billiton Group interest %	BHP Billiton Group share of production Year ended 30 June		
		2011	2010	2009
Norwich Park, Australia	50.0	1,055	1,870	1,984
Gregory Joint Venture, Australia	50.0	2,717	2,398	2,762
<b>Total BMA, Australia</b>		<b>19,901</b>	24,403	24,708
South Walker Creek, Australia		3,134	3,609	2,978
Poitrel, Australia		2,759	2,834	2,457
<b>Total BHP Billiton Mitsui Coal, Australia<sup>(14)</sup></b>	80.0	<b>5,893</b>	6,443	5,435
Illawarra, Australia	100.0	6,884	6,535	6,273
<b>Total metallurgical coal</b>		<b>32,678</b>	37,381	36,416
<b>Energy Coal</b>				
<i>Production ( 000 tonnes)</i>				
Navajo, US	100.0	7,472	7,465	8,363
San Juan, US	100.0	4,140	6,013	5,773
<b>Total New Mexico</b>		<b>11,612</b>	13,478	14,136
Middelburg/Wolvekrans, RSA <sup>(15)</sup>	100.0	14,328	14,704	14,807
Khutala, RSA	100.0	12,928	10,868	11,125
Klipspruit, RSA	100.0	7,072	4,887	3,964
<b>Total BECSA</b>		<b>34,328</b>	30,459	29,896
Mt Arthur Coal, Australia	100.0	13,671	12,039	11,775
Cerrejón Coal Company, Colombia	33.3	9,889	10,155	10,594
<b>Total energy coal</b>		<b>69,500</b>	66,131	66,401

(1) Suriname was sold effective 31 July 2009.

(2) Metal production is reported on the basis of payable metal.

(3) The Pinto Valley mining operations were placed on care and maintenance in January 2009, and continue to produce copper cathode through sulphide leaching.

(4) Includes Cerro Colorado and Spence.

(5) Data was sourced from the TZ Minerals International Pty Ltd Mineral Sands Annual Review 2011 and amounts represent production for the preceding year ended 31 December.

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- (6) The Group's economic interest in Richards Bay Minerals is 37.76 per cent (FY2010: 37.76 per cent; FY2009: 50 per cent).
- (7) Yabulu was sold effective 31 July 2009.
- (8) Iron ore production is reported on a wet tonnes basis with the exception of Samarco, being reported in dry (pellet) tonnes.
- (9) Newman includes Mt Newman Joint Venture and Jimblebar, previously Jimblebar was reported separately.
- (10) Shown on 100 per cent basis. BHP Billiton interest in saleable production is 60 per cent, except HMM, which is 44.4 per cent (FY2010: 44.4 per cent; FY2009: 60 per cent)
- (11) Production includes Medium Carbon Ferro Manganese.
- (12) Metallurgical coal production is reported on the basis of saleable product. Production figures include some thermal coal.

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- (13) Goonyella Riverside includes the Broadmeadow underground mine.
- (14) Shown on 100 per cent basis. BHP Billiton interest in saleable production is 80 per cent (FY2010: 80 per cent; FY2009: 80 per cent)
- (15) Wolvekrans was previously known as Douglas mine.

## **2.4 Marketing**

BHP Billiton's Marketing network manages the Group's revenue line and is responsible for:

selling our products and for the purchase of all major raw materials;

the supply chain for our various products, from assets to market, and also for raw materials, from suppliers to our assets;

managing credit and price risk associated with the revenue line;

achieving market clearing prices for the Group's products;

defining our view of long-term market fundamentals.

This requires an active and significant presence in the various commodities markets and also the global freight market.

Our marketing activities are centralised in Singapore, The Hague (Netherlands) and Antwerp (Belgium). Our Iron Ore, Metallurgical Coal, Manganese, Base Metals, Stainless Steel Materials, Petroleum and Uranium marketing teams are headquartered in Singapore. The Hague is the hub for our Aluminium, Energy Coal and Freight marketing teams. Our Antwerp office serves our diamonds customers.

These three marketing offices incorporate all the functions required to manage product marketing and distribution from the point of production to final customer delivery. In addition, we have marketers located in 17 regional offices around the world.

We have a centralised ocean freight business that manages our in-house freight requirements. The primary purpose of the freight business is to create a competitive advantage for our shipments through the procurement and operation of quality, cost-effective shipping. From time to time, we carry complementary cargoes for external parties to optimise profitability.

## **2.5 Minerals exploration**

Our minerals exploration program is integral to our growth strategy and is focused on identifying and capturing new world-class projects for future development or projects that add significant value to existing operations. Targets for exploration are generally resources to underpin development of large low-cost mining projects in a range of minerals, including copper, iron ore, potash, nickel, uranium, manganese and diamond deposits.

Our greenfield exploration activities are organised from four principal offices in Singapore, Perth (Australia), Johannesburg (South Africa) and Santiago (Chile). We continue to pursue opportunities and build our title position in prospective regions, focusing on the Americas, Asia, Africa and Australia. The process of discovery runs from early-stage mapping through to drilling and evaluation. The exploration program is global in scope and prioritises targets based on our assessment of the relative attractiveness of each mineral.

In addition to our activities focused on finding new world-class deposits, several of our CSGs undertake brownfield exploration, principally aimed at delineating and categorising mineral deposits near existing operations, and advancing projects through the development pipeline.



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In FY2011, we spent US\$683 million on minerals exploration. Of this, US\$207 million was spent on greenfield exploration and US\$476 million was spent on brownfield exploration and advanced projects.

### **2.6 Resource and Business Optimisation**

Group Resource and Business Optimisation (RBO) provides governance and technical leadership for resource development and Ore Reserve reporting. RBO's 50 professionals are focused on ensuring optimal value recovery from our resources. The team includes functional experts in mineral resource evaluation, brownfields exploration, planning, research and development, work management, production reporting, mine engineering and mineral process engineering.

RBO engages directly with assets to deliver guidance and assess compliance in resource development and Ore Reserve reporting. It provides the Group Management Committee with assurance reports and portfolio analysis. RBO also provides functional expertise to audits and to investment review programs conducted by other Group Functions.

RBO's accountabilities include governance for all resource and reserve estimation and Ore Reserve reporting.

### **2.7 Government regulations**

Government regulations touch all aspects of our operations. However, because of the geographical diversity of our operations, no one set of government regulations is likely to have a material effect on our business, taken as a whole.

The ability to extract minerals, oil and natural gas is fundamental to our business. In most jurisdictions, the rights to undeveloped mineral or petroleum deposits are owned by the state. Accordingly, we rely upon the rights granted to us by the government that owns the mineral, oil or natural gas. These rights usually take the form of a lease or licence, which gives us the right to access the land and extract the product. The terms of the lease or licence, including the time period for which it is effective, are specific to the laws of the relevant government. Generally, we own the product we extract and royalties or similar taxes are payable to the government. Some of our operations, such as our oil and gas operations in Trinidad and Tobago and Algeria, are subject to production sharing contracts under which both we as the contractor and the government are entitled to a share of the production. Under such production sharing contracts, the contractor is entitled to recover its exploration and production costs from the government's share of production.

Related to the ability to extract is the ability to process the minerals, oil or natural gas. Again, we rely upon the relevant government to grant the rights necessary to transport and treat the extracted material in order to ready it for sale.

Underlying our business of extracting and processing natural resources is the ability to explore for those orebodies. The rights to explore for minerals, oil and natural gas are granted to us by the government that owns those natural resources that we wish to explore. Usually, the right to explore carries with it the obligation to spend a defined amount of money on the exploration or to undertake particular exploration activities.

Governments also impose obligations on us in respect of environmental protection, land rehabilitation, occupational health and safety, and native land title with which we must comply in order to continue to enjoy the right to conduct our operations within that jurisdiction. These obligations often require us to make substantial expenditures to minimise or remediate the environmental impact of our operations, to ensure the safety of our employees and contractors and the like. For further information on these types of obligations, refer to section 2.8 of this Report.

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Of particular note are the following regulatory regimes:

### **2.7.1 South African Mining Charter and Black Economic Empowerment**

In 2003, the South African Government released a strategy for broad-based black economic empowerment (BBBEE) that defined empowerment as an integrated and coherent socio-economic process that directly contributes to the economic transformation of South Africa and brings significant increases in the numbers of black people who manage, own and control the country's economy, as well as significant decreases in income inequalities. This strategy laid the foundation for the Black Economic Empowerment Act of 2003, which granted government the power to legislate how it wanted black economic empowerment (BEE) to be implemented in South Africa.

As outlined in section 1.5 of this Report, on 1 May 2004, the Mineral and Petroleum Resources Development Act 2002 (MPRDA) took effect, providing for state custodianship of all mineral deposits and abolishing the prior system of privately held mineral rights. It is administered by the Department of Mineral Resources (formerly the Department of Minerals and Energy) of South Africa. In February 2007, the codes of good practice were gazetted, further crystallising the government's BEE strategy into a single binding document. The codes make provision for businesses to measure their success in contributing to the economic transformation and empowerment of historically disadvantaged South Africans (HDSAs) in the local economy and a scorecard comprising seven metrics was also developed to assist businesses in achieving this success.

In terms of the MPRDA, holders of mining rights granted under the previous system, known as Old Order Rights, must have applied to convert their rights to New Order Rights prior to 30 April 2009. In order for the conversions to be effected, applicants are required to comply with the terms of the Black Economic Empowerment Act of 2003 and the Mining Charter, which has been published under the MPRDA. The Mining Charter requires holders of mining rights to achieve 26 per cent ownership participation by HDSAs in their mining operations by 30 April 2014, of which 15 per cent needed to have been achieved by 30 April 2009. We have submitted to the Department of Mineral Resources of South Africa transactions to meet the legislative requirements and support the conversion to New Order Rights.

We support broad-based black economic empowerment in South Africa. We believe it is imperative to both the growth and stability of the South African economy and the Group's strategic objectives and long-term sustainability in that country.

The principles of transformation and empowerment are in line with *Our BHP Billiton Charter*.

We have established a transformation and empowerment technical committee comprising senior managers with diverse skills to ensure our transformation and empowerment agenda is coordinated and comprehensive.

### **2.7.2 Uranium production in Australia**

To mine, process, transport and sell uranium from within Australia, we are required to hold possession and export permissions, which are also subject to regulation by the Australian Government or bodies that report to the Australian Government.

To possess nuclear material, such as uranium, in Australia, a Permit to Possess Nuclear Materials (Possession Permit) must be held pursuant to the Australian Nuclear Non-Proliferation (Safeguards) Act 1987 (Non-Proliferation Act). A Possession Permit is issued by the Australian Safeguards and Non-Proliferation Office, an office established under the Non-Proliferation Act, which administers Australia's domestic nuclear safeguards requirements and reports to the Australian Government.

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To export uranium from Australia, a Permit to Export Natural Uranium (Export Permit) must be held pursuant to the Australian Customs (Prohibited Exports) Regulations 1958. The Export Permit is issued by the Minister for Resources and Energy.

A special transport permit will be required under the Non-Proliferation Act by a party that transports nuclear material from one specified location to another specified location. As we engage service providers to transport uranium, those service providers are required to hold a special transport permit.

### **2.7.3 Exchange controls and shareholding limits**

#### **BHP Billiton Plc**

There are no laws or regulations currently in force in the UK that restrict the export or import of capital or the remittance of dividends to non-resident holders of BHP Billiton Plc's shares, although the Group does operate in some other jurisdictions where remittances of funds could be affected as they are subject to exchange control approvals. There are certain sanctions adopted by the UK Government which implement resolutions of the Security Council of the United Nations and sanctions imposed by the European Union (EU) against certain countries, entities and individuals. Any enforcement of the sanctions by the UK Government would be initiated by HM Treasury. Such sanctions may be in force from time to time and include those against: (i) certain entities and/or individuals associated with the Burmese regime (Myanmar), Cote d'Ivoire, The Democratic People's Republic of Korea (North Korea), the Democratic Republic of Congo, Egypt, Eritrea, the Republic of Guinea, Lebanon, Liberia, Libya, Iran, Somalia, Sudan, Tunisia and the previous regimes of Iraq and Yugoslavia; (ii) certain officials of Belarus, Syria and Zimbabwe; (iii) individuals indicted by the International Criminal Tribunal for the former Yugoslavia; and (iv) entities and individuals linked with the Taliban, Al-Qaeda and other terrorist organisations.

There are no restrictions under BHP Billiton Plc's Articles of Association or (subject to the effect of any sanctions) under English law that limit the right of non-resident or foreign owners to hold or vote BHP Billiton Plc's shares.

There are certain restrictions on shareholding levels under BHP Billiton Plc's Articles of Association described under the heading "BHP Billiton Limited" below.

#### **BHP Billiton Limited**

Under the Australian Banking (Foreign Exchange) Regulations 1959, the Reserve Bank of Australia may impose restrictions on certain financial transactions and require the consent of the Reserve Bank of Australia for the movement of funds into and out of Australia. Based on our searches, restrictions currently apply if funds are to be paid to or received from specified supporters of the former Government of the Federal Republic of Yugoslavia, specified ministers and senior officials of the Government of Zimbabwe, certain specified entities associated with the Democratic People's Republic of Korea (North Korea), specified individuals associated with the Burmese regime, and certain Iranian organisations and ministers. In addition, from time to time the United Nations Security Council and the Australian Government impose international sanctions on certain countries and organisations. The countries and organisations that are currently subject to United Nations (UN) sanctions are certain individuals or entities linked with the Taliban, Al-Qaeda and other terrorist organisations and certain entities and individuals associated with the Democratic Republic of Congo, Cote d'Ivoire, the Democratic People's Republic of Korea (North Korea), Eritrea, Iran, Iraq, Lebanon, Liberia, Libya, Sudan and Somalia. The countries currently subject to the Australian Government's autonomous sanctions are Burma, the Democratic People's Republic of Korea (North Korea), Fiji, the former Federal Republic of Yugoslavia, Iran, Libya, Syria and Zimbabwe. The controls impose certain approval and reporting requirements on transactions involving such countries, entities and individuals and/or assets controlled or owned by them. Transfers into or out of Australia of amounts greater than A\$10,000 in any currency are also subject to reporting requirements.



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Remittances of any dividends, interest or other payments by BHP Billiton Limited to non-resident holders of BHP Billiton Limited's securities are not restricted by exchange controls or other limitations, save that in certain circumstances, BHP Billiton may be required to withhold Australian taxes.

There are no limitations, either under the laws of Australia or under the Constitution of BHP Billiton Limited, on the right of non-residents to hold or vote BHP Billiton Limited ordinary shares other than as set out below.

The Australian Foreign Acquisitions and Takeovers Act 1975 (the FATA) restricts certain acquisitions of interests in shares in BHP Billiton. Generally, under the FATA, the prior approval of the Australian Treasurer must be obtained for proposals by a foreign person (either alone or together with associates) to acquire control of 15 per cent or more of the voting power or issued shares in BHP Billiton Limited.

The FATA also empowers the Treasurer to make certain orders prohibiting acquisitions by foreign persons in BHP Billiton Limited (and requiring divestiture if the acquisition has occurred) where he considers the acquisition to be contrary to the national interest and the 15 per cent threshold referred to above would be exceeded as a result. Such orders may also be made in respect of acquisitions by foreign persons where two or more foreign persons (and their associates) in aggregate already control 40 per cent or more of the issued shares or voting power in BHP Billiton Limited.

There are certain other statutory restrictions, and restrictions under BHP Billiton Limited's Constitution and BHP Billiton Plc's Articles of Association, that apply generally to acquisitions of shares in BHP Billiton (i.e. the restrictions are not targeted at foreign persons only). These include restrictions on a person (and associates) breaching a voting power threshold of:

20 per cent in relation to BHP Billiton Limited on a stand-alone basis, i.e. calculated as if there were no special voting share and only counting BHP Billiton Limited's ordinary shares.

30 per cent of BHP Billiton Plc. This is the threshold for a mandatory offer under Rule 9 of the UK takeover code and this threshold applies to all voting rights of BHP Billiton Plc (therefore including voting rights attached to the BHP Billiton Plc Special Voting Share).

30 per cent in relation to BHP Billiton Plc on a stand-alone basis, i.e. calculated as if there were no special voting share and only counting BHP Billiton Plc's ordinary shares.

20 per cent in relation to the BHP Billiton Group, calculated having regard to all the voting power on a joint electorate basis, i.e. calculated on the aggregate of BHP Billiton Limited's and BHP Billiton Plc's ordinary shares.

Under BHP Billiton Limited's Constitution and BHP Billiton Plc's Articles of Association, sanctions for breach of any of these thresholds, other than by means of certain permitted acquisitions, include withholding of dividends, voting restrictions and compulsory divestment of shares to the extent a shareholder and its associates exceed the relevant threshold.

## **2.8 Sustainability**

Our approach to sustainability is reflected in *Our BHP Billiton Charter*, which defines our values, purpose and how we measure success, and the BHP Billiton Sustainable Development Policy, which defines our public commitments to safety, health, environmental and social responsibility.

The systems that support our Sustainable Development Policy are in line with our wider corporate governance processes. The Sustainability Committee of the BHP Billiton Board continues to oversee this Policy.

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Management is accountable for sustainability-related processes and performance. At controlled assets, BHP Billiton sets the performance requirements and enforces those requirements through direct supervision. At monitored assets that we do not control, we provide our requirements and seek to influence the operation to follow them.

Our Health, Safety, Environment and Community (HSEC) Group Level Documents (GLD) set Group-wide mandatory performance requirements and performance controls, which are the basis for developing and implementing management systems at all BHP Billiton operations. These HSEC documents are part of a wider suite of corporate GLDs. We are embedding these performance requirements in the organisation across all Customer Sector Groups (CSGs). A full set of sustainability performance data and our Sustainability Framework are available in our Sustainability Report at our website.

We conduct regular internal audits to test compliance with the requirements of the GLDs. Audits are led by professional audit managers and supported by experienced personnel drawn from across the organisation. Audit results are used by management to create detailed action plans where the businesses have not yet achieved full compliance with the requirements. Key findings are reported to senior management and summary reports are considered by the Sustainability Committee of the Board. The Sustainability Committee of the Board also oversees risks specific to BHP Billiton's performance in the areas of health, safety, environment and community.

### **2.8.1 Our focus areas**

#### **Identifying our sustainability issues**

We identify the sustainability issues that are included in our Sustainability Report through our three-step materiality process. Step one of the process includes identifying issues by reviewing our internal risk registers, requests from our shareholders and investors, daily print media coverage and an independent review of issues raised by non-government organisations and global electronic and print media. Step two involves rating the significance of these issues to our stakeholders and the potential impact on our business as low, medium or high.

Our third step is to review the issues and seek feedback. One of the ways we do this is through our Forum on Corporate Responsibility. We also ask our HSEC leaders in each of our CSGs to review the issues, assign ratings and advise of any gaps. The issues are provided to the Sustainability Committee of the Board and reviewed throughout the preparation of the Sustainability Report. Common themes for a number of material issues were grouped together into focus areas for the purpose of the Report.

### **2.8.2 Keeping our people safe and healthy**

The best investment we can make in any community is to ensure our people return home safe and well at the end of each day. In the current climate of rapid growth, managing the impacts of that growth on the safety and wellbeing of our people is critical.

#### **Growing safely**

Our ability to grow our organisation safely is essential. We are expanding across a number of operations and to support these expansions project hubs were created in Perth, Brisbane, Houston, Santiago and Toronto. The hubs are established using Engineering, Procurement and Construction Management (EPCM) contractors who develop the projects on our behalf and under our oversight.

While the EPCM model is not new to BHP Billiton, our rapid growth presents a challenge to the effective management of our health and safety risks. EPCM contractors bring their own individual management and safety approaches to each project and we recognise the importance of understanding and enabling these diverse management systems. We have set minimum performance requirements, including safety standards, which we require our EPCM partners to meet, while allowing them to work to their own internal standards. We review each EPCM contractor to check performance and ensure the standards they are using meet or exceed our own.

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### **Key issues**

The key health and safety issues faced by the Group in FY2011 were vehicles and mobile equipment interaction, adherence to isolation and permit-to-work procedures and reducing occupational health exposures, particularly to carcinogens.

Our fatal risk controls were developed to improve control of specific areas of risk, based on detailed analysis of BHP Billiton's incident history. Our GLD for fatal risk controls articulates the steps to be taken to identify, assess and mitigate seven fatal risks: vehicles and mobile equipment; explosives and blasting; ground control; hazardous materials; isolation and permit-to-work; work at height; and lifting operations.

### ***Occupational health exposures***

Health risks faced by our people include fatigue, disease and occupational exposure to noise, silica, manganese, diesel exhaust particulate, fluorides, coal tar pitch, nickel and sulphuric acid mist. Our goal is to control occupational exposures at their source. This goal is supported by a key performance indicator assigned to our Group Management Committee (GMC).

Each operation establishes and maintains an exposure risk profile for every employee and contractor and implements appropriate controls. Potential exposures do not take into account the protection afforded by personal protective equipment (PPE). If the potential exposure exceeds 50 per cent of our occupational exposure limit (OEL), then medical surveillance is mandatory. Drug and alcohol education programs are conducted, as well as substance abuse testing where necessary.

In FY2011, potential carcinogenic exposure was reported by some of our operations as one of their highest health risks, which resulted in a concerted effort to reduce potential carcinogenic exposures to below the OEL.

Specific programs are successfully being applied at an operational level to reduce the causes of occupational exposures.

### ***Serious disease***

BHP Billiton operations with a high exposure to serious diseases, such as HIV/AIDS, malaria and tuberculosis, have education, training and counselling programs in place to assist employees. We also offer prevention and risk-control programs to employees and, where appropriate, to employees' families and local communities.

In some communities where we operate; for example, in South Africa and Mozambique, the incidence of HIV/AIDS is among the highest in the world. We accept a responsibility to help manage the impact of the disease and to care for our employees, support the wellbeing and development of our host communities and protect the viability of our operations.

For many years, we have adopted a proactive approach to managing the disease within our workplaces, an approach that draws upon the International Labour Organisation (ILO) code of practice on HIV/AIDS and the world of work. This includes conducting education programs, offering voluntary testing and counselling programs under the strictest confidentiality, seeking to achieve appropriate access to medical care for employees and their dependants, and reducing hostel-type accommodation for employees, known to be a risk factor for the disease.

### **Our safety and health performance**

The FY2011 total recordable injury frequency (TRIF) performance of 5.0 per million hours worked improved by six per cent compared with FY2010 (5.3). Although we improved, we will require a substantial reduction in total recordable injuries to meet our five-year target of 3.7 in FY2012. We had two fatalities against

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our target of zero. In response to the fatal incidents, we focused on improving our approach to: risk-based safety, in particular our fatal risk controls; keeping it simple; leaders verifying control effectiveness; and ensuring competency through training and awareness of all aspects of our existing safety programs.

### **Establishing measurable goals**

We apply uniform expectations for safety outcomes wherever we work in the world and safety rules and definitions that classify incidents are applied equally to our people.

To further improve our performance in controlling occupational health exposures, we test the effectiveness of those controls to ensure they continue to function as designed. Each of our operations regularly records and communicates potential occupational health exposures up to Group level, in accordance with our HSEC Reporting GLD.

In FY2011, we conducted regional workshops to support regular audits that check the implementation of health controls at individual operations. Our Group Safety and Security function also ran a series of regional workshops in FY2011 aimed at educating key members of management and supervision on the expectations of each performance requirement. The workshops also enabled Group Safety and Security to gather feedback on the suitability of the requirements. This feedback confirmed the performance requirements are well positioned and required no material changes.

### **Security, emergency response and business continuity**

Our Asset Protection GLD requires our businesses and operations to have systems in place to identify, manage and effectively respond to foreseeable crises and emergencies, including the development of plans to return our operations to full function as swiftly and smoothly as possible. It also requires the development of processes to maintain and test emergency response resources on an ongoing basis, as well as training employees, contractors, visitors and external stakeholders on relevant systems.

A crisis or emergency may be an incident, extreme climatic event, disease outbreak, security issue or any other event that poses a significant threat to: the safety or health of employees, contractors, customers or the public; the environment; our reputation; and/or the physical integrity of an asset.

### **2.8.3 Employing and developing our people**

Finding, employing, developing and retaining skilled people with values that are aligned to ours is crucial to our success. Our business is long term in nature. If we do not safely deliver growth today, then we cannot leave for future generations the legacy we have enjoyed from generations past.

#### **Supporting workforce diversity**

We are striving to achieve diversity, in all its forms, at all levels of our organisation.

The GMC took active steps in FY2010 to improve the diversity profile of the Group. It oversaw the analysis of the profile of each part of the business to better understand representation by gender, age and nationality. It then required each business group to develop a diversity plan to address shortcomings. Those plans were completed and assessed as part of the annual performance process. Each plan is targeted at addressing the particular issues facing individual business groups and each contains a range of strategies, including targets. Plans will be tracked and monitored throughout FY2012 and will again form part of the annual performance review process at year-end.

Females currently represent 16 per cent of our workforce. Approximately 10 per cent of senior management positions are held by females.

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We remain committed to increasing female participation in the Accelerated Leadership Development Program to 40 per cent by the end of FY2012.

Another focus area for us is ensuring that the right gender balance is struck in our graduate intake.

### **Approach to local employment**

Recruitment is managed on a local basis by each CSG, Minerals Exploration, Marketing and Group Functions. Mandatory Group-wide performance requirements contained in our GLD stipulate recruitment standards and ensure candidates possess the appropriate skills, experiences, capability and values.

The remote locations within which we operate and the limited numbers of appropriately skilled employees can result in the need for operations to employ staff who work on-site, but reside outside the community; generally known as fly in, fly out staff. A workforce of this kind can create challenges and opportunities and we continue to address the impact on our people, as well as local community concerns, so that together we can identify ways in which our operations can make a positive and meaningful impact.

### **Fostering mutually beneficial employee relations**

Relationships with all our stakeholders, including our employees, are built on trust, which we regard as a key aspect of *Our Charter* value of respect.

The breadth and geographic diversity of BHP Billiton means we have a mix of collective and individually regulated employment arrangements. We work closely with contracting companies to encourage them to ensure that their employee relations are governed in a manner consistent with *Our Charter*.

We manage significant organisational change at the local level and consult with our employees about changes that affect them, seeking input and guidance where possible. We are committed to complying with applicable legislative requirements across the myriad jurisdictions in which we work.

In line with our employee relations approach, we believe that ensuring our employees are directly engaged with the business and aligned with business goals is the most effective way of avoiding any form of industrial action.

Under Australian law, employees are entitled to take industrial action on the expiry of applicable industrial agreements, which is protected from challenge. Given this legislative exposure to potential industrial action, we develop comprehensive contingency plans to ensure that our operations experience as little disruption as possible. In instances where we do encounter industrial disruption, our aim is to minimise the impact on our customers in line with our commitment to shareholders and, above all, to avoid compromising the safety of our employees and contractors.

### **Developing our employees**

We are committed to developing the skills and capabilities of our workforce through regular performance reviews combined with training and development programs. Due to the structure and provisions of some industrial agreements, not all employees participate in individual performance reviews.

Training and development programs are designed and implemented at the local operational level to support local requirements. BHP Billiton operations include health and safety training and training on *Our Charter* and the BHP Billiton *Code of Business Conduct* as part of the mandatory induction process for all employees and permanent contractors.

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Our practices and processes are designed to ensure performance is measured on fact-based outcomes and to reward people for their achievements. We seek to ensure strong internal candidate representation for roles, supplemented with external recruitment where necessary. Our internal development programs are therefore the key to succession.

### **Investing in graduate development**

Our two-year Foundations for Graduates Program has been recognised as a leader in the field and has been designed specifically for graduates from tertiary institutions. Our aim is for our graduates to build a long and successful career with BHP Billiton. Each year, we recruit approximately 400 graduates in meaningful business roles, who each have the opportunity to work across teams, businesses and geographic regions.

The program is facilitated by business schools in Australia, Chile and South Africa. It is designed to move graduates seamlessly from study to work by complementing site-based technical development with a combination of classroom-based and virtual learning experiences, providing a unique insight into our business. Graduates develop their decision-making and communication skills, access executive coaching, take part in intensive residential programs and gain on-the-job experience analysing and solving real business issues.

### **2.8.4 Reducing our climate change impacts**

We recognise that we have a social and economic responsibility to constructively engage on climate change issues. By understanding the risks and opportunities around climate change, and how these affect our organisation, we believe we can reduce our own impact on the environment and make a positive international contribution to the issue.

### **The potential impacts to our organisation**

Our energy-intensive operations and fossil fuel products are exposed to potential financial risks from regulations to control greenhouse gas (GHG) emissions. In the medium and long term, we are likely to see changes in the profit margins of our GHG-intensive assets as a result of regulatory impacts in the countries where we operate. These regulatory mechanisms may impact our operations directly or indirectly via our customers. Inconsistency of regulations, particularly between developed and developing countries, may also affect the investment attractiveness of assets in different jurisdictions.

Potential physical impacts of climate change include more extreme weather events. These present risks to our personnel, as well as a loss of business continuity, production interruption and damaged or lost facilities. Sea level changes may also impact access to ports, a significant issue for many of our assets. Changes in rainfall are particularly relevant to the mining industry, where water is a critical resource. These changes vary regionally and may involve extended drought or increased flooding.

A discussion of regulatory, physical and other risks and opportunities of climate change is included in our 2011 Sustainability Report.

### **Engaging in policy development**

While energy is a significant input in a number of the Group's mining and processing operations, we recognise the global imperative of minimising carbon-based energy consumption. BHP Billiton believes that the mainstream science of climate change is correct; human activities are having a negative impact on our climate and this poses risks to our social and economic wellbeing. While uncertainty remains, there is enough evidence to warrant action in a way that does not damage the economy.

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We believe that a global solution to climate change, which includes a carbon price of some form, is likely, but also some time away. Until then, nations around the world are likely to continue to accelerate their domestic emissions reduction and establish low-carbon economies, balancing their needs to ensure a reliable energy supply and to sustain economic growth.

A low-carbon emissions power sector could become a source of long-term competitive advantage for countries in a world where carbon emissions will be constrained. We are committed to contributing to the public debate on climate change, including sharing our knowledge and experience, but we recognise that it is for government and society as a whole to decide which direction to take.

We take an active role in climate change policy development in the key regions where we operate and market our products. We analyse and compare the various policy options by evaluating the degree to which they meet a defined set of principles: clear price signal; revenue neutral; trade friendly; broad-based, predictable and gradual; simple and effective.

We have actively engaged with the Australian Government as it develops its climate change policy response. In addition to recommending a policy approach that is consistent with our principles, we propose that an effective strategy for minimising Australia's exposure to a future global carbon price includes avoiding the construction of new long-life, carbon emissions-intensive assets where affordable low-carbon alternatives are available, especially in the power and building sectors.

### **Reducing energy and GHG emissions**

We continue to strive for significant reductions in energy consumption and GHG emissions, in line with and above our FY2012 targets. In FY2011, both carbon-based energy intensity and GHG emissions intensity were lower than the FY2006 baseline, by 17 per cent and 18 per cent respectively against a target of 13 per cent and six per cent. This was primarily driven by the agreement to use hydroelectric power at the Mozal aluminium smelter, in Mozambique, which now provides more than 98 per cent of the smelter's electricity needs.

Within Australia, in compliance with the national Energy Efficiency Opportunities (EEO) Act 2006, we also implemented a number of energy efficiency measures.

We continue to track progress against our US\$300 million commitment to support the implementation of energy efficiency and low GHG emission technologies. To date, we have exceeded our commitment, with US\$325 million worth of projects in implementation stages.

### **Future GHG emissions abatement cost curves**

In FY2011, our highest GHG-emitting operations worked to develop GHG emissions abatement cost curves. This work allows our assets to identify opportunities to save GHG emissions.

### **Energy sourcing and use**

We recognise that the need to control carbon dioxide emissions has substantial implications for the use of thermal coal as an energy source. In March 2011, we made a significant investment in natural gas by acquiring all of Chesapeake Energy Corporation's interests in the US Fayetteville Shale onshore natural gas resource. Our strategy is to invest in natural gas as one of the cleanest burning and lowest carbon dioxide intensity fossil fuels. We recognise that community concern exists over the extraction process, which involves hydraulic fracturing, and the possibility of groundwater contamination in certain situations. Our shale gas operations will be conducted to the same standards as all other BHP Billiton Petroleum operations, with the same goal of protecting the health and safety of our people, the environment and our communities.

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### **2.8.5 Managing our water use**

Water is an essential resource for all of our operations and production can be impacted by both the quality and quantity of water available. More importantly, the communities within which we operate rely on having access to clean, safe drinking water. This is critical to sustaining local health, industry and a sound environment.

#### **Water management as a global issue**

The mining and minerals processing industry uses a wide variety of water sources for a range of purposes. As with GHG emissions, water management is an issue that extends beyond BHP Billiton boundaries. Water risks also vary from region to region and therefore cannot be addressed through a one-size-fits-all solution, which makes managing our water use a consistently complex and critical task.

Water has social, cultural, environmental and economic value at a local, regional, national and international level and is therefore critical to maintaining a social licence to operate. We support the priority considerations of strategic water planning, improving operational performance through effective water management, identifying conservation opportunities and promoting industry projects.

#### **Addressing the issue**

Water stress is defined as a situation of actual or potential adverse impact on water availability for potable, agricultural, environmental or cultural needs. In FY2011, we intensified our focus on addressing water stress and quality, which will allow us to reduce our use of water that is most likely to compete with human or environmental needs.

Our material sites are those where high-quality water use exceeds, or is anticipated to exceed, 3,000 megalitres per annum for an operation or project, or where water management may be a material risk issue. By developing water reduction cost curves at our most material sites, we identified opportunities including water substitution and water stewardship, both of which lend themselves readily to our expanded focus on high-quality water and alleviating water stress.

#### **Managing water within our operations**

In accordance with our Environment GLD, we are implementing water management plans at all our operations, including controls to mitigate the impacts of water use and discharge. It is expected that these controls are monitored and reviewed to verify their effectiveness. Additional controls are expected to be implemented at our material sites.

In recognition that water is a critical input for our mining, smelting, refining and petroleum businesses, we continue to identify opportunities for water re-use or recycling, efficient use and responsible wastewater disposal.

#### **Managing wastewater and related waste**

Mining operations produce large quantities of mineral waste that may include waste rock, tailings and slag, which need to be effectively managed to control potential environmental impacts. Our operations have waste management plans to minimise the waste generated and mitigate its impact, in accordance with the Environment GLD, which also stipulates that operations monitor transport and disposal of waste to ensure regulatory requirements are met throughout the waste cycle.

Tailings dams are also assessed to manage the risk of failure. Tailings dams are typically unlined and are designed and operated to well-established engineering standards. Mineral wastes are analysed for physical and geochemical characteristics to identify potential impacts arising from erosion, acid rock drainage, salinity, radioactivity and metal leaching.



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### **Developing new water accounting standards**

Unlike the more developed accounting approach to GHG emissions, there is not yet an internationally consistent approach to water accounting, which adds to the complexity of finding solutions to address water quantity and quality concerns. We are working with the Minerals Council of Australia to develop the Water Accounting Framework, an industry-wide approach to water reporting and accounting. The framework seeks to establish a nationally consistent water accounting and reporting framework for the minerals industry, which will lead to improved data transparency and water management.

### **2.8.6 Enhancing biodiversity and land management**

Securing access to land and managing it effectively are essential components of our commitment to operate in a responsible manner. We fully appreciate the importance of protecting biodiversity and we also recognise the increasing competition for land and the challenge this presents to all land users.

#### **Our approach to biodiversity and land management**

We take a holistic approach to managing land and biodiversity, which means we assess and manage the potential impacts of our operations throughout their life cycle, across social, environmental and economic spheres. We have minimum requirements of all BHP Billiton operations that include adhering to a formal hierarchy process that begins with avoiding disturbance, followed by mitigating negative impacts, rehabilitating the environment and undertaking compensatory actions.

We recognise that effective land management is about optimising all land uses within a given region, whether they are for the provision of mining, industrial, agricultural or environmental services. Obtaining community support is most challenging when there is strong competition for the use of the land, such as a competition between resource development and agriculture.

Over the years, we have made a number of commitments with regard to protected areas and threatened species. In addition, our operations have land management plans, in accordance with the Environment GLD, that include baseline and impact assessments, implementation of controls to mitigate impacts on biodiversity and other ecosystem services, and monitoring programs to ensure the controls are effective.

#### **Contributing to conservation**

Biodiversity, and the ecosystem services it provides, is being lost at an accelerated rate due to human activities. In recognition of this, Conservation International and BHP Billiton from July 2011 embarked on a five-year alliance to deliver significant and lasting benefits to the environment by preserving land of high conservation value in key regions where BHP Billiton operates. This outcome will be achieved in collaboration with local partners.

In addition, Conservation International will provide technical and professional expertise to BHP Billiton aimed at contributing to improved approaches to land management across our Group.

#### **Managing land rehabilitation and mine closures**

Our Sustainability Framework in the Appendix of our 2011 Sustainability Report outlines the key Health, Safety, Environment and Community performance requirements that are incorporated into the planning of development projects, through operation and into closure. Significant projects are governed by the performance requirements of our project management GLDs. HSEC risks, legislated obligations and stakeholder requirements are important inputs to the project planning and execution process.

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Once in operation, our assets undertake annual life of asset planning, a process that incorporates all aspects of the business. In FY2011, detailed closure planning requirements were integrated into the Directional Planning GLD, with each asset required to develop a closure plan as part of their life of asset plan. In addition, a new audit process was implemented focusing on closure planning, cost estimation and closure valuation at operating assets.

We are responsible for a number of legacy operations that are in various stages of decommissioning, rehabilitation or post-closure care and maintenance. The HSEC audit program covers the activities of these closed operations. Closure plans provide the basis for estimating the financial costs of closure and the associated accounting closure and rehabilitation provisions. Information on our closure and rehabilitation provisions can be found in note 18 Provisions of the attached financial statements.

### **Managing our responsibilities**

Our approach to land compensation is undertaken on a case-by-case basis. We first consider what land we need. We then look at our possible impacts on that land, both short term and long term, the present and past use of the land and the effects that our use may have on biodiversity and the associated ecosystem services, as well as existing land owners and occupiers.

We implement compensatory activities where residual impacts exceed the acceptable level of impact to biodiversity, land use, watersheds and/or water sources.

When financial compensation is appropriate, we take into account relevant legislative requirements, industry practices, standards or norms that may exist within a country or region and any special circumstances that may apply. In some countries and regions, legislation prescribes who is to be paid land compensation, the amount, what it is for and how it is to be calculated. In other places, compensation may be by negotiation with the affected parties.

### **2.8.7 Ensuring meaningful engagement with our stakeholders**

Engaging openly with our host communities, governments and other key stakeholders is critical if we are to make a positive contribution to the lives of people who live near our operations and to society more broadly. Only through meaningful engagement are we able to understand and address potential impacts and concerns about our projects and operations and create opportunities that are aligned with the interests of the affected people.

### **Our stakeholders**

We define stakeholders as those who are potentially impacted by our operations, or who have an interest in what we do, or who have an influence over what we do. Our key stakeholders include: the investment community; shareholders; customers; media; business partners; employees and contractors; local and Indigenous communities; industry associations; suppliers; governments and regulators; non-government organisations (NGOs); and labour unions.

### **Systems to ensure dialogue is regular, ongoing and effective**

We seek to build trust with our stakeholders at the earliest possible stage of a project's life. Our Community GLD stipulates that our operations implement a stakeholder engagement management plan, which is to be in place from a project's exploration phase. The plans identify stakeholders, describe their interests and relationships and contain a range of culturally appropriate engagement activities to encourage open communication.

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Engagement activities vary from monthly meetings to open public forums, with topics ranging from town amenity and housing to impacts of growth and expansion projects, contractor management, security, cultural issues and social development. Our responses to concerns or complaints are recorded, as are any commitments we may make.

Operations measure the effectiveness of their stakeholder engagement by conducting community perception surveys in their communities, which, since FY2010, have become mandatory every three years. These surveys provide a valuable external perspective of the quality of our engagement and whether our stakeholders believe we are doing what we say we will do.

### **Resolving complaints**

Our operations are currently implementing local-level processes to facilitate resolution of complaints and grievances, as required by our Community GLD. As part of this process, all complaints and grievances are required to be acknowledged, documented and investigated. Appropriate remedial actions are undertaken where a complaint is legitimate, complainants are promptly advised of the remedial action and outcomes are documented. More robust processes are to be established in countries with high levels of corruption or conflict.

### **We continue to learn from our experience**

Our history contains both positive and challenging examples of community engagement. We continue to learn from those experiences and to build the capacity of people within our community teams to improve outcomes for our stakeholders. Our aim is to develop and sustain meaningful and trusting relationships with people impacted by and interested in our business.

### **Engaging with NGOs through the Forum on Corporate Responsibility**

In addition to building relationships with stakeholders locally, engagement with civil society is highly valued by our senior management. In 1999, we established the Forum on Corporate Responsibility as a mechanism by which representatives from NGOs could discuss, challenge and actively influence the Group's approach to sustainable development issues.

In FY2011, the Forum comprised five members of our GMC and 11 leaders from NGOs, who represent current views on environment, socio-economic, geopolitical and ethical issues. The NGO members have extensive experience in regions where we have business interests, including Chile, Colombia, west Africa, Australia and the United Kingdom. The Group CEO chairs the meetings, which were held twice during FY2011.

While the Group is not bound by the advice of the Forum and the Forum does not necessarily endorse the Group's decisions, the meeting discussions are robust and give our executives an insight into society's current priorities and a chance to understand and debate issues from a range of viewpoints.

Issues discussed by the Forum in FY2011 included: proposed changes in external regulations; standards and policies such as free, prior and informed consent (FPIC); revenue transparency; carbon-related issues; the development of the Group's new public targets; strategic discussions on topics such as the Group's role in the world's future energy challenges; and how we can best contribute to the development of communities and, more broadly, to society.

### **Engaging early in the project life cycle on customary rights**

At a very early stage in a project, before any substantive work is carried out on the ground, we seek to identify any landowners, occupiers and users who may be affected by the project's activities.

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Where land may be used for customary purposes and there may be no formal titles issued, this information is sought from relevant government authorities with responsibilities for customary land uses and any Indigenous peoples representative organisations, such as land and tribal councils. Further enquiries are also made directly with the people in the area. Specific surveys are commissioned to identify the customary owners and how the land is being used. Depending on circumstances, these surveys are likely to occur at the exploration stage.

Knowing who owns and uses the land is critical to an effective community consultation and engagement program. It helps to ensure that affected people are fully aware of the project and that they have an opportunity to express their concerns and aspirations. Arising from this engagement, the work plan may be amended to reduce potential impacts on landowners and users.

### **Committed to broad-based community support**

We require that any new greenfield project or significant expansion project obtains broad-based community support defined as support from the majority of stakeholders before proceeding. Broad-based community support is distinct from achieving FPIC, which we seek when it is mandated and defined by law.

### **2.8.8 Understanding and managing our human rights impact**

We are committed to operating in accordance with the United Nations Universal Declaration of Human Rights and the Global Compact. *Our Charter* values and the *Code of Business Conduct*, in conjunction with policies and standards that accord with international laws and regulations and strong leadership, support this commitment. We have a responsibility to understand our potential impacts on human rights and to mitigate or eliminate them.

#### **Our human rights due diligence process**

As part of our human rights due diligence process, we require all operations to identify and document key potential human rights risks by completing a human rights impact assessment. The process includes a review of policies, procedures, practice and performance. Stakeholder participation forms an important part of the process and the assessments are validated by a human rights specialist. Material risks are then managed through action plans, which require employees and contractors to receive human rights training.

In an effort to increase the focus on human rights due diligence in FY2011, completion of the assessments was included as a key performance indicator (KPI) for the GMC.

#### **Security forces and human rights**

Our Asset Protection GLD requires that all our operations have in place preventative controls and a security management plan to address any potential security risks to our personnel and property.

The Voluntary Principles (VPs) on Security and Human Rights require organisations to act in a manner consistent with the laws of the local country while promoting the observance of applicable international law enforcement principles. The VPs acknowledge that security and respect for human rights can and should be consistent. As a signatory to and participant in the VPs, we take into account these expectations when developing in-country security plans.

To protect our people and our assets, we employ public and private security agencies. Regardless of their location, we stipulate that these agencies comply with the requirements and intent of the VPs.

#### **Security and country risk**

The nature of our business and our global footprint often see our people working in countries where there is potential exposure to personal and business risk. We require each country to be assessed for the degree of risk associated with visiting, exploring and operating, with appropriate plans in place to mitigate identified risks.

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Occasionally, it is necessary to provide armed security protection for the safety of our personnel. Firearms are only to be deployed under a set of approved rules of engagement where it is necessary to protect a human life, for stewardship requirements (such as injured livestock management) or as a means of last resort when threatened by dangerous wildlife.

### **2.8.9 Making a positive contribution to society**

As a large organisation, we have an economic and social responsibility to make a positive contribution to the communities, regions and countries where we operate.

#### **Our broad socio-economic contribution**

At a global level, we are active participants in industry and sustainable development forums such as the International Council on Mining and Metals (ICMM) and we are members of the World Business Council for Sustainable Development (WBCSD). Our aim is to advocate continual improvement of standards and performance across our sector.

We actively seek to understand our socio-economic impact on local communities and host regions through our participation in the ICMM's multi-stakeholder Resource Endowment initiative (REi). The initiative aims to enhance the mining industry's socio-economic contribution to the countries and communities where organisations such as BHP Billiton operate by better understanding the factors that either inhibit or promote social and economic development linked to large-scale mining projects.

Nationally and regionally, we contribute taxes and royalties to governments that, in turn, provide infrastructure and services to their constituents, and we often develop infrastructure ourselves that provides community, as well as business, benefits. Examples include airports, roads, community childcare centres and medical clinics.

Training and employing local people is important to us; however, our ability to have a significant impact on unemployment is limited by the nature of our operations, which are highly technical and mechanised. We make a broader economic contribution via indirect employment, where we focus on building the capacity of local businesses to provide us with a diverse range of services and products.

We also invest in community projects that are aimed at having long-lasting, positive impacts on people's quality of life. This includes implementing new, and supporting existing, community projects in the areas of education, health and environment.

#### **Economic value**

Economic value for regional economies is generated through revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and to governments.

#### **Community development**

Our community development programs are driven by our desire to improve the quality of life of people in our host communities. Our operations implement their programs using community development plans that have been developed in consultation with local stakeholders. The plans are formulated from data gathered from an impacts and opportunities assessment and a baseline social study that includes education, health and environment quality of life indicators. The requirement that this occurs in all our operations is part of the implementation of GLDs.

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Community development projects are selected on the basis of their capacity to impact positively on the quality of life indicators. We monitor progress by tracking changes in these indicators every three years. All community projects are assessed in relation to anti-corruption requirements prior to approval and are implemented in accordance with the ethical requirements in the *Code of Business Conduct*. This approach is mandated under the Community GLD.

During FY2011, our voluntary community investment totalled US\$195.5 million, comprising cash, in-kind support and administrative costs and included a US\$30 million contribution to our UK-based charitable company, BHP Billiton Sustainable Communities.

The cash component of our FY2011 community investment of US\$149.1 million comprises:

direct investment in community programs made from BHP Billiton companies on an equity share basis;

contributions to the Group's charitable foundations, excluding BHP Billiton Sustainable Communities;

the Enterprise Development and Socio-economic Development components of our Broad-Based Black Economic Empowerment programs in South Africa.

### **Local procurement**

Due to the scale of our operations, we create a strong demand for products and services. We recognise the potential benefit that supporting local businesses to meet this demand can bring to our host communities and regions. Our approach is to source locally if a product or service that meets our requirements is available locally.

### **2.8.10 Reporting transparently and behaving ethically**

Founded on *Our Charter* values, the *Code of Business Conduct* represents our unqualified commitment to uphold ethical business practices. The *Code of Business Conduct* sets standards of behaviour for how we should work. In following these standards our people can be confident they are working in the right way.

### **Upholding the *Code of Business Conduct***

We recognise that at times our people may find themselves in situations where complying with the *Code of Business Conduct* may appear to conflict with the ability to win or retain business. The *Code of Business Conduct* makes it clear that no employee may allow anything – meeting production, competitive instincts or even a direct order from a manager – to compromise the commitment to working with integrity.

To ensure the requirements of the *Code of Business Conduct* are effectively communicated across BHP Billiton, each business leader has the responsibility for ensuring that all employees and agency contractors attend an annual face-to-face meeting to discuss the Code. A training and communication plan for each business and function is completed and executed each year. Business leaders report against these requirements on an annual basis and retain records of training undertaken.

The *Code of Business Conduct* is supported by the Business Conduct Advisory Service, which includes a multilingual, 24-hour hotline and online case management system. The general public is also able to access the Service via the hotline or the internet. In FY2011, 474 cases, as well as 144 service contacts were recorded. An annual reporting cycle assists us to identify trends and patterns of reported incidents.

### **Anti-corruption**

Regardless of the country or culture within which our people work, the *Code of Business Conduct* prohibits corrupt practices to further BHP Billiton's goals. The *Code of Business Conduct* requires appropriate due diligence in selecting and engaging third parties, the maintenance of accurate and reasonably detailed records of expenditures and the implementation and maintenance of specific approval requirements for corruption sensitive transactions.



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We also now prohibit the making of facilitation payments, which are payments involving small sums to low-level government officials to obtain routine services to which we are otherwise legally entitled.

### **Transparently reporting taxes**

We support the Extractive Industries Transparency Initiative (EITI), an international initiative dedicated to the enhancement of transparency around the payments of taxes and royalties derived from resource development. In line with our support for the EITI, we have reported this data on a country-by-country basis in our 2011 Sustainability Report. We have broken the data down into the taxes and royalty payments that we make as BHP Billiton (e.g. corporate income taxes and royalties) and those that we collect on behalf of employees.

### **Product stewardship**

As our primary activities are in the extraction (and, in some cases, processing) stages of a product's life cycle, we recognise that the majority of the life cycle of our products occurs after the point of our immediate activity. We also recognise there is strong business merit in implementing product stewardship programs in collaboration with other players in the life cycles of each of our products. We seek to work with those involved in the life cycles of our products and by-products to enhance performance along the supply chain and promote the responsible use and management of those products to minimise harm to people and the environment.

As a member of the International Council on Mining and Metals (ICMM), we have also committed to implementing the ICMM Sustainable Development Framework, which requires that we facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.

Our products are required to have a specific materials safety data sheet (MSDS). These MSDSs outline the relevant health, safety and environment aspects of the product and are provided to both the customer and the transporter delivering our products to our customers.

### **2.8.11 Effectively managing our material risks**

Identifying and managing material risk is a fundamental part of any business and, for BHP Billiton, this includes focusing on sustainability-specific risks for our people, the environment and our host communities.

#### **Our approach to risk management**

Our approach to governance and risk management processes is based on a precautionary approach to achieving business outcomes. A broader discussion of our risk management approach is provided in section 5.6. We have processes in place to ensure the management of material risk is approached consistently across the Group. The Group Risk Management Policy and GLDs work together to embed risk management into our business activities, functions and processes.

#### **Assessing material risks and setting appropriate controls**

We mandate materiality and tolerability criteria to identify material risk issues that consider non-financial impacts such as health and safety, social and cultural, reputation, legal and environmental impacts. The severity of any risk event is assessed according to a matrix that describes the degree of harm, injury or loss from the most severe impact associated with that risk event, assuming reasonable effectiveness of controls.

Risk management plans are established to assess, control, mitigate and monitor material risk issues. In FY2011, BHP Billiton increased the emphasis on establishing performance standards for material risk critical controls and ensuring these standards are effectively implemented through a GMC KPI. The KPI stipulates that individual BHP Billiton assets develop performance standards for safety-related material risks.



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The objectives of the risk assessment process are to understand the nature and tolerance of material risk issues for the Group, and ensure material risks are well controlled through the development and monitoring of critical controls.

Our Group HSEC material risks range from financial and reputation issues to potential impacts from changes in regulations relevant to our products. For example, as a major producer of carbon-related products, an area where regulatory standards and expectations are emerging, we may be exposed to increased litigation, compliance costs and unforeseen environmental rehabilitation expenses.

Potential events that may materially impact our operations include rockfalls in underground mines, aircraft incidents, vehicle and mobile equipment incidents, well blowouts, explosions or gas leaks, uncontrolled tailings breaches, escape of polluting substances or hydrocarbons, human rights breaches, community protests or civil unrest. Unanticipated long-term health impacts due to potential work exposures as well as infectious diseases and pandemics pose potential risks and these effects may create future lost time and/or financial compensation obligations. Additionally, the dissatisfaction of our host communities regarding our impacts may potentially affect costs and production and in extreme cases viability; and changing legislative requirements and compliance issues may affect our financial results.

Failure to manage these risks has the potential to adversely affect our reputation and licence to operate.

Following the oil spill from BP's Macondo well in the Gulf of Mexico in April 2010, BHP Billiton Petroleum reviewed its deepwater drilling safety standards. The effectiveness of our existing controls was enhanced in the area of worst-case discharge scenario planning. This involved developing and implementing a consistent modelling methodology.

### **Assessing risk when entering a new country**

The performance measure we have set under the Country Risk Management GLD is that in countries of extreme or high governance risk, proposed new activities that expose the Group to a material risk issue – such as a reputation, legal or business conduct impact – will be assessed to ensure a tolerable risk profile. New activities may include establishing new trade agreements, undertaking new community investment programs or interactions with government officials. Consideration is given to the application of the *Code of Business Conduct* and compliance with legislation, including anti-corruption and potential application of any UN, EU, Australian or US government sanctions or trade embargos.

## **2.9 Employees**

People are the foundation of our business and underpin our success. We value our people and encourage the development of talented and motivated individuals to support the continued performance and growth of our diverse operations. It is our aim as an organisation to strive to build a sense of purpose and achievement amongst all of our people in the work we do.

By working to *Our Charter* we align our people around our common purpose and values. We all use *Our Charter* as a vital reference point for how we do business, wherever we are in the world, and whatever work we do.

Our organisation is structured in four component parts: CSGs, Minerals Exploration, Marketing and Group Functions.

Each part of our organisation has a clear mandate that sets out the scope of responsibilities and accountabilities. For further information about our employees, refer to section 2.8.3.

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In FY2011, we had an average of 40,757 employees working in more than 100 locations worldwide. We had an average of 64,548 contractors globally. The multitude of cultures and nationalities represented offer a diversity that enriches the working lives of all.

The table below provides a breakdown of the average number of employees, in accordance with our International Financial Reporting Standards (IFRS) reporting requirements, which includes our proportionate share of jointly controlled entities' employees and Executive Directors, by CSG for each of the past three financial years.

CSG	FY2011	FY2010	FY2009
Petroleum	2,308	2,178	2,105
Aluminium	4,599	4,471	4,938
Base Metals	7,602	7,434	7,731
Diamonds and Specialty Products	1,737	1,689	1,923
Stainless Steel Materials	3,412	3,481	4,039
Iron Ore	4,047	3,624	3,254
Manganese	2,426	2,549	2,532
Metallurgical Coal	4,019	3,533	3,892
Energy Coal	8,752	8,762	8,437
Group and unallocated	1,855	1,849	2,139
<b>Total <sup>(1)</sup></b>	<b>40,757</b>	<b>39,570</b>	<b>40,990</b>

<sup>(1)</sup> Average employee numbers include Executive Directors, 100 per cent of employees of subsidiary companies and our share of proportionally consolidated entities and operations. Part-time employees are included on a full-time equivalent basis. Employees of businesses acquired or disposed of during the year are included for the period of ownership. Contractors are not included.

The table below provides a breakdown of our average number of employees by geographic location for each of the past three financial years.

	FY2011	FY2010	FY2009
Africa	10,061	10,622	10,755
Asia	970	816	1,254
Australasia	16,290	15,178	15,697
Europe	492	515	563
North America	3,168	2,971	2,824
South America	9,776	9,468	9,897
<b>Total</b>	<b>40,757</b>	<b>39,570</b>	<b>40,990</b>

## 2.10 Organisational structure

### 2.10.1 General

The BHP Billiton Group consists of the BHP Billiton Limited Group and the BHP Billiton Plc Group as a combined enterprise, following the completion of the Dual Listed Company (DLC) merger in June 2001. Refer to note 25 'Subsidiaries' in the financial statements for a list of BHP Billiton Limited and BHP Billiton Plc significant subsidiaries.

The BHP Billiton DLC merger was designed to place shareholders of both companies in a position where they effectively have an interest in a single group that combines the assets and is subject to the liabilities of both companies. BHP Billiton Limited and BHP Billiton Plc have each retained their separate corporate identities and maintained separate stock exchange listings, but they are operated and managed as if they are a single unified economic entity, with their boards and senior executive management comprising the same people.



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### **2.10.2 DLC structure**

The principles of the BHP Billiton DLC are reflected in the BHP Billiton Sharing Agreement and include the following:

the two companies are to operate as if they are a single unified economic entity, through Boards of Directors that comprise the same individuals and a unified senior executive management;

the Directors of both companies will, in addition to their duties to the company concerned, have regard to the interests of BHP Billiton Limited shareholders and BHP Billiton Plc shareholders as if the two companies were a single unified economic entity and, for that purpose, the Directors of each company take into account in the exercise of their powers the interests of the shareholders of the other;

certain DLC equalisation principles must be observed. These are designed to ensure that for so long as the Equalisation Ratio between a BHP Billiton Limited share and a BHP Billiton Plc share is 1:1, the economic and voting interests in the combined BHP Billiton Group resulting from the holding of one BHP Billiton Limited share are equivalent to that resulting from one BHP Billiton Plc share. Further details are set out in the sub-section Equalisation of economic and voting rights below.

Additional documents that affect the DLC include:

BHP Billiton Limited Constitution

BHP Billiton Plc Memorandum and Articles of Association

BHP Billiton Special Voting Shares Deed

BHP Billiton Limited Deed Poll Guarantee

BHP Billiton Plc Deed Poll Guarantee.

#### **Australian Foreign Investment Review Board (FIRB) conditions**

The Treasurer of Australia approved the DLC merger subject to certain conditions, the effect of which was to require that, among other things, BHP Billiton Limited continues to:

be an Australian company, which is managed from Australia;

ultimately manage and control the companies conducting the business that was conducted by it at the time of the merger for as long as those businesses form part of the BHP Billiton Group.

The conditions have effect indefinitely, subject to amendment of the Australian Foreign Acquisitions and Takeover Act 1975 or any revocation or amendment by the Treasurer of Australia. If BHP Billiton Limited no longer wishes to comply with these conditions, it must obtain the prior approval of the Treasurer. Failure to comply with the conditions attracts substantial penalties under the Act.

**Equalisation of economic and voting rights**

BHP Billiton Limited shareholders and BHP Billiton Plc shareholders have economic and voting interests in the combined BHP Billiton Group. The economic and voting interests represented by a share in one company relative to the economic and voting interests of a share in the other company is determined by reference to a ratio known as the Equalisation Ratio . Presently, the economic and voting interests attached to each BHP Billiton Limited share and each BHP Billiton Plc share are the same, since the Equalisation Ratio is 1:1. The Equalisation Ratio would change if either BHP Billiton Limited or BHP Billiton Plc returned value to only its shareholders and no matching action were taken.

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This means that the amount of any cash dividend paid by BHP Billiton Limited in respect of each BHP Billiton Limited share is normally matched by an equivalent cash dividend by BHP Billiton Plc in respect of each BHP Billiton Plc share, and vice versa. If one company has insufficient profits or is otherwise unable to pay the agreed dividend, BHP Billiton Limited and BHP Billiton Plc will, as far as practicable, enter into such transactions as are necessary so as to enable both companies to pay the amount of pre-tax dividends per share.

### **Joint Electorate Actions**

Under the terms of the DLC agreements, the BHP Billiton Limited Constitution and the BHP Billiton Plc Articles of Association special voting arrangements have been implemented so that the shareholders of both companies vote together as a single decision-making body on matters affecting the shareholders of each company in similar ways (such matters are referred to as Joint Electorate Actions). For so long as the Equalisation Ratio remains 1:1, each BHP Billiton Limited share will effectively have the same voting rights as each BHP Billiton Plc share on Joint Electorate Actions.

A Joint Electorate Action requires approval by ordinary resolution (or special resolution if required by statute, regulation, applicable listing rules or other applicable requirements) of BHP Billiton Limited, with both the BHP Billiton Limited ordinary shareholders and the holder of the BHP Billiton Limited Special Voting Share voting as a single class and also of BHP Billiton Plc, with the BHP Billiton Plc ordinary shareholders and the holder of the BHP Billiton Plc Special Voting Share voting as a single class.

### **Class Rights Actions**

In the case of certain actions in relation to which the two bodies of shareholders may have divergent interests (referred to as Class Rights Actions), the company wishing to carry out the Class Rights Action requires the prior approval of the shareholders in the other company voting separately and, where appropriate, the approval of its own shareholders voting separately. Depending on the type of Class Rights Action undertaken, the approval required is either an ordinary or special resolution of the relevant company.

These voting arrangements are secured through the constitutional documents of the two companies, the BHP Billiton Sharing Agreement, the Special Voting Shares Deed and rights attaching to a specially created Special Voting Share issued by each company and held in each case by a Special Voting Company. The shares in the Special Voting Companies are held legally and beneficially by Law Debenture Trust Corporation Plc.

### **Cross guarantees**

BHP Billiton Limited and BHP Billiton Plc have each executed a Deed Poll Guarantee, pursuant to which creditors entitled to the benefit of the BHP Billiton Limited Deed Poll Guarantee and the BHP Billiton Plc Deed Poll Guarantee will, to the extent possible, be placed in the same position as if the relevant debts were owed by both BHP Billiton Limited and BHP Billiton Plc combined.

### **Restrictions on takeovers of one company only**

The BHP Billiton Limited Constitution and the BHP Billiton Plc Articles of Association have been drafted to ensure that, except with the consent of the Board, a person cannot gain control of one company without having made an equivalent offer to the shareholders of both companies on equivalent terms. Sanctions for breach of these provisions would include withholding of dividends, voting restrictions and the compulsory divestment of shares to the extent a shareholder and its associates exceed the relevant threshold.

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### **2.11 Material contracts**

#### **2.11.1 DLC agreements**

On 29 June 2001, BHP Billiton Limited (then known as BHP Limited) and BHP Billiton Plc (then known as Billiton Plc) merged by way of a DLC structure. To effect the DLC, BHP Limited and Billiton Plc (as they were then known) entered into the following agreements designed to place the shareholders of both companies in a position where they effectively have an interest in a single group that combines the assets, and is subject to all the liabilities, of both companies:

BHP Billiton Sharing Agreement

BHP Billiton Special Voting Shares Deed

BHP Billiton Limited Deed Poll Guarantee

BHP Billiton Plc Deed Poll Guarantee.

The effect of each of these agreements and the manner in which they operate are described in section 2.10 of this Report.

#### **2.11.2 Merger Agreement with Petrohawk Energy Corporation**

##### **The Offer**

On 14 July 2011, BHP Billiton Limited, BHP Billiton Petroleum (North America) Inc. (Parent), North America Holdings II Inc., (Purchaser) and Petrohawk Energy Corporation, (Petrohawk), entered into an Agreement and Plan of Merger (Merger Agreement), pursuant to which Purchaser commenced an offer (Offer) to acquire all of the outstanding shares of Petrohawk's common stock, par value US\$0.001 per share (Shares), for US\$38.75 per Share, net to the seller in cash (Offer Price), without interest.

##### **The Merger and the Top-Up Option**

The Merger Agreement also provides that, following consummation of the Offer and satisfaction or waiver of certain customary conditions, Purchaser will be merged with and into Petrohawk (Merger), with Petrohawk surviving as a wholly owned subsidiary of Parent. Upon completion of the Merger, each untendered Share outstanding immediately prior to the effective time of the Merger (excluding those Shares that are held by (i) Parent, Petrohawk or their respective wholly owned subsidiaries and (ii) stockholders of Petrohawk who properly demand appraisal in connection with the Merger under the Delaware General Corporation Law (DGCL) will be converted into the right to receive the Offer Price.

If Purchaser holds 90 per cent or more of the outstanding Shares following the consummation of the Offer (Short-Form Threshold), the parties will effect the Merger as a short-form merger under the DGCL without the need for approval by Petrohawk's stockholders. In addition, subject to the terms of the Merger Agreement and applicable law, Petrohawk has granted Purchaser an irrevocable option (Top-Up Option), exercisable after consummation of the Offer, to purchase from Petrohawk that number of Shares as would be necessary for Parent and its affiliates to own one Share more than the Short-Form Threshold. If the Offer is consummated but the Short-Form Threshold is not attained, Petrohawk, Parent and Purchaser will effect the Merger following stockholder approval, either pursuant to an action by written consent or a special stockholders meeting. In either case, Purchaser will vote all Shares it acquires pursuant to the Offer in favour of the adoption of the Merger Agreement, thereby assuring approval.

##### **Conditions to the Offer**

Consummation of the Offer is subject to several conditions, including: (i) that a majority of the Shares outstanding (generally determined on a fully diluted basis) be validly tendered and not properly withdrawn prior to the expiration date of the Offer (as such expiration date may be

extended pursuant to the Merger Agreement);



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(ii) clearance from the Committee on Foreign Investment in the United States; (iii) the absence of a material adverse effect on Petrohawk; and (iv) certain other customary conditions. The Offer is not subject to a financing condition.

### **Representations and Warranties, Covenants, Termination Fee**

Petrohawk has made customary representations, warranties and covenants in the Merger Agreement. Petrohawk's covenants include covenants relating to Petrohawk's conduct of its business between the date of the Merger Agreement and the closing of the Merger, restrictions on soliciting proposals for alternative transactions, public disclosures and other matters. The Merger Agreement contains certain termination rights of Parent and Petrohawk and provides that, upon the termination of the Merger Agreement under specified circumstances, Petrohawk will be required to pay Parent a termination fee of US\$395 million.

### **The Petrohawk Board Recommendation**

The board of directors of Petrohawk resolved to recommend that stockholders of Petrohawk tender their Shares into the Offer and, if necessary, vote to adopt the Merger Agreement.

The foregoing description of the Offer, the Merger and the Merger Agreement does not purport to be complete and is qualified in its entirety by reference to the Merger Agreement.

### **Completion of the Offer**

On 21 August 2011, we announced that at the end of Friday, 19 August 2011, approximately 293.9 million Petrohawk shares had been validly tendered and not withdrawn, including approximately 36 million Petrohawk shares tendered by guaranteed delivery. The tendered shares represented 97.4 per cent of the outstanding shares of Petrohawk, thus satisfying the Short-Form Threshold provision of the Merger Agreement. We also announced that following payment for all shares validly tendered and not withdrawn, we expected to effect a short-form merger under Delaware law as promptly as possible.

## **2.12 Constitution**

The following text summarises the Constitution of BHP Billiton Limited and the Articles of Association of BHP Billiton Plc. The effect of the Constitution of BHP Billiton Limited and the Articles of Association of BHP Billiton Plc is, so far as possible, identical. Where the term "BHP Billiton" is used in this description of the Constitution and Articles of Association, it can be read to mean either BHP Billiton Limited or BHP Billiton Plc.

Certain provisions of the Constitution of BHP Billiton Limited and the Articles of Association of BHP Billiton Plc can only be amended where such amendment is approved by special resolution either:

by approval as a Class Rights Action, where the amendment results in a change to an Entrenched Provision ; or

otherwise, as a Joint Electorate Action.

A description of Joint Electorate Actions and Class Rights Actions is contained under the heading "Equalisation of economic and voting rights" in section 2.10.2 of this Report.

### **2.12.1 Directors**

The management and control of the business and affairs of BHP Billiton are vested in the Board of Directors, which may exercise all powers of BHP Billiton, other than what is required to be exercised or done by BHP Billiton in a general meeting.

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### **2.12.2 Power to issue securities**

BHP Billiton may, pursuant to the Constitution and Articles of Association, issue any shares or other securities (including redeemable shares) with preferred, deferred or other special rights, obligations or restrictions as and when the Directors may determine and on any other terms the Directors consider appropriate, provided that any such issue:

does not affect any special rights conferred on the holders of any shares;

is subject to the provisions regarding shareholder approval in the Constitution and Articles of Association.  
The rights attaching to a class other than ordinary shares are expressed at the date of issue.

### **2.12.3 Restrictions on voting by Directors**

A Director may not vote in respect of any contract or arrangement or any other proposal in which he or she has a material personal interest. A Director shall not be counted in the quorum at a meeting in relation to any resolution on which he or she is not entitled to vote.

In addition, under the UK Companies Act 2006, a Director has a duty to avoid a situation in which he or she has (or can have) a direct or indirect interest that conflicts (or may conflict) with the interests of the company. The duty is not infringed, if among other things, the situation is authorised by non-interested Directors. In 2008, the Articles of Association of BHP Billiton Plc were amended to enable the Board to authorise a matter that might otherwise involve a Director breaching his or her duty to avoid conflicts of interest. An interested Director may not vote or be counted towards a quorum for a resolution authorising such a situation. Where the Board gives such authorisation, the Board may prohibit, or may establish regulations which prohibit, the relevant Director from voting on any matter relating to the conflict. The Board has adopted procedures to manage these voting restrictions.

Subject to applicable laws, a Director is entitled to vote, and be counted in the quorum, in respect of any resolution concerning any of the following matters, namely where the material personal interest:

arises because the Director is a shareholder of BHP Billiton and is held in common with the other shareholders of BHP Billiton;

arises in relation to the Director's remuneration as a Director of BHP Billiton;

relates to a contract BHP Billiton is proposing to enter into that is subject to approval by the shareholders and will not impose any obligation on BHP Billiton if it is not approved by the shareholders;

arises merely because the Director is a guarantor or has given an indemnity or security for all or part of a loan, or proposed loan, to BHP Billiton;

arises merely because the Director has a right of subrogation in relation to a guarantee or indemnity referred to above;

relates to a contract that insures, or would insure, the Director against liabilities the Director incurs as an officer of BHP Billiton, but only if the contract does not make BHP Billiton or a related body corporate the insurer;

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relates to any payment by BHP Billiton or a related body corporate in respect of an indemnity permitted by law, or any contract relating to such an indemnity; or

is in a contract, or proposed contract with, or for the benefit of, or on behalf of, a related body corporate and arises merely because the Director is a director of a related body corporate.

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### **2.12.4 Loans by Directors**

Any Director may lend money to BHP Billiton at interest with or without security or may, for a commission or profit, guarantee the repayment of any money borrowed by BHP Billiton and underwrite or guarantee the subscription of shares or securities of BHP Billiton or of any corporation in which BHP Billiton may be interested without being disqualified as a Director and without being liable to account for BHP Billiton for any commission or profit.

### **2.12.5 Retirement of Directors**

In August 2011, the Board adopted a policy consistent with the UK Corporate Governance Code, under which all Directors must, if they wish to remain on the Board, seek re-election by shareholders annually. This new policy will take effect at the 2011 Annual General Meetings, and replaces the previous system, as set out in the Constitution of BHP Billiton Limited and the Articles of Association of BHP Billiton Plc, under which Directors were required to submit themselves to shareholders for re-election at least every three years.

### **2.12.6 Rights attaching to shares**

#### **Dividend rights**

Under English law, dividends on shares may only be paid out of profits available for distribution. Under Australian law, dividends on shares may only be paid out of net assets, provided that the payment is fair and reasonable to the company's shareholders as a whole and the payment of the dividend does not materially prejudice the company's ability to pay its creditors. The Constitution and Articles of Association provide that payment of any dividend may be made in any manner, by any means and in any currency determined by the Board.

All unclaimed dividends may be invested or otherwise used by the Board for the benefit of whichever of BHP Billiton Limited or BHP Billiton Plc declared that dividend, until claimed or, in the case of BHP Billiton Limited, otherwise disposed of according to law. In the case of BHP Billiton Plc, any dividend unclaimed after a period of 12 years from the date on which such dividend was declared or became due for payment shall be forfeited and shall revert to BHP Billiton Plc.

#### **Voting rights**

Voting at any general meeting of BHP Billiton Limited shareholders is in the first instance to be conducted by a show of hands unless a poll is demanded by any of the following (except in relation to the election of a chairman of a meeting or, unless the Chairman otherwise determines, the adjournment of a meeting):

the Chairman;

any shareholder under the law; or

the holder of the BHP Billiton Limited Special Voting Share.

Voting at any general meeting of BHP Billiton Plc is in the first instance to be conducted by a show of hands unless a poll is demanded by any of the following:

the Chairman;

not less than five members present in person or by proxy and entitled to vote;

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a member or members present in person or by proxy and representing not less than five per cent of the total voting rights of all the members having the right to vote at the meeting; or

the holder of the Billiton Special Voting Share.

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As described under the heading "Equalisation of economic and voting rights" in section 2.10.2 of this Report, certain matters may be decided as Joint Electorate Actions or Class Rights Actions. Any matter considered by shareholders at an Annual General Meeting of BHP Billiton Limited or BHP Billiton Plc constitutes a Joint Electorate Action and shall therefore be decided on a poll. Therefore, in practice, generally all items of business at Annual General Meetings proceed directly to poll.

In addition, at any general meeting a resolution, other than a procedural resolution, put to the vote of the meeting on which the holder of the relevant BHP Billiton Special Voting Share is entitled to vote shall be decided on a poll.

For the purposes of determining which shareholders are entitled to attend or vote at a meeting of BHP Billiton Plc or BHP Billiton Limited, and how many votes such shareholder may cast, the relevant company will specify in any notice of meeting a time, not more than 48 hours before the time fixed for the meeting, by which a shareholder must be entered on the Register of Shareholders in order to have the right to attend or vote at the relevant meeting.

Shareholders who wish to appoint a proxy to attend, vote or speak at a meeting of BHP Billiton Plc or BHP Billiton Limited (as appropriate) on their behalf, must deposit the relevant form appointing a proxy in accordance with the instructions contained in any notice of meeting, so as to be received in the specified manner not less than 48 hours before the time appointed for holding the meeting to which the appointment of a proxy relates.

### **Rights to share in BHP Billiton Limited's profits**

The rights attached to the shares of BHP Billiton Limited, as regards the participation in the profits available for distribution, are as follows:

The holders of any preference shares shall be entitled, in priority to any payment of dividend to the holders of any other class of shares, to a preferred right to participate as regards dividends up to but not beyond a specified amount in distribution.

Subject to the special rights attaching to any preference shares, but in priority to any payment of dividends on all other classes of shares, the holder of the Equalisation Share (if any) shall be entitled to be paid such dividends as are declared.

Any surplus remaining after payment of the distributions above shall be payable to the holders of BHP Billiton Limited ordinary shares and the BHP Billiton Limited Special Voting Share in equal amounts per share.

### **Rights to share in BHP Billiton Plc's profits**

The rights attached to the shares of BHP Billiton Plc, in relation to the participation in the profits available for distribution, are as follows:

The holders of the cumulative preference shares shall be entitled, in priority to any payment of dividend to the holders of any other class of shares, to be paid a fixed cumulative preferential dividend (Preferential Dividend) at a rate of 5.5 per cent per annum, to be paid annually in arrears on 31 July in each year or, if any such date shall be a Saturday, Sunday or public holiday in England, on the first business day following such date in each year. Payments of Preferential Dividends shall be made to holders on the register at any date selected by the Directors up to 42 days prior to the relevant fixed dividend date.

Subject to the rights attaching to the cumulative preference shares, but in priority to any payment of dividends on all other classes of shares, the holder of the BHP Billiton Plc Special Voting Share shall be entitled to be paid a fixed dividend of US\$0.01 per annum, payable annually in arrears on 31 July.

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Subject to the rights attaching to the cumulative preference shares and the BHP Billiton Plc Special Voting Share, but in priority to any payment of dividends on all other classes of shares, the holder of the Equalisation Share shall be entitled to be paid such dividends as the Board may decide to pay thereupon.

Any surplus remaining after payment of the distributions above shall be payable to the holders of the BHP Billiton Plc ordinary shares in equal amounts per BHP Billiton Plc ordinary share.

### **2.12.7 Right on a return of assets on liquidation**

On a return of assets on liquidation of BHP Billiton Limited, the assets of BHP Billiton Limited remaining available for distribution among shareholders, after giving effect to the payment of all prior ranking amounts owed to all creditors and holders of preference shares, shall be applied in paying to the holders of the BHP Billiton Limited Special Voting Share and the Equalisation Share (if any) an amount of up to A\$2.00 on each such share, on an equal priority with any amount paid to the holders of BHP Billiton Limited ordinary shares, and any surplus remaining shall be applied in making payments solely to the holders of BHP Billiton Limited ordinary shares in accordance with their entitlements.

On a return of assets on liquidation of BHP Billiton Plc, subject to the payment of all prior ranking amounts owed to the creditors of BHP Billiton Plc and prior ranking statutory entitlements, the assets of BHP Billiton Plc to be distributed on a winding-up shall be distributed to the holders of shares in the following order of priority:

To the holders of the cumulative preference shares, the repayment of a sum equal to the nominal capital paid up or credited as paid up on the cumulative preference shares held by them and accrual, if any, of the Preferential Dividend, whether such dividend has been earned or declared or not, calculated up to the date of commencement of the winding-up.

To the holders of the BHP Billiton Plc ordinary shares and to the holders of the BHP Billiton Plc Special Voting Share and the Equalisation Share, the payment out of surplus, if any, remaining after the distribution above of an equal amount for each BHP Billiton Plc ordinary share, the BHP Billiton Plc Special Voting Share and the Equalisation Share, if issued, subject to a maximum in the case of the BHP Billiton Plc Special Voting Share and the Equalisation Share of the nominal capital paid up on such shares.

### **2.12.8 Redemption of preference shares**

If BHP Billiton Limited at any time proposes to create and issue any preference shares, the preference shares may be issued on the terms that they are to be redeemed or, at the option of either or both BHP Billiton Limited and the holder, are liable to be redeemed, whether out of share capital, profits or otherwise.

The preference shares confer on the holders the right to convert the preference shares into ordinary shares if, and on the basis, the Board determines at the time of issue of the preference shares.

The preference shares are to confer on the holders:

the right (on redemption and on a winding-up) to payment in cash in priority to any other class of shares of (i) the amount paid or agreed to be considered as paid on each of the preference shares; (ii) the amount, if any, equal to the aggregate of any dividends accrued but unpaid and of any arrears of dividends;

the right, in priority to any payment of dividend on any other class of shares, to the preferential dividend.

There is no equivalent provision in the Articles of Association of BHP Billiton Plc although as noted in section 2.12.2 above, BHP Billiton can issue preference shares which are subject to a right of redemption on terms the Board considers appropriate.





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### **2.12.9 Capital calls**

Subject to the terms on which any shares may have been issued, the Board may make calls on the shareholders in respect of all monies unpaid on their shares. BHP Billiton has a lien on every partly paid share for all amounts payable in respect of that share. Each shareholder is liable to pay the amount of each call in the manner, at the time and at the place specified by the Board (subject to receiving at least 14 days notice specifying the time and place for payment). A call is considered to have been made at the time when the resolution of the Board authorising the call was passed.

### **2.12.10 Borrowing powers**

Subject to relevant law, the Directors may exercise all powers of BHP Billiton to borrow money, and to mortgage or charge its undertaking, property, assets (both present and future) and all uncalled capital or any part or parts thereof and to issue debentures and other securities, whether outright or as collateral security for any debt, liability or obligation of BHP Billiton or of any third party.

### **2.12.11 Changes to rights of shareholders**

Rights attached to any class of shares issued by either BHP Billiton Limited or BHP Billiton Plc can only be varied (whether as a Joint Electorate Action or a Class Rights Action) where such variation is approved both:

by the Company that issued the relevant shares, as a special resolution;

by the holders of the issued shares of the affected class, either by a special resolution passed at a separate meeting of the holders of the issued shares of the class affected, or with the written consent of members with at least 75 per cent of the votes of that class.

### **2.12.12 Conditions governing general meetings**

All provisions relating to general meetings apply with any necessary modifications to any special meeting of any class of shareholders that may be held. Therefore, the following information relates equally to general meetings and any special meeting of any class of shareholders.

The Board may and shall on requisition in accordance with applicable laws call a general meeting of the shareholders at the time and place or places and in the manner determined by the Board. No shareholder may convene a general meeting of BHP Billiton except where entitled under law to do so. Any Director may convene a general meeting whenever the Director thinks fit. General meetings can also be cancelled, postponed or adjourned. Notice of a general meeting must be given to each shareholder entitled to vote at the meeting and such notice of meeting must be given in the form and manner in which the Board thinks fit. Five shareholders of the relevant company present in person or by proxy constitute a quorum for a meeting. A shareholder who is entitled to attend and cast a vote at a general meeting of BHP Billiton may appoint a person as a proxy to attend and vote for the shareholder in accordance with the law.

### **2.12.13 Limitations on rights to own securities**

Neither the Constitution of BHP Billiton Limited nor the Articles of Association of BHP Billiton Plc impose any limitations on the rights to own securities other than restrictions that reflect the takeovers codes under relevant Australian and UK law. In addition, the Australian Foreign Acquisitions and Takeovers Act 1975 imposes a number of conditions that restrict foreign ownership of Australian-based companies.

Share control limits imposed by the Constitution and the Articles of Association, as well as relevant laws, are described in sections 2.7 and 2.10.2 of this Report.

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### **2.12.14 Documents on display**

You can consult reports and other information about BHP Billiton Limited that it has filed pursuant to the rules of the ASX at [www.asx.com.au](http://www.asx.com.au). You can consult reports and other information filed for publication by BHP Billiton Plc pursuant to the rules of the UK Listing Authority at the Authority's document viewing facility. Information filed on the ASX, or pursuant to the rules of the UK Listing Authority is not incorporated by reference into this Annual Report. The documents referred to in this Annual Report as being available on our website, [www.bhpbilliton.com](http://www.bhpbilliton.com), are not incorporated by reference and do not form part of this Annual Report.

BHP Billiton Limited and BHP Billiton Plc both file annual and special reports and other information with the US Securities Exchange Commission (SEC). You may read and copy any document that either BHP Billiton Limited or BHP Billiton Plc files at the SEC's public reference room located at 100 F Street, NE, Room 1,580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 or access the SEC website at [www.sec.gov](http://www.sec.gov) for further information on the public reference room. The SEC filings of BHP Billiton Limited since December 2002, and those of BHP Billiton Plc since October 2003, are also available on the SEC website.

## **2.13 Reserves**

### **2.13.1 Petroleum reserves**

#### **Reserves and production**

BHP Billiton Petroleum reserves are estimated and reported according to SEC standards. For FY2011, our proved oil and gas reserves have been determined in accordance with SEC Rule 4-10(a) of Regulation S-X. Proved oil and gas reserves are those quantities of crude oil, natural gas and natural gas liquids (NGL), which, by analysis of geoscience and engineering data can be estimated with reasonable certainty to be economically producible from a given date forward from known reservoirs, and under existing economic conditions, operating methods and government regulations. Unless evidence indicates that renewal is reasonably certain, estimates of economically producible reserves only reflect the period before the contracts providing the right to operate expire. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence within a reasonable time. Developed oil and gas reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods and through installed extraction equipment and infrastructure operational at the time of the reserve estimate if the extraction is by means not involving a well. As specified in Rule 4-10(a) of Regulation S-X, oil and gas prices are taken as the unweighted average of the corresponding first day of the month prices for the 12 months prior to the ending date of the period covered.

Estimates of oil and gas reserves are inherently imprecise, require the application of judgement and are subject to future revision. Accordingly, financial and accounting measures (such as the standardised measure of discounted cash flows, depreciation, depletion and amortisation charges, the assessment of impairments and the assessment of valuation allowances against deferred tax assets) that are based on reserve estimates are also subject to change.

Proved reserves are estimated by reference to available seismic, well and reservoir information, including production and pressure trends for producing reservoirs and, in some cases, to similar data from other analogous, producing reservoirs. Proved reserves estimates are attributed to future development projects only where there is a significant commitment to project funding and execution, and for which applicable government and regulatory approvals have been secured or are reasonably certain to be secured. Furthermore, estimates of proved reserves only include volumes for which access to market is assured with reasonable certainty. All proved reserve estimates are subject to revision, either upward or downward, based on new information, such as from development drilling and production activities or from changes in economic factors, including product prices, contract terms or development plans.

The Petroleum Reserves Group (PRG) is a dedicated group that provides overall oversight of the reserves assessment and reporting processes. It is independent of the various asset teams directly responsible for

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development and production activities. The PRG is staffed by individuals averaging over 30 years experience in the Oil and Gas industry. The Manager of the PRG is the individual primarily responsible for overseeing the preparation of the reserves estimate. He has an advanced degree in engineering and over 30 years of diversified industry experience in reservoir engineering, reserves assessment, and technical management. He is a 30+ year member of the Society of Petroleum Engineers (SPE). No part of the individual compensation for members of this group is dependent on reported reserves.

During FY2011, Petroleum added 599 million barrels of oil equivalent (MMboe)<sup>(1)</sup> of proved oil and gas reserves. The largest component was the acquisition of the Fayetteville Shale gas assets accounting for 415 MMboe of proved developed and undeveloped reserves. Excluding this purchase, Petroleum added 184 MMboe of proved reserves, replacing 115 per cent of sales of 159 MMboe. For the first time, Petroleum added 91 MMboe proved reserves effective 30 June 2011 associated with future production that will be consumed in operations (typically fuel gas). The remaining additions during the year were comprised of revisions of 49 MMboe that resulted from analysis of performance and drilling results affecting previous assessments, improved recovery additions of 23 MMboe and extensions of 21 MMboe, with the largest portion associated with commitment to the development of additional production capability in the North West Shelf gas project. Improved recovery reserves were added at the Shenzi project in the Gulf of Mexico where pressures encountered by the first injection well established connectivity to offset producers. Based on a combination of high resolution seismic interpretation and engineering analysis, as well as comparison with water injection projects in other Miocene sands in the area, the incremental impact of the one current water injector was estimated at 23 MMboe.

Petroleum's reserves are estimated as of 30 June 2011. For the first time the Group engaged the services of Netherland, Sewell & Associates, Inc. (NSAI), an independent petroleum engineering firm, to estimate the reserves for the newly acquired Fayetteville Shale gas assets. Those reserves represent approximately 24 per cent of the Group's total proven reserves on a boe basis (35 per cent of proven gas reserves) and are incorporated in the summary tables below. A copy of NSAI's report has been filed as an exhibit to our Annual Report filed on Form 20-F. As noted therein, Fayetteville project undeveloped reserves are estimated based on specific drilling locations expected to be drilled at the current rate within the next five years, current government regulations and a FY2011 Henry Hub reference price of US\$4.21 per Million British Thermal Units (MMBtu), as adjusted for transportation fees and regional price differentials, among other assumptions.

As in previous years, reserve assessments for all other Petroleum properties were conducted by technical staff within the operating organisation. These individuals meet the professional qualifications outlined by the Society of Petroleum Engineers, are trained in the fundamentals of SEC reserves reporting and the corporate reserves processes and are endorsed by the PRG. Each reserve assessment is reviewed annually by the PRG to ensure technical quality, adherence to internally published Petroleum CSG Guidelines and compliance with SEC reporting requirements. Once endorsed by the PRG, all reserves receive final endorsement by senior management and the corporate Risk and Audit Committee prior to public reporting. Our internal Group Audit Services provides secondary assurance of the oil and gas reserve reporting processes through annual audits.

These results are summarised in the tables below which detail estimated oil, condensate, NGL and natural gas reserves at 30 June 2011, 30 June 2010 and 30 June 2009, with a reconciliation of the changes in each year. Reserves have been calculated using the economic interest method and represent net interest volumes after deduction of applicable royalty. Reserves include quantities of oil, condensate, NGL and gas that will be produced under several production and risk sharing arrangements that involve the Group in upstream risks and rewards without transfer of ownership of the products. At 30 June 2011, approximately six per cent (2010: six per cent; 2009: seven per cent) of proved developed and undeveloped oil, condensate and NGL reserves and four per cent (2010: five per cent; 2009: five per cent) of natural gas reserves are attributable to those arrangements. Reserves also include volumes calculated by probabilistic aggregation of certain fields that share common infrastructure. These aggregation procedures result in enterprise-wide proved reserves volumes which may not be realised upon divestment on an individual property basis.

<sup>(1)</sup> Total boe conversion is based on the following: 6,000 scf of natural gas equals one boe.

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Millions of barrels	Australia	United States	Other	Total
<b>Proved developed and undeveloped oil, condensate and NGL reserves <sup>(a)(b)</sup></b>				
<b>Reserves at 30 June 2008</b>	<b>354.3</b>	<b>197.8</b>	<b>46.5</b>	<b>598.6</b>
Improved Recovery	0.0	0.0	1.2	1.2
Revisions of previous estimates	13.3	5.0	24.0	42.3
Extensions and discoveries	5.9	14.0	0.0	19.9
Purchase/sales of reserves	0.0	0.0	0.0	0.0
Production <sup>(c)</sup>	(40.4)	(20.9)	(15.1)	(76.4)
<b>Total changes</b>	<b>(21.2)</b>	<b>(1.9)</b>	<b>10.1</b>	<b>(13.0)</b>
<b>Reserves at 30 June 2009</b>	<b>333.1</b>	<b>195.9</b>	<b>56.6</b>	<b>585.6</b>
Improved Recovery	11.0	0.0	0.0	11.0
Revisions of previous estimates	5.9	73.4	(2.4)	76.9
Extensions and discoveries	6.9	49.2	7.5	63.6
Purchase/sales of reserves	0.0	0.0	0.0	0.0
Production <sup>(c)</sup>	(40.2)	(44.1)	(12.8)	(97.1)
<b>Total changes</b>	<b>(16.4)</b>	<b>78.5</b>	<b>(7.7)</b>	<b>54.4</b>
<b>Reserves at 30 June 2010</b>	<b>316.7</b>	<b>274.4</b>	<b>48.9</b>	<b>640.0</b>
Improved Recovery	0.7	22.0	0.0	22.7
Revisions of previous estimates	2.0	1.6	3.7	7.3
Extensions and discoveries	3.2	1.6	0.2	5.0
Purchase/sales of reserves	0.0	0.0	0.0	0.0
Production <sup>(c)</sup>	(48.4)	(32.2)	(11.3)	(91.9)
<b>Total changes</b>	<b>(42.5)</b>	<b>(7.0)</b>	<b>(7.4)</b>	<b>(56.9)</b>
<b>Reserves at 30 June 2011 <sup>(d)</sup></b>	<b>274.2</b>	<b>267.4</b>	<b>41.5</b>	<b>583.1</b>
<b>Developed</b>				
Proved developed oil, condensate and NGL reserves at 30 June 2008	189.1	90.0	42.0	321.1
at 30 June 2009	182.2	98.7	51.5	332.4
at 30 June 2010	217.1	108.9	44.4	370.4
<b>Developed Reserves at 30 June 2011</b>	<b>176.3</b>	<b>94.8</b>	<b>39.2</b>	<b>310.3</b>
<b>Undeveloped</b>				
Proved undeveloped oil, condensate and NGL reserves at 30 June 2008	165.2	107.8	4.5	277.5
at 30 June 2009	150.9	97.2	5.1	253.2
at 30 June 2010	99.6	165.5	4.5	269.6
<b>Undeveloped Reserves at 30 June 2011</b>	<b>97.9</b>	<b>172.6</b>	<b>2.3</b>	<b>272.8</b>

- (a) Small differences are due to rounding to first decimal place.
- (b) NGL is extracted separately from crude oil and natural gas and reported as a liquid.
- (c) Production for reserves reconciliation differs slightly from marketable production due to timing of sales and corrections to previous estimates.
- (d) Total proved oil, condensate and NGL reserves include 6.2 million barrels derived from probabilistic aggregation of reserves from reservoirs dedicated to the North West Shelf gas project only.

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Billions of cubic feet	Australia (b)	United States	Other	Total
<b>Proved developed and undeveloped natural gas reserves</b>				
<b>Reserves at 30 June 2008</b> <sup>(a) (e)</sup>	<b>3,756.0</b>	<b>99.6</b>	<b>802.6</b>	<b>4,658.2</b>
Improved Recovery	0.0	0.0	179.5	179.5
Revisions of previous estimates	24.5	1.5	2.7	28.7
Extensions and discoveries	267.5	7.5	0.0	275.0
Purchase/sales of reserves	0.0	(2.4)	0.0	(2.4)
Production <sup>(c)</sup>	(258.3)	(13.4)	(92.9)	(364.6)
Total changes	33.7	(6.8)	89.3	116.2
<b>Reserves at 30 June 2009</b> <sup>(e)</sup>	<b>3,789.7</b>	<b>92.8</b>	<b>892.0</b>	<b>4,774.5</b>
Improved Recovery	40.5	0.0	23.6	64.1
Revisions of previous estimates	94.2	2.2	(51.5)	44.9
Extensions and discoveries	1.6	9.3	0.0	10.9
Purchase/sales of reserves	0.0	0.0	0.0	0.0
Production <sup>(c)</sup>	(259.7)	(17.7)	(91.3)	(368.7)
Total changes	(123.4)	(6.2)	(119.2)	(248.8)
<b>Reserves at 30 June 2010</b> <sup>(e)</sup>	<b>3,666.3</b>	<b>86.6</b>	<b>772.8</b>	<b>4,525.7</b>
Improved Recovery	0.0	3.5	0.0	3.5
Revisions of previous estimates	582.8	197.9	12.4	793.1
Extensions and discoveries	63.7	0.3	31.6	95.6
Purchase/sales of reserves	0.0	2,490.6	0.0	2,490.6
Production <sup>(c)</sup>	(274.7)	(49.1)	(81.2)	(405.0)
Total changes	371.8	2,643.2	(37.2)	2,977.8
<b>Reserves at 30 June 2011</b> <sup>(d)</sup>	<b>4,038.1</b>	<b>2,729.8</b>	<b>735.6</b>	<b>7,503.5</b>
<b>Developed</b>				
Proved developed natural gas reserves				
at 30 June 2008 <sup>(e)</sup>	1,882.3	46.4	441.4	2,370.1
at 30 June 2009 <sup>(e)</sup>	1,899.0	38.5	383.7	2,321.2
at 30 June 2010	1,724.8	30.3	236.8	1,991.9
<b>Developed Reserves at 30 June 2011</b>	<b>1,754.0</b>	<b>1,122.1</b>	<b>719.9</b>	<b>3,596.0</b>
<b>Undeveloped</b>				
Proved undeveloped natural gas reserves				
at 30 June 2008 <sup>(e)</sup>	1,873.7	53.2	361.2	2,288.1
at 30 June 2009 <sup>(e)</sup>	1,890.7	54.3	508.3	2,453.3
at 30 June 2010	1,941.5	56.3	536.0	2,533.8
<b>Undeveloped Reserves at 30 June 2011</b>	<b>2,284.1</b>	<b>1,607.7</b>	<b>15.7</b>	<b>3,907.5</b>

(a) Small differences are due to rounding to first decimal place.

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- (b) Production for Australia includes gas sold as LNG.
- (c) Production for reserves reconciliation differs slightly from marketable production due to timing of sales and corrections to previous estimates.
- (d) Total proved natural gas reserves include 177.2 billion cubic feet derived from probabilistic aggregation of reserves from reservoirs dedicated to the North West Shelf gas project only.
- (e) Does not include volumes expected to be consumed by operations.

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Millions of barrels oil equivalent <sup>(a)</sup>	Australia	United States	Other	Total
<b>Proved developed and undeveloped oil, condensate, natural gas and NGL reserves <sup>(b)</sup></b>				
<b>Reserves at 30 June 2008 <sup>(e)</sup></b>	<b>980.3</b>	<b>214.4</b>	<b>180.3</b>	<b>1,375.0</b>
Improved Recovery	0.0	0.0	31.1	31.1
Revisions of previous estimates	17.4	5.3	24.5	47.1
Extensions and discoveries	50.5	15.3	0.0	65.7
Purchase/sales of reserves	0.0	(0.4)	0.0	(0.4)
Production <sup>(c)</sup>	(83.5)	(23.1)	(30.6)	(137.2)
Total changes	(15.7)	(3.0)	25.0	6.4
<b>Reserves at 30 June 2009 <sup>(e)</sup></b>	<b>964.7</b>	<b>211.4</b>	<b>205.3</b>	<b>1,381.4</b>
Improved Recovery	17.8	0.0	3.9	21.7
Revisions of previous estimates	21.6	73.8	(11.0)	84.4
Extensions and discoveries	7.2	50.8	7.5	65.4
Purchase/sales of reserves	0.0	0.0	0.0	0.0
Production <sup>(c)</sup>	(83.5)	(47.1)	(28.0)	(158.6)
Total changes	(36.9)	77.5	(27.6)	12.9
<b>Reserves at 30 June 2010 <sup>(e)</sup></b>	<b>927.8</b>	<b>288.8</b>	<b>177.7</b>	<b>1,394.3</b>
Improved Recovery	0.7	22.6	0.0	23.3
Revisions of previous estimates	99.1	34.5	5.9	139.5
Extensions and discoveries	13.9	1.6	5.4	20.9
Purchase/sales of reserves	0.0	415.1	0.0	415.1
Production <sup>(c)</sup>	(94.2)	(40.3)	(24.9)	(159.4)
Total changes	19.5	433.5	(13.6)	439.4
<b>Reserves at 30 June 2011 <sup>(d)</sup></b>	<b>947.3</b>	<b>722.3</b>	<b>164.1</b>	<b>1,833.7</b>
<b>Developed</b>				
Proved developed oil, condensate and NGL reserves				
at 30 June 2008 <sup>(e)</sup>	502.8	97.7	115.6	716.1
at 30 June 2009 <sup>(e)</sup>	498.7	105.1	115.5	719.3
at 30 June 2010	504.6	114.0	83.9	702.4
<b>Developed Reserves at 30 June 2011</b>	<b>468.6</b>	<b>281.9</b>	<b>159.2</b>	<b>909.7</b>
<b>Undeveloped</b>				
Proved undeveloped oil, condensate and NGL reserves				
at 30 June 2008 <sup>(e)</sup>	477.5	116.7	64.7	658.9
at 30 June 2009 <sup>(e)</sup>	466.0	106.3	89.8	662.1
at 30 June 2010	423.2	174.9	93.8	691.9
<b>Undeveloped Reserves at 30 June 2011</b>	<b>478.7</b>	<b>440.4</b>	<b>4.9</b>	<b>924.0</b>

(a) Barrel oil equivalent conversion based on 6,000 scf of natural gas equals 1 boe.



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- (b) Small differences are due to rounding to first decimal place.
- (c) Production for reserves reconciliation differs slightly from marketable production due to timing of sales and corrections to previous estimates.
- (d) Total proved reserves include 35.7 MMboe derived from probabilistic aggregation of reserves from reservoirs dedicated to the North West Shelf gas project only.
- (e) Does not include volumes expected to be consumed by operations.

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### **Proved undeveloped reserves**

At year-end, Petroleum had 924 MMboe of proved undeveloped reserves, as compared to 692 MMboe at the end of FY2010. A significant portion of these proved undeveloped reserves are associated with their Fayetteville Shale gas acquisition, with 236 MMboe added upon acquisition and 17 MMboe added prior to the end of FY2011. Petroleum matured 79 MMboe from undeveloped to developed during FY2011, mostly associated with the start-up of the Angostura gas project in Trinidad and Tobago and the Zamzama booster compression project in Pakistan. An additional sum total of 58 MMboe was booked in FY2011, mostly attributable to maturing North West Shelf gas development, fuel gas associated with undeveloped proved reserves, Shenzi water injection volumes and the major repairs necessary to resume production from Atlantis North. During FY2011, Petroleum spent US\$2,139 million progressing development of proved undeveloped reserves worldwide.

Most of the Group's projects require significant capital expenditure and multi-year lead times before initial production can be achieved with the associated movement of reserves from undeveloped to developed. Based on current project schedules, more than 99 per cent of the 924 MMboe currently classified as undeveloped are actively being pursued and are scheduled to be on stream within the next five years. The remaining undeveloped reserves are located in active fields expected to produce well into the next decade and will be brought on stream in a phased manner to best optimise the use of production facilities and to meet long-term gas supply contracts. The Petroleum Group has a dependable history of progressing large undeveloped volumes from undeveloped to developed, evidenced by the past three years, which have averaged nearly 80 MMboe per year.

### **2.13.2 Ore Reserves**

#### **Introduction**

Ore Reserves are estimates of the amount of ore that can be economically and legally extracted and processed from our mining properties. In order to estimate reserves, assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates. Estimating the quantity and/or grade of Ore Reserves requires the size, shape and depth of ore bodies to be determined by analysing geological data such as drilling samples. Because the economic assumptions used to estimate reserves change from period to period and because additional geological and operational data is generated during the course of operations, estimates of reserves may change from period to period. All of the Ore Reserve figures presented are reported in 100 per cent terms and represent estimates at 30 June 2011 (unless otherwise stated). All tonnes and grade information has been rounded, hence small differences may be present in the totals. Tonnes are reported as dry metric tonnes unless otherwise stated.

Our mineral leases are of sufficient duration (or convey a legal right to renew for sufficient duration) to enable all Ore Reserves on the leased properties to be mined in accordance with current production schedules. Our Ore Reserves may include areas where some additional approvals remain outstanding but where, based on the technical investigations we carry out as part of our mine planning process and our knowledge and experience of the approvals process, we expect that such approvals will be obtained as part of the normal course of business and within the timeframe required by the current life of mine schedule.

The reported Ore Reserves contained in this annual report do not exceed the quantities that we estimate could be extracted economically if future prices for each commodity were equal to the average historical prices for the three years to 31 December 2010, and using current operating costs. However, we do not use a bauxite, aluminium or alumina price to determine bauxite reserves. The primary criteria for determining bauxite reserves are the feed specifications required by the captive alumina refinery. In addition to these specifications a number of modifying factors are used to differentiate bauxite reserves from other mineralised material. For our Hotazel Manganese assets, geological stratigraphic controls, cut-off grade and plant feed requirements are used to determine reserves.

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Also, in some cases where commodities are produced as by-products (or co-products) with other metals, we use the three-year average historical prices for the combination of commodities produced at the relevant mine in order to verify that each ore reserve is economic. The three-year historical average prices used for each traded commodity to test for impairment of the Ore Reserves contained in this annual report are as follows:

<b>Commodity Price</b>	<b>US\$</b>
Copper	2.97/lb
Gold	1,023/oz
Nickel	8.70/lb
Silver	16.60/oz
Lead	0.90/lb
Zinc	0.86/lb
Uranium	52.30/lb
Iron Ore Fines	1.443/dmtu
Iron Ore Lump	1.716/dmtu
Metallurgical Coal <sup>(1)</sup>	204/t
Thermal Coal <sup>(2)</sup>	99.70/t

<sup>(1)</sup> Metallurgical Coal is on the basis of Peak Downs Contract, Hay Point FOB, JFY Contract Price for 2008 and 2009, and the BHP Billiton Quarterly Contract Price for 2010.

<sup>(2)</sup> Thermal coal is on the basis of Contract, Newcastle FOB, 6700 kcal/tonne GAD.

The reported reserves may differ in some respects from the reserves we report in our home jurisdictions of Australia and the UK. Those jurisdictions require the use of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2004 (the JORC Code), which contemplates the use of reasonable investment assumptions in calculating reserve estimates.

**Table of Contents****Aluminium Customer Sector Group***Ore Reserves in accordance with Industry Guide 7*

Commodity Deposit <sup>(2)(3)</sup>	Ore Type	As at 30 June 2011									Reserve BHP		As at 30 June 2010								
		Proven Ore Reserve			Probable Ore Reserve			Total Ore Reserve			Life	Billiton Interest %	Total Ore Reserve			Reserve					
		Mt	% A.	Al <sub>2</sub> O <sub>3</sub> R.	SiO <sub>2</sub>	Mt	% A.	Al <sub>2</sub> O <sub>3</sub> R.	SiO <sub>2</sub>	Mt	% A.	Al <sub>2</sub> O <sub>3</sub> R.	SiO <sub>2</sub>	years	%	Mt	% A.	Al <sub>2</sub> O <sub>3</sub> R.	SiO <sub>2</sub>	years	
<b>Bauxite</b>																					
<b>Australia</b>																					
Worsley	Laterite	240	31.2	1.8	59	30.4	1.8	299	31.0	1.8	18	86	311	31.0	1.8	19					
<b>Brazil</b>																					
MRN <sup>(4)</sup>	MRN Washed	13	50.3	4.6				13	50.3	4.6	1	14.8	27	49.8	4.8	2					

(2) Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
Worsley	maximum 80m	maximum 160m
MRN	A bauxite intersection grid of 200m, plus at least 10 samples reached by searching ellipsoid. Mining and metallurgical characterisation (test pit/bulk sample), plus a reliable suite of chemical and size distribution data	Those areas with a bauxite intersection grid spacing of less than 400m and/or a 400m spaced grid with a 200m offset fill in, plus a minimum of seven samples reached by searching ellipsoid, plus a reliable suite of chemical and size distribution data

(3) Metallurgical recoveries for the operations are:

Deposit	Estimated Metallurgical recovery of A.Al <sub>2</sub> O <sub>3</sub>
Worsley (Worsley refinery)	90%
MRN (Alumar Refinery)	94%

(4) MRN The MRN reserves are located on mining leases that provide MRN the right to mine. Current mining areas have environmental approvals and operational licences. As further operational licences are obtained, mineralisation will be converted to Ore Reserves.

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**Base Metals Customer Sector Group**

*Ore Reserves in accordance with Industry Guide 7*

Ore Type	As at 30 June 2011															As at 30 June 2010						
	Proven Ore Reserve					Probable Ore Reserve					Total Ore Reserve					BHP ReserveLife Interest		Total Ore Reserve				
	Mt	% TCu	% SCu			Mt	% TCu	% SCu				Mt	% TCu	% SCu			(years)	%	Mt	% TCu	% SCu	
oxide	62	0.79				60	0.95				121	0.87				35	57.5	139	0.80			
ulphide	1,294	1.03				718	0.87				2,012	0.97						1,638	1.02			
ulphide each	1,593	0.53				1,947	0.47				3,540	0.50						2,543	0.53			
oxide	84	0.61	0.45			64	0.63	0.44			149	0.62	0.45			10	100	141	0.63	0.45		
ulphide	26	0.73	0.13			28	0.68	0.13			54	0.70	0.13					60	0.70	0.13		
oxide	21	0.91	0.76			5.1	0.82	0.71			26	0.89	0.75			12	100	28	0.94	0.79		
oxide - low solubility	28	1.15	0.65			9.0	0.91	0.45			37	1.09	0.60					35	1.19	0.65		
ulphide	127	1.07	0.15			74	0.70	0.12			201	0.93	0.14					209	0.94			
OM						39	0.50	0.07			39	0.50	0.07					39	0.51	0.07		
ulphide	36	0.37				53	0.42				89	0.40				4	100	89	0.40			
low-grade each	6	0.22				7	0.21				13	0.21						13	0.21			
	<b>Mt</b>	<b>% Cu</b>	<b>kg/t U<sub>3</sub>O<sub>8</sub></b>	<b>g/t Au</b>	<b>g/t Ag</b>	<b>Mt</b>	<b>% Cu</b>	<b>kg/t U<sub>3</sub>O<sub>8</sub></b>	<b>g/t Au</b>	<b>g/t Ag</b>	<b>Mt</b>	<b>% Cu</b>	<b>kg/t U<sub>3</sub>O<sub>8</sub></b>	<b>g/t Au</b>	<b>g/t Ag</b>			<b>Mt</b>	<b>% Cu</b>	<b>kg/t U<sub>3</sub>O<sub>8</sub></b>	<b>g/t Au</b>	<b>g/t Ag</b>
ulphide	146	1.98	0.58	0.69	4.01	406	1.79	0.57	0.78	3.19	552	1.84	0.57	0.76	3.41	50	100	598	1.84	0.58	0.71	3.19
	<b>Mt</b>	<b>% Cu</b>	<b>% Zn</b>	<b>g/t Ag</b>	<b>% Mo</b>	<b>Mt</b>	<b>% Cu</b>	<b>% Zn</b>	<b>g/t Ag</b>	<b>% Mo</b>	<b>Mt</b>	<b>% Cu</b>	<b>% Zn</b>	<b>g/t Ag</b>	<b>% Mo</b>			<b>Mt</b>	<b>% Cu</b>	<b>% Zn</b>	<b>g/t Ag</b>	<b>% Mo</b>
ulphide Cu only	95	1.07	0.2	8.3	0.03	485	0.95	0.1	8.9	0.03	580	0.97	0.2	8.8	0.03	17	33.75	516	1.06	0.2	9.5	0.03
ulphide Cu-Zn	43	0.81	1.8	14.8	0.01	180	0.83	2.0	14.4	0.01	223	0.83	2.0	14.5	0.01			161	1.03	2.0	17.5	0.01
	<b>Mt</b>	<b>g/t Ag</b>	<b>% Pb</b>	<b>% Zn</b>		<b>Mt</b>	<b>g/t Ag</b>	<b>% Pb</b>	<b>% Zn</b>		<b>Mt</b>	<b>g/t Ag</b>	<b>% Pb</b>	<b>% Zn</b>				<b>Mt</b>	<b>g/t Ag</b>	<b>% Pb</b>	<b>% Zn</b>	
G Sulphide	21	292	7.4	3.8		4.4	209	5.5	3.6		25	278	7.1	3.7		8	100	27	283	7.2	3.7	

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(6) Approximate drill hole spacings used to classify the reserves are:

<b>Deposit</b>	<b>Proven Ore Reserves</b>	<b>Probable Ore Reserves</b>
Escondida	Oxide: 40m x 40m  Sulphide: 50m x 50m  Sulphide Leach: 55m x 55m	Oxide: 50m x 50m  Sulphide: 85m x 85m  Sulphide Leach: 100m x 100m
Cerro Colorado	55m x 55m on first kriging pass	120m x 120m on second kriging pass
Spence	Oxides: 50m x 50m  Sulphides: 75m x 75m	Oxides and sulphides: approximately less than 100m continuous square grid, estimation on second kriging pass
Pinto Valley	60m x 120m grid	200m x 200m
Olympic Dam	Drilling grid of 20m to 30m	Drilling grid of 30m to 70m
Antamina	High Grade Cu/Zn: three composites of the same grade zone and different holes within 30m, closest within 20m Low Grade Cu/Zn: three composites of the same grade zone and different holes within 35m, closest within 25m	Three composites of the same grade zone and different holes within 55m, closest within 40m or two composites of the same grade zone and different holes within 65m, closest within 30m or at least 50 composites within 75m with at least 90% in the same grade zone as the block
Cannington	UG Sulphide: 12.5m sectional x 15m vertical	UG Sulphide: 25m sectional x 25m vertical

(7) Metallurgical recoveries for the operations are:

<b>Deposit</b>	<b>Metallurgical Recoveries</b>
Escondida	For TCu: Sulphide ore 85%, Sulphide leach 26%, Oxide ore 68%
Cerro Colorado	For TCu: Average 72%
Spence	For TCu: Sulphide 70%, Oxide 73%, Oxide low solubility 70%, ROM 30%
Pinto Valley	Mill recovery 86.4%, Leach recovery 25%
Olympic Dam	Cu 94%, U <sub>3</sub> O <sub>8</sub> 72%, Au 70%, Ag 65%
Antamina	Sulphide Cu only ore: Cu 92%, Zn 0%, Ag 65%, Mo 75%
Cannington	Sulphide Cu-Zn ore: Cu 81%, Zn 82%, Ag 55%, Mo 0% Ag 87%, Pb 89%, Zn 70%

(8) Escondida The increased reserve tonnage is mostly due to drilling that increased the confidence of the mineralisation, a larger ultimate pit caused by step-out drilling in the eastern periphery of Escondida and increased price assumptions.

(9) Pinto Valley The Pinto Valley mine and mill operations continue to be carried on care and maintenance status.

(10) Olympic Dam The decrease in overall reserve tonnage is due to a change in stope size criteria in the latest mine plan.

(11) Antamina Changes are due to a revised geological estimate incorporating additional drill hole data and to revised long-term prices.

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**Diamonds and Speciality Products Customer Sector Group**

*Ore Reserves in accordance with Industry Guide 7*

Commodity Deposit <sup>(5)(6)</sup>	As at 30 June 2011						Reserve Life (years)	BHP Billiton Interest %	As at 30 June 2010			
	Ore Type	Proven Ore Reserve		Probable Ore Reserve		Total Ore Reserve			Total Ore Reserve		Reserve Life (years)	
		Mt	cpt	Mt	cpt	Mt			cpt	Mt		cpt
<b>Diamonds</b>												
EKATI Core Zone	OC			20	0.9	20	0.9	5	80	20	0.3	5
	SP			0.3	0.4	0.3	0.4			0.1	0.4	
	UG			4.8	0.6	4.8	0.6			5.7	0.7	
<b>Mineral Sands</b>												
Richards Bay Minerals	TiO <sub>2</sub> Slag								37.76	25	25	

<sup>(5)</sup> Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
EKATI Core Zone	Approximately less than 30m	Approximately less than 60m
Richards Bay Minerals	50m x 50m RC and 200m x 100m sonic data	400m x 100m RC and 800m x 100m sonic data

<sup>(6)</sup> Metallurgical recoveries for the operations are:

Deposit	Metallurgical Recovery
EKATI Core Zone	Factors are assigned per geological domain and deposit
Richards Bay Minerals	45.4% including conversion to slag

**Table of Contents****Stainless Steel Materials Customer Sector Group***Ore Reserves in accordance with Industry Guide 7*

Commodity	Ore Type	As at 30 June 2011						As at 30 June 2010				
		Proven Ore Reserve		Probable Ore Reserve		Total Ore Reserve		Reserve Life (years)	BHP Billiton Interest %	Total Ore Reserve		Reserve Life (years)
Deposit <sup>(1)(2)</sup>		Mt	% Ni	Mt	% Ni	Mt	% Ni			Mt	% Ni	
<b>Nickel</b>												
<b>Colombia</b>												
Cerro Matoso <sup>(3)</sup>	Laterite	33	1.4	15	1.2	48	1.3	31	99.94	89	1.2	39
	SP	38	1.3			38	1.3			32	1.4	
	MNR ore	20	0.2			20	0.2			21	0.2	
	Low Grade Stockpiles <sup>(4)</sup>	7.1	1.0			7.1	1.0					
<b>Nickel West</b>												
Leinster	OC	2.9	1.3	0.2	0.9	3.1	1.3	8	100	3.1	1.3	8
	UG	4.9	1.9	6.9	1.7	12	1.8			12	1.8	
	SP			1.4	1.0	1.4	1.0			1.4	1.0	
	SP Oxidised			1.8	1.7	1.8	1.7			1.9	1.7	
Mt Keith	OC	103	0.56	1.8	0.44	105	0.56	13	100	119	0.56	14
	SP	29	0.52	3.4	0.58	33	0.53			32	0.53	
Cliffs	UG	0.3	2.9	1.3	2.9	1.6	2.9	3	100	1.2	3.0	3

<sup>(1)</sup> Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
Cerro Matoso	Less than or equal to 35m with 3 drill holes minimum	Greater than 35m and less than or equal to 100m with 3 drill holes minimum
Leinster	25m x 25m	25m x 50m
Mt Keith	60m x 40m	80m x 80m
Cliffs	25m x 25m (and development)	50m x 50m

<sup>(2)</sup> Metallurgical recoveries for the operations are:

Deposit	Metallurgical Recovery
Cerro Matoso	90% (reserve to metal)
Leinster	82.7% based on blended plant recovery curves and 11.6% Ni in concentrate
Mt Keith	68%
Cliffs	91%

<sup>(3)</sup> Cerro Matoso Change in Ore Reserves is due to revised geological model, mine design and mining costs.

<sup>(4)</sup> Low Grade Stockpiles are rejected oversize screened material available for future crushing and processing.



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**Iron Ore Customer Sector Group**

*Ore Reserves in accordance with Industry Guide 7*

Ore Type	Proven Ore Reserve						As at 30 June 2011 Probable Ore Reserve						Total Ore Reserve						ReserveBHP Life Billiton			As at 30 June 2011 Total Ore Reserve		
	Mt	% Fe	% P	% SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub> %	LOI	Mt	% Fe	% P	% SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub> %	LOI	Mt	% Fe	% P	% SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub> %	LOI	(years)	Interest %	Mt	% Fe	% P	
BKM	302	63.8	0.08	4.1	2.0	2.0	896	62.6	0.11	4.2	2.0	3.6	1,198	62.9	0.10	4.1	2.0	3.2	29	85	1,104	63.0	0.09	
MM	12	61.2	0.07	2.8	1.6	7.5	71	61.7	0.06	3.1	1.8	6.3	83	61.6	0.07	3.0	1.8	6.5			66	61.8	0.07	
BKM	151	63.0	0.11	3.3	2.3	3.9	223	62.7	0.11	3.3	2.3	4.2	374	62.8	0.11	3.3	2.3	4.1	42	100	375	62.9	0.11	
MM							92	61.3	0.08	3.2	2.2	6.2	92	61.3	0.08	3.2	2.2	6.2			131	62.1	0.08	
NIM	6.0	60.9	0.06	7.6	1.7	2.7	19	60.7	0.06	8.4	1.2	2.6	25	60.8	0.06	8.2	1.3	2.6	13	85	22	61.1	0.06	
BKM	71	63.2	0.14	2.4	1.8	4.8	289	61.9	0.13	3.6	2.1	5.3	361	62.2	0.13	3.4	2.0	5.2	17	85	264	62.2	0.13	
MM	195	62.5	0.06	2.9	1.6	5.6	204	61.6	0.06	3.8	1.8	5.8	399	62.1	0.06	3.4	1.7	5.7			385	61.8	0.06	
CID	641	57.1	0.05	5.5	1.5	10.8	299	57.4	0.04	5.9	1.4	10.3	940	57.2	0.04	5.7	1.5	10.7	21	85	996	57.1	0.04	
ROM	1,120	42.4	0.05				928	39.8	0.05				2,048	41.2	0.05				41	50	2,078	41.3	0.05	

(1) For Western Australia Iron Ore (WAIO) the reserves are divided into joint ventures and material types that reflect the various products. BKM Brockman, MM Marra Mamba, NIM Nimingarra, CID Channel Iron Deposits.

(8) Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
Mt Newman JV	50m x 50m	300m x 50m
Jimblebar	50m x 50m	300m x 50m
Mt Goldsworthy JV Northern	25m x 25m	50m x 50m
Mt Goldsworthy JV Area C	50m x 50m	300m x 50m
Yandi JV	50m x 50m	150m x 150m
Samarco JV	100m x 100m	200m x 200m

(9) Metallurgical recovery is 100%, except for Mt Newman JV BKM where recovery is 95% (tonnage basis) and Samarco where recovery is 82% (metal basis).

(10) The reserve grades listed refer to in situ mass percentage on a dry weight basis. For Mt Newman, Jimblebar, Mt Goldsworthy and Yandi joint ventures tonnages represent wet tonnes based on the following moisture contents: BKM 3%, MM 4%, CID 8%, NIM 3.5%. For Samarco the reserve tonnages also represent for FY2011 wet tonnes based on a moisture content of 6.5% for ROM. Iron ore is marketed as Lump (direct blast furnace feed), Fines (sinter plant feed) and direct reduction and blast furnace pellets (Samarco).

(11) Cut-off grades used to estimate reserves: Mt Newman 59 62%Fe for BKM, 50%Fe for BKM beneficiation material, 59%Fe for MM; Jimblebar 59%Fe for BKM, 58%Fe for MM; Mt Goldsworthy 50%Fe for NIM, 57%Fe for MM, 59%Fe for BKM; Yandi 55.0 55.5%Fe for CID; Samarco 33%Fe.

(12)

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Our WAIO reserves are all located on State Agreement mining leases that guarantee the right to mine, except Cattle Gorge and Callawa (part of Mt Goldsworthy JV Northern), which reside on standard Western Australian mining leases. We are required to obtain certain state government approvals (including environmental and heritage clearances) before we commence mining operations in a particular area. We have included in our reserves areas where one or more approvals remain outstanding but where, based on the technical investigations we carry out as part of our mine planning process and our knowledge and experience of the approvals process, we expect that such approvals will be obtained as part of the normal course of business and within the time frame required by the current mine schedule.

- (13) Mt Newman JV First declaration of reserve for OB41 (BKM). Nominated production rate has increased.
- (14) Jimblebar Nominated production rate has increased.
- (15) Mt Goldsworthy JV Area C New drilling and reserve estimates for A Deposit (MM) and Packsaddle 4 and 5 (BKM).
- (16) Yandi JV Nominated production rate has decreased.
- (17) Samarco JV Reserve Life is based on Samarco nominated production capacity which is inclusive of the contracted ore supply from Vale Fazendao mine until 2027.

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**Manganese Customer Sector Group**

*Ore Reserves in accordance with Industry Guide 7*

Commodity Deposit <sup>(6)(7)</sup>	Ore Type	As at 30 June 2011									As at 30 June 2010					
		Proven Ore Reserve			Probable Ore Reserve			Total Ore Reserve			Reserve BHP Life Billiton	Total Ore Reserve			Reserve Life	
		Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield		Mt	% Mn	% Yield		
GEMCO <sup>(8)</sup>	ROM	83	46.6	54	26	45.6	54	109	46.3	54	12	60	109	46.7	49	13
		Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe			Mt	% Mn	% Fe	
Wessels <sup>(2)(3)</sup>	Lower Body-HG	2.6	47.2	11.0	12	47.9	11.3	15	47.8	11.2	48	44.4	7.9	47.2	11.7	49
	Lower Body-LG	2.3	41.5	11.4	8.1	41.6	12.9	10	41.6	12.6			10	41.6	14.1	
	NTS-Lower Body-HG												6.9	48.5	11.4	
	NTS-Lower Body-LG												1.0	42.9	16.3	
	Upper Body				47	42.0	17.8	47	42.0	17.8			47	42.1	17.3	
Mamatwan <sup>(2)(4)</sup>	M, C, N Zones	33	37.2	4.5	12	37.0	4.4	46	37.1	4.4	25	44.4	48	37.6	4.5	22
	X Zone	2.8	36.8	4.8	0.3	37.0	4.4	3.1	36.8	4.8			4.1	37.4	4.8	
	NTS-M,C,N Zones	8.6	37.2	4.6	16	37.2	4.6	24	37.2	4.6			22	37.7	4.5	
	NTS-X Zone	1.1	37.0	4.8	2.2	36.9	4.6	3.3	36.9	4.7			3.0	37.4	4.7	

(2) Wessels and Mamatwan The Wessels and Mamatwan (Hotazel Manganese Mines) interest has been reduced as a result of a sequence of Broad Based Black Economic Empowerment agreements with Ntsimbintle Mining Pty Ltd, Iziko, NCAB and the HMM Educational Trust. BHP Billiton's share in Hotazel Manganese Mines Pty Ltd is now 44.4%. NTS ore type is Ntsimbintle.

(3) Wessels A Section 102 application has been approved by the Dept of Mineral Resources to amend the Wessels Mining Rights area to include the Ntsimbintle Prospecting Right. The Wessels and Ntsimbintle Lower Body Ore Reserve, which was previously declared separately (per area), are therefore combined and declared as a single Ore Reserve respectively.

(4) Mamatwan A Section 102 application has been lodged with the Dept of Mineral Resources to amend the Mamatwan Mining Rights area to include the Ntsimbintle Prospecting Right.

(6) Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
GEMCO	60m x 120m and 60m x 60m	120m x 120m
Wessels	Defined as rim ±30m wide around mined-out areas, plus ±132m spaced surface drill holes, supplemented by some economically viable remnant blocks within mined-out areas, underground drilling and sampling	Underground chip sampling, limited underground drill holes and ±132m spaced surface drill holes.
Mamatwan	80m x 80m	160m x 160m

(7) Metallurgical recoveries for the operations are:

<b>Deposit</b>	<b>Metallurgical Recovery</b>
GEMCO	See yield in Ore Reserve table
Wessels	88% (76% lump product and 12% fines product)
Mamatwan	96%

- (8) GEMCO Tonnes are stated as ROM, manganese grades are given as per washed ore samples and should be read together with their respective tonnage yields.

**Table of Contents****Metallurgical Coal Customer Sector Group****Ore Reserves in accordance with Industry Guide 7**

Deposit <sup>(1)(2)</sup>	Mining Method	Coal Type	As at 30 June 2011			Total Marketable Coal Reserve			Reserve Life		BHP Billiton		As at 30 June 2010			Reserve Life	
			Proven Coal Reserve Mt	Probable Coal Reserve Mt	Total Coal Reserve Mt	Mt	% Ash	% VM	% S	(years)	Interest %	Mt	% Ash	% VM	% S	(years)	
<b>Queensland Coal</b>																	
<b>CQCA JV</b>																	
Goonyella Riverside																	
Broadmeadow <sup>(3)</sup>	OC	Met	363	224	587	437	9.7	22.7	0.50	35	50	387	9.8	23.0	0.50	32	
	UG	Met	44	111	154	132	7.0	23.9	0.51			130	6.9	23.9	0.51		
Peak Downs	OC	Met	407	612	1,018	574	9.1	21.0	0.60	62	50	581	9.1	21.0	0.60	65	
Saraji <sup>(4)</sup>	OC	Met	423	153	576	350	10.2	18.1	0.62	41	50	308	10.2	18.1	0.63	39	
Norwich Park	OC	Met	173	98	271	194	10.3	16.9	0.70	29	50	196	10.2	16.9	0.69	30	
Blackwater <sup>(5)</sup>	OC	Met/Th	183	379	562	494	8.7	26.3	0.40	36	50	448	9.9	24.8	0.40	33	
Daunia <sup>(6)</sup>	OC	Met/Th	94	50	145	117	8.2	20.7	0.34	26	50						
<b>Gregory JV</b>																	
Gregory Crinum	OC	Met	10	1.2	12	9.2	7.4	33.0	0.60	6	50	11	7.7	32.8	0.60	6	
	UG	Met		27	27	22	6.5	33.7	0.59			20	6.8	33.2	0.60		
<b>BHP Billiton Mitsui Coal Pty Ltd</b>																	
South Walker Creek	OC	Met/Th	84	38	122	91	9.1	13.0	0.34	23	80	98	9.3	13.1	0.30	23	
Poitrel-Winchester <sup>(7)</sup>	OC	Met	30	29	60	42	8.1	23.0	0.34	14	80	47	8.9	23.8	0.40	17	
<b>Illawarra Coal</b>																	
Appin	UG	Met/Th	3.5	76	79	68	8.9	23.9	0.37	19	100	69	8.9	24.0	0.37	19	
West Cliff	UG	Met/Th	7.8	3.6	11	8.8	8.9	21.4	0.36	3	100	10	8.9	21.3	0.36	4	
Dendrobium	UG	Met/Th	9.2	45	54	38	9.7	24.0	0.59	12	100	40	9.7	24.0	0.59	13	

(1) Only geophysically logged, fully analysed cored holes with greater than 95% recovery are used to classify the reserves. Drill hole spacings vary between seams and geological domains and are determined in conjunction with geostatistical analyses where applicable. The range of maximum spacings are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
Goonyella Riverside Broadmeadow	500m to 1000m plus 3D coverage for UG reserves	1000m - 2000m
Peak Downs	500m to 1050m	500m to 2100m
Saraji	500m to 1040m	900m to 2100m
Norwich Park	500m to 1350m	1000m to 2650m
Blackwater	500m	500m to 1000m
Gregory Crinum	850m plus 3D seismic coverage for UG reserves	850m to 1700m
Poitrel-Winchester	300m to 950m	550m to 1850m
South Walker Creek	500m to 900m	1000m to 1750m
Daunia	500m to 1800m	1000m to 2650m
Appin, West Cliff, Dendrobium	700m	1500m

(2) Total Coal Reserve is at the moisture content when mined. Marketable Coal Reserve (tonnes) is the tonnage of coal available, at specified moisture and air-dried quality, for sale after the beneficiation of the Total Coal Reserve. Note that where the coal is not beneficiated, the Total Coal Reserve tonnes are the Marketable Coal Reserve tonnes, with moisture adjustment where applicable.

(3) Goonyella Riverside Broadmeadow The increase in reserves is due to a revised mine plan.

(4) Saraji Changes to reserves are due to additional drilling and changes to yield and price assumptions.

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- (5) Blackwater The increase in reserves is due to additional borehole information and revised price assumptions.
- (6) Daunia The project is approved for development and reserves are reported for the first time.
- (7) Poitrel-Winchester The coal type has changed to Met based on current and planned production.

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**Energy Coal Customer Sector Group**

*Ore Reserves in accordance with Industry Guide 7*

Deposit <sup>(7)</sup>	Mining Method	Coal Type	As at 30 June 2011											As at 30 June 2010							
			Proven Coal Reserves			Probable Coal Reserves			Total Marketable Coal Reserves					Total Marketable Coal Reserves							
			Mt	Mt	Mt	Mt	Mt	Mt	% Ash	% VM	% S	kCal/kg CV	% Moisture	Total Life (years)	BHP Reserve %	Mt	% Ash	% VM	% S	kCal/kg CV	% Moisture
<b>New Mexico</b>																					
San Juan <sup>(8)</sup>	UG	Th	44	1	45	45	19.0		0.70	5,600	8.5	7	100	62	19.1		0.74	5,600	10.0	10	
Navajo <sup>(9)</sup>	OC	Th	36		36	36	23.0		0.90	4,800	13.0	5	100	162	23.0		0.90	4,800	13.0	21	
<b>South Africa</b>																					
Khutala <sup>(10)</sup>	OC	Met	12		12	10	18.9	29.1	1.90	6,100	7.0	16	100	12	17.2	31.1	1.57	5,600	7.0	22	
	OC	Th	139		139	139	33.5	21.7	1.22	4,700	7.0			150	38.3	19.4	0.99	4,400	7.0		
	UG	Th	75		75	75	34.5	20.4	0.80	4,400	7.0			93	34.2	20.5	0.86	4,500	7.0		
Wolvekrans <sup>(3)</sup>	OC	Th	298	124	423	281	20.0	23.5	0.66	6,000	7.2	30	100								
Middelburg <sup>(3)(11)</sup>	OC	Th	139		139	106	20.4	23.1	0.63	6,000	7.2	23	100	436	20.2	22.9	0.59	6,000	7.4	24	
Klipspruit	OC	Th	66	6.8	73	61	18.8	23.3	0.50	6,100	7.6	9	100	70	21.6	22.5	0.58	5,700	7.6	11	
<b>Australia</b>																					
Mt Arthur Coal <sup>(12)</sup>	OC	Th	563	569	1,132	877	16.1	30.5	0.55	6,500	8.3	50	100	869	16.9	30.3	0.55	6,400	8.2	55	
<b>Colombia</b>																					
Carrejon Coal Company <sup>(13)</sup>	OC	Th	674	73	747	718	9.4	32.9	0.60	6,200	12.0	23	33.33	655	9.4	32.9	0.59	6,200	12.0	21	

(3) Wolvekrans and Middelburg Wolvekrans was previously known as Douglas mine and reported as part of Douglas-Middelburg. It is now reported separately. Prior year tonnes for Douglas-Middelburg are reported under Middelburg.

(7) Approximate drill hole spacings used to classify the reserves are:

Deposit	Proven Ore Reserves	Probable Ore Reserves
San Juan	0m to 250m	250m to 500m
Navajo	< 500m (250m radius from drill hole)	500m to 1000m (250m to 500m radius from drill hole)
Khutala	>8 boreholes per 100ha	4 to 8 boreholes per 100ha
Wolvekrans	>10 boreholes per 100ha	5 to 10 boreholes per 100ha
Middelburg	>8 boreholes per 100ha	4 to 8 boreholes per 100ha
Klipspruit	>8 boreholes per 100ha	4 to 8 boreholes per 100ha
Mt Arthur Coal	<500 m	500m to 1000m
Carrejon Coal Company	>6 boreholes per 100ha	2-6 boreholes per 100ha

(8) San Juan Reserve revision to align with existing long-term contract to FY2017 inclusive.

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- (9) Navajo Reserve revision to align with existing long-term contract to FY2016 inclusive.
- (10) Khutala Reserve changes are due to revised underground and open-cut mining lay-outs resulting from an optimisation study.
- (11) Middelburg Change in reserves after exclusion of lower quality coal seam and outcome of drilling results.
- (12) Mt Arthur Coal Change to mine life due to increase in nominated production rate.
- (13) Cerrejón Increase in reserves due to revised mine plan.
- (14) In situ moisture.



**Table of Contents****3 Operating and financial review and prospects****3.1 Introduction**

This section is intended to convey management's perspective of the BHP Billiton Group and its operational and financial performance as measured and prepared in accordance with International Financial Reporting Standards (IFRS). We intend this disclosure to assist readers to understand and interpret the financial statements included in this Report. This section should be read in conjunction with the financial statements, together with the accompanying notes.

We are the world's largest diversified natural resources company, with a combined market capitalisation of approximately US\$233.9 billion as at 30 June 2011. We generated revenue of US\$71.7 billion and profit attributable to shareholders of US\$23.6 billion for FY2011.

We extract and process minerals, oil and gas from our production operations located primarily in Australia, the Americas and southern Africa. We sell our products globally with sales and marketing taking place through our principal hubs of The Hague and Singapore.

The following table shows the revenue by location of our customers:

Year ended 30 June	Revenue by location of customer		
	2011 US\$M	2010 US\$M	2009 US\$M
Australia	5,487	4,515	4,621
United Kingdom	1,043	1,289	3,042
Rest of Europe	8,370	8,554	7,764
China	20,261	13,236	9,873
Japan	9,002	5,336	7,138
Rest of Asia	15,805	9,840	9,280
North America	6,167	5,547	4,020
South America	2,592	2,013	1,652
Southern Africa	1,548	1,227	1,374
Rest of world	1,464	1,241	1,447
<b>Total revenue</b>	<b>71,739</b>	<b>52,798</b>	<b>50,211</b>

We operate nine Customer Sector Groups (CSGs) aligned with the commodities we extract and market, reflecting the structure we use to assess the performance of the Group:

Customer Sector Group	Principal activities
Petroleum	Exploration, development and production of oil and gas
Aluminium	Mining of bauxite, refining of bauxite into alumina and smelting of alumina into aluminium metal
Base Metals	Mining of copper, silver, lead, zinc, molybdenum, uranium and gold
Diamonds and Specialty Products	Mining of diamonds and titanium minerals; potash development
Stainless Steel Materials	Mining and production of nickel products
Iron Ore	Mining of iron ore
Manganese	Mining of manganese ore and production of manganese metal and alloys
Metallurgical Coal	Mining of metallurgical coal
Energy Coal	Mining of thermal (energy) coal



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The work of our nine CSGs is supported by our Minerals Exploration and Marketing teams and Group Functions.

A detailed discussion on our CSGs is located in section 2.2 of this Report. A detailed discussion of our Marketing and Minerals Exploration functions is located in sections 2.4 and 2.5 respectively of this Report.

### **3.2 Our strategy**

Our objective as a corporation is to create long-term shareholder value through the discovery, acquisition, development and marketing of natural resources. We sell into globally integrated markets and wherever possible operate at full capacity. Our unique position in the resources industry is due to our proven strategy.

Our strategy is to own and operate large, long-life, low-cost, expandable, upstream assets diversified by commodity, geography and market, and to pursue growth opportunities consistent with our core skills by:

discovering resources through our exploration activities;

developing and converting them in our CSGs;

developing customer and market-focused solutions through our Marketing teams;

adding shareholder value beyond the capacity of these groups through the activities of the Group Functions.

In pursuing our objective, we are guided by our commitment to safety, simplicity and accountability.

Our overriding commitment is to safety: ensuring the safety of our people, respecting our environment and the communities in which we work. This commitment transcends everything we do and guides every aspect of our work.

Our commitment to simplicity and accountability allows us to focus on the most important drivers of value while empowering our people to operate within their authority and make a difference.

Our objective and commitments are pursued through our six strategic drivers:

*People* the foundation of our business is our people. We require people to find resources, develop those resources, operate the businesses that produce our products, and then deliver those products to our customers. Talented and motivated people are our most precious resource.

*Licence to operate* we aim to ensure that the communities in which we operate value our citizenship. Licence to operate means win-win relationships and partnerships. This includes a central focus on health, safety, environment and the community, and making a positive difference to our host communities.

*World-class assets* our world-class assets provide the cash flows that are required to build new projects, to contribute to the economies of the countries in which we operate, to meet our obligations to our employees, suppliers and partners, and ultimately to pay dividends to our shareholders. We maintain high-quality assets by managing them in the most effective and efficient way.

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*Financial strength and discipline* we have a solid A credit rating, which balances financial flexibility with the cost of finance. Our capital management priorities are:

reinvest in our extensive pipeline of world-class projects that carry attractive rates of return regardless of the economic climate;

ensure a solid balance sheet;

return excess capital to shareholders.

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*Project pipeline* we are focused on delivering an enhanced resource endowment to underpin future generations of growth. We have an abundance of tier one resources in stable countries that provide us with a unique set of options to deliver brownfield growth.

*Growth options* we use exploration, technology and our global footprint to look beyond our current pipeline to secure a foundation of growth for future generations. We pursue growth options in several ways covering the range from extending existing operations to new projects in emerging regions, through exploration, technology and, on occasion, merger and acquisition activity.

### 3.3 Key measures

Our management and Board monitor a range of financial and operational performance indicators, reported on a monthly basis, to measure performance over time.

#### Overall financial success

We use several financial measures to monitor the financial success of our overall strategy. The two key measures are profit after taxation attributable to members (attributable profit) of the BHP Billiton Group and Underlying EBIT.

#### Year ended 30 June

US\$M except where stated	2011	2010	2009
Revenue	71,739	52,798	50,211
Profit from operations	31,816	20,031	12,160
Underlying EBIT <sup>(1)</sup>	31,980	19,719	18,214
Profit attributable to members	23,648	12,722	5,877
Net operating cash flow <sup>(2)</sup>	30,080	16,890	17,854
Underlying EBIT margin <sup>(1)(3)(4)</sup>	47.0%	40.7%	40.1%
Return on capital employed <sup>(3)(5)(6)</sup>	38.5%	26.4%	24.6%
Gearing <sup>(3)</sup>	9.2%	6.3%	12.1%
Basic earnings per share (US cents)	429.1	228.6	105.6

- (1) Underlying EBIT is profit from operations, excluding the effect of exceptional items. Underlying EBIT is the internally defined key financial measure used by management for monitoring the performance of our operations. We explain why we use this measure in section 3.6.2. The following table reconciles Underlying EBIT to profit from operations.

Year ended 30 June	2011 US\$M	2010 US\$M	2009 US\$M
Underlying EBIT	31,980	19,719	18,214
Exceptional items (before taxation)	(164)	312	(6,054)
Profit from operations (EBIT)	31,816	20,031	12,160

- (2) Improvements to IFRSs 2009 /AASB 2009-4 Amendments to Australian Accounting Standards arising from the Annual Improvements Project and AASB 2009-5 Further Amendments to Australian Accounting Standards arising from the Annual Improvements Project include a requirement to classify expenditures on unrecognised assets as a cash flow from operating activities. This has resulted in exploration cash flows of US\$1,030 million for the year ended 30 June 2010 (2009: US\$1,009 million), which were not recognised as assets, being reclassified from net investing cash flows to net operating cash flows in the Consolidated Cash Flow Statement.

<sup>(3)</sup> See section 10 for glossary definitions.

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- (4) Underlying EBIT margin is profit from operations, excluding the effect of exceptional items before taxation and excluding third party production, divided by revenue from Group production. See section 3.6.7 for more information about this measure.

Year ended 30 June	2011 US\$M	2010 US\$M	2009 US\$M
Revenue Group production	67,903	48,193	44,113
Underlying EBIT	31,980	19,719	18,214
Profit from operations (EBIT) Third party products	(98)	(111)	(503)
Profit from operations Group production, excluding exceptional items	31,882	19,608	17,711
Underlying EBIT margin	47.0%	40.7%	40.1%

- (5) Return on capital employed is calculated as profit after taxation, excluding exceptional items (after tax) and net finance costs adjusted for exchange variations on net debt (after tax), divided by average capital employed. Capital employed is calculated as net assets plus net debt. Net debt comprises interest bearing liabilities (which include bank overdrafts) less cash. Average capital employed is calculated as capital employed for the prior period and current period, divided by two.

Year ended 30 June	2011 US\$M	2010 US\$M	2009 US\$M
<b>Adjusted earnings from operations:</b>			
Profit after taxation	23,946	13,009	6,338
Net exceptional items	(1,964)	(253)	4,845
Earnings from operations	21,982	12,756	11,183
Net finance costs	561	459	543
Income tax benefit of net finance costs <sup>(6)</sup>	(153)	(139)	(178)
Net finance costs after tax	408	320	365
Adjusted earnings from operations	22,390	13,076	11,548
<b>Capital employed:</b>			
Net assets	57,755	49,329	40,711
Net debt	5,823	3,308	5,586
Capital employed	63,578	52,637	46,297
Average capital employed	58,108	49,467	46,899
Return on capital employed	38.5%	26.4%	24.6%

- (6) Calculated at a nominal tax rate of 30 per cent adjusted for non-deductibility/assessability of exchange variations on net debt of US\$51 million (2010: US\$(5) million; 2009: US\$(49) million.) Refer to note 6 Net finance costs in the financial statements.

The following are other measures that assist us to monitor our overall performance.

**People and licence to operate**

We monitor a comprehensive set of health, safety, environment and community (HSEC) contribution indicators. Two key measures are the total recordable injury frequency (TRIF) and community investment. These measures are a subset of the HSEC Targets Scorecard, which can be found in our Sustainability Report at [www.bhpbilliton.com](http://www.bhpbilliton.com).

<b>Year ended 30 June</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
People and licence to operate health, safety, environment and community			
Total recordable injury frequency <sup>(1)</sup>	<b>5.0</b>	5.3	5.6
Community investment (US\$M) <sup>(1)</sup>	<b>195.5</b>	200.5	197.8

<sup>(1)</sup> See section 10 for glossary definitions.



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*Safety* Sadly, we experienced the loss of two colleagues at our controlled operations during the year. We made an incremental improvement in TRIF (which comprises fatalities, lost-time cases, restricted work cases and medical treatment cases per million hours worked) from 5.3 for FY2010 to 5.0 for FY2011 per million hours worked.

*Health* We are progressing well with our health performance objectives. We had 148 new cases of occupational disease reported in FY2011, 68 fewer new cases compared with the FY2007 base year. The overall reduction in the incidence of occupational disease since FY2007 is 39 per cent, which to date has exceeded our target of a 30 per cent reduction in the incidence of occupational disease among our employees by June 2012.

It is mandatory for our employees who may be potentially exposed to airborne substances or noise in excess of our occupational exposure limits (OELs) to wear personal protective equipment. Compared with the FY2007 base year there was a 7.8 per cent reduction in the proportion of employees potentially exposed in excess of OELs in FY2011, which is behind schedule to meet our target of a 15 per cent reduction in potential employee exposures over our occupational exposure limits.

*Environment* In FY2011, we reduced absolute greenhouse gas (GHG) emissions by more than five million tonnes (Mt) compared to FY2010.

We have five-year targets of a six per cent reduction in our GHG emissions intensity index and a 13 per cent reduction in our carbon-based energy intensity index, both by 30 June 2012. Our greenhouse intensity index is currently tracking at 18 per cent below our FY2006 base year. Our carbon-based energy intensity index is currently tracking at 17 per cent below our FY2006 base year. This was primarily driven by the agreement to use hydroelectric power at the Mozal aluminium smelter, in Mozambique, which now provides more than 98 per cent of the smelter's electricity needs.

We have exceeded our US\$300 million commitment to support the implementation of energy efficiency and low GHG emission technologies by the end of FY2012, with US\$325 million worth of projects in implementation stages.

We have a five-year target of a 10 per cent improvement in our land rehabilitation index by 30 June 2012. This index is based on a ratio of land rehabilitated compared with our land footprint. In FY2011, the index improved by one per cent on our FY2007 base year.

We have a five-year target of a 10 per cent improvement in the ratio of water recycled to high-quality water consumed by 30 June 2012. This water use index has improved eight per cent on our FY2007 base year.

We define a significant environmental incident as one with a severity rating of four or above based on our internal severity rating scale (tiered from one to seven by increasing severity). We reported no significant incidents during FY2011.

*Community* We continue to invest one per cent of our pre-tax profits in community programs, based on the average of the previous three years pre-tax profit publicly reported in each of those years. During FY2011, our voluntary investment totalled US\$195.5 million comprising cash, in-kind support and administrative costs and includes a US\$30 million contribution to BHP Billiton Sustainable Communities.

**Table of Contents****World-class assets**

Actual production volumes for this year and the previous two years are shown below. Further details appear in section 2.3 of this Report.

Year ended 30 June	2011	2010	2009
<b>World-class assets</b>			
<b>Production</b>			
Total Petroleum production (millions of barrels of oil equivalent)	159.38	158.56	137.97
Alumina ( 000 tonnes)	4,010	3,841	4,396
Aluminium ( 000 tonnes)	1,246	1,241	1,233
Copper ( 000 tonnes)	1,139.4	1,075.2	1,207.1
Nickel ( 000 tonnes)	152.7	176.2	173.1
Iron ore ( 000 tonnes)	134,406	124,962	114,415
Manganese alloys ( 000 tonnes)	753	583	513
Manganese ores ( 000 tonnes)	7,093	6,124	4,475
Metallurgical coal ( 000 tonnes)	32,678	37,381	36,416
Energy coal ( 000 tonnes)	69,500	66,131	66,401
<b>Financial strength and discipline</b>			

Financial strength is measured by attributable profit and Underlying EBIT as overall measures, along with liquidity and capital management. Our credit rating and gearing and net debt are discussed in section 3.7.3 of this Report. The final dividend declared for FY2011 maintains our progressive dividend policy. Our capital management initiatives and successful completion of the US\$10 billion capital management program are discussed in section 3.7.6 of this Report.

**Project pipeline and growth options**

Our project pipeline focuses on high-margin commodities that are expected to create significant future value. The details of our project pipeline are located in section 3.7.2 of this Report, with a summary presented below.

Year ended 30 June	2011	2010	2009
<b>Project pipeline and growth options (major projects)</b>			
Number of projects approved during the year	11	2	4
Number of projects currently under development (approved in prior years)	7	8	8
Number of completed projects	3	5	7
Budgeted capital expenditure for projects (approved in the year) (US\$M)	12,942	695	5,850
Budgeted capital expenditure for projects under development (approved in prior years) (US\$M)	11,575	10,075	8,115
Capital expenditure of completed projects (US\$M)	1,202	4,738	4,061

**3.4 External factors and trends affecting our results**

The following section describes some of the external factors and trends that have had a material impact on our financial condition and results of operations. We operate our business in a dynamic and changing environment and with information that is rarely complete and exact. We primarily manage the risks discussed in this section under our portfolio management approach, which relies on the effects of diversification, rather than individual price risk management programs. Details of our financial risk management strategies and financial instruments outstanding at 30 June 2011 may be found in note 28 Financial risk management in the financial statements.

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Management monitors particular trends arising in the external factors with a view to managing the potential impact of our future financial condition and results of operations. The following external factors could have a material adverse effect on our business and areas where we make decisions on the basis of information that is incomplete or uncertain.

### 3.4.1 Commodity prices

FY2011 saw prices for most commodities in our suite increase substantially over FY2010. During the first half of the year, the global recovery gathered pace, with developing economies clearly leading economic growth. Commodity prices increased through to February 2011 with a weak US dollar, improved manufacturing and trade in Europe and the US, and strong manufacturing and construction in Asia.

The Japanese Fukushima nuclear incident, which occurred during March 2011, caused a correction in commodity markets. This was closely followed by civil unrest in the Middle East and North Africa, which held global sentiment for commodities back from its February highs until late in FY2011. Macro risks, including concern about sovereign debt levels in Europe, persistent weakness in US employment and a slowing Chinese economy, limited upside to prices in the latter part of FY2011.

The following table shows prices of our most significant commodities for the years ended 30 June 2011, 2010 and 2009. These prices represent the average quoted price except where otherwise indicated.

Year ended 30 June	2011	2010	2009
<b>Commodity</b>			
Aluminium (LME cash) <sup>(1)</sup> (US\$/t)	2,375	2,018	1,862
Alumina <sup>(2)</sup> (US\$/t)	369	314	255
Copper (LME cash) <sup>(1)</sup> (US\$/lb)	3.92	3.04	2.23
Crude oil (WTI) (US\$/bbl)	89.47	75.14	70.29
Energy coal (API 4) <sup>(1)</sup> (US\$/t)	116.7	75.93	95.16
Natural gas (US\$/MMbtu) <sup>(3)</sup>	4.16	4.21	5.96
Iron ore <sup>(4)(5)</sup> (US\$/dmt)	162.98	118.61	89.83
Manganese Alloys <sup>(6)</sup> (US\$/t)	1,319	1,328	1,854
Manganese Ores <sup>(7)(8)</sup> (US\$/dmtu)	6.29	6.46	9.43
Metallurgical coal <sup>(9)(10)</sup> (US\$/t)	244.47	146.75	257.25
Nickel (LME cash) <sup>(1)</sup> (US\$/lb)	10.86	8.78	6.03

<sup>(1)</sup> See section 10 for glossary definitions.

<sup>(2)</sup> CRU spot FOB Australia.

<sup>(3)</sup> Platts Gas daily based on Henry Hub.

<sup>(4)</sup> 2010 and 2011 Platts 62 per cent Fe Cost, Insurance and Freight (CIF) China.

<sup>(5)</sup> 2009: SBB 63.5 per cent Fe CIF China.

<sup>(6)</sup> Bulk FerroAlloy high-carbon ferromanganese (HCFeMn) US ex-warehouse.

- (7) 2010 and 2011 CRU China spot import (M+1) 43.5 per cent contained.
- (8) 2009 CRU China spot import 45 per cent contained.
- (9) 2011 Platts 64 Mid Volatile Index Hard coking coal FOB Australia.
- (10) 2010 and 2009 Tex Reports Hard coking coal FOB Australia.

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The following summarises the trends of our most significant commodities for FY2011.

*Aluminium:* London Metal Exchange (LME) prices increased from US\$1,924 per tonne at the beginning of FY2011 to US\$2,509 per tonne at year-end. The average LME aluminium price for FY2011 was US\$2,375 per tonne, 18 per cent above the average for FY2010. The LME reached a lowest point of US\$1,912 per tonne in July 2010, and a highest point of US\$2,772 per tonne in April 2011. The price rise was mainly driven by a combination of rising energy prices, US dollar weakness, strong investor activities and tighter aluminium fundamentals. During the year, demand recovered globally. Aluminium consumption was up by 12 per cent year-on-year in FY2011 on a world ex-China basis. In China, 1.6 million tonnes per annum (mtpa) of production capacity was reduced to meet energy intensity reduction targets by December 2010. However, higher prices brought 1.1 mtpa of idled capacity back to production in the second half of FY2011.

*Alumina:* Spot prices increased from US\$320 per tonne free on board (FOB) Australia at the beginning of FY2011 to US\$395 per tonne at year-end. The average alumina price for FY2011 was US\$369 per tonne, 18 per cent above the average in FY2010. Higher prices were due to rising energy prices, higher aluminium demand and production disruptions in Australia and Brazil. Non-Chinese alumina production increased approximately four per cent year-on-year. China domestic supply grew by 13 per cent in FY2011 compared with the same period in the prior year. China's growing demand for bauxite to feed growing domestic alumina capacity meant it imported 37.1 million tonnes (Mt) in FY2011, an increase of 38 per cent from the prior year.

*Copper:* LME prices increased from US\$2.96 per pound (lb) at the beginning of FY2011 to US\$4.22 per lb at year-end. The average LME copper price for FY2011 was US\$3.92 per lb, 29 per cent above the average for FY2010. The trading range through the year was volatile with a low of US\$2.88 per lb in July 2010, rising to a peak of US\$4.60 per lb in February 2011. During the first half of FY2011, prices were driven by the quicker than expected demand recovery in the developed world and the continued strength of Chinese net cathode imports. Chinese imports for the first half of FY2011 totalled 1,368 kilotonne (kt). In the second half of FY2011, Chinese fabricators were reluctant to increase copper cathode purchases, relying instead on drawing down their own inventory levels, with only 954 kt imported from January to June 2011. In addition, US and Europe demand growth slowed from the first half of FY2011, pushing copper premia down across the developed regions.

*Crude oil:* The New York Mercantile Exchange West Texas Intermediate (NYMEX WTI) crude oil price increased from US\$75.59 per barrel (bbl) at the beginning of FY2011 to US\$95.42 per bbl at year-end. The average WTI oil price for FY2011 was US\$89.47 per bbl, 19 per cent above the FY2010 average. The Intercontinental Exchange (ICE) Brent oil price increased from US\$74.97 per bbl at the beginning of FY2011 to US\$112.48 per bbl at year-end. The average ICE Brent oil price for FY2011 was US\$96.45 per bbl, 28 per cent above the FY2010 average. During the year, WTI oil reached a low of US\$71.63 per bbl in August 2010 and a peak of US\$113.93 per bbl in April 2011, while ICE Brent experienced a low of US\$71.45 per bbl in July 2010 and a high of US\$126.65 per bbl in April 2011 as both benchmarks were impacted by the Middle East and North Africa unrest in the second half of FY2011. The WTI-Brent differential was an important feature of the oil market as the spread exceeded a record US\$20 per bbl level due in part to the US pipeline bottleneck issues and some tightness in the North Sea markets. However, the oil price gains were later partially offset by growing concerns over the global macroeconomic outlook and subsequent impact on global oil demand.

*Energy coal:* The Amsterdam-Rotterdam-Antwerp CFR (API 2) price increased from US\$94.47 per tonne at the beginning of FY2011 to US\$122.9 per tonne at year-end. The Richards Bay Coal Terminal (RBCT) FOB (API 4) price increased from US\$91.6 per tonne at the beginning of FY2011 to US\$117.5 per tonne at year-end. The Newcastle FOB (API 3) price increased from US\$98.3 per tonne at the beginning of FY2011 to US\$121 per tonne at year-end. The average Newcastle FOB (API 3) price for FY2011 was US\$120.4 per tonne, 40 per cent above the average for FY2010. The average RBCT FOB (API 4) price for FY2011 was US\$116.7 per tonne, 54 per cent above the average for FY2010. Strong price levels were supported by supply disruptions in the key export regions (including Australia, South Africa, Colombia and Indonesia) during the Northern Hemisphere winter period, particularly in January 2011 when both RBCT and Newcastle FOB prices reached the highest

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levels since October 2008. Prices eased towards the end of the financial year as supply showed some recovery and demand from China and India was weaker than expected. Estimated unadjusted Chinese imports in FY2011 were at 81 Mt, compared with 85 Mt in FY2010. Lower demand was driven by high stockpiles at key ports and power plants, sufficient hydro power generation and high global prices.

*Gas:* The US Henry Hub natural gas price decreased from US\$4.68 per million British thermal units (MMBtu) at the beginning of FY2011 to US\$4.39 per MMBtu at year-end. The UK National Balancing Point (NBP) natural gas price increased from US\$6.55 per MMBtu at the beginning of FY2011 to US\$9.36 per MMBtu at year-end. The Asian spot LNG price as reflected by the Platts Japan Korea Marker (JKM) increased from US\$7.8 per MMBtu at the beginning of FY2011 to US\$13.80 per MMBtu at year-end. The average Henry Hub gas price for FY2011 was US\$4.16 per MMBtu, one per cent below the average for FY2010. The average UK National Balancing Point (NBP) natural gas price for FY2011 was US\$8.33 per MMBtu, 69 per cent above the average for FY2010. The trading ranges through the year were volatile, with the Henry Hub price reaching a high of US\$4.94 per MMBtu in August 2010 and dropping to a low of US\$3.18 per MMBtu in October 2010. The NBP price ranged from a low of US\$5.10 per MMBtu in September 2010 to a high of US\$10.50 per MMBtu in March 2011. During FY2011, global gas demand increased, particularly in the power generation sector in both the Atlantic and Pacific markets. This was supported by some improvement in underlying economic activity, extreme weather conditions and the Japanese Fukushima nuclear incident in the second half of FY2011. The US market remained largely insulated from global events and was over-supplied due to strong shale gas production, which pushed the Henry Hub price lower.

*Iron Ore:* The iron ore spot price increased from US\$134 per tonne at the beginning of FY2011 to US\$170.75 per tonne at year-end. The average spot iron ore price for FY2011 was US\$162.98 per tonne, 37 per cent above the average for FY2010. Prices ranged from a low of US\$116 per tonne in July 2010 to a high of US\$193 per tonne in February 2011. Prices for the first quarter of FY2011 were constrained by the seasonal decrease in global pig iron production, which reached its FY2011 low in September 2010. Prices broadly followed an upward trajectory driven by increased global steel production, and a corresponding increase in iron ore demand, combined with seasonally constrained supply from Australia and Brazil. Post the price peak of February 2011, iron ore prices decreased to an average of US\$178 per tonne in the last quarter of FY2011 due to uncertainty in the Chinese downstream steel market and further rounds of credit tightening.

*Manganese:* Manganese ore prices decreased from US\$8.70 per dry metric tonne unit (dmtu) at the beginning of FY2011 to US\$5.24 per dmtu at year-end. The average manganese ore price delivered to China for FY2011 was US\$6.29 per dmtu, three per cent below the average for FY2010. Silicomanganese alloy prices in the US decreased from US\$1,435 per tonne at the beginning of FY2011 to US\$1,367 per tonne by year-end. Manganese alloy prices in Europe decreased from US\$1,458 per tonne at the beginning of FY2011 to US\$1,286 per tonne at year-end. High-carbon ferromanganese alloy prices in the US decreased from US\$1,400 per tonne at the beginning of FY2011 to US\$1,320 per tonne by year-end. High-carbon ferromanganese alloy prices in Europe decreased from US\$1,458 per tonne at the beginning of FY2011 to US\$1,257 per tonne by year-end. Despite substantially lower ore input costs, manganese alloy prices continued to trade in a relatively narrow band due to increased costs of coking coal and power from the second half of FY2011 onwards.

*Metallurgical coal:* The quarterly negotiated prices increased from US\$225 per tonne at the beginning of FY2011 to US\$330 per tonne at year-end. Platts 64 Mid Volatile Index spot coking coal prices increased from US\$202 per tonne at the beginning of FY2011 to US\$273 per tonne at year-end. The coking coal market weakened in the first half of FY2011 on subdued demand growth in traditional coking coal importing countries and more than adequate supply to meet this demand. However, heavy rains in Queensland during September to November 2010, and resultant floods in late December, caused significant supply disruptions. With the sharp reduction in available seaborne tonnages, the market became very tight in the third quarter of FY2011 and the Platts 64 Mid Volatile Index price rose to a peak of US\$336 per tonne in January 2011.

*Nickel:* LME prices increased from US\$8.81 per lb at the beginning of FY2011 to US\$10.49 per lb at year-end. The average nickel price for FY2011 was US\$10.86 per lb, 24 per cent above the average for FY2010.

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Higher prices were underpinned by the improved global economic recovery, service centre re-stocking and strong underlying consumption. The fall of the nickel price in early May 2011 was caused by a general sell-off by investors. This drop led to a wait-and-see purchasing behaviour among stainless distributors and end-users in the following months. On the supply side, more nickel production was added in the first half of FY2011, whereas the second half of the year was characterised by supply disruptions. Partially offsetting these disruptions was a particularly high level of nickel pig iron production in China.

The following table indicates the estimated impact on FY2011 profit after taxation of changes in the prices of our most significant commodities. With the exception of price-linked costs, the sensitivities below assume that all other variables, such as exchange rate, costs, volumes and taxation, remain constant. There is an inter-relationship between changes in commodity prices and changes in currencies that is not reflected in the sensitivities below. Volumes are based on FY2011 actual results and sale prices of our commodities under a mix of short-, medium- and long-term contracts. Movements in commodity prices can cause movements in exchange rates and vice versa. These sensitivities should therefore be used with care.

<b>Estimated impact on FY2011 profit after taxation of changes of:</b>	<b>US\$M</b>
US\$1/bbl on oil price	43
US¢1/lb on aluminium price	20
US¢1/lb on copper price	18
US¢1/lb on nickel price	1
US\$1/t on iron ore price	80
US\$1/t on manganese alloy	0.5
US\$1/dmtu on manganese ore	138
US\$1/t on metallurgical coal price	22
US\$1/t on energy coal price	24

The impact of the commodity price movements in FY2011 is discussed in section 3.6 Operating results .

### **3.4.2 Freight markets**

The bulk freight market is typically categorised by the size of the vessel. Capesize vessels are typically classified as having deadweight above 150 thousand deadweight tonnes (kdwt) compared with Panamax and Supramax vessels, which are 60 to 100 kdwt and 50 to 60 kdwt respectively.

The Capesize average 4 Time Charter rate, being a particular rate published by the Baltic Exchange, declined from US\$24,239 per day at the beginning of FY2011 to US\$12,732 per day at year end. Capesize freight rates dropped as low as US\$4,567 per day in February 2011 as major supplying regions suffered adverse weather conditions resulting in lower cargo availability. The Panamax average 6 Time Charter rate declined from US\$22,113 per day at the beginning of FY2011 to US\$12,823 per day at the year-end. The Supramax average 4 Time Charter rate decreased from US\$21,607 per day at the beginning of FY2011 to US\$13,682 per day at the year-end. Although the demand for bulk commodities was strong, the freight market saw oversupply due to the many newbuild vessels entering the market. The total dry bulk fleet grew by 17 per cent year-on-year in CY2010, the fastest growth for many years.

### **3.4.3 Exchange rates**

We are exposed to exchange rate transaction risk on foreign currency sales and purchases as we believe that active currency hedging does not provide long-term benefits to our shareholders. Because a majority of our sales are denominated in US dollars, and the US dollar plays a dominant role in our business, we borrow and hold surplus cash predominantly in US dollars to provide a natural hedge. Operating costs and costs of local equipment are influenced by the fluctuations in the Australian dollar, South African rand, Chilean peso and Brazilian real. Foreign exchange gains and losses reflected in operating costs owing to fluctuations in the abovementioned currencies relative to the US dollar may potentially offset one another. The Australian dollar, Brazilian real, Chilean peso and South African rand strengthened against the US dollar during FY2011.

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We are also exposed to exchange rate translation risk in relation to net monetary liabilities, being our foreign currency denominated monetary assets and liabilities, including debt and other long-term liabilities (other than closure and rehabilitation provisions at operating sites where foreign currency gains and losses are capitalised in property, plant and equipment).

Details of our exposure to foreign currency fluctuations are contained within note 28 Financial risk management to the financial statements.

### **3.4.4 Interest rates**

We are exposed to interest rate risk on our outstanding borrowings and investments. Our policy on interest rate exposure is for interest on our borrowings to be on a US dollar floating interest rate basis. Deviation from our policy requires the prior approval of our Financial Risk Management Committee, and is managed within our Cash Flow at Risk (CFaR) limit, which is described in note 28 Financial risk management in the financial statements. When required under this strategy, we use interest rate swaps, including cross currency interest rate swaps, to convert a fixed rate exposure to a floating rate exposure. As at 30 June 2011, we had US\$0.8 billion of fixed interest borrowings that had not been swapped to floating rates, arising principally from legacy positions that were in existence prior to the merger that created the DLC structure.

### **3.4.5 Changes in product demand**

Global economic growth slowed during the second half of FY2011 as emerging economies tightened monetary policy, the Japanese tsunami disrupted trade flows and fiscal austerity measures adversely affected demand. Global imbalances and high levels of sovereign debt continue to create uncertainty and a protracted recovery remains our base case assumption for the developed world. However, a coordinated policy response has the potential to engender confidence and ease the volatility that has been the dominant theme of recent years.

Across the important growth economies of China and India, recent economic data suggests monetary policy is having the intended effect. That said, growth in fixed asset investment in China has remained resilient and is yet to fully reflect the recent policy response.

Despite these near term challenges, we remain positive on the longer-term outlook for the global economy. Over the past decade, emerging economies have contributed more to global growth than the developed world and we expect their share to expand as the process of urbanisation and industrialisation continues.

### **3.4.6 Operating costs and capital expenditure**

During FY2011, total cash costs increased by four per cent, which arose from increases in costs that are structural in nature. Higher fuel and energy prices (of which BHP Billiton is a net beneficiary) together with increased maintenance, labour and contractor costs are consistent with the corresponding level of activity occurring within the mining industry as a whole. In conjunction with safety and volumes, cost control continues to be a key area of focus for each area of operation.

Our commitment to long-term growth and shareholder value remains unchanged, and we continued to invest strongly in capital expenditure and growth projects. Details of our growth projects can be found in section 3.7.2.

### **3.4.7 Exploration and development of resources**

Because most of our revenues and profits are related to our oil and gas and minerals operations, our results and financial condition are directly related to the success of our exploration efforts and our ability to replace existing reserves. However, there are no guarantees that our exploration program will be successful. When we



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identify an economic deposit, there are often significant challenges and hurdles entailed in its development, such as negotiating rights to extract ore with governments and landowners, design and construction of required infrastructure, utilisation of new technologies in processing and building customer support.

### **3.4.8 Health, safety, environment and community**

We are subject to extensive regulation surrounding the health and safety of our people and the environment. We make every effort to comply with the regulations and, where less stringent than our standards, exceed applicable legal and other requirements. However, regulatory standards and community expectations are constantly evolving. As a result, we may be exposed to increased litigation, compliance costs and unforeseen environmental rehabilitation expenses, despite our best efforts to work with governments, community groups and scientists to keep pace with regulations, law and public expectations.

Further information about our compliance with HSEC regulations can be found in section 2.8 of this Report.

### **3.4.9 Insurance**

During FY2011, we maintained an insurance program with policies encompassing property damage, business interruption, public and certain other liabilities and directors and officers' exposures. The program includes a combination of self-insurance via subsidiary captive insurance companies, industry mutuals and external market re-insurance. Mandates are established as to risk retention levels, policy cover and, where applicable, reinsurance counter parties. As part of our portfolio risk management policy, we regularly conduct an assessment of maximum foreseeable loss potential, cash flow at risk, loss experience, claims received and insurance premiums paid and will make adjustments to the balance of self-insurance and reinsurance as required.

The Group continues to be largely self-insured for losses arising from property damage and business interruption, sabotage and terrorism, marine cargo and construction. For these risks, we internally insure our operations (for wholly-owned assets and for our share of joint venture assets) via our captive insurance companies. Any losses incurred will consequently impact the financial statements as they arise.

## **3.5 Application of critical accounting policies**

The preparation of our consolidated financial statements requires management to make estimates and judgements that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities at the date of the financial statements and the reported revenue and costs during the periods presented therein. On an ongoing basis, management evaluates its estimates and judgements in relation to assets, liabilities, contingent liabilities, revenue and costs. Management bases its estimates and judgements on historical experience and on various other factors it believes to be reasonable under the circumstances, the results of which form the basis of making judgements about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions.

We have identified the following critical accounting policies under which significant judgements, estimates and assumptions are made and where actual results may differ from these estimates under different assumptions and conditions and may materially affect financial results or the financial position reported in future periods:

reserve estimates;

exploration and evaluation expenditure;

development expenditure;

property, plant and equipment recoverable amount;



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defined benefit pension schemes;

provision for closure and rehabilitation;

taxation.

In accordance with IFRS, we are required to include information regarding the nature of the estimates and judgements and potential impacts on our financial results or financial position in the financial statements. This information can be found in note 1 Accounting policies in the financial statements.

### **3.6 Operating results**

#### **3.6.1 Consolidated results**

##### **Year ended 30 June 2011 compared with year ended 30 June 2010**

Our strategic focus on large, low-cost and expandable assets once again delivered record financial performance and returns. Underlying EBITDA and attributable profit (excluding exceptional items) increased by 51 per cent and 74 per cent respectively, while Underlying return on capital, excluding investment associated with projects not yet in production, increased to 50 per cent. The strong increase in the Group's Underlying EBIT margin to 47 per cent emphasises the quality of BHP Billiton's diversified portfolio.

An ongoing commitment to invest through all points of the economic cycle delivered record annual production across four commodities and 10 operations. Our decision to invest in our Western Australia Iron Ore business during the depths of the global financial crisis facilitated an eleventh consecutive annual increase in iron ore production, as prices continued to test new highs. Three major projects delivered first production in FY2011, including the New South Wales Energy Coal MAC20 Project (Australia), which was completed ahead of schedule.

Robust demand, industry-wide cost pressures and persistent supply side constraints continued to support the fundamentals for the majority of BHP Billiton's core commodities. In that context, another strong year of growth in Chinese crude steel production ensured steelmaking material prices were the major contributing factor to the US\$17,228 million price related increase in Underlying EBIT.

However, we have regularly highlighted our belief that costs tend to lag the commodity price cycle as consumable, labour and contractor costs are broadly correlated with the mining industry's level of activity. In the current environment, tight labour and raw material markets are presenting a challenge for all operators, and BHP Billiton is not immune from that trend. The devaluation of the US dollar and inflation reduced Underlying EBIT by a further US\$3,161 million.

Record operating cash flow of US\$30,080 million continues to create substantial flexibility for the Group. In the 12-month period alone, we have invested US\$12,387 million across our tier one portfolio of minerals and energy assets, completed a US\$10 billion capital management program and finalised the acquisition of Chesapeake Energy Corporation's interests in the Fayetteville Shale assets (US). Notwithstanding those achievements, net gearing of nine per cent at the end of FY2011 ensures BHP Billiton has the capacity to comfortably fund its extensive organic growth program and the US\$15.1 billion acquisition of Petrohawk Energy Corporation that was announced on 14 July 2011. Importantly, the Group remains committed to a solid A credit rating.

The consistent and disciplined manner in which we return excess capital to shareholders was further illustrated by the completion of our expanded US\$10 billion capital management program on 29 June 2011, six months ahead of schedule. Completion of the substantial program in such a timely manner highlights our commitment to maintain an appropriate capital structure, irrespective of the economic cycle. Since 2004, the Group has repurchased a cumulative US\$22,600 million of Limited (Ltd) and Plc shares, representing 15 per cent of then issued capital.

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Confidence in the long-term outlook for our core commodity markets and the accelerated purchase and cancellation of four per cent of issued capital during FY2011 has enabled the BHP Billiton Board to declare a 22 per cent rebasing of the final dividend. The increase in the full year payout to 101 US cents per share is consistent with the Group's commitment to its progressive dividend policy.

Revenue was US\$71.7 billion, an increase of 35.9 per cent from US\$52.8 billion in the corresponding period.

Our profit attributable to members of BHP Billiton of US\$23.6 billion represents an increase of 85.9 per cent from the corresponding period. Attributable profit excluding exceptional items of US\$21.7 billion represents an increase of 73.9 per cent from the corresponding period.

On 24 August 2011, the Board declared a final dividend of 55 US cents per share, thus bringing the total dividends declared for FY2011 to 101 US cents per share, an increase of 16.1 per cent over the corresponding period. Capital management initiatives are discussed in section 3.7.6 of this Report.

### **Year ended 30 June 2010 compared with year ended 30 June 2009**

We delivered another strong set of results in FY2010 despite significant volatility in the macroeconomic environment with growth in Underlying EBIT of eight per cent. Record sales volumes were achieved in three of our major commodities as our focus on efficiency and productivity at all points in the cycle ensured we were well positioned to capitalise on the recovery in demand and prices. Local currency costs were well controlled across the Group; however, the weaker US dollar had a negative exchange rate impact of US\$2,150 million.

The combination of these factors underpinned strong margins and returns. For the sixth consecutive year, we recorded an Underlying EBIT margin of around 40 per cent, while Underlying return on capital was 26 per cent. Excluding capital investment associated with projects not yet in production, Underlying return on capital was 30 per cent.

Operating cash flow for the year remained strong at US\$16,890 million and resulted in net debt declining further to US\$3,308 million, with net gearing falling to six per cent. These results continue to demonstrate the strength of our uniquely diversified business model and world-class, low-cost asset portfolio.

We invested heavily in our business and successfully delivered another five growth projects, including those in petroleum and iron ore. We approved two major growth projects (with a combined budget of US\$695 million) and made pre-commitments totalling US\$2,237 million (our share) to accelerate early works for another four. To underline the depth of our project pipeline, there were 20 projects in various stages of execution and feasibility with an estimated budget in excess of US\$25 billion.

We also bolstered our upstream resource base with the acquisition of Athabasca Potash Inc. (Canada) and United Minerals Corporation NL (Australia, Iron Ore). On 20 August 2010, we launched an all-cash offer to acquire all of the issued and outstanding common shares of Potash Corporation of Saskatchewan Inc. (PotashCorp) at a price of US\$130 in cash per PotashCorp common share.

Revenue was US\$52.8 billion, an increase of 5.2 per cent from US\$50.2 billion in FY2009.

Our profit attributable to members of BHP Billiton of US\$12.7 billion represented an increase of 116.5 per cent from FY2009. Attributable profit excluding exceptional items of US\$12.5 billion represented an increase of 16.3 per cent from FY2009.

On 25 August 2010, the Board declared a final dividend of 45 US cents per share, thus bringing the total dividends declared for FY2010 to 87 US cents per share. Capital management initiatives are discussed in section 3.7.6 of this Report.

**Table of Contents****3.6.2 Consolidated results Underlying EBIT**

In discussing the operating results of our business, we focus on a financial measure we refer to as Underlying EBIT. Underlying EBIT is the key measure that management uses internally to assess the performance of our business, make decisions on the allocation of resources and assess operational management. Management uses this measure because financing structures and tax regimes differ across our assets and substantial components of our tax and interest charges are levied at a Group, rather than an operational level. Underlying EBIT is calculated as earnings before interest and taxation (EBIT), which is referred to as profit from operations in the income statement, excluding the effects of exceptional items.

We exclude exceptional items from Underlying EBIT in order to enhance the comparability of the measure from period to period and provide clarity into the underlying performance of our operations. Our management monitors exceptional items separately.

A reconciliation from Underlying EBIT to profit from operations can be found in section 3.3 Key measures .

The following table and commentary describe the approximate impact of the principal factors that affected Underlying EBIT for FY2011 and FY2010.

Year ended 30 June	2011 US\$M	2011 US\$M	2010 US\$M	2010 US\$M
<b>Underlying EBIT as reported in the prior year</b>		<b>19,719</b>		<b>18,214</b>
Change in volumes:				
Increase in volumes	<b>841</b>		2,142	
Decrease in volumes	<b>(1,422)</b>		(206)	
		<b>(581)</b>		1,936
Net price impact:				
Change in sales prices	<b>18,648</b>		&nbs	