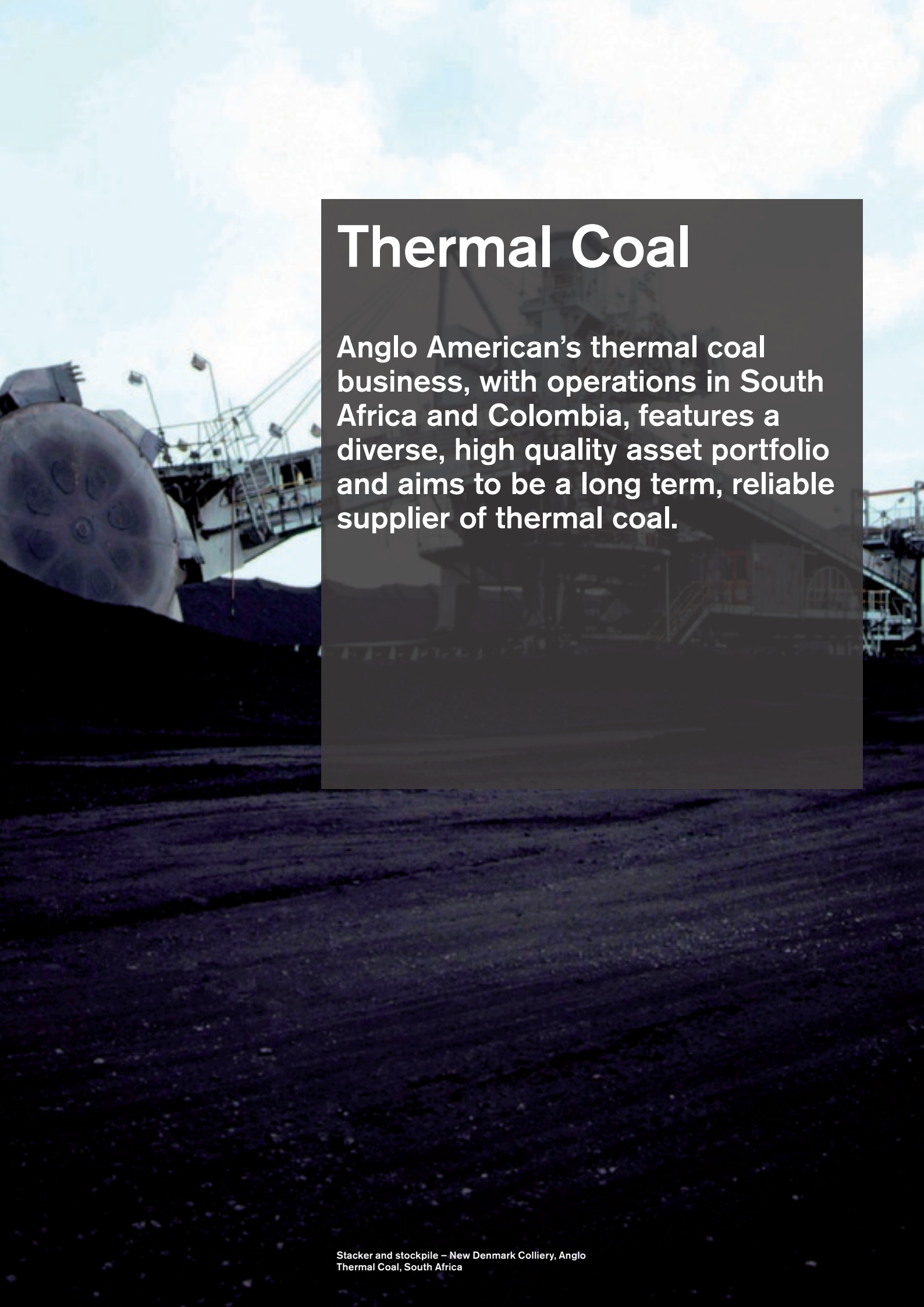
# Thermal Coal

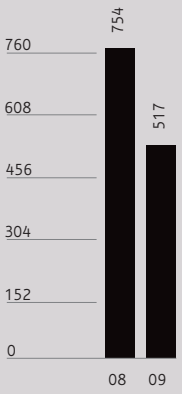
**Anglo American's thermal coal business, with operations in South Africa and Colombia, features a diverse, high quality asset portfolio and aims to be a long term, reliable supplier of thermal coal.**



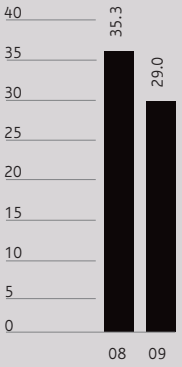
Stacker and stockpile – New Denmark Colliery, Anglo Thermal Coal, South Africa

# Financial highlights[1]

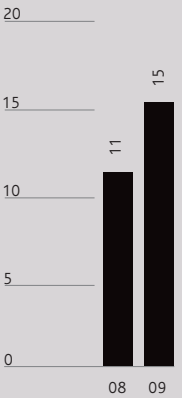
## Underlying earnings ($m)



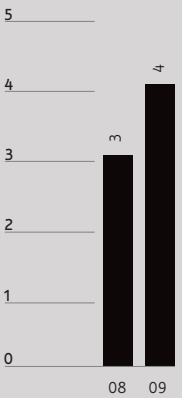

## Operating margin (%)



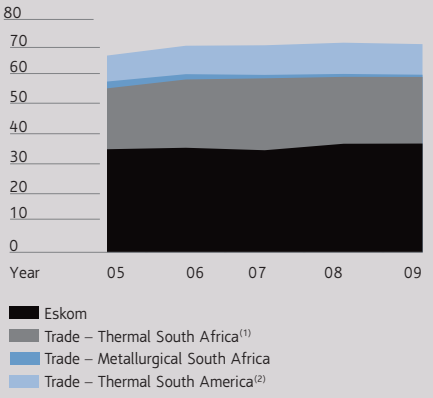

## Share of Group operating profit (%)



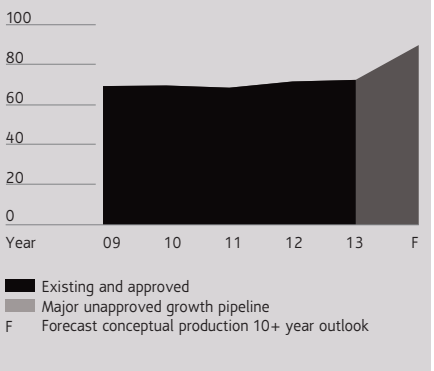

## Share of Group net operating assets (%)




## Anglo Coal production (Mt)




## Thermal coal potential attributable production (Mt)




Source: Anglo American

(1) Due to the portfolio and management structure changes announced in October 2009, the segments have changed from those reported at 31 December 2008. 2008 comparatives have been reclassified to align with current year presentation. The segment results include an allocation of corporate costs.

# Financial data

| US$m | 2009 | 2008 |
|---|---|---|
| **Turnover** | | |
| Subsidiaries | **1,748** | 2,210 |
| Joint ventures | **–** | – |
| Associates | **742** | 841 |
| **Total turnover** | **2,490** | **3,051** |
| Of which: | | |
| South Africa | **1,748** | 2,210 |
| South America | **742** | 841 |
| **EBITDA** | **875** | **1,200** |
| Of which: | | |
| South Africa | **550** | 814 |
| South America | **352** | 419 |
| Projects and corporate | **(27)** | (33) |
| **Depreciation and amortisation** | **154** | **293** |
| **Operating profit before special items and remeasurements** | **721** | **1,078** |
| Of which: | | |
| South Africa | **442** | 736 |
| South America | **305** | 375 |
| Projects and corporate | **(26)** | (33) |
| Operating special items and remeasurements | **(6)** | 2 |
| **Operating profit after special items and remeasurements** | **715** | **1,080** |
| **Net interest, tax and minority interests** | **(204)** | **(324)** |
| **Underlying earnings** | **517** | **754** |
| Of which: | | |
| South Africa | **328** | 543 |
| South America | **215** | 243 |
| Projects and corporate | **(26)** | (32) |
| **Net operating assets** | **1,707** | **1,018** |
| **Capital expenditure** | **400** | **365** |

# Business overview

**69.3**
Mt 2009 production from Thermal Coal

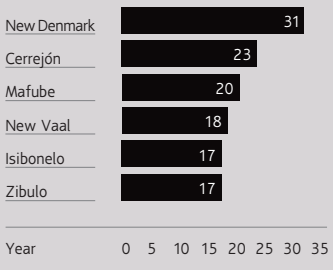
**9**
wholly owned mines in South Africa

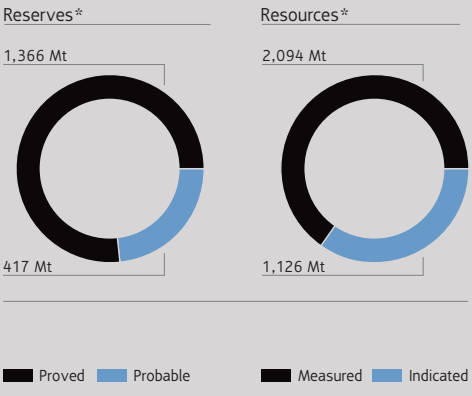
**512**
$ m – cost of Zibulo project due to come fully on stream in 2012

## Financial highlights: Thermal Coal

| $ million (unless otherwise stated) | 2009 | 2008 |
|---|---|---|
| Operating profit | **721** | 1,078 |
| South Africa | **442** | 736 |
| South America | **305** | 375 |
| Projects and corporate | **(26)** | (33) |
| EBITDA | **875** | 1,200 |
| Net operating assets | **1,707** | 1,018 |
| Capital expenditure | **400** | 365 |
| Share of Group operating profit | **15%** | 11% |
| Share of Group net operating assets | **4%** | 3% |

## Life of Mine and Thermal Coal Reserves and Resources



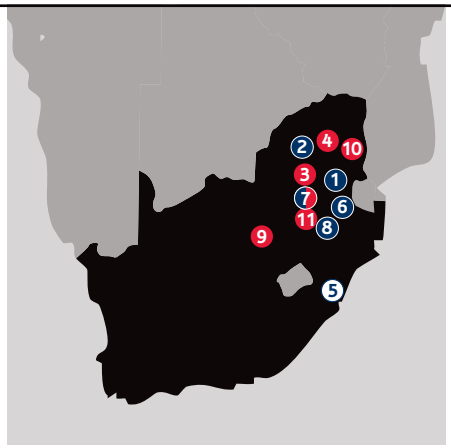

Source: Anglo American

* Saleable tonnes including Colombian export thermal and South African export thermal, other metallurgical, domestic power and Synfuel coal reserves. The figures reported represent 100% of the Saleable Ore Reserves and Mineral Resources; the percentage attributable to Anglo American plc is stated separately on pages 109-113. Coal Reserves are additional to Coal Resources.

In South Africa, Thermal Coal owns and operates nine mines and has a 50% interest in the Mafube colliery and Phola washing plant. Five of the mines together supply 22 Mtpa of thermal coal to both export and local markets. New Vaal, New Denmark and Kriel collieries are domestic product operations supplying 32 Mtpa of thermal coal to Eskom, the state-owned power utility. Isibonelo mine produces 5 Mtpa of thermal coal for Sasol Synthetic Fuels, the coal to liquids producer, under a 20 year supply contract.

Anglo Inyosi Coal, a broad-based black economic empowerment (BBBEE) company valued at approximately $1 billion, is 73% held by Anglo American, with the remaining 27% held by Inyosi, a BEE consortium led by the Pamodzi and Lithemba consortia (66%), with the Women's Development Bank and a community trust holding the remaining equity. Anglo Inyosi Coal, in turn, holds Kriel colliery, the new Zibulo multi-product project (previously known as the Zondagsfontein project) and the greenfield projects of Elders, New Largo and Heidelberg. The outstanding conditions precedent to the Anglo Inyosi Coal transaction are expected to be fulfilled in the first half of 2010, following which the transaction will complete.

Thermal Coal's South African operations currently route all export thermal coal through the Richards Bay Coal Terminal (RBCT), in which it has a 27% shareholding, to customers throughout the Med-Atlantic and Asia-Pacific regions. Within South Africa, 61% of total sales are made to Eskom on long term (i.e. life of mine) cost-plus contracts. A further 9% is sold to Sasol and 3% to industrial sector consumers. The remaining 27% is exported through RBCT.




**South Africa**

Export/Industrial

| | | |
|---|---|---|
| 1 | 100% | Goedehoop |
| 2 | 100% | Greenside |
| 3 | 100% | Kleinkopje |
| 4 | 100% | Landau |
| 5 | 27.5% | Richards Bay Coal Terminal |
| 6 | | Zibulo |

Eskom/Other domestic

| | | |
|---|---|---|
| 7 | 73% | Kriel |
| 8 | 100% | New Denmark |
| 9 | 100% | New Vaal |
| 10 | 50% | Mafube |
| 11 | 100% | Isibonelo |

In South America, Anglo American has a 33.3% shareholding in Cerrejón, a 32 Mtpa capacity (10.7 Mtpa attributable) opencast operation in Colombia. Cerrejón owns and operates its own rail and deep water port facilities and sells into the export thermal and PCI coal markets.

Production from Anglo Coal's South American operations is sold predominantly to Med-Atlantic region customers.


**South America**

| | | |
|---|---|---|
| 1 | 33% | Cerrejón (Colombia) |

**Key**

- Underground
- Open Cut
- Other

# Industry overview

Coal is the most abundant source of fossil fuel energy in the world, considerably exceeding known reserves of oil and gas. The bulk of coal produced worldwide is thermal coal, which is used as a fuel for power generation and other industries, notably the cement sector. The seaborne thermal coal market comprises nearly 700 Mt and is supplied from a large number of countries, with coal producers operating in a highly competitive global marketplace.

Thermal coal usage is driven by the demand for electricity and is influenced by the price of competing fuels, such as oil and gas and, increasingly, the cost of carbon. Global thermal coal demand is also affected by the availability of alternative generating technologies, including gas, nuclear, hydroelectricity and renewables. The market for export thermal coal is further impacted by the varying degrees of privatisation and deregulation in electricity markets, with customers focused on securing the lowest cost fuel supply in order to produce power at a competitive price. This has resulted in a move away from longer term contracts towards shorter term contracts priced against various coal price indices, which has given rise to the development of an increasingly active financial market for hedging and derivative instruments. The extent to which these pricing instruments are used, however, varies from region to region.

## Markets

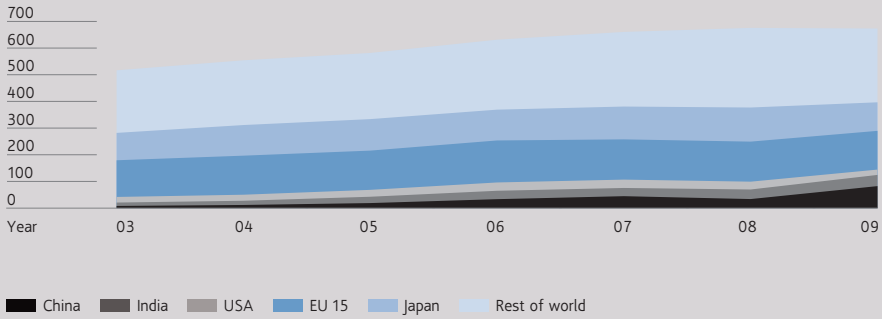
| Anglo American weighted average achieved FOB prices ($/tonne) | 2009 | 2008 |
|---|---|---|
| RSA export thermal | **64.46** | 84.54 |
| RSA domestic thermal | **18.48** | 20.41 |
| South American export thermal | **72.98** | 81.33 |

| Attributable sales volumes (thousand tonnes) | 2009 | 2008 |
|---|---|---|
| RSA export thermal | **15,857** | 15,916 |
| RSA domestic thermal | **6,251** | 7,046 |
| South American export thermal | **10,854** | 11,568 |

2009 saw considerable price and market trend changes compared with 2008. The average 2009 FOB index price for South African thermal coal exports (API4) was $65 per tonne, compared with $120 per tonne in 2008.

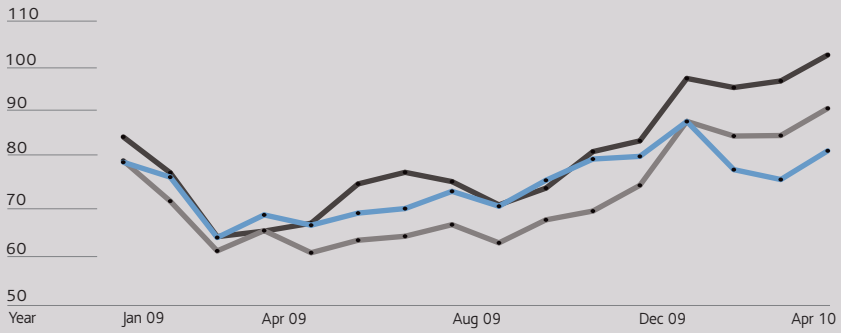
Driven by a suppressed industrial sector, European power demand in 2009 decreased significantly. The softer oil price and an abundance of cheap gas contributed to lower demand for imported coal, resulting in increased stockpiles. In contrast, the Pacific market continued to see growth, with increasing demand for imported thermal coal. As China was able to accommodate large volumes of Indonesian and Australian exports, India turned to South Africa to meet its escalating demand for thermal coal. The proportion of South African coal exports shipped to Asia in 2009 was 41%, compared with 18% in 2008, with 29% going to India. In the absence of European demand, this ability to deploy coal eastwards gave support to both South African export volumes and prices. With the Pacific market driving the API4 price as 2009 progressed, the flow of coal away from the Atlantic became increasingly evident. Colombian and US exports were generally not as competitive in the Asian markets as in the Atlantic market due to comparatively higher freight costs during the year.

## Estimated seaborne thermal coal demand
(Mt)



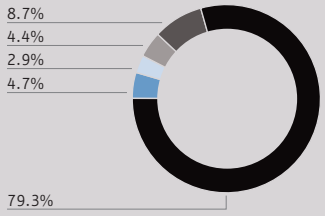

Source: AME

## Historical Prices Thermal Coal
(USD/mt)




Source: globalCOAL

## Internationally traded thermal coal export production by company (2009) (%)



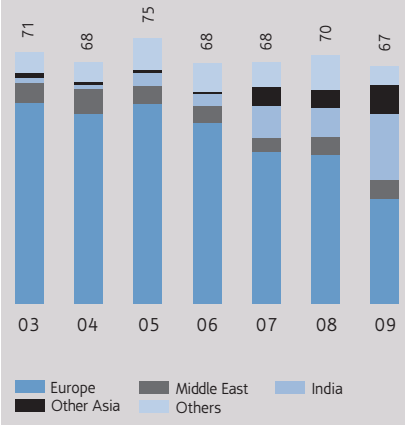

World estimated 2009 seaborne thermal coal = 673.1 Mt

Anglo American
Rio Tinto
BHP Billiton
Xstrata
Other

Notes:
1. Anglo American market share shown relative to diversified majors peer group
2. 2009 forecast based on equity holdings and production estimates as at January 2010

Source: AME

## Export Thermal Coal from South Africa
(Mt)




Source: Anglo American

# Strategy and growth

Thermal Coal's strategy is focused on serving the power generation and industrial sectors from large, low cost coal basins. The business unit has a diverse, high quality asset portfolio in South Africa and South America and aims to be a long term, reliable supplier. It also strives to be an industry leader in the pursuit of cleaner coal solutions to the world's energy needs.

Thermal Coal is focused on expanding its strong standing in the export market, while maintaining a significant position in the domestic market in South Africa. This strategy will be delivered through its extensive portfolio of expansion projects, supported by targeted acquisitions. In addition, it has substantially completed a major programme of investment, which includes expansions at Cerrejón and the development of Zibulo. The business unit is in the process of completing its pre-feasibility study on New Largo, which has been identified by Eskom as a primary coal supplier to its Kusile power station which is under construction. Kusile's first units are scheduled to be operating in 2013 and Thermal Coal is confident that it will be able to deliver coal on time.

India is an ever growing market for South African-sourced coal, with 2009 showing a pronounced swing from the Med-Atlantic to the Asia-Pacific market. For the year as a whole, 29% of South Africa's coal exports, and a similar proportion of Thermal Coal's own exports, through the RBCT were destined for India. Thermal Coal is evaluating opportunities to increase its exports to India by producing lower quality products suitable for the Indian market to supplement the higher grade product currently being sold to the country.

At Cerrejón, the growth strategy encompasses multiple options based on the capital investment for expansion that will be required by the port and logistics chain and thereafter for pit expansion and reserve access. Expansions such as the P40 (targeting 40 Mtpa) and P500 (targeting 50-60 Mtpa) projects are currently under consideration by the operation's shareholders.

Although Thermal Coal continues to develop operations in its existing geographies, it is also continually evaluating potential opportunities in new regions. Following the establishment of an office in Gaborone to manage its coal bed methane (CBM) exploration programme in Botswana in 2008, the business unit spent $20 million in 2009 on exploration and new business development activities, investigating thermal and coking coal and CBM resources mainly in southern Africa.

Thermal Coal continues to pursue business development opportunities on a range of projects that offer potential exposure to the broader energy markets, while building on the business's core capability in coal, namely CBM exploration in South Africa and Botswana. Although these projects remain at an early stage and have demanding economics, they ensure that Thermal Coal is equipped with a diverse range of options to meet changing market demands over the long term.

Miners discuss plant operations at Greenside colliery, which mined 3.3 Mt of thermal coal in 2009, predominantly destined for the export market.

## Projects

In South Africa, the $512 million, 6.6 Mtpa Zibulo project is under construction, including the building of a 50:50 joint venture coal washing plant with BHP Billiton Energy Coal South Africa. The project is on schedule, with first coal produced during the third quarter of 2009 and it will continue to ramp up during the course of 2010, reaching full production in 2012.

In Colombia, the $130 million expansion at Cerrejón to 32 Mtpa was completed and full production was achieved early in 2009. Feasibility studies are under way to expand the operation to around 40 Mtpa.

## Project pipeline

### Zibulo (previously Zondagsfontein) — Overall capex: $512m (100%)

| | |
|---|---|
| Country | **South Africa** |
| Ownership | **73% Anglo Coal** |
| Production volume | **6.6 Mtpa thermal (100%)** |
| Full project capex | **$512m (100%)** |
| Full production | **Q4 2012** |

In South Africa the Zibulo project is under construction and includes a 50:50 joint venture plant (Phola) with BHP Billiton Energy coal South Africa. The project is on schedule, with first coal produced during the third quarter of 2009 and it will continue to ramp up during the course of 2010, reaching full production of 6.6 Mtpa of thermal coal in 2012.

# Production data

| Production (tonnes) | 2009 | 2008 | 2007 | 2006 | 2005 |
|---|---|---|---|---|---|
| **South Africa** | | | | | |
| Eskom | 36,225,100 | 36,158,100 | 34,064,000 | 34,821,200 | 34,327,900 |
| Trade Thermal | 22,185,900[1] | 22,286,800 | 23,952,400 | 22,754,000 | 20,281,100 |
| Trade Metallurgical | 747,100 | 971,900 | 1,143,700 | 1,768,200 | 2,268,800 |
| **South Africa Total** | **59,158,100[1]** | **59,416,800** | **59,160,100** | **59,343,400** | **56,877,800** |
| **South America[2]** | | | | | |
| Thermal | 10,189,600 | 10,410,300 | 9,875,400 | 9,477,200 | 8,656,300 |
| **Total Thermal Coal segment** | **69,347,700[1]** | **69,827,100** | **69,035,500** | **68,820,600** | **65,534,100** |
| | | | | | |
| **South Africa** | | | | | |
| Bank | – | – | 51,900 | 477,600 | 3,202,200 |
| Greenside | 3,294,600 | 3,401,100 | 3,314,900 | 2,778,100 | 2,730,000 |
| Goedehoop | 6,905,000 | 7,449,400 | 8,456,200 | 8,534,500 | 6,298,600 |
| Isibonelo | 5,061,900 | 5,152,100 | 5,001,000 | 4,020,100 | 1,358,300 |
| Kriel | 11,161,700 | 10,344,400 | 11,210,100 | 12,318,400 | 12,030,900 |
| Kleinkopje | 4,414,000 | 4,545,600 | 3,490,700 | 3,898,400 | 4,483,500 |
| Landau | 4,231,500 | 4,089,300 | 4,058,200 | 4,102,400 | 3,682,900 |
| New Denmark | 3,728,900 | 5,272,500 | 5,134,700 | 5,508,500 | 4,139,400 |
| New Vaal | 17,553,700 | 17,034,400 | 17,119,500 | 16,275,000 | 17,100,000 |
| Nooitgedacht | 475,000 | 454,600 | 565,700 | 711,000 | 794,400 |
| Mafube | 2,212,800 | 1,673,400 | 757,200 | 719,400 | 1,057,600 |
| Zibulo | 119,000 | – | – | – | – |
| **Total** | **59,158,100[1]** | **59,416,800** | **59,160,100** | **59,343,400** | **56,877,800** |
| **South America[2]** | | | | | |
| Carbones Del Cerrejón | 10,189,600 | 10,410,300 | 9,875,400 | 9,477,200 | 8,656,300 |
| **Total** | **10,189,600** | **10,410,300** | **9,875,400** | **9,477,200** | **8,656,300** |

[1] Zibulo (previously Zondagsfontein) is currently not in commercial production and therefore all revenue and related costs associated with 119,000 tonnes of production have been capitalised.

[2] South American production excludes Carbones del Guasare which was identified as non-core in 2009.

# Ore Reserve and Mineral Resource estimates as at 31 December 2009

The Coal Reserve and Coal Resource estimates were compiled in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves (The JORC Code, 2004) as a minimum standard. Where relevant, the estimates were also prepared in compliance with regional codes and requirements (e.g. The SAMREC Code, 2007). The figures reported represent 100% of the Ore Reserves and Mineral Resources, the percentage attributable to Anglo American plc is stated separately. Rounding of figures may cause computational discrepancies. During 2009, Anglo Coal was restructured into three discrete business units: Anglo American Metallurgical Coal representing the dominantly export metallurgical coal business located in Australia; Anglo American Thermal Coal representing the dominantly export and domestic thermal coal business, located in South Africa and Colombia; and the Remaining Coal mines and projects located in Canada and Venezuela. THE COAL RESOURCES ARE REPORTED AS ADDITIONAL TO THE COAL RESERVES.

| **Thermal Coal Reserves**[1] | | | | ROM Tonnes[3] | | Yield[4] | | Saleable Tonnes[3] | | Saleable Quality[5] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Colombia** | Attributable %[2] | LOM | Classification | **2009** | 2008 | **2009** | 2008 | **2009** | 2008 | **2009** | 2008 |
| Cerréjon (OC) | 33.3 | 23 | | **Mt** | Mt | **%** | % | **Mt** | Mt | **kcal/kg** | kcal/kg |
| Export Thermal | | | Proved | **646.6** | 519.3 | **96.2** | 96.9 | **621.4** | 502.9 | **6,210** | 6,200 |
| | | | Probable | **50.7** | 241.0 | **96.2** | 96.9 | **48.9** | 233.4 | **6,210** | 6,200 |
| | | | **Total** | **697.3** | 760.2 | **96.2** | 96.9 | **670.3** | 736.3 | **6,210** | 6,200 |
| **Colombia Export Thermal** | 33.3 | | | | | | | | | **kcal/kg** | kcal/kg |
| | | | Proved | **646.6** | 519.3 | **96.2** | 96.9 | **621.4** | 502.9 | **6,210** | 6,200 |
| | | | Probable | **50.7** | 241.0 | **96.2** | 96.9 | **48.9** | 233.4 | **6,210** | 6,200 |
| | | | **Total** | **697.3** | 760.2 | **96.2** | 96.9 | **670.3** | 736.3 | **6,210** | 6,200 |

| **Thermal Coal Reserves**[1] | | | | ROM Tonnes[3] | | Yield[4] | | Saleable Tonnes[3] | | Saleable Quality[5] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **South Africa** | Attributable %[2] | LOM | Classification | **2009** | 2008 | **2009** | 2008 | **2009** | 2008 | **2009** | 2008 |
| Goedehoop (UG&OC) | 100 | 10 | | **Mt** | Mt | **%** | % | **Mt** | Mt | **kcal/kg** | kcal/kg |
| Export Thermal | | | Proved | **25.5** | 50.5 | **59.9** | 49.9 | **15.5** | 26.3 | **6,240** | 6,200 |
| | | | Probable | **85.6** | 81.2 | **54.5** | 54.2 | **47.5** | 45.1 | **6,180** | 6,130 |
| | | | **Total** | **111.1** | 131.7 | **55.7** | 52.6 | **63.0** | 71.4 | **6,190** | 6,150 |
| Other Metallurgical | | | Proved | | | – | 2.0 | – | 1.0 | – | 6,990 |
| | | | Probable | | | – | – | – | – | – | – |
| | | | **Total** | | | – | **0.8** | – | **1.0** | – | **6,990** |
| Greenside (UG) | 100 | 12 | | | | | | | | | |
| Export Thermal | | | Proved | **39.8** | 19.5 | **59.0** | 63.2 | **24.3** | 12.6 | **6,190** | 6,240 |
| | | | Probable | **2.4** | 12.2 | **63.0** | 60.3 | **1.5** | 7.5 | **6,190** | 6,220 |
| | | | **Total** | **42.1** | 31.7 | **59.2** | 62.1 | **25.8** | 20.1 | **6,190** | 6,230 |
| Isibonelo (OC) | 100 | 17 | | | | | | | | | |
| Synfuel | | | Proved | **84.5** | 90.6 | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |
| | | | Probable | – | – | – | – | – | – | – | – |
| | | | **Total** | **84.5** | 90.6 | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |
| Kleinkopje (OC) | 100 | 14 | | | | | | | | | |
| Export Thermal | | | Proved | **77.1** | 81.9 | **33.8** | 32.9 | **26.4** | 27.3 | **6,220** | 6,220 |
| | | | Probable | **21.3** | 25.4 | **48.4** | 49.0 | **10.4** | 12.6 | **6,230** | 6,230 |
| | | | **Total** | **98.4** | 107.4 | **37.0** | 36.7 | **36.8** | 39.9 | **6,220** | 6,220 |
| Domestic Power | | | Proved | | | **37.5** | 40.6 | **29.5** | 33.2 | **4,490** | 4,530 |
| | | | Probable | | | – | – | – | – | – | – |
| | | | **Total** | | | **29.4** | 31.0 | **29.5** | 33.2 | **4,490** | 4,530 |
| Kriel (UG&OC) | 73.0 | 16 | | | | | | | | | |
| Domestic Power | | | Proved | **67.0** | 82.1 | **100** | 100 | **67.0** | 82.1 | **4,790** | 4,800 |
| | | | Probable | **64.3** | 62.4 | **100** | 100 | **64.3** | 62.4 | **4,500** | 4,500 |
| | | | **Total** | **131.3** | 144.5 | **100** | 100 | **131.3** | 144.5 | **4,650** | 4,670 |
| Landau (OC) | 100 | 11 | | | | | | | | | |
| Export Thermal | | | Proved | **48.0** | 37.5 | **52.8** | 50.1 | **25.1** | 18.8 | **6,300** | 6,270 |
| | | | Probable | **21.4** | 27.8 | **50.7** | 48.4 | **11.0** | 13.4 | **6,370** | 6,260 |
| | | | **Total** | **69.5** | 65.3 | **52.2** | 49.4 | **36.1** | 32.3 | **6,320** | 6,270 |
| Domestic Power | | | Proved | | | **7.0** | 10.6 | **3.4** | 4.0 | **4,450** | 3,340 |
| | | | Probable | | | **9.1** | 15.3 | **2.0** | 4.2 | **3,900** | 4,690 |
| | | | **Total** | | | **7.6** | 12.6 | **5.4** | 8.2 | **4,250** | 4,040 |
| Mafube (OC) | 50.0 | 20 | | | | | | | | | |
| Export Thermal | | | Proved | **35.6** | 40.6 | **51.6** | 54.2 | **18.4** | 22.0 | **6,300** | 6,290 |
| | | | Probable | **67.3** | 66.8 | **36.9** | 36.9 | **25.1** | 24.7 | **6,280** | 6,270 |
| | | | **Total** | **103.0** | 107.3 | **42.0** | 43.4 | **43.5** | 46.7 | **6,290** | 6,280 |
| Domestic Power | | | Proved | | | **23.0** | 28.0 | **8.2** | 11.4 | **5,450** | 5,380 |
| | | | Probable | | | **31.3** | 31.3 | **21.2** | 20.9 | **5,080** | 5,080 |
| | | | **Total** | | | **28.4** | 30.1 | **29.4** | 32.3 | **5,180** | 5,190 |

# Ore Reserve and Mineral Resource estimates as at 31 December 2009
continued

| Thermal Coal Reserves[1] | | | | ROM Tonnes[3] | | Yield[4] | | Saleable Tonnes[3] | | Saleable Quality[5] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **South Africa** continued | Attributable %[2] | LOM | Classification | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 |
| New Denmark (UG) | 100 | 31 | | | | | | | | | |
| Domestic Power | | | Proved | **37.0** | 41.9 | **100** | 100 | **37.0** | 41.9 | **5,090** | 4,900 |
| | | | Probable | **106.7** | 87.6 | **100** | 100 | **106.7** | 87.6 | **4,940** | 4,850 |
| | | | **Total** | **143.7** | 129.5 | **100** | 100 | **143.7** | 129.5 | **4,980** | 4,870 |
| New Vaal (OC) | 100 | 18 | | **Mt** | Mt | **%** | % | **Mt** | Mt | **kcal/kg** | kcal/kg |
| Domestic Power | | | Proved | **423.4** | 444.9 | **92.1** | 91.2 | **404.0** | 417.6 | **3,490** | 3,500 |
| | | | Probable | – | – | – | – | – | – | – | – |
| | | | **Total** | **423.4** | 444.9 | **92.1** | 91.2 | **404.0** | 417.6 | **3,490** | 3,500 |
| Nooitgedacht 5 Seam (UG) | 100 | 3 | | | | | | | | | |
| Export Thermal | | | Proved | **1.9** | 2.9 | **34.6** | 39.9 | **0.7** | 1.2 | **6,360** | 6,200 |
| | | | Probable | – | – | – | – | – | – | – | – |
| | | | **Total** | **1.9** | 2.9 | **34.6** | 39.9 | **0.7** | 1.2 | **6,360** | 6,200 |
| Other Metallurgical | | | Proved | | | **27.0** | 30.5 | **0.5** | 0.9 | **6,300** | 6,510 |
| | | | Probable | | | – | – | – | – | – | – |
| | | | **Total** | | | **27.0** | 30.5 | **0.5** | 0.9 | **6,300** | 6,510 |
| Zibulo (UG&OC) | 73.0 | 17 | | | | | | | | | |
| Export Thermal | | | Proved | – | – | – | – | – | – | – | – |
| | | | Probable | **99.3** | 117.7 | **39.7** | 40.1 | **39.5** | 47.5 | **6,350** | 6,340 |
| | | | **Total** | **99.3** | 117.7 | **39.7** | 40.1 | **39.5** | 47.5 | **6,350** | 6,340 |
| Domestic Power | | | Proved | | | – | – | – | – | – | – |
| | | | Probable | | | **37.0** | 40.5 | **38.5** | 49.8 | **4,880** | 4,880 |
| | | | **Total** | | | **37.0** | 40.5 | **38.5** | 49.8 | **4,880** | 4,880 |
| South Africa Export Thermal | 86.8 | | | | | | | | | **kcal/kg** | kcal/kg |
| | | | Proved | **839.8** | 892.4 | **50.3** | 48.0 | **110.3** | 108.2 | **6,250** | 6,240 |
| | | | Probable | **468.3** | 481.0 | **46.2** | 46.3 | **135.0** | 150.9 | **6,270** | 6,240 |
| | | | **Total** | **1,308.1** | 1,373.4 | **47.7** | 46.5 | **245.3** | 259.1 | **6,260** | 6,240 |
| South Africa Other Metallurgical | 100 | | | | | | | | | **kcal/kg** | kcal/kg |
| | | | Proved | | | **27.0** | 15.8 | **0.5** | 1.9 | **6,300** | 6,760 |
| | | | Probable | | | – | – | – | – | – | – |
| | | | **Total** | | | **27.0** | 15.2 | **0.5** | 1.9 | **6,300** | 6,760 |
| South Africa Domestic Power | 92.3 | | | | | | | | | **kcal/kg** | kcal/kg |
| | | | Proved | | | **89.1** | 88.4 | **549.1** | 590.1 | **3,850** | 3,870 |
| | | | Probable | | | **82.5** | 78.8 | **232.7** | 225.0 | **4,810** | 4,780 |
| | | | **Total** | | | **86.8** | 85.4 | **781.8** | 815.1 | **4,130** | 4,120 |
| South Africa Synfuel | 100 | | | | | | | | | **kcal/kg** | kcal/kg |
| | | | Proved | | | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |
| | | | Probable | | | – | – | – | – | – | – |
| | | | **Total** | | | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |

| Thermal Coal Reserves[1] | | | ROM Tonnes[3] | | Yield[4] | | Saleable Tonnes[3] | | Saleable Quality[5] | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | Attributable %[2] | Classification | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 |
| Export Thermal | 47.4 | | **Mt** | Mt | **%** | % | **Mt** | Mt | **kcal/kg** | kcal/kg |
| | | Proved | **1,486.4** | 1,411.6 | **89.3** | 88.2 | **731.7** | 611.1 | **6,220** | 6,500 |
| | | Probable | **519.0** | 722.0 | **59.5** | 77.0 | **183.9** | 384.3 | **6,250** | 6,360 |
| | | **Total** | **2,005.4** | 2,133.6 | **83.2** | 83.8 | **915.6** | 995.4 | **6,230** | 6,450 |
| Other Metallurgical | 100 | | | | | | | | **kcal/kg** | kcal/kg |
| | | Proved | | | **27.0** | 15.8 | **0.5** | 1.9 | **6,300** | 6,760 |
| | | Probable | | | – | – | – | – | – | – |
| | | **Total** | | | **27.0** | 15.2 | **0.5** | 1.9 | **6,300** | 6,760 |
| Domestic Power | 92.3 | | | | | | | | **kcal/kg** | kcal/kg |
| | | Proved | | | **89.1** | 88.4 | **549.1** | 590.1 | **3,850** | 3,870 |
| | | Probable | | | **82.5** | 78.8 | **232.7** | 225.0 | **4,810** | 4,780 |
| | | **Total** | | | **86.8** | 85.4 | **781.8** | 815.1 | **4,130** | 4,120 |
| Synfuel | 100 | | | | | | | | **kcal/kg** | kcal/kg |
| | | Proved | | | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |
| | | Probable | | | – | – | – | – | – | – |
| | | **Total** | | | **100** | 100 | **84.6** | 90.6 | **4,560** | 4,660 |

Mining method: OC = Open Cast, UG = Underground. LOM = Life of Mine in years based on scheduled Ore Reserves.
For the multi-product operations, the ROM tonnage figures apply to each product.
The Saleable tonnage cannot be calculated directly from the ROM reserve tonnage using the air dried yields as presented since the difference in moisture content is not taken into account.
Attributable percentages for country totals are weighted by Saleable tonnes and should not be directly applied to the ROM tonnage.
Additional footnotes appear at the end of the section.

**Export Thermal** refers to low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).
**Other Metallurgical** refers to semi soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverized coal injection (PCI) or other general metallurgical coal for the export or domestic market with a wider range of properties than Coking Coal.
**Domestic Power** refers to low- to high-volatile thermal or semi-soft coal primarily for domestic consumption for power generation; quality measured by calorific value (CV).
**Synfuel** refers to a coal specifically for the domestic production of synthetic fuel and chemicals; quality measured by calorific value (CV).

| Thermal Coal Resources – Mine Leases[6] | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **Colombia** | Attributable %[2] | Classification | 2009 | 2008 | 2009 | 2008 |
| Cerréjon | 33.3 | | MTIS[6] | MTIS[6] | kcal/kg[7] | kcal/kg[7] |
| | | Measured | 1,051.6 | 667.1 | 6,480 | 6,400 |
| | | Indicated | 270.3 | 712.8 | 6,480 | 6,290 |
| | | **Measured and Indicated** | **1,321.9** | 1,379.9 | **6,480** | 6,340 |
| | | Inferred (in LOM)[8] | 40.3 | – | 6,960 | – |
| Colombia – Mine Leases | 33.3 | | | | kcal/kg[7] | kcal/kg[7] |
| | | Measured | 1,051.6 | 667.1 | 6,480 | 6,400 |
| | | Indicated | 270.3 | 712.8 | 6,480 | 6,290 |
| | | **Measured and Indicated** | **1,321.9** | 1,379.9 | **6,480** | 6,340 |
| | | Inferred (in LOM)[8] | 40.3 | – | 6,960 | – |

| Thermal Coal Resources – Mine Leases[6] | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **South Africa** | Attributable %[2] | Classification | 2009 | 2008 | 2009 | 2008 |
| Goedehoop | 100 | | MTIS[6] | MTIS[6] | kcal/kg[7] | kcal/kg[7] |
| | | Measured | 115.3 | 135.4 | 5,030 | 5,010 |
| | | Indicated | 82.4 | 83.8 | 5,270 | 5,320 |
| | | **Measured and Indicated** | **197.7** | 219.2 | **5,130** | 5,130 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Greenside | 100 | Measured | – | – | – | – |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | – | – | – | – |
| | | Inferred (in LOM)[8] | 13.3 | 27.7 | 5,470 | 5,120 |
| Isibonelo | 100 | Measured | – | – | – | – |
| | | Indicated | 25.8 | 25.8 | 5,250 | 5,330 |
| | | **Measured and Indicated** | **25.8** | 25.8 | **5,250** | 5,330 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Kleinkopje | 100 | Measured | 28.6 | 31.9 | 4,990 | 4,960 |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | **28.6** | 31.9 | **4,990** | 4,960 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Kriel | 73.0 | Measured | 61.8 | 61.8 | 5,280 | 5,280 |
| | | Indicated | 34.7 | 34.7 | 4,710 | 4,710 |
| | | **Measured and Indicated** | **96.5** | 96.5 | **5,080** | 5,080 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Landau | 100 | Measured | 30.4 | 34.0 | 5,730 | 5,750 |
| | | Indicated | 41.7 | 66.3 | 4,600 | 6,050 |
| | | **Measured and Indicated** | **72.1** | 100.2 | **5,080** | 5,950 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Mafube | 50.0 | Measured | 3.8 | 4.2 | 5,230 | 5,300 |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | **3.8** | 4.2 | **5,230** | 5,300 |
| | | Inferred (in LOM)[8] | 10.7 | 10.7 | 5,420 | 5,420 |
| New Denmark | 100 | Measured | – | – | – | – |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | – | – | – | – |
| | | Inferred (in LOM)[8] | 30.6 | 78.7 | 5,310 | 5,840 |
| New Vaal | 100 | Measured | – | 2.5 | – | 4,230 |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | – | 2.5 | – | 4,230 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Nooitgedacht 5 Seam | 100 | Measured | 1.1 | 1.1 | 4,750 | 6,240 |
| | | Indicated | – | – | – | – |
| | | **Measured and Indicated** | **1.1** | 1.1 | **4,750** | 6,240 |
| | | Inferred (in LOM)[8] | – | – | – | – |
| Zibulo | 73.0 | Measured | 98.0 | 90.8 | 4,810 | 4,480 |
| | | Indicated | 174.2 | 220.3 | 4,910 | 5,200 |
| | | **Measured and Indicated** | **272.2** | 311.2 | **4,870** | 4,990 |
| | | Inferred (in LOM)[8] | 59.2 | – | 5,430 | – |
| South Africa – Mine Leases | 84.9 | Measured | 339.1 | 361.7 | 5,070 | 4,990 |
| | | Indicated | 358.8 | 430.9 | 4,960 | 5,320 |
| | | **Measured and Indicated** | **697.8** | 792.6 | **5,020** | 5,170 |
| | | Inferred (in LOM)[8] | 113.8 | 117.1 | 5,400 | 5,630 |

# Ore Reserve and Mineral Resource estimates as at 31 December 2009
continued

| Thermal Coal Resources | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **Mine Leases** | Attributable %[2] | Classification | **2009** | 2008 | **2009** | 2008 |
| **Total** | 52.6 | | **MTIS[6]** | MTIS[6] | **kcal/kg[7]** | kcal/kg[7] |
| | | Measured | **1,390.7** | 1,028.8 | **6,130** | 5,900 |
| | | Indicated | **629.1** | 1,143.7 | **5,620** | 5,930 |
| | | **Measured and Indicated** | **2,019.7** | 2,172.6 | **5,970** | 5,920 |
| | | Inferred (in LOM)[8] | **154.0** | 117.1 | **5,810** | 5,630 |

| Thermal Coal Resources – Projects[6] | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **South Africa** | Attributable %[2] | Classification | **2009** | 2008 | **2009** | 2008 |
| Elders | 73.0 | | **MTIS[6]** | MTIS[6] | **kcal/kg[7]** | kcal/kg[7] |
| | | Measured | **183.4** | 87.7 | **4,940** | 5,200 |
| | | Indicated | **30.6** | 36.6 | **4,960** | 5,170 |
| | | **Measured and Indicated** | **213.9** | 124.3 | **4,940** | 5,190 |
| Kriel East | 73.0 | Measured | **97.9** | 41.4 | **4,930** | 4,980 |
| | | Indicated | **22.8** | 50.8 | **4,900** | 4,940 |
| | | **Measured and Indicated** | **120.8** | 92.2 | **4,920** | 4,960 |
| New Largo | 73.0 | Measured | **247.1** | 199.9 | **4,430** | 4,000 |
| | | Indicated | **246.1** | 186.3 | **4,230** | 4,050 |
| | | **Measured and Indicated** | **493.2** | 386.3 | **4,330** | 4,020 |
| Nooitgedacht 2+4 Seam | 100 | Measured | **29.9** | – | **5,320** | – |
| | | Indicated | **17.1** | 61.6 | **5,320** | 5,320 |
| | | **Measured and Indicated** | **47.0** | 61.6 | **5,320** | 5,320 |
| South Rand | 73.0 | Measured | **90.7** | 36.4 | **4,780** | 5,560 |
| | | Indicated | **156.5** | 220.7 | **4,710** | 5,590 |
| | | **Measured and Indicated** | **247.2** | 257.1 | **4,740** | 5,590 |
| Vaalbank | 100 | Measured | **54.6** | 54.6 | **3,570** | 3,900 |
| | | Indicated | **23.4** | 23.4 | **4,440** | 3,900 |
| | | **Measured and Indicated** | **77.9** | 77.9 | **3,830** | 3,900 |
| **South Africa – Projects** | 75.8 | | | | **kcal/kg[7]** | kcal/kg[7] |
| | | Measured | **703.6** | 420.0 | **4,650** | 4,470 |
| | | Indicated | **496.4** | 579.4 | **4,500** | 4,910 |
| | | **Measured and Indicated** | **1,200.0** | 999.5 | **4,590** | 4,730 |

| Thermal Coal Resources[6] | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **Projects** | Attributable %[2] | Classification | **2009** | 2008 | **2009** | 2008 |
| **Total** | 75.8 | | **MTIS[6]** | MTIS[6] | **kcal/kg[7]** | kcal/kg[7] |
| | | Measured | **703.6** | 420.0 | **4,650** | 4,470 |
| | | Indicated | **496.4** | 579.4 | **4,500** | 4,910 |
| | | **Measured and Indicated** | **1,200.0** | 999.5 | **4,590** | 4,730 |

| Thermal Coal Resources[6] | | | Tonnes | | Coal Quality | |
|---|---|---|---|---|---|---|
| **Mine Leases and Projects** | Attributable %[2] | Classification | **2009** | 2008 | **2009** | 2008 |
| Total | 60.8 | | **MTIS[6]** | MTIS[6] | **kcal/kg[7]** | kcal/kg[7] |
| | | Measured | **2,094.3** | 1,448.9 | **5,640** | 5,490 |
| | | Indicated | **1,125.5** | 1,723.1 | **5,130** | 5,590 |
| | | **Measured and Indicated** | **3,219.7** | 3,172.0 | **5,460** | 5,540 |
| | | Inferred (in LOM)[8] | **154.0** | 117.1 | **5,810** | 5,630 |

Attributable percentages for country totals are weighted by Measured and Indicated MTIS.

[1] Coal Reserves are quoted on a Run Of Mine (ROM) reserve tonnage basis which represents the tonnes delivered to the plant. Saleable reserve tonnage represents the product tonnes produced. Coal Reserves (ROM and Saleable) are on the applicable moisture basis.

[2] Attributable (%) refers to 2009 only. For the 2008 Reported and Attributable figures, please refer to the 2008 Annual Report.

[3] The tonnage is quoted as metric tonnes. ROM tonnages on an As Delivered moisture basis, and Saleable tonnages on a Product moisture basis.

[4] Yield (%) represents the ratio of Saleable reserve tonnes to ROM reserve tonnes and is quoted on a constant moisture basis or on an air dried to air dried basis. The product yields for Proved, Probable and Total are calculated by dividing the individual Saleable reserves by the total ROM reserves per classification.

[5] The coal quality for the Coal Reserves is quoted as either Calorific Value (CV) using kilo-calories per kilogram (kcal/kg) units on a Gross As Received (GAR) basis or Crucible Swell Number (CSN). Coal quality parameters for the Coal Reserves for Coking, Other Metallurgical and Export Thermal collieries meet the contractual specifications for coking coal, PCI, metallurgical coal, steam coal and domestic coal. Coal quality parameters for the Coal Reserves for Domestic Power and Domestic Synfuels collieries meet the specifications of the individual supply contracts. CV is rounded to the nearest 10 kcal/kg and CSN to the nearest 0.5 index.

[6] Coal Resources are quoted on a Mineable Tonnage In-Situ (MTIS) basis in million tonnes which are in addition to those resources which have been modified to produce the reported Coal Reserves. Coal Resources are on an in-situ moisture basis.

[7] The coal quality for the Coal Resources is quoted on an in-situ heat content as Calorific Value (CV) using kilo-calories per kilogram (kcal/kg) units on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg,

[8] Inferred (in LOM) refers to Inferred Coal Resources that are included in the life of mine extraction schedule of the respective collieries and are not reported as Coal Reserves. Inferred Coal Resources outside the LOM plan but within the mine lease area are not reported due to a) the uncertainty attached to such resources in that it cannot be assumed that all or part of the Inferred Resource will necessarily be upgraded to Indicated or Measured categories through continued exploration, b) such Inferred Resources do not necessarily meet the requirements of reasonable prospects for eventual economic extraction, particularly in respect of future mining and processing economics.

**Summary of material changes (±10%) at reporting level**

**Colombia**
**Cerréjon:** Resources: a gain of 40 Mt Inferred Resources in Mine Plan due to changes in methodology.

**South Africa**
**Goedehoop:** Reserves: a gain of 19 Mt due to inclusion of Vlaklaagte resources in mine plan; a loss of 20 Mt resulting from changes in modifying factors
**Greenside:** Reserves: a gain of 15 Mt due to changes in mine plan, increased drilling density, and correction for under reporting in 2008. Resources: a loss of 14 Mt due to exclusion of resources underlying pan pending environmental approval for mining.
**Kleinkopje:** Resources: a loss of 3 Mt due to changes in pit shell layout.
**Landau:** Reserves: a gain of 11 Mt due to conversion of Navigation West and Schoonie opencast resources. Resources: a loss of 9 Mt due to infrastructure sterilisation.
**New Denmark:** Reserves: reclassification of 48 Mt Resources to 25 Mt Reserves due to additional information.
**New Vaal:** Reserves: a loss of 3 Mt due to the exclusion of low volatile material and 3 Mt due to operational mining losses.
**Zibulo:** Zibulo comprises the Zibulo Mine (formerly Zondagsfontein), the Zondagsfontein West project area and the Oogiesfontein Mine. Proved Reserves have been reclassified as Probable Reserves pending the granting of a mining right. Reserves: a loss of 13 Mt at Zibulo due to change in mining extraction percentage and 3 Mt at Oogiesfontein due to reclassification of reserves following changes in mine planning. Resources: a gain of 59 Mt of S2M Seam at Zibulo due to inclusion of Inferred Resources in the mine plan and a gain of 3 Mt Measured Resources at Oogiesfontein due to reclassification of reserves. A loss of 42 Mt of S5 Seam at Zibulo due to reclassification and change to minimum cut-off thickness, and re-modelling of a transgressive sill.
**Elders:** A gain of 51 Mt due to additional information; a gain of 39 Mt due to change from raw to washed product.
**Kriel East:** A gain of 29 Mt due to additional exploration information.
**New Largo:** A gain of 107 Mt due to additional exploration information.
**Nooitgedacht:** A loss of 15 Mt due to reduced interpretation confidence in data combined with a change of cut-off parameters.

**Assumption with respect to Mineral Tenure**
**South Africa:** Granting of 3 remaining Prospecting Rights to Anglo American Thermal Coal for the Vaalbank project is pending. Anglo American Thermal Coal has reasonable expectation that these rights will be granted in due course, and the relevant Project Coal resources have been included in the statement. Granting of the mining rights for Zibulo Colliery (formerly Zondagsfontein and Oogiesfontein) are currently pending. Anglo Inyosi Coal (Pty) Limited has reasonable expectation that these rights will be granted in due course. Anglo American Thermal Coal has been granted Section 11 cession of the Kriel mining right to Anglo Inyosi Coal (Pty) Limited but has not concluded the final agreement. The attributable percentage (73%) reflects therefore the anticipated ownership following conclusion of this agreement.

**Royalty Payment**
**South Africa:** Royalty payments are scheduled to commence in April 2010 and have been taken into consideration in economic assessment of the reserves.

Reviews by independent third parties were carried out in 2009 on the following Operations and Project areas: Goedehoop South, Isibonelo, Zibulo, Elders