

BUSINESS

OVERVIEW

We are the second largest metals and mining company in the world and the largest in the Americas, based on market capitalisation as at 29 November 2010.¹ We are the world's largest producer by volume of iron ore and iron ore pellets. We are a leading producer of nickel. We are also among the leading producers of manganese ore and ferroalloys. We also produce copper, coal, fertilizer nutrients, cobalt, platinum group metals and other products.

To sustain our growth strategy, we are actively engaged in mineral exploration in twenty-three countries around the world. As at 30 June 2010, the Group owned and operated more than 60 mining sites and projects worldwide, of which approximately 44% were iron ore mines.

We operate large logistics systems in Brazil integrated with our mining operations, including railroads, maritime terminals and a port. In addition, we are building a portfolio of maritime freight to transport iron ore to Asia. We also have investments in the energy and steel sectors directly or through subsidiaries and companies under joint control.

The following table presents the breakdown of our total operating revenues attributable to each of our main lines of business.

| | Year ended 31 December | | | | | | Six months ended 30 June | |
|-----------------------------------------------------|------------------------|--------------|----------------|--------------|----------------|--------------|--------------------------|--------------|
| | 2007 | | 2008 | | 2009 | | 2010 | |
| | (US\$ million) | (% of total) | (US\$ million) | (% of total) | (US\$ million) | (% of total) | (US\$ million) | (% of total) |
| Bulk materials: | | | | | | | | |
| Ferrous minerals: | | | | | | | | |
| Iron ore | 11,908 | 36.0 | 17,775 | 46.2 | 12,831 | 53.6 | 9,182 | 54.7 |
| Iron ore pellets | 2,738 | 8.3 | 4,301 | 11.2 | 1,352 | 5.6 | 2,393 | 14.3 |
| Manganese ore | 69 | 0.2 | 266 | 0.7 | 145 | 0.6 | 147 | 0.9 |
| Ferroalloys | 719 | 2.2 | 1,211 | 3.1 | 372 | 1.6 | 312 | 1.9 |
| Pig iron | 81 | 0.2 | 146 | 0.4 | 45 | 0.2 | 9 | 0 |
| Total for ferrous minerals | 15,515 | 46.9 | 23,699 | 61.6 | 14,745 | 61.6 | 12,043 | 71.8 |
| Coal | 178 | 0.5 | 577 | 1.5 | 505 | 2.1 | 312 | 1.9 |
| Base metals: | | | | | | | | |
| Nickel | 10,043 | 30.3 | 5,970 | 15.5 | 3,260 | 13.6 | 1,621 ⁽³⁾ | 9.7 |
| Copper | 1,985 | 6.0 | 2,029 | 5.3 | 1,130 | 4.7 | 387 | 2.3 |
| PGMs | 314 | 1.0 | 401 | 1.0 | 132 | 0.6 | 0 | 0 |
| Precious metals | 113 | 0.3 | 111 | 0.3 | 65 | 0.3 | 0 | 0 |
| Other non-ferrous minerals ⁽¹⁾ | 374 | 1.1 | 420 | 1.1 | 215 | 0.9 | 0 | 0 |
| Aluminium ⁽²⁾ | 2,722 | 8.2 | 3,042 | 7.9 | 2,050 | 8.6 | 1,254 | 7.5 |
| Total for base metals | 15,551 | 47.0 | 11,973 | 31.1 | 6,852 | 28.6 | 3,262 | 19.5 |
| Fertilizer nutrients | 178 | 0.5 | 295 | 0.8 | 413 | 1.7 | 275 | 1.6 |
| Logistics services | 1,525 | 4.6 | 1,607 | 4.2 | 1,104 | 4.6 | 723 | 4.3 |
| Other investments | 168 | 0.5 | 358 | 0.8 | 320 | 1.3 | 163 | 1.0 |
| Total operating revenues | <u>33,115</u> | <u>100.0</u> | <u>38,509</u> | <u>100.0</u> | <u>23,939</u> | <u>100.0</u> | <u>16,778</u> | <u>100.0</u> |

Notes:

- (1) Includes kaolin and cobalt. We propose to transfer all of our interests in the kaolin business. Hence, we entered into an agreement with Imerys S.A. in July 2010 for the transfer of our interest in Pará Pigmentos S.A. (PPSA) and propose to transfer our other kaolin mineral rights located in Northern Brazil.
- (2) We have entered into agreements to transfer our interests in the aluminium business:
 - (a) an agreement with Norsk Hydro ASA in May 2010 for the transfer of our stakes in three aluminium companies, together with certain contractual rights; and
 - (b) an agreement with Alumínio Nordeste S.A., a company of the Metalis group, in January 2010 for the transfer of the aluminium assets of Valesul Alumínio S.A.

¹ Source: Bloomberg

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(3) For the purposes of this figure only, nickel revenues were aggregated with those for its co-products and by-products, including cobalt and precious metals.

The following table presents the breakdown of our Material Reserves (for further details, see Appendix III to this Listing Document):

| | Iron ore reserves per mine in the Southeastern System as at 30 June 2010 ⁽¹⁾ | | | | | | Projected exhaustion date |
|--------------------------------------------|--------------------------------------------------------------------------------------------|-------------|----------------|-------------|----------------|-------------|---------------------------------|
| | Proven | | Probable | | Total | | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade | |
| <i>Itabira complex</i> | | | | | | | |
| Conceição | 267.3 | 51.4 | 26.4 | 58.8 | 293.7 | 52.1 | 2023 |
| Minas do Meio | 301.6 | 53.8 | 172.0 | 56.1 | 473.6 | 54.7 | 2023 |
| <i>Minas Centrais complex</i> | | | | | | | |
| Água Limpa/Cururu ⁽²⁾ | 37.0 | 41.4 | 5.5 | 42.0 | 42.5 | 41.5 | 2019 |
| Gongo Soco | 43.3 | 65.9 | 11.9 | 64.6 | 55.2 | 65.6 | 2019 |
| Brucutu | 410.0 | 50.2 | 250.3 | 47.2 | 660.4 | 49.1 | 2023 |
| Apolo | 292.4 | 57.4 | 339.7 | 55.1 | 632.1 | 56.2 | 2029 |
| <i>Mariana complex</i> | | | | | | | |
| Alegria | 150.7 | 49.7 | 27.1 | 46.8 | 177.8 | 49.2 | 2024 |
| Fábrica Nova | 480.1 | 46.0 | 349.6 | 44.1 | 829.6 | 45.2 | 2033 |
| Fazendão | 233.4 | 49.6 | 92.6 | 50.0 | 326.0 | 49.7 | 2040 |
| <i>Corumbá complex</i> | | | | | | | |
| Urucum | 7.4 | 62.6 | 25.4 | 62.1 | 32.8 | 62.2 | 2023 |
| Total Southeastern System | <u>2,223.2</u> | <u>51.0</u> | <u>1,300.6</u> | <u>50.5</u> | <u>3,523.8</u> | <u>50.8</u> | |
| | | | | | | | |
| | Iron ore reserves per mine in the Southern System as at 30 June 2010 ⁽¹⁾ | | | | | | Projected exhaustion date |
| | Proven | | Probable | | Total | | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade | |
| <i>Minas Itabiritos complex</i> | | | | | | | |
| Segredo | 172.1 | 52.0 | 168.7 | 48.5 | 340.8 | 50.2 | 2034 |
| João Pereira | 202.3 | 42.2 | 287.7 | 41.7 | 490.0 | 41.9 | 2034 |
| Sapicado | 90.2 | 52.7 | 120.3 | 53.2 | 210.5 | 53.0 | 2030 |
| Galinheiro | 114.1 | 54.7 | 180.7 | 54.0 | 294.8 | 54.3 | 2030 |
| <i>Vargem Grande complex</i> | | | | | | | |
| Tamanduá | 280.3 | 56.1 | 203.8 | 51.3 | 484.0 | 54.1 | 2039 |
| Capitão do Mato | 200.2 | 55.6 | 558.3 | 50.6 | 758.5 | 51.9 | 2040 |
| Abóboras | 227.4 | 45.3 | 217.1 | 43.3 | 444.5 | 44.3 | 2029 |
| <i>Paraopeba complex</i> | | | | | | | |
| Jangada | 39.1 | 66.7 | 14.6 | 66.3 | 53.8 | 66.6 | 2018 |
| Córrego do Feijão | 27.5 | 67.0 | 3.3 | 63.7 | 30.8 | 66.7 | 2014 |
| Capão Xavier | 79.8 | 65.1 | 8.1 | 64.3 | 87.9 | 65.0 | 2021 |
| Mar Azul | 17.0 | 58.2 | 1.5 | 58.6 | 18.5 | 58.2 | 2016 |
| Total Southern System | <u>1,450.0</u> | <u>52.6</u> | <u>1,764.0</u> | <u>48.9</u> | <u>3,214.0</u> | <u>50.6</u> | |

(1) Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

(2) Our Company has a 50% equity interest in the Água Limpa/Cururu mine.

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| | Iron ore reserves per mine in the Northern System as at 30 June 2010 ⁽³⁾ | | | | | | Projected exhaustion date |
|---------------------------------|----------------------------------------------------------------------------------------|-------------|----------------|-------------|----------------|-------------|---------------------------------|
| | Proven | | Probable | | Total | | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade | |
| <i>Serra Norte complex</i> | | | | | | | |
| N4W | 1,212.3 | 66.5 | 286.9 | 66.1 | 1,499.2 | 66.4 | 2028 |
| N4E | 285.4 | 66.5 | 86.3 | 66.0 | 371.7 | 66.4 | 2024 |
| N5 | 381.0 | 66.8 | 724.7 | 67.2 | 1,105.7 | 67.1 | 2028 |
| <i>Serra Sul</i> | | | | | | | |
| S11 | 3,045.8 | 66.8 | 1,193.7 | 66.7 | 4,239.6 | 66.8 | 2059 |
| <i>Serra Leste</i> | | | | | | | |
| SL1 | 55.7 | 66.2 | 5.2 | 66.4 | 60.9 | 66.2 | 2039 |
| Total Northern System | <u>4,980.3</u> | <u>66.7</u> | <u>2,296.8</u> | <u>66.7</u> | <u>7,277.2</u> | <u>66.7</u> | |

| | Iron ore reserves per mine in Samarco as at 30 June 2010 ⁽³⁾ | | | | | | Projected exhaustion date |
|----------------------------------------|----------------------------------------------------------------------------|-------------|--------------|-------------|----------------|-------------|---------------------------------|
| | Proven | | Probable | | Total | | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade | |
| Samarco Norte Centro | 706.0 | 44.2 | 554.7 | 40.7 | 1,260.7 | 42.7 | 2052 |
| Samarco Sul | 440.0 | 39.7 | 382.0 | 38.5 | 822.0 | 39.2 | 2052 |
| Total Samarco ⁽⁴⁾ | <u>1,146.0</u> | <u>42.5</u> | <u>936.7</u> | <u>39.8</u> | <u>2,082.7</u> | <u>41.3</u> | |

(3) Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of Fe.

(4) Our Company has a 50% equity interest in the Samarco mines.

| | Nickel ore reserves as at 30 June 2010 ⁽⁵⁾ | | | | | | Projected exhaustion date |
|-------------------------------------|-------------------------------------------------------|-------------|--------------|-------------|--------------|-------------|---------------------------------|
| | Proven | | Probable | | Total | | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade | |
| <i>Canada</i> | | | | | | | |
| Sudbury | 69.5 | 1.22 | 47.0 | 1.15 | 116.5 | 1.19 | 2025 |
| Thompson | 8.0 | 1.93 | 17.0 | 1.63 | 24.9 | 1.72 | 2010-47 |
| Voisey's Bay | 21.4 | 3.00 | 3.2 | 0.66 | 24.6 | 2.70 | 2022 |
| <i>New Caledonia</i> | | | | | | | |
| Vale New Caledonia (Goro) | 100.8 | 1.35 | 23.5 | 1.91 | 124.3 | 1.46 | 2041 |
| <i>Brazil</i> | | | | | | | |
| Onça Puma | 55.1 | 1.79 | 27.6 | 1.62 | 82.7 | 1.73 | 2040 |
| Total | <u>254.8</u> | <u>1.57</u> | <u>118.3</u> | <u>1.47</u> | <u>373.0</u> | <u>1.53</u> | |

| | Indonesia nickel ore reserves as at 30 June 2010 ⁽⁵⁾ | | | | Projected exhaustion date |
|---------------------------------|--------------------------------------------------------------------|--|-------|--|---------------------------------|
| | Proven and Probable | | | | |
| | Tonnage | | Grade | | |
| <i>Indonesia</i> ⁽⁶⁾ | | | | | |
| Sorowako, Sulawesi | 119.0 | | 1.79 | | 2035 ⁽⁷⁾ |
| Total | 119.0 | | 1.79 | | |

(5) Tonnage is stated in millions of dry metric tons. Grade is % of nickel.

(6) Disclosure is made separately from other nickel reserves to reflect the particular aggregation of proven and probable reserves for Indonesia.

(7) Subject to duration of Contract of Work (as to which see the section of to this Listing Document headed "Business — Mining concessions and other related rights")

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| | Copper ore reserves as at 30 June 2010 ⁽⁸⁾ | | | | | |
|---------------|-------------------------------------------------------|-------------|--------------|-------------|----------------|-------------|
| | Proven | | Probable | | Total | |
| | Tonnage | Grade | Tonnage | Grade | Tonnage | Grade |
| <i>Brazil</i> | | | | | | |
| Sossego | 100.8 | 0.97 | 39.8 | 0.88 | 140.6 | 0.95 |
| Salobo | <u>569.2</u> | <u>0.75</u> | <u>554.1</u> | <u>0.64</u> | <u>1,123.3</u> | <u>0.70</u> |
| Total | <u>670.0</u> | <u>0.78</u> | <u>593.9</u> | <u>0.66</u> | <u>1,263.9</u> | <u>0.73</u> |

(8) Tonnage is stated in millions of metric tons of run-of-mine. Grade is % of copper.

| | Coal type | Coal ore reserves as at 30 June 2010 ⁽⁹⁾ | | | |
|---------------|-------------------------|-----------------------------------------------------|-----------|-------------------|----------------|
| | | Proven | Probable | Total | |
| | | (tonnage) | (tonnage) | (calorific value) | |
| Moatize | Metallurgical & thermal | 422 | 532 | 954 | 27.2 (thermal) |

(9) Tonnage is stated in millions of metric tons. Reserves are based on in-situ moisture. Calorific value of product coal derived from beneficiation of ROM coal is typically stated in megajoule per kilogramme. Calorific value is used in marketing thermal coal.

Bulk materials

Ferrous minerals

Iron ore

We operate three systems in Brazil for producing and distributing iron ore. The Northern and the Southeastern Systems are fully integrated, consisting of mines, railroads, a maritime terminal and a port. The Southern System consists of three mining complexes and two maritime terminals.

In April 2010, we acquired a 51% interest in BSG Resources (Guinea) Ltd, which indirectly holds iron ore concession rights in Guinea, for a cash consideration of US\$2,500 million, of which US\$500 million was payable immediately and the remaining US\$2,000 million on a phased basis subject to the achievement of specific milestones by the end of 2011. For further details, see the section in this Listing Document headed "Business — Recent developments and future projects — ferrous minerals".

Iron ore pellets

We operate 10 pellet-producing plants in Brazil. We also have a 50% stake in a joint venture that owns three integrated pellet plants in Brazil and a 25% stake in a pellet company incorporated in China.

Manganese ore

We conduct our manganese mining operations through subsidiaries incorporated in Brazil.

Ferroalloys

We produce several types of manganese ferroalloys through subsidiaries incorporated in Brazil, France and Norway.

Coal

We produce metallurgical and thermal coal through Vale Australia, which operates coal assets in Australia through wholly-owned subsidiaries and unincorporated joint ventures. Through our subsidiary, Vale Colombia, we produce thermal coal in the Cesar department of Colombia. We have minority interests in coal and coke producers in China.

We are pursuing various opportunities to become a large global player in the coal business. We intend to continue pursuing organic growth in the coal business through the development of the Moatize project in Mozambique, the development of more advanced coal exploration projects in Australia and Colombia.

Base metals*Nickel*

Our principal nickel mines and processing operations are conducted by our wholly-owned subsidiary, Vale Canada, which has mining operations in Canada, Indonesia and New Caledonia. We own and operate, or have interests in, nickel refining facilities in the United Kingdom, Japan, Taiwan, South Korea and China.

Copper

In Brazil, we produce copper concentrates at Sossego in Canaã dos Carajás, in the state of Pará. In Canada, we produce copper concentrate, copper anode and copper cathode in conjunction with our nickel mining operations at Sudbury and Voisey's Bay.

PGMs

We produce PGMs as by-products of our nickel mining and processing operations in Canada. The PGMs are concentrated at our Port Colborne facilities, in the Province of Ontario, Canada, and refined at our precious metals refinery in Acton, England.

Precious metals

We produce gold and silver as by-products of our nickel mining and processing operations in Canada. Some of these precious metals are upgraded at our facilities in Port Colborne, Ontario, and all are refined by unrelated parties in Canada.

Cobalt

We produce cobalt as a by-product of our nickel mining and processing operations in Canada and refine it at our Port Colborne facilities.

Fertilizer nutrients*Potash*

We are Brazil's sole producer of potash, with operations in Rosario do Catete, in the state of Sergipe. We are engaged in a major expansion of our fertilizer nutrients business through acquisitions and organic growth.

Phosphates, nitrogen and others

In January and February 2010, we announced that we had, through our subsidiary Mineração Naque S.A., entered into various agreements and option contracts to acquire (a) 100% of the outstanding shares of Bunge Participações e Investimentos S.A. (now known as Vale Fosfatados S.A.), a company with assets and investments in the fertilizer business in Brazil; and (b) the controlling interest in Fertilizantes Fosfatados S.A. — Fosfertil (now known as Vale Fertilizantes), a company listed on BM&FBOVESPA. Vale Fosfatados S.A. owns a portfolio of Brazilian fertilizer assets composed of two phosphate rock mines in the states of Minas Gerais and São Paulo and phosphate assets as well as direct and indirect interests in the equity capital of Vale Fertilizantes. Vale Fertilizantes operates three phosphate rock mines in the states of Goiás and Minas Gerais. The acquisitions of the Brazilian fertilizer assets of Vale Fosfatados S.A. and the controlling interest in

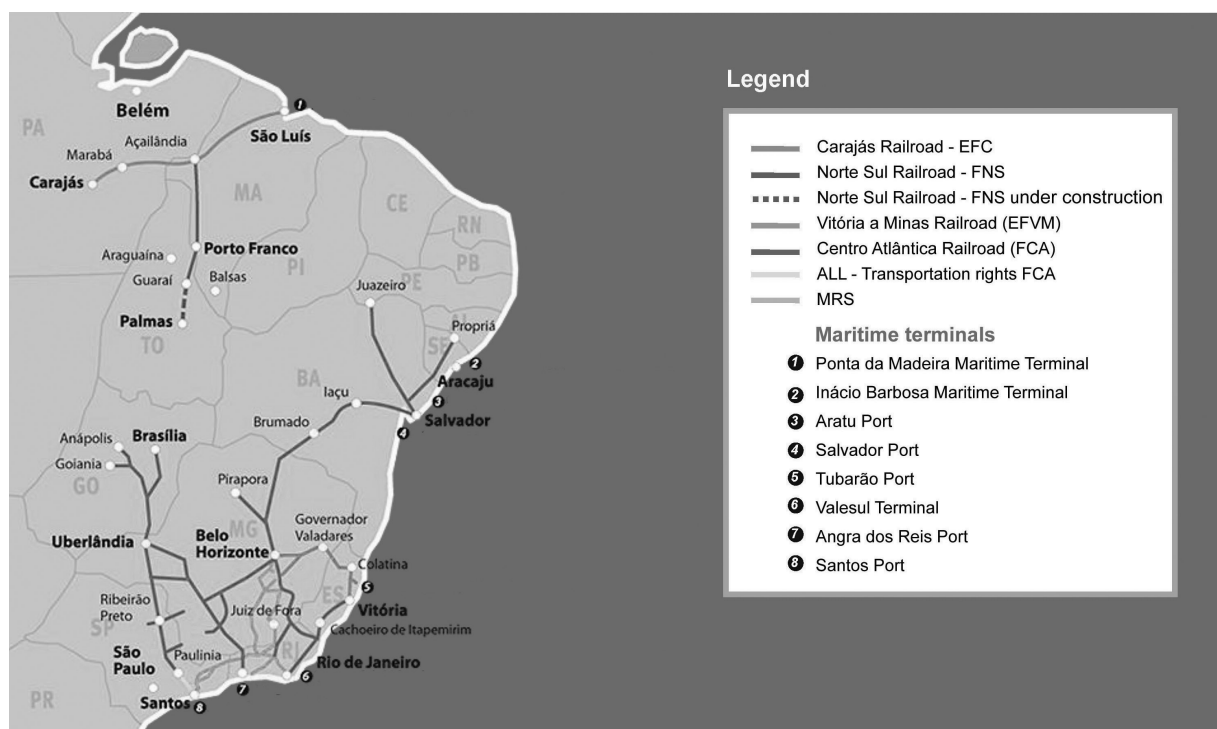
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Vale Fertilizantes were completed in May and September 2010, respectively. We currently hold 78.90% of the total equity capital of Vale Fertilizantes, of which we hold 99.81% of its ordinary shares and 68.24% of its preferred shares. The Company is also implementing a mandatory tender offer to acquire the remaining 0.19% of the common shares of Vale Fertilizantes.

Logistics services

We are a leading provider of logistics services in Brazil, with railroads, maritime terminals and a port. Two of our three iron ore systems incorporate an integrated railroad network linked to automated port and terminal facilities, which provide rail transportation for our mining products, general cargo and passengers, bulk terminal storage, and ship loading services for our mining operations and for customers.

Please see below a map of our logistics system in Brazil:



We conduct seaborne dry bulk shipping and provide tug boat services. We own and charter vessels to transport our iron ore to customers. In 2009, we bought 17 used capesize vessels, seven of which began operation in 2010. We have placed orders with shipyards for the construction of 16 large ore carriers, each with a capacity of 400,000 DWT, and four additional capesize vessels, each with a capacity of 180,000 DWT. We expect this service to enhance our ability to offer our products in the Asian market at competitive prices and to increase our market share in China and the global seaborne market.

Our tug boat services provide a towing service at our terminals in Brazil. We also own a 31.3% interest in Log-In Logística Intermodal S.A., which provides logistics services in Brazil, Argentina and Uruguay, and a 41.5% interest in MRS Logística S.A., which transports our iron ore products from the Southern System mines to our Guaíba Island and Itaguaí maritime terminals, in the state of Rio de Janeiro.

Recent transactions involving aluminium and kaolin businesses

We are always seeking to optimise our business structure. Active portfolio asset management is one of our main strategies to create value on a sustainable basis.

Aluminium business

In May 2010, we entered into an agreement with Norsk Hydro ASA (**Hydro**) to transfer most of our alumina and aluminium operations for US\$405 million in cash, the assumption of US\$700 million of net debt by Hydro and, following a rights offering by Hydro, a 22% stake in Hydro. In addition, we will transfer bauxite mines and mineral rights (apart from rights owned through our 40% stake in Mineração Rio do Norte S.A., a bauxite producer located in Brazil) to a joint venture company, of which a 60% stake will be transferred to Hydro, at closing, for US\$600 million. Hydro will acquire the remaining 40% of the joint venture in two tranches, each for US\$200 million in cash, in 2013 and 2015, respectively.

Completion of the transaction is conditional upon, among other things, the approval of the shareholders of Hydro, including the Government of Norway, and the approval of certain of our partners in the companies whose interests will be contributed to Hydro.

Our participation in the primary aluminium metal industry was small, and had no growth potential due to the lack of access to low-cost sources of power generation, as energy is a key factor determining competitiveness in this business. Hydro is a major player in the primary aluminium industry, having captive power generation capability at competitive costs, technological expertise and growth potential.

Kaolin business

In the second quarter of 2010, we transferred our stake in Pará Pigmentos S.A. (PPSA) and other kaolin mineral rights located in the state of Pará, Brazil. Those assets were transferred to Imerys S.A., a company listed on NYSE Euronext Paris, for US\$70 million. Kaolin, together with other non-ferrous minerals, had contributed less than 0.9% of our total operating revenues in 2009. The contribution of kaolin to our revenues and the operating margins on those revenues were considered too small to make kaolin of continuing economic viability to the Group.

STRENGTHS

We have world-class iron ore operations

We are the world's largest producer by volume of iron ore and iron ore pellets. Our iron ore operations are the foundation for our skill in prospecting and exploring mineral deposits, developing and operating large-scale mines and industrial facilities, managing complex logistics systems and marketing minerals and metals. We benefit from the following strengths in our iron ore operations:

- *Large reserves base* — We hold the world's largest iron ore reserves with 13,784 Mt of reserves as at 30 June 2010, mainly in our principal mining sites, the Northern System, the Southeastern System and the Southern System. Based on 2009 production levels, we have approximately 55 years of proven and probable iron ore reserves.
- *High-quality iron ore deposits* — Our ores also have low impurity levels and good metallurgical characteristics, which yield high levels of productivity in our customers' furnaces and lead to lower processing costs.
- *Production cost advantages* — We have competitive production and delivery cost advantages in our iron ore business. In addition, we have the ability to transport iron ore to our customers efficiently and reliably at low costs through our own mine-to-port systems. We operate an integrated railroad and maritime terminal network in both the Southeastern System and the Northern System. These networks transport our iron ore from

mining locations to the port terminals and to our domestic clients. In addition, the high iron content in the Northern System eliminates the need to operate a concentration plant at Carajás.

- *Ability to produce a broad range of iron ore products* — Our mines offer varying types of ore characteristics, which allow us to produce a broad range of iron ore products. The steel companies with which we contract generally seek to obtain the types (or blends) of iron ore and iron ore pellets that can produce the intended final product in the most economic and efficient manner.
- *Ability to produce premium quality iron ore products* — Our iron ore has low impurity levels and other properties that generally lead to lower processing costs. We believe our ability to reconcile large-scale production with the capacity to produce specialised, high-quality ore products, which have high iron content, low impurity levels and complement the needs of our customers' furnaces, has allowed us to become a major supplier to significant Asian customers, despite their greater proximity to some of our competitors. When the market is very strong, our quality differential is in many cases more valuable to customers than a freight differential.

We have integrated logistics systems to strengthen our competitiveness

- In terms of reliability, our ownership and operation of logistics facilities in the Northern and Southeastern Systems help us ensure that our products are delivered on time and at a relatively low cost. We believe our dependable mine-to-port system and emphasis on customer service have earned us a reputation for reliability.
- In addition, we are building up a low-cost freight portfolio and distribution centres around the world, aimed at enhancing our ability to offer our products in the Asian market at competitive prices, thereby increasing our Asian market share. To support this strategy, we ordered new ships, purchased used vessels and entered into medium- and long-term freight contracts.

We have a solution-oriented marketing policy with a strong focus on customer service

- We strongly emphasise customer service in order to improve our competitiveness. We work with our customers to understand their main objectives and to provide them with iron ore solutions to meet specific customer needs. For example, steel companies with which we contract often develop sales relationships based on a reliable supply of a specific mix of iron ore and iron ore pellets. We have a customer-oriented marketing policy and place specialised personnel in direct contact with our customers to help determine the blend that best suits the needs of each particular customer.
- Using our expertise in mining, agglomeration and iron-making processes, we search for technical solutions that will enable us to strike a balance between the best use of our mining assets and maximising the satisfaction of our customers. We believe that our ability to provide customers with a total iron ore solution and the quality of our products are very important advantages that help improve our competitiveness in relation to competitors who may be more conveniently located geographically.
- In addition to offering technical assistance to our customers, we operate sales support offices in Tokyo (Japan), Seoul (South Korea), Singapore, Muscat (Oman) and Shanghai (China), which support the sales made by our sales office in St. Prex, Switzerland. These offices also allow us to stay in close contact with our customers, monitor their requirements and our contract performance, and ensure that our customers receive deliveries on schedule.

We have a diversified and high-quality portfolio of assets

Aside from our world class iron ore operation, we also have a wide range of other high-quality assets:

- We are a leading producer of nickel, which is a raw material used to produce stainless steel, aircrafts, mobile telephones, batteries, special batteries for hybrid electric vehicles and other products.
- We have an asset base in other commodities that allows us to produce copper, fertilizer nutrients, coal, manganese, ferroalloys, cobalt and platinum group metals, important raw materials for the global manufacturing and construction industries.
- Our mineral exploration activities are geographically diversified across twenty-three countries.

We have a long and successful track record of project operation and development with an experienced management team

- We have become a global company, with over 60 years of successful operation and development. Our operations are carried out over five continents and we employ over 115,000 direct employees and contractors.
- We have excellence in project execution, with 31 major projects from 2002 to 2009, together with a proven capability to identify and successfully integrate acquisition targets. We had several projects to be delivered in 2010 (including Onça Puma, Tres Valles and Oman) and three of them are already operating (namely, Additional 20 Mtpy in Carajás, Bayóvar and TKCSA).
- As previously reported in the annual reports of our Company, our net operating revenues increased from \$8,066 million in 2004 to \$23,311 million in 2009, representing a CAGR of 23.7%.
- As previously reported in the annual reports of our Company, production of iron ore increased from 211.3 Mt in 2004 to 246.5 Mt in 2009, representing a CAGR of 3.1%.
- As previously reported in the annual reports of our Company, reserves of iron ore increased from 6,869.1 Mt in 2004 to 16,018.2 Mt in 2009, representing a CAGR of 18.5%, which demonstrates our proven track record in project development.

We have a well-planned long-term growth strategy with a strong project pipeline

- We have a strong project pipeline consisting of both brownfield and greenfield projects including the iron ore projects Carajás Additional 30 Mtpy and Carajás Serra Sul which are further described in the section in this Listing Document headed "Business — Recent developments and future projects".
- We have a dedicated business development team to execute our business development strategy.

We have superior financial strength with disciplined capital allocation

- We have a strong cash position (US\$6.235 billion cash holdings as of 30 June 2010) and sufficient cashflow to fund future growth.
- Our Common Shares and Class A Preferred Shares are already listed in Brazil and in the form of ADRs in the United States (among other countries), giving us full access to global capital markets.

- As evidence of our discipline in capital allocation, we are presently an investment grade company, rated BBB+ by Standard & Poor's, Baa2 by Moody, BBB+ by Fitch and BBB (high) by Dominion Bond Rating Service.

We have fully leveraged the strong long-term fundamentals of minerals and metals

We are ideally positioned to benefit from the following favourable macroeconomic trends as the second largest mining company in the world by market capitalisation as at 29 November 2010¹:

- Geological and institutional factors will continue to constrain the supply response to price incentives.
- Structural shortages of iron ore globally, especially in key emerging economies such as China and India, will provide long-term support for pricing.

STRATEGIES

Our mission is to transform mineral resources into prosperity and sustainable development. Our vision is to become the largest mining company in the world and to surpass established standards of excellence in research, development, project design and implementation, and business operations. We aim to increase our geographical and product diversification and logistics capabilities. Iron ore and nickel will continue to be our main businesses while we boost the production capacity of our copper, coal and fertilizer nutrients businesses. To enhance our competitiveness, we will continue to invest in our railroads, maritime terminals, maritime freight portfolio and power generation capacities. We continue to seek opportunities to make strategic acquisitions, while focusing on disciplined capital management in order to maximise return on invested capital and total return to Shareholders.

Our main goal is to maximise Shareholder value. We believe we are best positioned to benefit from the strong long-term fundamentals of the minerals and metals market, given our world-class, long-life and low cost assets, strong growth potential in various segments of the metals and mining industry supported by our project pipeline, global multi-commodity mineral exploration programme, long and successful track record in project development, discipline in capital allocation and financial strength.

We believe the implementation of our development plans in the near future, based firmly on our values and extensive competitive advantages, will create significant shareholder value across business cycles and opportunities for economic and social mobility for the communities where we carry on our operations.

Below we highlight our major business strategies:

Maintaining our leadership position in the global iron ore market

We will continue to consolidate our leadership in the global iron ore market. In 2008, we had an estimated market share of 32.8% of the total volume traded in the seaborne market, and in 2009 it decreased to 26.1% due to the severe impact of the global recession on the steel industry in Brazil and Europe, two major markets for the sale of our iron ore. We are committed to maintaining our leadership position in the global iron ore market, by focusing our product line to capture industry trends, increasing our production capacity in line with demand growth, controlling costs, strengthening our logistics infrastructure of railroads, ports, shipping and distribution centres, and strengthening relationships with customers. We believe our diversified portfolio of high-quality products, strong technical marketing strategy, efficient logistics and strong and long-standing relationships with major customers will help us achieve this goal. We have also encouraged

¹ Source: Bloomberg

steelmakers to develop steel projects in Brazil through joint ventures in which we may hold minority stakes, in order to create additional demand for our iron ore.

Achieving leadership in the nickel business

We are a leading producer of nickel, with large-scale, long-life and low-cost operations, a substantial resource base, advanced technology and a steady growth profile. We have refineries in North America, Europe and Asia, which produce an array of products for use in most nickel applications. We are a leading producer of high-quality nickel products for non-stainless steel applications, such as plating, alloy steels, high nickel alloys and batteries. Our long-term goal is to strengthen our nickel business.

Investing in fertilizer nutrients

We are pursuing various opportunities to become a major producer of fertilizer nutrients in order to benefit from rising global consumption, which is expected to grow significantly in emerging markets. We expect per capita income growth and increased demand for biofuels to drive demand for fertilizers. In this context, Brazil is expected to play a key role in the global agricultural market, given its position as a global agricultural powerhouse and its growth potential due to its abundant supply of water and arable land for the expansion of the agricultural industry.

We have developed an understanding of the fertilizer industry, having successfully operated a potash mine in Brazil (Taquari-Vassouras) since the early 1990s. Our portfolio of phosphate projects in Peru and Africa and potash projects in Argentina, Brazil and Canada will, we believe, put us in a strong position to capture a significant portion of future market growth, especially in Brazil.

We are engaged in several phosphate and potash mineral exploration projects around the world, and we are seeking opportunities to accelerate our growth strategy, including through acquisitions (as to which see the section in this Listing Document headed "Business — Overview").

Developing our copper resources

We believe that our copper projects, all of which are situated in the Carajás mineral province in the Brazilian state of Pará, are among the more competitive in the world in terms of investment cost per metric ton of ore. We are developing the Salobo project to produce copper concentrate and testing a new hydro-metallurgical technology at the Usina Hidrometalúrgica de Carajás plant that could enable the development of other copper projects in this region. We expect these copper mines to benefit from our infrastructure facilities serving the Northern System. We are developing the Tres Valles copper project in Chile, and we have growth options in the copper business in Africa through a joint venture with African Rainbow Minerals Limited. We are engaged in mineral exploration in several countries to increase our reserve base.

Investing in coal

We are pursuing various opportunities to become a large global player in the coal business. We have coal operating assets and a portfolio of exploration projects in Australia and Colombia, and minority interests in two joint ventures in China. We intend to continue pursuing organic growth in the coal business through the development of the Moatize project in Mozambique, the development of more advanced coal exploration projects in Australia and Colombia, and mineral exploration initiatives in several countries, such as Mongolia.

Diversifying and expanding our resource base

We are actively engaged in mineral exploration in twenty-three countries. We are mainly seeking new deposits of coal, copper, iron ore, manganese ore, nickel, phosphates, natural gas,

PGMs, potash and uranium. Mineral exploration is an important part of our organic growth strategy.

Enhancing our logistics capacity to support our iron ore business

We believe that the quality of our railway assets and extensive experience as a railroad and port operator, together with the lack of efficient transportation for general cargo in Brazil, position us as a leader in the logistics business in Brazil. We have been expanding the capacity of our railroads primarily to meet the needs of our iron ore business.

To support our commercial strategy for our iron ore business, we continue to invest in a dedicated maritime freight shuttle service from Brazil to Asia and in the development of distribution centres in Asia and the Middle East in order to minimise freight costs and maximise flexibility so as to enhance the competitiveness of our iron ore business in these regions.

Developing energy projects

Energy management and efficient supply have become a priority for us. As a large consumer of electricity, we believe that investing in power generation projects to support our operations will help protect us against volatility in the price of energy, regulatory uncertainties and the risk of energy shortages. Accordingly, we have developed hydroelectric power generation plants in Brazil, Canada and Indonesia, and we are using the electricity from these projects to supply our internal needs. As a potentially large consumer of natural gas, in 2007 we began investing in natural gas exploration in Brazil through consortia, and in 2009 we made our first discoveries. We are seeking to diversify and optimise our energy matrix through increased use of thermal coal, renewable fuels and natural gas.

MINING AND EXPLORATION OPERATIONS

Our principal line of business consists of mining and exploration operations. We are the world’s largest producer by volume of iron ore and iron ore pellets. We are a leading producer of nickel. We are also among the leading producers of manganese ore and ferroalloys. We also produce copper, coal, fertilizer nutrients, cobalt, PGMs and other products. The map below illustrates the location of our mining and exploration operations worldwide.



Bulk materials

Ferrous minerals

Our ferrous minerals business includes iron ore mining, iron ore pellet production, manganese ore mining, ferroalloy production and a pig iron operation. Each of these activities is described below.

Iron ore

Operations

We conduct our iron ore operations in Brazil directly and through our subsidiary, Urucum. These operations for mining iron ore and the others related to them are concentrated in three systems: the Southeastern System, the Southern System and the Northern System, each with its own carrying capacity. We also have open-cast mines through our affiliate, Samarco.

| <u>Company</u> | <u>System</u> | <u>Our shareholding percentage</u> | | <u>Partners</u> |
|-------------------|-------------------------------------|------------------------------------|------------------|------------------|
| | | <u>Voting (%)</u> | <u>Total (%)</u> | |
| Vale | Northern, Southeastern and Southern | — | — | — |
| Urucum | Southeastern | 100 | 100 | — |
| Samarco | — | 50.0 | 50.0 | BHP-Billiton plc |

Southeastern System

The Southeastern System mines are located in the Iron Quadrangle region of the state of Minas Gerais, where they are divided into three mining complexes (Itabira, Minas Centrais and Mariana), and in the state of Mato Grosso do Sul, where the mines of Urucum and Corumbá are located.

The ore reserves in the three mining complexes have high ratios of itabirite ore relative to hematite ore. Itabirite ore has iron grade of 35% and requires concentration to achieve shipping grade, which is at least 63.5% average iron grade. Urucum ore reserves have high ratios of hematite ore, which has an average grade of 63%.

We conduct open-pit mining operations in the Southeastern System. At the three mining complexes, we generally process the run-of-mine by means of standard crushing, classification and concentration steps, producing sinter feed, lump ore and pellet feed in the beneficiation plants located at the mining sites.

In September 2009, we concluded the acquisition of Corumbá, where we produce lump ores. At the Urucum and Corumbá mines, we generally process the run-of-mine by means of standard crushing and classification steps, producing only lump ore. In 2009, we produced 100% of the electric energy consumed in the Southeastern System at our hydroelectric power plants (Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I and Capim Branco II).

We own and operate integrated railroad and terminal networks in the three mining complexes, which are accessible by road or by spur tracks of our EFVM railroad. The EFVM railroad connects these mines to the Tubarão port in Vitória, in the state of Espírito Santo. For a more detailed description of the networks, see the section in this Listing Document headed "Business — Infrastructure — Logistics services". Iron ore from the mines of Urucum and Corumbá in the state of Mato Grosso do Sul is transported to customers on barges that navigate the Paraguary River.

Southern System

The Southern System mines are located in the iron quadrangle region of the state of Minas Gerais in Brazil. The mines of our subsidiary, Minerações Brasileiras Reunidas S.A., are operated by our Company pursuant to an asset lease agreement. The Southern System has three major mining complexes: the Minas Itabirito complex (comprised of four mines, with two major beneficiation plants and three secondary beneficiation plants); the Vargem Grande complex (comprised of three mines and one major beneficiation plant); and the Paraopeba complex (comprised of four mines and three beneficiation plants).

We use wet beneficiation processes to convert run-of-mine obtained from open-pit mining operations into sinter feed, lump ore and pellet feed, in addition to hematitinha, a product used primarily by Brazilian pig-iron producers. In 2009, we produced 100% of the electric energy consumed in the Southern System at our hydroelectric power plants (Igarapava, Porto Estrela, Funil, Candonga, Capim Branco I and Capim Branco II).

We enter into freight contracts with our affiliate, MRS, a railway company in which we own a 41.5% stake, to transport our iron ore products at market prices from the mines to our Guaíba Island and Itaguaí maritime terminals in the state of Rio de Janeiro.

Northern System

The Northern System mines, located in the Carajás mineral province of the Brazilian state of Pará, contain some of the largest iron ore deposits in the world. The reserves are divided into northern, southern and eastern ranges situated 35 kilometres apart. Since 1985, we have been conducting mining activities in the northern range, which is divided into three main mining bodies (N4W, N4E and N5). The Northern System has open-pit mines and an ore-processing plant. The mines are located on public lands for which we hold mining concessions.

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Because of the high grade (66.7% on average) of the Northern System deposits, we do not need to operate a concentration plant at Carajás. The beneficiation process consists simply of sizing operations, including screening, hydrocycloning, crushing and filtration. Output from the beneficiation process consists of sinter feed, pellet feed, special fines for direct reduction processes and lump ore. We obtain all of the electrical power for the Northern System at market prices from regional utilities.

We operate an integrated railroad and maritime terminal network in the Northern System. After completion of the beneficiation process, our EFC railroad transports the iron ore to the Ponta da Madeira maritime terminal in the state of Maranhão. To support our Carajás operations, we have housing and other facilities in a nearby township. These operations are accessible by road, air and rail.

Samarco

We own 50% of Samarco, which operates an integrated system, comprised of a mine, pipeline, three pellet plants and a port. Samarco's Alegria mine complex, located in Mariana, Minas Gerais, is in the same region as our Southeastern System.

Production

The following table sets forth information about our iron ore production.

| Mine/Plant | Type | Production for the year ended 31 December | | | Recovery rate ⁽¹³⁾ (%) | Production for the six months ended 30 June | Production for the nine months ended 30 September |
|----------------------------------------------|----------|-------------------------------------------|--------------|-------------|--------------------------------------|---------------------------------------------|---------------------------------------------------|
| | | 2007 | 2008 | 2009 | | 2010 | 2010 |
| | | (million metric tons) | | | | | (million metric tons) |
| Southeastern System | | | | | | | |
| <i>Itabira complex</i> | | 46.7 | 41.8 | 31.1 | 70.45 | 18.0 | 28.7 |
| Minas do Meio ⁽¹⁾ | Open-pit | 24.8 | 21.5 | 13.8 | | | |
| Conceição ⁽¹⁾ | Open-pit | 21.9 | 20.3 | 17.3 | | | |
| <i>Minas Centrais complex</i> | | 33.9 | 37.5 | 28.4 | 76.50 | 19.3 | 30.5 |
| Água Limpa/Cururu ⁽²⁾ | Open-pit | 4.2 | 4.7 | 1.4 | | | |
| Gongo Soco | Open-pit | 6.5 | 5.0 | 2.7 | | | |
| Brucutu | Open-pit | 21.9 | 26.4 | 23.6 | | | |
| Andrade ⁽³⁾ | Open-pit | 1.3 | 1.4 | 0.7 | | | |
| <i>Mariana complex</i> | | 34.2 | 37.1 | 28.9 | 77.70 | 18.0 | 27.7 |
| Alegria | Open-pit | 13.5 | 12.3 | 12.1 | | | |
| Fábrica Nova ⁽⁴⁾ | Open-pit | 14.6 | 14.0 | 13.7 | | | |
| Fazendão ⁽⁵⁾ | Open-pit | 3.7 | 9.8 | 3.1 | | | |
| Timbopeba | Open-pit | 1.3 | — | — | | | |
| Corumbá ⁽⁶⁾ | Open-pit | — | — | 0.4 | 55.0 | 1.2 | 2.0 |
| Urucum | Open-pit | 1.1 | 1.0 | 0.5 | 61.0 | 0.6 | 1.0 |
| Total Southeastern System . . . | | 114.9 | 116.4 | 89.3 | | 57.1 | 89.8 |
| Southern System⁽⁷⁾ | | | | | | | |
| <i>Minas Itabirito complex</i> | | 29.2 | 27.2 | 18.2 | 64.40 | 14.3 | 22.6 |
| Segredo/João Pereira | Open-pit | 11.8 | 12.1 | 8.4 | | | |
| Sapicado/Galinheiro ⁽⁸⁾ | Open-pit | 17.4 | 15.1 | 9.8 | | | |
| <i>Vargem Grande complex</i> | | 27.7 | 23.7 | 20.7 | 84.92 | 11.0 | 16.9 |
| Tamanduá ⁽⁹⁾ | Open-pit | 10.2 | 9.8 | 7.3 | | | |
| Capitão do Mato ⁽⁹⁾ | Open-pit | 11.5 | 9.7 | 8.0 | | | |
| Abóboras | Open-pit | 6.0 | 4.2 | 5.4 | | | |
| <i>Paraopeba Complex</i> | | 32.4 | 29.7 | 16.5 | 80.19 | 10.9 | 17.0 |
| Jangada | Open-pit | 3.9 | 4.3 | — | | | |
| Córrego do Feijão | Open-pit | 9.3 | 8.4 | 5.6 | | | |
| Capão Xavier | Open-pit | 13.3 | 13.5 | 10.9 | | | |
| Mar Azul | Open-pit | 5.9 | 3.5 | — | | | |
| Total Southern System | | 89.3 | 80.5 | 55.4 | | 36.2 | 56.5 |

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| Mine/Plant | Type | Production for the year ended 31 December | | | Recovery rate ⁽¹³⁾ (%) | Production for the six months ended 30 June | Production for the nine months ended 30 September |
|-----------------------------|-------------|-------------------------------------------|-------|-------|--------------------------------------|---------------------------------------------|---------------------------------------------------|
| | | 2007 | 2008 | 2009 | | 2010 | 2010 |
| | | (million metric tons) | | | (million metric tons) | | |
| Northern System | | | | | | | |
| Serra Norte ⁽¹⁰⁾ | | 91.7 | 96.5 | 84.6 | 92.4 | 46.2 | 73.2 |
| N4W | Open-pit | 40.3 | 44.3 | 31.0 | | | |
| N4E | Open-pit | 15.4 | 13.2 | 16.9 | | | |
| N5 ⁽¹¹⁾ | Open-pit | 36.0 | 39.1 | 36.8 | | | |
| Total Northern System | | 91.7 | 96.5 | 84.6 | | 46.2 | 73.2 |
| Vale | | 295.9 | 293.4 | 229.3 | | 139.5 | 219.5 |
| Samarco ⁽¹²⁾ | Underground | 14.5 | 16.6 | 17.2 | 57.7 | 10.6 | 16.1 |
| Total | | 310.4 | 310.0 | 246.5 | | 150.1 | 227.5 |

Notes:

- (1) The run-of-mine from Minas do Meio is sent to the Cauê and Conceição concentration plants.
- (2) Água Limpa/Cururu is owned by Baovale, in which we own 100% of the voting shares and 50% of the total shares. Production figures for Água Limpa/Curucu have not been adjusted to reflect our ownership interest.
- (3) The lease for the Andrade mine was terminated in 2009 by mutual consent of the lessor.
- (4) Fábrica Nova ore is sent to the Alegria and Fábrica Nova plants.
- (5) Fazendão ore is sent to the Alegria plant and Samarco.
- (6) Production relative to the fourth quarter of 2009 on the basis of acquisition in the third quarter of 2009. On a pro forma basis, production at Corumbá reached 2.0 Mt in 2009.
- (7) Former MBR mines were included in other complexes in the Southern System.
- (8) Galinheiro mine was separated from the Sapecado mine and includes the Pico mine.
- (9) Tamanduá and Capitão do Mato ores are processed at the Vargem Grande plant.
- (10) All Serra Norte ores are processed at the Carajás plant.
- (11) Our former N5E-N and N5-W mines were incorporated in the N5 reserves.
- (12) Production figures for Samarco, in which we have a 50% interest, have not been adjusted to reflect our ownership interest other than in respect of production for the nine months ended 30 September 2010.
- (13) Recovery rate is prepared by reference to the period preceding 1 January 2010.

Iron ore pellets

Operations

Directly and through affiliates and subsidiaries, we produce iron ore pellets in Brazil and in China, as set forth in the following table. The total estimated nominal capacity of the 10 pellet plants directly operated by us, including Hispanobras, is 48 million metric tons per year.

| Company | Site of operation | Our shareholding percentage | | Partners |
|-------------|------------------------------------------------------|-----------------------------|-------|--------------------------------------------------------------------------------------|
| | | Voting (%) | Total | |
| Vale | Brazil: Tubarão, Fábrica, Vargem Grande and São Luís | — | — | — |
| Hispanobras | Brazil: Tubarão | 51.0 | 50.9 | Arcelor Mittal |
| Samarco | Brazil: Mariana and Anchieta | 50.0 | 50.0 | BHP-Billiton plc |
| Zhuhai YPM | China: Zhuhai, Guangdong | 25.0 | 25.0 | Zhuhai Yueyufeng Iron and Steel Co., Ltd. and Pioneer Iron and Steel Group Co., Ltd. |

In the Tubarão port area, in the Brazilian state of Espírito Santo, we operate our wholly-owned pellet plants, Tubarão I and II, four plants we lease under operating leases and our jointly-owned

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plant, Hispanobras. We send iron ore from our Southeastern System mines to these plants and use our logistics infrastructure to distribute their final products.

Our São Luís pellet plant, located in the Brazilian state of Maranhão, is part of the Northern System. We send Carajás iron ore to this plant and ship its production to customers through our Ponta da Madeira maritime terminal.

The Fábrica and Vargem Grande pellet plants, located in the Brazilian state of Minas Gerais, are part of the Southern System. We send some of the iron ore from the Fábrica Nova mine to the Fábrica plant, and iron ore from the Pico mine to the Vargem Grande plant. We transport pellets from these plants using MRS.

Samarco operates three pellet plants in two operating sites with nominal capacity of 21 Mt per year. The pellet plants are located in the Ponta Ubu unit, in Anchieta, Espírito Santo. Iron ore from Alegria and our Southeastern System mine Fábrica Nova is sent to the Samarco pellet plants using a 396-kilometre pipeline for the conveyance of iron ore. Samarco has its own port facilities to transport its production.

The Zhuhai YPM pellet plant, in China, is part of the Yueyufeng Steelmaking Complex. It has port facilities, which we use to send feed from our mines in Brazil. Zhuhai YPM's main customer is Zhuhai Yueyufeng Iron and Steel Co., Ltd., which is also located in the Yueyufeng Steelmaking Complex.

We sell pellet feed to our pelletising joint ventures at market prices. Historically, we have supplied all of the iron ore requirements of our wholly-owned pellet plants and joint ventures, except for Samarco and Zhuhai YPM, to which we supply only part of their requirements. Of our total pellet production in 2009, 58.8% was blast furnace pellets, and the remaining 41.2% was direct reduction pellets, which are used in steel mills that employ the direct reduction process rather than blast furnace technology.

The following table sets forth information about our iron ore sales to our pelletising joint ventures for the periods indicated.

| | Sales for the year ended 31 December | | |
|---------------------------|-----------------------------------------|--------------------|------|
| | 2007 | 2008 | 2009 |
| | (million metric tons) | | |
| Hispanobras | 4.7 | 4.1 | 1.2 |
| Itabasco ⁽¹⁾ | 4.4 | 3.2 ⁽¹⁾ | — |
| Kobrasco ⁽²⁾ | 4.4 | 1.6 ⁽²⁾ | — |
| Nibrasco ⁽³⁾ | 7.4 | 2.0 ⁽³⁾ | — |
| Samarco ⁽⁴⁾ | 7.1 | 11.3 | 4.9 |
| Zhuhai YPM ⁽⁵⁾ | — | 0.8 | 0.9 |
| Total | 28.1 | 23.0 | 7.0 |

Notes:

(1) Sales through September 2008. We signed a 10-year operating lease for Itabasco's pellet plant in October 2008.

(2) Sales through May 2008. We signed a five-year operating lease for Kobrasco's pellet plant in June 2008.

(3) Sales through April 2008. We signed a 30-year operating lease for Nibrasco's two pellet plants in May 2008.

(4) In 2007, we sold 1.9 million metric tons of concentrate and 5.2 million metric tons of run-of-mine; in 2008, we sold 1.8 million metric tons of concentrate and 9.5 million metric tons of run-of-mine; and in 2009, we sold 1.1 million metric tons of concentrate and 3.8 million metric tons of run-of-mine.

(5) Zhuhai YPM started operations in January 2008.

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Production

The following table sets forth information about our iron ore pellet production. The table reflects 100% of production at each facility.

| <u>Company</u> | <u>Production for the year ended December 31</u> | | | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|----------------------------------|--------------------------------------------------|-------------|-------------|----------------------------------------------------|----------------------------------------------------------|
| | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2010</u> |
| | (million metric tons) | | | | |
| Vale ⁽¹⁾ | 17.6 | 26.6 | 15.3 | 17.2 | 27.4 |
| Hispanobras ⁽⁵⁾ | 4.3 | 3.8 | 1.2 | 0.9 | 1.5 |
| Itabasco ⁽²⁾ | 4.0 | 2.9 | — | — | — |
| Kobrasco ⁽³⁾ | 5.0 | 2.1 | — | — | — |
| Nibrasco ⁽⁴⁾ | 9.0 | 2.7 | — | — | — |
| Samarco ⁽⁵⁾ | 14.3 | 17.1 | 16.1 | 5.0 | 7.9 |
| Total | <u>54.2</u> | <u>55.2</u> | <u>32.6</u> | <u>23.1</u> | <u>36.8</u> |

Notes:

- (1) Figure includes actual production, including production from the four pellet plants we leased in 2008.
- (2) Production through September 2008. We signed a 10-year operating lease contract for Itabasco's pellet plant in October 2008.
- (3) Production through May 2008. We signed a five-year operating lease contract for Kobrasco's pellet plant in June 2008.
- (4) Production through April 2008. We signed a 30-year operating lease contract for Nibrasco's two pellet plants in May 2008.
- (5) Production figures for Hispanobras and Samarco have not been adjusted to reflect our ownership interest.

The Group complies with all rules and regulations (if applicable) regarding transfer pricing in the supply of iron ore requirements to its wholly-owned pellet plants and joint ventures.

Iron ore and iron ore pellets

Sales

We supply all of our iron ore and iron ore pellets (including our share of joint-venture pellet production) to the steel industry. Prevailing and expected levels of demand for steel products affect demand for our iron ore and iron ore pellets. Demand for steel products is influenced by many factors, such as global manufacturing production, civil construction and infrastructure spending.

In 2009, China accounted for 56.8% of our iron ore and iron ore pellet shipments, and Asia as a whole accounted for 72.7%. Europe accounted for 13.4%, followed by Brazil with 10.2%. Our 10 largest customers collectively purchased 96.6 million metric tons of iron ore and iron ore pellets from us, representing 39% of our iron ore and iron ore pellet shipments in 2009 and 38% of our total iron ore and iron ore pellet revenues that year. In 2009, no individual customer accounted for more than 10.0% of our iron ore and iron ore pellet shipments.

In 2009, the Asian market (mainly Japan and South Korea) and the European market were the primary markets for our blast furnace pellets, while North America, the Middle East and North Africa were the primary markets for our direct reduction pellets.

We strongly emphasise customer service in order to improve our competitiveness. We work with our customers to understand their main objectives and to provide them with iron ore solutions meeting their specific needs. Using our expertise in mining, agglomeration and iron-making processes, we search for technical solutions that will balance the best use of our mining assets and the satisfaction of our customers. We believe that our ability to provide customers with a total iron ore solution and the quality of our products are very important advantages that help improve our competitiveness in relation to competitors who may be more conveniently located geographically. In addition to offering technical assistance to our customers, we operate sales support offices in Tokyo (Japan), Seoul (South Korea), Singapore, Muscat (Oman) and Shanghai (China), which support the sales made by our sales office located in St. Prex, Switzerland. These

offices also allow us to stay in close contact with our customers, monitor their requirements and our contract performance, and ensure that our customers receive timely deliveries.

Pricing

Demand for our iron ore and iron ore pellets is a function of global demand for carbon steel. Demand for carbon steel, in turn, is strongly influenced by global industrial production. Iron ore and iron ore pellets are priced according to the wide array of quality levels and physical characteristics. Various factors influence price differences among the various types of iron ore, such as the iron content of specific ore deposits, the various beneficiation and purifying processes required to produce the desired final product, particle size, moisture content, and the type and concentration of contaminants (such as phosphorus, alumina and manganese ore) in the ore. Fines, lump ore and pellets typically command different prices.

In general, our iron ore sales are made pursuant to long-term supply contracts. Since April 2010, we have reached agreements on a new iron ore pricing system with our customers around the world based on short-term market references and price changes on a quarterly basis. These agreements, some of which are permanent and some of which are provisional, correspond to 100% of sales volumes under contracts. Previously, a majority of our contracts provided for annual price adjustments.

China's iron ore imports in 2009 reached an all-time high of 627.8 million metric tons, an increase of 41.4% on a year-on-year basis, driven by growth in steel production and increasing reliance on imported iron ore.

The increase in capacity utilisation rates of the steel industry in Japan, Korea, Brazil and Europe, although somewhat below the levels before the global economic downturn in 2009, together with large import volumes in China, has produced a change in the global iron ore market from surplus supply to excess demand.

Competition

The global iron ore and iron ore pellet markets are highly competitive. The main factors affecting competition are price, quality, range of products offered, reliability, operating costs and shipping costs.

Our biggest competitors in the Asian market are located in Australia. Although the transportation costs of delivering iron ore from Australia to Asian customers are generally lower than ours as a result of Australia's geographical proximity, we are competitive in the Asian market for two main reasons. First, steel companies generally seek to obtain the types (or blends) of iron ore and iron ore pellets that can produce the intended final product in the most economic and efficient manner. Our iron ore has low impurity levels and other properties that generally lead to lower processing costs. For example, in addition to its high grade, the alumina grade of our iron ore is very low compared to Australian ores, reducing consumption of coke and increasing productivity in blast furnaces, which is particularly important during periods of high demand. When the market is very strong, our quality differential is in many cases more valuable to customers than a freight differential. Second, steel companies often develop sales relationships based on a reliable supply of a specific mix of iron ore and iron ore pellets. We have a customer-oriented marketing policy and place specialised personnel in direct contact with our customers to help determine the blend that best suits the needs of each particular customer.

In terms of reliability, our ownership and operation of logistics facilities in the Northern and Southeastern Systems help us ensure that our products are delivered on time and at a relatively low cost. In addition, we are developing a low-cost freight portfolio, aimed at enhancing our ability to offer our products in the Asian market at competitive prices and to increase our market share. To

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support this strategy, we ordered new ships, purchased used vessels and entered into medium- and long-term freight contracts.

We are competitive in the European market not only for the same reasons we are competitive in Asia, but also due to the proximity of our port facilities to European customers.

In 2008, we had a share of approximately 32.8% of the total volume of iron ore traded in the seaborne market, and in 2009, this declined to approximately 26.1% due to the severe impact of the global recession in the steel industry in Brazil and Europe, two major markets for the sale of our iron ore.

The Brazilian iron ore market is also competitive. There are several small iron ore producers and new companies with developing projects. At the same time, there are vertically integrated steel companies. Although pricing is relevant, quality and reliability are important competitive factors as well. We believe that our integrated transportation systems, high-quality ore and technical services make us a strong competitor in the Brazilian market.

Manganese ore

We conduct our manganese mining operations in Brazil directly and through our wholly-owned subsidiaries, Vale Manganês and Urucum.

| <u>Company</u> | <u>Location</u> | <u>Our shareholding percentage</u> | |
|----------------------------------------|-------------------------------|------------------------------------|--------------|
| | | <u>Voting</u> | <u>Total</u> |
| | | (%) | |
| Vale Manganês ⁽¹⁾ | Brazil: Pará and Minas Gerais | 100 | 100 |
| Urucum | Brazil: Mato Grosso do Sul | 100 | 100 |

Note:

(1) Vale Manganês's mines are Azul and Morro da Mina.

Our mines produce three types of products:

- metallurgical ore, used primarily for the production of ferroalloys;
- natural manganese dioxide, suitable for the manufacture of electrolytic batteries; and
- chemical ore, used in several industries for the production of fertilizer, pesticides and animal feed, and used as a pigment in the ceramics industry.

We operate on-site beneficiation plants at our Azul mine and at the Urucum mines, which are accessible by road. The Azul and Urucum mines have high-grade ores (at least 40% manganese grade), while our Morro da Mina mine has low-grade ores. All of these mines obtain electrical power at market prices from regional electricity suppliers.

The following table sets forth information about our manganese production.

| <u>Mine</u> | <u>Type</u> | <u>Production for the year ended 31 December</u> | | | <u>Recovery rate⁽³⁾</u> | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|---------------------------------|-------------|--------------------------------------------------|-------------|-------------|------------------------------------|----------------------------------------------------|----------------------------------------------------------|
| | | <u>2007</u> | <u>2008</u> | <u>2009</u> | | <u>2010</u> | <u>2010</u> |
| | | (million metric tons) | | | (%) | | |
| Azul ⁽¹⁾ | Open-pit | 0.9 | 2.0 | 1.4 | 62.4 | 0.8 | 1.2 |
| Morro da Mina | Open-pit | 0.1 | 0.1 | 0.1 | 93.2 | 0.0 | 0.0 |
| Urucum ⁽²⁾ | Underground | <u>0.3</u> | <u>0.2</u> | <u>0.2</u> | 83.0 | <u>0.1</u> | <u>0.1</u> |
| Total | | <u>1.3</u> | <u>2.4</u> | <u>1.7</u> | | <u>0.9</u> | <u>1.4</u> |

Notes:

(1) Given the need to prioritise iron ore transportation through the EFC railroad, we shut down the Azul mine from July to December 2007.

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- (2) Urucum has a five-year renewable lease agreement with CPFL Energia S.A. for its plant in Corumbá, in the Brazilian state of Mato Grosso do Sul.
- (3) Recovery rate is prepared by reference to the period preceding 1 January 2010.

Ferroalloys

The following table sets forth the subsidiaries through which we conduct our ferroalloys business.

| <u>Company</u> | <u>Location</u> | <u>Our shareholding percentage</u> | |
|-------------------------------------|--------------------------------|------------------------------------|--------------|
| | | <u>Voting</u> | <u>Total</u> |
| | | (%) | |
| Vale Manganês | Minas Gerais and Bahia, Brazil | 100 | 100 |
| Urucum | Mato Grosso do Sul, Brazil | 100 | 100 |
| Vale Manganèse France | Dunkerque, France | 100 | 100 |
| Vale Manganese Norway A.S | Mo I Rana, Norway | 100 | 100 |

We produce several types of manganese ferroalloys, such as high carbon and medium carbon ferro-manganese and ferro-silicon manganese. The production of ferroalloys consumes significant amounts of electricity, representing 4.8% of our total consumption in 2009. The electricity supply for our ferroalloy plant in Dunkerque, France and Mo I Rana, Norway are provided through long-term contracts.

The following table sets forth information about our ferroalloys production.

| <u>Company</u> | <u>Production for the year ended 31 December</u> | | | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|------------------------------------------------|--------------------------------------------------|-------------|-------------|----------------------------------------------------|----------------------------------------------------------|
| | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2010</u> |
| | (thousand metric tons) | | | | |
| Vale Manganês ⁽¹⁾ | 288 | 288 | 99 | 102 | 152 |
| Urucum ⁽²⁾ | 22 | 20 | 0 | 0 | 0 |
| Vale Manganèse France ⁽³⁾ | 103 | 55 | 45 | 67 | 103 |
| Vale Manganese Norway A.S | 129 | 112 | 79 | 54 | 80 |
| Total | 542 | 475 | 223 | <u>223</u> | <u>335</u> |

Notes:

- (1) Vale Manganês has five plants in Brazil: Santa Rita, Barbacena and Ouro Preto in the state of Minas Gerais; and Simões Filho in the state of Bahia. We sold Vale Manganês's São João del Rei plant in June 2007.
- (2) Urucum has one plant in Corumbá in the Brazilian state of Mato Grosso do Sul, whose operation was suspended subsequent to a review of its production operations in December 2008. The reasons for it ceasing to produce were purely concerned with its present economic viability given the level of demand for its output in prevailing market circumstances.
- (3) From August to October 2007, we shut down our furnace at Vale Manganèse France due to technical problems. We shut it down again in August 2008 due to technical problems, and it was restarted in September 2009.

Manganese ore and ferroalloys

Sales and competition

The markets for manganese ore and ferroalloys are highly competitive. Competition in the manganese ore market takes place in two segments. High-grade manganese ore competes on a global seaborne basis, while low-grade ore competes on a regional basis. For some ferroalloys, high-grade ore is mandatory, while for others high- and low-grade ores are complementary. The main suppliers of high-grade ores are located in South Africa, Gabon, Australia and Brazil. The main producers of low-grade ores are located in Ukraine, China, Ghana, Kazakhstan, India and Mexico.

The ferroalloy market is characterised by a large number of participants who compete primarily on the basis of price. The principal competitive factors in this market are the costs of manganese ore, electricity and logistics and reductants. We compete both with stand-alone producers and integrated producers that also mine their own ore. Our competitors are located principally in countries that produce manganese ore or steel.

Pricing

The prices of manganese ore and ferroalloys are influenced by trends in the carbon steel market. Ferroalloy prices are also influenced by the prices of the main production inputs, such as manganese ore, power and coke. Price negotiations for manganese ore are conducted mainly on a spot or quarterly basis. Prices for ferroalloys are determined on a quarterly basis.

Pig iron

We conduct a pig iron operation in northern Brazil. This operation was conducted through our wholly-owned subsidiary, Ferro-Gusa Carajás S.A. until April 2008, when it was merged into our Company.

We utilise two conventional mini-blast furnaces to produce pig iron, using iron ore from our Carajás mines in northern Brazil. The charcoal source is exclusively from eucalyptus trees grown in a cultivated forest. In July 2009, we sold this forest to Suzano Papel e Celulose but retained a sufficient wood inventory to keep the mini blast furnaces operating through the first half of 2012.

Revenues from sales of pig iron accounted for only 0.2% of our total revenue in 2009.

Coal

Operations

We produce metallurgical and thermal coal through our subsidiary, Vale Australia, which operates coal assets in Australia through wholly-owned subsidiaries and unincorporated joint ventures, and thermal coal through our subsidiary, Vale Colombia.

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We also have a minority interest in two Chinese companies, Henan Longyu Energy Resources Co., Limited (**Longyu**) and Shandong Yankuang International Coking Company Ltd. (**Yankuang**), as shown in the table below.

| <u>Company</u> | <u>Business</u> | <u>Location</u> | <u>Our shareholding percentage (%)</u> | <u>Partners</u> |
|-------------------------------------------------|---------------------------------|----------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Vale Australia</i> Integra Coal | Thermal and metallurgical coal | Australia: Hunter Valley, New South Wales | 61.2 | Nippon Steel Corporation (NSC), JFE Steel Corporation (JFE), POSCO, Toyota |
| Carborough Downs . . . | Metallurgical coal | Bowen Basin, Queensland | 80.0 | NSC, JFE, POSCO, Tata |
| Isaac Plains | Thermal and metallurgical coal | Bowen Basin, Queensland | 50.0 | Aquila Resources Ltd. |
| Broadlea | Thermal and metallurgical coal | Bowen Basin, Queensland | 100 | — |
| <i>Vale Colombia</i> | Thermal coal | Colombia: El Hatillo, Cesar Department | 100 | — |
| <i>Longyu</i> | Coal and other related products | China: Henan Province | 25.0 | Yongmei Group Co., Ltd. (formerly Yongcheng Coal & Electricity (Group) Co., Ltd.) Shanghai Baosteel International Economic & Trading Co., Ltd. and other minority shareholders |
| <i>Yankuang</i> | Metallurgical coke and methanol | China: Shandong Province | 25.0 | Yankuang Group Co., Ltd. and Itochu Corporation |

Australia

Integra Coal Operations (underground and open-cut)

The Integra Coal Operations are located 10 kilometres north-west of Singleton in the Hunter Valley of New South Wales, Australia. The operations comprise an underground coal mine that produces coal by longwall methods, and an open-cut pit. Coal from the mine is processed at a coal handling and processing plant (**CHPP**) and loaded onto trains at a purpose-built rail loadout facility for transport to the port of Newcastle, New South Wales, Australia.

Carborough Downs

Carborough Downs is located in the Central Bowen Basin in central Queensland, Australia, 15 kilometres east of the township of Moranbah and 180 kilometres southwest of the coastal city of Mackay. Carborough Downs mining leases overlie the Rangal Coal Measures of the Bowen Basin with the economic seams of Leichardt and Vermont. Both seams have coking properties and can be beneficiated to produce coking and PCI products. The Leichardt seam is currently our main target for development and constitutes 100% of the current reserve and resource base. Carborough Downs coal is processed at the Carborough Downs CHPP, which operates seven days per week. The product is loaded onto trains at a rail loadout facility and transported 160 kilometres to the Dalrymple Bay Coal Terminal, Queensland, Australia.

Isaac Plains

The Isaac Plains open-cut mine is located close to Carborough Downs in central Queensland. The mine is managed by Isaac Plains Coal Management on behalf of the joint venture parties. The coal is

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classified as a medium volatile bituminous coal with low ash and sulphur contents. The Isaac Plains mines produce both metallurgical coal and thermal coal. Coal is processed at the Isaac Plains CHPP and transported 172 kilometres by railway to the Dalrymple Bay Coal Terminal.

Broadlea

Broadlea is an open-cut operation located just north of Carborough Downs' underground mine, consisting of a collection of small economic coal deposits. Broadlea was mined using the truck-and-shovel method, and product coal was toll-washed at the Carborough Downs CHPP and transported 172 kilometres by railway to the Dalrymple Bay Coal Terminal in Queensland, Australia. At the end of 2009, Broadlea ceased operations and underwent maintenance due to increasing unit costs. The mine's economic viability will undergo regular review to determine the potential recommencement of operations.

Colombia

El Hatillo

The El Hatillo thermal coal mine is located in the central portion of the Cesar Department, 210 kilometres southeast of Santa Marta, Colombia. The concession area is adjacent to the town of La Loma.

Production

The following table sets forth information on our coal production:

| <u>Operation</u> | <u>Mine type</u> | <u>Production for the year ended 31 December</u> | | | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|-------------------------------------------|--------------------------|--------------------------------------------------|--------------|--------------|----------------------------------------------------|----------------------------------------------------------|
| | | <u>2007⁽¹⁾</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2010</u> |
| (thousand metric tons) | | | | | | |
| Thermal coal: | | | | | | |
| El Hatillo ⁽²⁾ | Open-cut | — | — | 1,143 | 1,331 | 2,161 |
| Integra Coal ⁽³⁾ | Open-cut | 255 | 557 | 702 | 122 | 236 |
| Isaac Plains ⁽⁴⁾ | Open-cut | 171 | 147 | 551 | 186 | 299 |
| Broadlea | Open-cut | <u>14</u> | <u>582</u> | <u>497</u> | <u>165</u> | <u>165</u> |
| Total thermal coal | | <u>440</u> | <u>1,286</u> | <u>2,893</u> | <u>1,804</u> | <u>2,861</u> |
| Metallurgical coal: | | | | | | |
| Integra Coal ⁽³⁾ | Underground and open-cut | 1,214 | 1,747 | 1,184 | 572 | 868 |
| Isaac Plains ⁽⁴⁾ | Open-cut | 249 | 382 | 487 | 237 | 466 |
| Carborough Downs ⁽⁵⁾ | Underground | 269 | 429 | 604 | 560 | 899 |
| Broadlea | Open-cut | <u>32</u> | <u>249</u> | <u>252</u> | <u>101</u> | <u>101</u> |
| Total metallurgical coal | | <u>1,764</u> | <u>2,807</u> | <u>2,527</u> | <u>1,470</u> | <u>2,334</u> |

Notes:

- (1) We acquired AMCI HA, the previous owner of these mines, in April 2007. Figures for 2007 include production from May to December 2007 only.
- (2) We acquired El Hatillo in the first quarter of 2009. Figures for 2009 include production from April to December only.
- (3) These figures correspond to our 61.2% equity interest in Integra Coal, an unincorporated joint venture.
- (4) These figures correspond to our 50% equity interest in Isaac Plains, an unincorporated joint venture.
- (5) These figures correspond to our 80% equity interest in Carborough Downs, an unincorporated joint venture.

Sales

Sales from our coal operations in Australia are basically destined for eastern Asia. In 2009, our Chinese coal joint ventures directed their sales mainly to the Chinese domestic market. The coal sales from our Colombian operations are primarily focused in Europe and the United States.

Our Integra Coal operations in New South Wales are similar to many in the Hunter Valley, with the vast majority of production being consumed in Northern Asia. Our operations in Queensland began production in late 2006.

Pricing

Demand for metallurgical coal is driven by demand for steel, especially in Asia. Demand for thermal coal is closely related to electricity consumption, which will continue to be driven by global economic growth, particularly in emerging economies. Price negotiations for metallurgical coal are mainly held on an annual basis. Price negotiations for thermal coal are held both on a spot and annual basis.

Competition

The global coal industry, which is primarily comprised of the markets for hard coal (metallurgical coal and thermal coal) and brown coal/lignite, is highly competitive. Growth in steel demand, especially in Asia, underpins strong demand for metallurgical coal. Increase in metallurgical coal supply may, however, be subject to major port and rail constraints in some of the countries in which the major suppliers are located.

The global seaborne thermal coal market has significantly expanded in recent years. Growth in thermal coal demand is closely related to growth in electricity consumption, which will continue to be driven by global economic growth, particularly in emerging economies. Large existing coal-fired power plants with long life cycles take a relatively long period to replace or upgrade, ensuring a high level of demand for thermal coal in countries with high electricity consumption. The cost of fuel is typically the largest variable cost involved in electricity generation and coal is currently the most competitively priced fossil fuel for this purpose.

Competition in the coal industry is based primarily on the economics of production costs, coal quality and transportation costs. We believe that our key competitive strengths include the strategic geographic location of our current and future supply bases and the level of our production cash costs relative to several other coal producers.

Base metals

Nickel

Operations

We conduct our nickel operations primarily through our wholly-owned subsidiary, Vale Canada. Vale Canada operates two nickel production systems, one in North America and Europe and the other in Asia and the South Pacific, as set forth in the following table.

| <u>System</u> | <u>Location</u> | <u>Operations</u> |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North America and Europe . . | Canada: Sudbury, Ontario | Fully integrated mines, mill, smelter and refinery (producer of intermediates and finished nickel and by-products) |
| | Canada: Thompson, Manitoba Canada: Voisey's Bay, Newfoundland and Labrador United Kingdom: Clydach, Wales | Fully integrated mines, mill, smelter and refinery (producer of finished nickel and by-products) Mine and mill (producer of nickel concentrates and by-products) Stand-alone nickel refinery (producer of finished nickel) |
| Asia and the South Pacific . . | Indonesia: Sorowako, Sulawesi ⁽¹⁾ | Mining and processing operations (producer of nickel matte, an intermediate product) |
| | New Caledonia: Southern Province ⁽²⁾ | Mining and processing operations (producer of nickel oxide and cobalt) |
| | Japan: Matsuzaka ⁽³⁾ | Stand-alone nickel refinery (producer of finished nickel) |
| | Taiwan: Kaoshiung ⁽⁴⁾ | Stand-alone nickel refinery (producer of finished nickel) |
| | China: Dalian, Liaoning Province ⁽⁵⁾ South Korea: Onsan ⁽⁶⁾ | Stand-alone nickel refinery (producer of finished nickel) Stand-alone nickel refinery (producer of finished nickel) |

Notes:

- (1) Operations conducted through our 59.1%-owned subsidiary, PTI.
- (2) Operations conducted through our 74%-owned subsidiary, Vale Nouvelle-Calédonie S.A.S.
- (3) Operations conducted through our 76%-owned subsidiary, Vale Japan Limited.
- (4) Operations conducted through our 49.91%-owned subsidiary, Taiwan Nickel Refining Corporation.
- (5) Operations conducted through our 98.27%-owned subsidiary, Vale Nickel (Dalian) Co., Ltd.
- (6) Operations conducted through Korea Nickel Corporation, in which we have a 25% equity interest.

For information about strikes that have affected some of our Canadian operations and their ultimate settlement, where applicable, see, in addition to the below, the section in this Listing Document headed "Business — Employees and labour relations".

North America and Europe

Sudbury operations

Our long-established mines in Sudbury, Ontario, are primarily underground operations with nickel sulphide ore bodies. These ore bodies also contain co-deposits of copper, cobalt, PGMs, gold and silver. We have integrated mining, milling, smelting and refining operations to process ore into finished nickel at Sudbury. We also smelt and refine nickel concentrates from our Voisey's Bay operations. We ship a nickel intermediate product, nickel oxide, from our Sudbury smelter to our nickel refineries in Wales, Taiwan, China and South Korea for processing into finished nickel. In 2009, we produced 31% of the electric energy consumed in Sudbury at our hydroelectric power plants there. The remaining electricity was purchased from Ontario's provincial electricity grid.

In July 2009, unionised maintenance and production employees at our Sudbury operations went on strike after rejecting a settlement offer for a new three-year collective bargaining agreement. On 8 July 2010, we announced that new five-year collective bargaining agreements were ratified with United Steelworkers (USW) Locals 6500 and 6200 representing production and maintenance employees in Sudbury and Port Colborne.

Thompson operations

Our long-established mines in Thompson, Manitoba, are primarily underground operations with nickel sulphide ore bodies. The ore bodies also contain co-deposits of copper and cobalt. We have integrated mining, milling, smelting and refining operations to process ore into finished nickel at Thompson. We also smelt and refine an intermediate product, nickel concentrate, from our Voisey's Bay operations. Low-cost energy is available from purchased hydroelectric power at our Thompson operations.

Voisey's Bay operations

Our Voisey's Bay operation in Newfoundland and Labrador is comprised of Ovoid, an open-pit mine, and deposits with the potential for underground operations at a later stage. We mine nickel sulphide ore bodies, which also contain co-deposits of copper and cobalt. We mill Voisey's Bay ore on site and ship it as an intermediate product (nickel concentrates) primarily to our Sudbury and Thompson operations for final processing (smelting and refining). The electricity requirements of our Voisey's Bay operations are supplied through diesel generators.

In August 2009, our unionised employees at our Voisey's Bay operations went on strike after rejecting a settlement offer for a new three-year collective bargaining agreement. During the first quarter of 2010, we resumed production at the Voisey's Bay Ovoid mine and the mill, which supplies nickel concentrates to our operations in Thompson, Manitoba and Sudbury, Ontario and copper concentrates to customers in Europe.

Clydach operations

Clydach is a stand-alone nickel refinery in the U.K. that processes a nickel intermediate product, nickel oxide, supplied from our operations to produce finished nickel in the form of powders and pellets.

Asia and the South Pacific

Sulawesi operations

Our subsidiary, PTI, operates an open-cast mining area and related processing facility in Sorowako on the Island of Sulawesi, Indonesia. PTI mines nickel laterite saprolite ore and produces an intermediate product (nickel matte), which is shipped primarily to our nickel refinery in Japan. Pursuant to life-of-mine off-take agreements, PTI sells 80% of its production to our wholly-owned subsidiary Vale Canada and 20% of its production to Sumitomo Metal Mining Co., Ltd.. PTI is a public company whose shares are traded on the Indonesia Stock Exchange. As at the Latest Practicable Date, we held 59.1% of its share capital, Sumitomo Metal Mining Co., Ltd. held 20.1%, 20.1% was publicly held and 0.7% was held by others.

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at our PTI operations in Indonesia. A major part of the electric furnace power requirements of PTI is supplied at low cost by its two hydroelectric power plants on the Larona River, Larona and Balambano. PTI has thermal generating facilities in order to supplement its hydroelectric power supply with a source of energy that is not subject to hydrological factors. In 2009, the hydroelectric power plants provided 96% of the electric energy consumed at our Indonesian operations, and the thermal generators provided the remainder.

We have committed to maintain a minimum 20% public float of PTI shares. In furtherance of this commitment, in August 2009, we sold, for US\$88 million, 2.07% of PTI's outstanding shares (amounting to 205,680,000 shares).

Asian refinery operations

Our 76%-owned subsidiary, Vale Japan Limited, operates a refinery in Matsuzaka, which produces intermediate and finished nickel products, primarily using nickel matte sourced from PTI. Vale Japan Limited is a private company. The minority interest is held by Sumitomo Metal Mining Co., Ltd. (13%), Mitsui & Co., Ltd. (7%) and other Japanese companies (4%).

We also operate or have investments in nickel refining operations in Taiwan through our 49.91% stake in Taiwan Nickel Refining Corporation, China through our 98.27% interest in Vale Nickel (Dalian) Co., Ltd. and South Korea through our 25% stake in Korea Nickel Corporation. These joint ventures produce finished nickel for the local stainless steel industry in Taiwan, China and South Korea, primarily using intermediate products containing about 75% nickel (in the form of nickel oxide) from Vale Japan Limited and our Sudbury operations. These refining operations are expected to start receiving nickel oxide from our Vale New Caledonia (the former Goro) project this year.

New Caledonian operations

We are in the initial stage of ramping up our Vale New Caledonia (the former Goro) nickel project in New Caledonia in the South Pacific. Vale New Caledonia utilises a high pressure acid leach process to treat laterite ores. The construction of the project is complete and commissioning is underway. We announced production of our first nickel product at Vale New Caledonia on 9 August 2010. We expect to ramp-up Vale New Caledonia over a three-year period to reach nominal production capacity of 60,000 metric tons per year of nickel contained in nickel oxide and 4,600 metric tons of cobalt.

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Production

The following table sets forth information about our annual ore production by operating mine at our nickel mining sites (or on an aggregate basis for PTI because it has mining areas rather than mines) and the average percentage grades of nickel and copper. The mine production at PTI represents the product from PTI's dryer kilns delivered to PTI's smelting operations and does not include nickel losses due to smelting. For our Sudbury, Thompson and Voisey's Bay operations, the production and average grades represent the mine product delivered to those operations' respective processing plants and do not include adjustments due to beneficiation, smelting or refining.

| | Production for the year ended 31 December | | | | | | | | | Production for the six months ended 30 June | | |
|---------------------------------------------|------------------------------------------------|----------|----------|--------------|----------|----------|--------------|----------|------|---------------------------------------------|-------------|-------------|
| | 2007 | | | 2008 | | | 2009 | | | 2010 | | |
| | Production | Grade | | Production | Grade | | Production | Grade | | Production | Copper | Nickel |
| % Copper | | % Nickel | % Copper | | % Nickel | % Copper | | % Nickel | | | | |
| | (thousands of metric tons, except percentages) | | | | | | | | | | | |
| <i>Ontario operating mines</i> | | | | | | | | | | | | |
| Copper Cliff North | 1,078 | 0.92 | 0.84 | 1,165 | 1.01 | 1.01 | 524 | 0.96 | 1.06 | 0.2 | 1.43 | 1.14 |
| Copper Cliff South ⁽¹⁾ | 883 | 1.71 | 1.46 | 771 | 1.67 | 1.48 | 78 | 1.45 | 1.40 | 0.0 | 0.0 | 0.0 |
| Creighton | 963 | 1.62 | 2.08 | 1,001 | 1.56 | 2.14 | 395 | 1.57 | 1.82 | 94.4 | 3.41 | 3.84 |
| Stobie | 2,850 | 0.68 | 0.72 | 2,892 | 0.65 | 0.72 | 1,198 | 0.64 | 0.72 | 72.9 | 0.60 | 0.69 |
| Garson | 692 | 1.58 | 1.59 | 840 | 1.72 | 1.69 | 328 | 1.93 | 1.45 | 22.2 | 3.15 | 0.84 |
| Coleman | 1,408 | 2.75 | 1.74 | 1,425 | 2.66 | 1.62 | 624 | 3.28 | 1.64 | 200.2 | 2.91 | 1.62 |
| Gertrude | 12 | 0.25 | 0.66 | 124 | 0.29 | 0.72 | — | — | — | — | — | — |
| Total Ontario operations | <u>7,887</u> | 1.39% | 1.25% | <u>8,219</u> | 1.36% | 1.26% | <u>3,145</u> | 1.49 | 1.19 | <u>389.9</u> | <u>2.61</u> | <u>1.62</u> |
| <i>Manitoba operating mines</i> | | | | | | | | | | | | |
| Thompson | 1,380 | — | 1.83 | 1,320 | — | 1.77 | 1,270 | — | 1.98 | 742 | — | 1.68 |
| Birchtree | <u>1,164</u> | — | 1.52 | <u>971</u> | — | 1.51 | <u>769</u> | — | 1.48 | <u>432</u> | — | <u>1.38</u> |
| Total Manitoba operations | <u>2,545</u> | — | 1.69% | <u>2,291</u> | — | 1.66% | <u>2,040</u> | — | 1.79 | <u>1,174</u> | — | <u>1.57</u> |
| <i>Voisey's Bay operating mines</i> | | | | | | | | | | | | |
| Ovoid | <u>2,147</u> | 2.47 | 3.74 | <u>2,385</u> | 2.38 | 3.50 | <u>990</u> | 2.57 | 3.20 | <u>577</u> | <u>2.47</u> | <u>3.43</u> |
| Total Voisey's Bay operations | <u>2,147</u> | 2.47% | 3.74% | <u>2,385</u> | 2.38% | 3.50% | <u>990</u> | 2.57 | 3.20 | <u>577</u> | <u>2.47</u> | <u>3.43</u> |
| <i>Sulawesi operating mining areas</i> | | | | | | | | | | | | |
| Sorowako | 4,615 | — | 2.03 | 4,258 | — | 2.08 | 3,598 | — | 2.02 | 2,198 | — | 1.93 |
| Pomalaa ⁽²⁾ | <u>645</u> | — | 2.30 | <u>417</u> | — | 2.29 | <u>—</u> | — | — | <u>0.0</u> | — | <u>0.0</u> |
| Total Sulawesi operations | <u>5,260</u> | — | 2.06% | <u>4,675</u> | — | 2.10% | <u>3,598</u> | — | 2.02 | <u>2,198</u> | — | <u>1.93</u> |

Notes:

(1) This mine has been closed indefinitely since January 2009.

(2) This mine has been closed indefinitely since May 2008.

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The following table sets forth information about our nickel production, including: (i) nickel refined through our facilities, (ii) nickel further refined into specialty products, and (iii) intermediates designated for sale. The numbers below are stated on an ore-source basis.

| Mine | Type | Production for the year ended 31 December | | | Production for the six months ended 30 June | Production for the nine months ended 30 September |
|-----------------------------------|-------------|-------------------------------------------|--------------|--------------|---------------------------------------------|---------------------------------------------------|
| | | 2007 | 2008 | 2009 | 2010 | 2010 |
| (thousand metric tons) | | | | | | |
| Sudbury ⁽¹⁾ | Underground | 70.7 | 85.3 | 43.6 | 8.0 | 14.0 |
| Thompson ⁽¹⁾ | Underground | 29.8 | 28.9 | 28.8 | 16.8 | 22.0 |
| Voisey's Bay ⁽²⁾ | Open-pit | 58.9 | 77.5 | 39.7 | 7.1 | 17.0 |
| Sorowako, Sulawesi ⁽³⁾ | Open-cast | 75.8 | 68.3 | 68.8 | 37.1 | 59.0 |
| External ⁽⁴⁾ | — | 12.7 | 15.4 | 5.8 | 0.5 | 3.0 |
| Total ⁽⁵⁾ | | <u>247.9</u> | <u>275.4</u> | <u>186.7</u> | <u>69.5</u> | <u>114.0</u> |

Notes:

- (1) Primary nickel production only (and does not include secondary nickel from unrelated parties).
- (2) Includes finished nickel produced at our Sudbury and Thompson operations, as well as some finished nickel produced by unrelated parties under toll-smelting and toll-refining arrangements.
- (3) We have a 59.1% interest in PTI, which owns the Sorowako mines, and these figures include the minority interests.
- (4) Finished nickel processed at our facilities using feeds purchased from unrelated parties.
- (5) Excludes finished nickel produced under toll-smelting and refining arrangements covering purchased intermediates with unrelated parties. Unrelated-party tolling of purchased intermediates was 14.2 thousand metric tons in 2007, 7.5 thousand metric tons in 2008 and 5.2 thousand metric tons in 2009.

Sales

Our nickel customers are broadly distributed on a global basis. In 2009, 65.3% of our total nickel sales were delivered to customers in Asia, 21.9% to North America, 11.7% to Europe and 1.1% to other markets. We have short-term fixed-volume contracts with customers for the majority of our expected annual nickel sales. These contracts generally provide stable demand for a significant portion of our annual production.

Our finished nickel products represent what is known in the industry as "primary" nickel, meaning nickel produced principally from nickel ores (as opposed to "secondary" nickel, which is recovered from recycled nickel-containing material). Finished primary nickel products are distinguishable in terms of the following characteristics, which determine the product price level and the suitability for various end-use applications:

- nickel content and purity level: (i) intermediates with various levels of nickel content, (ii) nickel pig iron has 1.5% to 6% nickel, (iii) ferro-nickel has 10% to 40% nickel, (iv) standard LME grade nickel has a minimum of 99.8% nickel, and (v) high purity nickel has a minimum of 99.9% nickel and does not contain specific elemental impurities;
- shape (such as pellets, discs, squares, strips and foams); and
- size.

In 2009, the principal end-use applications for nickel were:

- austenitic stainless steel (60 to 65% of global nickel consumption);
- non-ferrous alloys, alloy steels and foundry applications (15 to 20% of global nickel consumption);
- nickel plating (9% of global nickel consumption); and

- specialty applications, such as batteries, chemicals and powder metallurgy (5 to 10% of global nickel consumption).

In 2009, the majority of our refined nickel sales were made into non-stainless steel applications. As a result of our focus on such higher-value segments, our average realised nickel prices for refined nickel have typically exceeded LME cash nickel prices.

We offer sales and technical support to our customers on a global basis. We have a well-established global marketing network for finished nickel, based at our head office in Toronto, Canada. We also have sales offices in London (England), St. Prex (Switzerland), Tokyo (Japan), Hong Kong, Shanghai (China), Kaohsiung (Taiwan), Bangkok (Thailand) and Bridgetown (Barbados).

Pricing

Nickel is an exchange-traded metal, listed on LME, that is mainly used to produce stainless steel. Most nickel products are priced according to a discount or premium to the LME price, depending on the nickel product's physical and technical characteristics. Demand for nickel is strongly affected by stainless steel production, which accounts on average for 60% to 65% of global nickel consumption. Nickel demand for sources of consumption other than stainless steel production represents 35% to 40% of global nickel consumption.

Primary nickel (including ferro-nickel, nickel pig iron and nickel cathode) and secondary nickel (scrap) are competing nickel sources for stainless steel production. The choice between different types of primary and secondary nickel is largely driven by their relative price and availability. In 2009, the stainless steel scrap ratio fell from 49% to 43%. Nickel pig iron production is estimated to have reached 7% of the global supply of primary nickel, compared to 5% in 2008.

Competition

The global nickel market is highly competitive. Our key competitive strengths include the relatively long production life of our mines, our low production cash costs relative to other nickel producers, and our sophisticated exploration and processing technologies. Our global marketing reach, diverse product mix, and technical support direct our products to the applications and geographic regions that offer the highest margins for our products. Our nickel deliveries represented 17% of global consumption for primary nickel in 2009.

While stainless steel production is a major driver of global nickel demand, stainless steel producers can use nickel products with a wide range of nickel content, including secondary nickel (scrap). In recent years, secondary nickel has accounted for about 43% to 49% of total nickel used for stainless steel, and primary nickel has accounted for about 51% to 57%. In 2006, a new primary nickel product entered the market, known as nickel pig iron. This is a low-grade nickel product made in China from imported lateritic ores (primarily from the Philippines and Indonesia) that is suitable primarily for use in stainless steel production. In 2009, Chinese nickel pig iron and ferro-nickel production totaled an estimated 94,500 metric tons, representing 7% of world primary nickel supply.

Competition in the nickel market is based primarily on quality, reliability of supply and price. We believe our operations are competitive in the nickel market because of the high quality of our nickel products and our relatively low production costs.

Copper

Operations

We conduct our copper operations in Brazil directly and through our subsidiary, Vale Canada, in Canada.

BUSINESS

| <u>Company</u> | <u>Location</u> | <u>Our shareholding percentage</u> | |
|-------------------|-----------------|------------------------------------|--------------|
| | | <u>Voting</u> | <u>Total</u> |
| | | (%) | |
| Vale | Brazil | — | — |
| Vale Canada | Canada | 100 | 100 |

Brazilian operations

Our Sossego copper mine in Canaã dos Carajás, in the state of Pará, has two main copper ore bodies, Sossego and Sequeirinho. The copper ore is mined by open-pit method, and the run-of-mine is processed by means of standard primary crushing and conveying, SAG milling (a semi-autogenous mill that uses a large rotating drum filled with ore, water and steel grinding balls to transform the ore into a fine slurry), ball milling, copper concentrate flotation, tailings disposal, concentrate thickening, filtration and load out. We deliver the concentrate to a storage terminal in Parauapebas by trucks and then transport it via the EFC railroad to the Ponta da Madeira maritime terminal in São Luís, in the state of Maranhão.

We constructed a road to link Sossego to the Carajás air and rail facilities and a power line that allows us to purchase electrical power at market prices. We have a long-term energy supply contract with Eletronorte.

In December 2008, we completed the construction of the Usina Hidrometalúrgica de Carajás plant, located at the Sossego mining site, to test the application of hydro-metallurgical technology for the industrial-scale processing of copper concentrate to produce copper cathode.

Canadian operations

In Canada, we recover copper in conjunction with our nickel operations, principally at Sudbury and Voisey's Bay. At Sudbury, we produce two intermediate copper products, copper concentrate and copper anodes, and we also produce electrowon copper cathode as a by-product of our nickel refining operations. At Voisey's Bay, we produce copper concentrates. For information about strikes that have affected some of our Canadian operations and their ultimate settlement (where applicable), see the section in this Listing Document headed "Business — Employees and labour relations".

Other operations

We have acquired a 50% interest in a joint venture with African Rainbow Minerals Limited. The joint venture will develop and operate the assets of TEAL Exploration & Mining Incorporated (**TEAL**). TEAL has two copper projects in the African copperbelt, Konkola North and Kalumines, which we believe could together represent a nominal production capacity of 65,000 metric tons of copper per year in the next few years, and an extensive copper exploration portfolio.

BUSINESS

Production

The following table sets forth information on our copper production.

| <u>Mine</u> | <u>Type</u> | <u>Production for the year ended 31 December</u> | | | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|-----------------------------------|-------------|----------------------------------------------------------|-------------------|-------------------|------------------------------------------------------------|------------------------------------------------------------------|
| | | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2010</u> |
| (thousand metric tons) | | | | | | |
| <i>Brazil:</i> | | | | | | |
| Sossego | Open-pit | 118 | 126 | 117 | 55 | 87 |
| <i>Canada:</i> | | | | | | |
| Sudbury | Underground | 113 | 115 | 42 | 6 | 20 |
| Voisey's Bay | Open-pit | 42 | 55 | 24 | 7 | 17 |
| Thompson | Underground | 1 | 1 | 1 | 0 | 1 |
| External ⁽¹⁾ | — | <u>9</u> | <u>14</u> | <u>14</u> | <u>5</u> | <u>7</u> |
| Total | | <u>284</u> | <u>312</u> | <u>198</u> | <u>73</u> | <u>131</u> |

Note:

(1) We process copper at our facilities using copper ore purchased from unrelated third parties.

Sales

Copper concentrates from Sossego are sold under medium- and long-term contracts to copper smelters in South America, Europe and Asia. We have long-term off-take agreements to sell the entire production of copper concentrate from the first phase of the Salobo project to smelters. Electrowon copper from UHC is mainly sold in Brazil under short-term sales agreements. We have long-term copper supply agreements for the sale of copper anodes and copper concentrates produced in Sudbury. Copper in concentrates from Voisey's Bay are sold under medium-term contracts to customers in Europe. Electrowon copper from Sudbury is sold in North America under short-term sales agreements.

Pricing

Growth in copper demand in recent years has been driven primarily by imports by China. Copper prices are determined on the basis of (i) prices of copper metal on terminal markets, such as LME and NYMEX, and (ii) in the case of intermediate products such as copper concentrate and copper anode (which comprise most of our sales), treatment and refining charges negotiated with each customer. Under a pricing system referred to as MAMA (month after month of arrival), sales of copper concentrates and anodes are provisionally priced at the time of shipment, and final prices are settled on the basis of the LME price for a future period, generally one to three months after the shipment date.

Competition

The global copper cathode market is highly competitive. The main producers are integrated mining companies and custom smelters, covering all regions of the world, while consumers are principally wire, rod and copper-alloy producers. Competition occurs mainly on a regional level and is based primarily on production costs, quality, reliability of supply and logistics costs. Our participation in the global copper cathode market is marginal.

Copper concentrate and copper anode are intermediate products in the copper production chain. Both the concentrate and anode markets are competitive, having numerous producers but fewer participants and smaller volumes than in the copper cathode market due to high levels of integration by the major copper producers.

BUSINESS

In the copper concentrate market, the main producers are mining companies located in South America, Indonesia and Australia, while consumers are principally custom smelters located in Europe and Asia. Competition in the copper concentrate market occurs mainly on a global level and is based on production costs, quality, logistics costs and reliability of supply.

The copper anode/blister market has very limited trade within the copper industry; generally, anodes are produced to supply each company's integrated refinery. The trade in anodes/blister is limited to those facilities that have more smelting capacity than refining capacity or to those situations where logistics cost savings provide an incentive to source anodes from outside smelters.

PGMs and other precious metals

As by-products of our Sudbury nickel operations in Canada, we recover significant quantities of PGMs, as well as small quantities of gold and silver. We operate a processing facility in Port Colborne, Ontario, which produces PGMs, gold and silver intermediate products. We have a refinery in Acton, England, where we process our intermediate products, as well as feeds purchased from unrelated parties and toll-refined materials. In 2009, PGM concentrates from our Sudbury operations supplied about 36% of our PGM production.

The following table sets forth information on our precious metals production.

| <u>Mine⁽¹⁾</u> | <u>Type</u> | <u>Production for the year ended 31 December</u> | | | <u>Production for the six months ended 30 June</u> | <u>Production for the nine months ended 30 September</u> |
|---------------------------|-------------|----------------------------------------------------------|-------------|-------------|------------------------------------------------------------|------------------------------------------------------------------|
| | | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2010</u> |
| (thousand troy ounces) | | | | | | |
| Sudbury: | | | | | | |
| Platinum | Underground | 140 | 166 | 103 | 7 | 10 |
| Palladium | Underground | 191 | 231 | 152 | 18 | 25 |
| Gold | Underground | 75 | 85 | 49 | 10 | 15 |

Note:

(1) Production figures exclude precious metals purchased from unrelated parties and toll-refined materials.

Cobalt

We recover significant quantities of cobalt as a by-product of our Canadian nickel operations. In 2009, we produced 359 metric tons of cobalt from our Ontario operations, 181 metric tons of cobalt at our Thompson nickel operations and 971 metric tons of cobalt at Voisey's Bay, all in Canada. For information about strikes that have affected some of our Canadian operations and their ultimate settlement (where applicable), see the section in this Listing Document headed "Business — Employees and labour relations".

We expect to increase our production of cobalt as we increase nickel production in New Caledonia at the Vale New Caledonia (the former Goro) mine, because the nickel laterite ore at this location contains significant co-deposits of cobalt.

We sell cobalt on a global basis. Our cobalt metal, which is electro-refined at our Port Colborne refinery, has very high purity levels. Cobalt metal is used in the production of various alloys, particularly for aerospace applications, as well as the manufacture of cobalt-based chemicals.

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The following table sets forth information on our cobalt production.

| Mine | Type | Production for the year ended 31 December | | | Production for the six months ended 30 June | Production for the nine months ended 30 September |
|-----------------------------------|-------------|-------------------------------------------|--------------|--------------|---------------------------------------------|---------------------------------------------------|
| | | 2007 | 2008 | 2009 | 2010 | 2010 |
| (metric tons) | | | | | | |
| Sudbury | Underground | 727 | 804 | 359 | 6 | 45 |
| Thompson | Underground | 179 | 168 | 181 | 125 | 159 |
| Voisey's Bay | Open-pit | 1,239 | 1,695 | 971 | 175 | 235 |
| External ⁽¹⁾ | — | 379 | 161 | 64 | 2 | 3 |
| Total | | <u>2,524</u> | <u>2,828</u> | <u>1,575</u> | <u>308</u> | <u>442</u> |

Note:

(1) These figures do not include unrelated-party tolling of feeds purchased from unrelated parties.

Fertilizer nutrients

Potash

We conduct our potash operations through our Company in Brazil. We lease Taquari-Vassouras, the only potash mine in Brazil (in Rosario do Catete, in the state of Sergipe), from Petrobras — Petróleo Brasileiro S.A., the Brazilian state-owned oil company. The lease, signed in 1991, became effective in 1992 for a period of 25 years.

The following table sets forth information on our potash production.

| Mine | Type | Production for the year ended 31 December | | | Recovery rate ⁽¹⁾ (%) | Production for the six months ended 30 June | Production for the nine months ended 30 September |
|------------------------|-------------|-------------------------------------------|------|------|-------------------------------------|---------------------------------------------|---------------------------------------------------|
| | | 2007 | 2008 | 2009 | | 2010 | 2010 |
| (thousand metric tons) | | | | | | | |
| Taquari-Vassouras . . | Underground | 671 | 607 | 717 | 87.6 | 338 | 493 |

(1) Recovery rate is prepared by reference to the period preceding January 2010.

Phosphates, nitrogen and others

Our subsidiary, Vale Fertilizantes (as to which see the section in this Listing Document headed "Business — Recent developments and future projects — Fertilizer nutrients" below), operates three phosphate rock mines: Catalão, in the state of Goiás, Tapira and Patos de Minas, both in the state of Minas Gerais. In addition, it is developing Salitre, a greenfield project in Patrocínio, in the state of Minas Gerais. Vale Fosfatados S.A. owns two phosphate rock mines, Araxá, in the state of Minas Gerais, and Cajati, in the state of São Paulo. Vale Fosfatados S.A. also has four processing plants for the production of phosphates fertilizers, located at (a) Araxá, state of Minas Gerais; (b) Cajati, state of São Paulo; (c) Cubatão, state of São Paulo; and (d) Guará, state of São Paulo.

Sales

All potash sales from the Taquari-Vassouras mine are to the Brazilian market.

Vale Fertilizantes is a producer of phosphate rock, phosphate fertilizers (P), which include monoammonium phosphate (MAP), diammonium phosphate (DAP), triple superphosphate (TSP) and single superphosphate (SSP), and nitrogen (N) fertilizers, which include ammonium nitrate and urea.

Pricing

Demand for fertilizers is driven by agricultural production, which is a function of food demand and driven mainly by population growth, age distribution, economic development and dietary preferences. Demand is also driven by bio-fuel production, which is mainly influenced by economic growth, competitiveness in relation to fossil fuels and environmental regulations.

Price negotiations for fertilizers are mainly held on a spot basis following international benchmarks, except for some large importers, such as China and India, who often sign annual contracts. Seasonality is an important factor for price determination throughout the year, since agricultural production in each region depends on climatic conditions for crop production.

Competition

The potash industry is highly concentrated, with the eight major producers accounting for more than 80% of total world production capacity.

Most phosphate concentrate is consumed locally by downstream integrated producers, with the seaborne market accounting for 15% of total phosphate rock production. The phosphate rock imports supply non-integrated producers of phosphate fertilizer products such as single superphosphate (SSP), triple superphosphate (TSP) and monoammonium phosphate (MAP). Major phosphate rock exporters are concentrated in North Africa, which are mainly state-owned companies.

Mining concessions and other related rights

In order to conduct mining activities, we generally require some form of governmental permits, which differ in form depending on the jurisdiction but may include concessions, licences, claims, tenements, leases or permits (together, **concessions**). Some concessions are of indefinite duration, but many have specified expiration dates, and may not be renewable. The legal and regulatory regime governing concessions differs among jurisdictions, often in important ways. For example in many jurisdictions, including Brazil, mineral resources belong to the state and may only be extracted pursuant to a concession. In other jurisdictions, including Canada, a substantial part of our mining operations is conducted pursuant to leases, often from government agencies.

BUSINESS

The table below summarises the mining concessions and other related rights pertaining to our Material Reserves. The Group's title to those concessions and rights as at the Latest Practicable Date was supported by legal opinions from local counsel in the jurisdictions where the mines subject to those concessions are located. Those details are summarised together with concessions and rights relating to the Group's fertilizer nutrients mines. In addition to the concessions described below, we have exploration licences covering 5.1 million hectares in Brazil and 16.1 million hectares in other countries.

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|-----------------------------------------------------------------------------|---------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Iron ore | | | | |
| <i>Brazil</i> | | | | |
| <i>Southeastern System</i> | | | | |
| <i>Itabira Complex, Minas Gerais</i> | | | | |
| <i>Conceição and Minas do Meio (Onça Periquito and Chacrinha)</i> | | | | |
| | Open pit | 10,559 | Vale | Concession/mining rights: (a) scope: mining group n. 930.641/1989, which consolidates: Cauê-Dois Córregos-Conceição mine (000.577/1936), Onça-Periquito mine (002.354/1941) and Chacrinha mine (002.355/1941) ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Minas Centrais Complex, Minas Gerais</i> | | | | |
| <i>Água Limpa (Including Morro Agudo and Cururu)</i> | | | | |
| | Open pit | 494 | Baovale Mineração S.A. (a company in which Vale owns 100% of the voting shares and 50% of the total shares) | Concession/mining rights: (a) scope: Mining Concession 006.498/1961 leased to Vale ⁽¹⁾ (b) term: 2005 to 2021 (renewable for an additional period of up to 20 years) Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Gongo Soco</i> | | | | |
| | Open pit | 288 | Vale | Concession/mining rights: (a) scope: Mining Concession 001.791/1961 ⁽¹⁾ (b) term: indefinite. ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|-------------------------------|---------------------|---------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Brucutu</i> | Open pit | 447 | Vale | Concession/mining rights: (a) scope: Mining Concession 008.337/1960 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Apolo</i> | Open pit | 1,904 | Vale and Minerações Brasileiras Reunidas S.A. (a company 92.99% of whose shares are held by Vale) | Concession/mining rights: (a) scope: Mining Concession 007.182/1960 (this mining concession is registered in the name of Sociedade de Mineração Estrela de Apolo S.A., which was incorporated by Vale in January 2010), 004.099/1967, 800.299/1975 (Vale) and 003.071/1962 (Minerações Brasileiras Reunidas S.A.) ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| Mariana Complex, Minas Gerais | | | | |
| <i>Alegria</i> | Open pit | 990 | Vale | Concession/mining rights: (a) scope: Mining Concession 006.499/1961 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Fábrica Nova</i> | Open pit | 1,072 | Vale | Concession/mining rights: (a) scope: Mining Concessions 002.329/1935 and 001.076/1967 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Fazendão</i> | Open pit | 637 | Vale | <p>Concession/mining rights: (a) scope: Mining Concessions 001.183/1958 and 001.184/1958⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Corumba, Mato Grosso do Sul <i>Urucum</i> | Open pit | 2,000 | Urucum Mineração S.A. (a wholly-owned subsidiary of Vale) | <p>Concession/mining rights: (a) scope: Mining Concessions 573.801/1940, 573.802/1940, 573.803/1940 and 573.804/1940⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Samarco Complex, Minas Gerais <i>Samarco Norte</i> <i>Centro and</i> <i>Samarco Sul</i> | Open pit | 1,420 | Samarco Mineração S.A. | <p>Concession/mining rights: (a) scope: mining group n. 930.706/1982 (which includes processes 001.721/1967 and 002.264/1967) and Mining Concession 002.265/1967⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| <i>Southern System</i> Minas Itabiritos, Minas Gerais | | | | |
| <i>Segredo</i> | Open pit | 51 | Vale | <p>Concession/mining rights: (a) scope: Mining Concession 291.601/1935⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| <i>João Pereira</i> | Open pit | 962 | Vale | <p>Concession/mining rights: (a) scope: Mining Concession 000.890/1953⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|---------------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Sapicado</i> | Open pit | 301 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concessions 001.090/1957 and 830.665/1983 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Galinheiro</i> | Open pit | 2,324 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concessions 000.654/1938 and 004.810/1958 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| Vargem Grande Complex, Minas Gerais <i>Tamanduá</i> | Open pit | 254 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concession 003.963/1950 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Capitão do Mato</i> | Open pit | 471 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concession 003.964/1950 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Abóboras</i> | Open pit | 882 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concessions 004.811/1958 and 001.802/1958 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| Paraopeba Complex, Minas Gerais <i>Jangada</i> | Open pit | 908 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concession 004.909/1962 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|----------------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Córrego do Feijão</i> | Open pit | 884 | Vale | Concession/mining rights: (a) scope: Mining Concessions 004.757/1940 and 007.307/1956 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Capão Xavier</i> | Open pit | 1,136 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concession 003.484/1959 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Mar Azul</i> | Open pit | 206 | Minerações Brasileiras Reunidas S.A. | Concession/mining rights: (a) scope: Mining Concessions 007.855/1957 (Mineração Rio Verde Ltda.) and 000839/1966 (Mineração Onix Ltda., a wholly owned subsidiary of Minerações Brasileiras Reunidas S.A.) ⁽¹⁾ (still registered with former holders but subject to a mining rights assignment) (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Northern System</i> | | | | |
| <i>Carajás, Pará Serra Norte (N4W, N4E and N5)</i> | Open pit | 30,000 | Vale | Concession/mining rights: (a) scope: Mining Concession 813.682/1969 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Serra Sul (S11)</i> | Open pit | 100,000 | Vale | Concession/mining rights: (a) scope: Mining Concession 813.684/1969 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Serra Leste (SL1)</i> | Open pit | 9,914 | Vale | Concession/mining rights: (a) scope: Mining Concession 813.687/1969 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| Nickel | | | | |
| <i>Brazil</i> | | | | |
| Onça Puma, Pará | Open pit | 14,786 | Vale | Concession/mining rights: (a) scope: Mining concessions 811.015/1973, 811.016/1973 and 850.650/2006 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Canada</i> | | | | |
| Sudbury, Ontario | Underground | 2,345 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 ⁽⁷⁾ |
| | Underground | 6,564 | Xstrata/Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 ⁽⁷⁾ |
| | Underground | 33 | Wallbridge/Xstrata/Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Unpatented Mining Claims (b) term: 2010 to 2015 ⁽⁷⁾ |
| | Underground | 14,026 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Leases (b) term: 2010 to 2028 ⁽⁷⁾ |
| | Underground | 1,026 | Xstrata/Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Patented Lands (b) term: indefinite |
| | Underground | 74 | Quadra-FNX/Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Patented Lands (b) term: indefinite |
| | Underground | 270 | Other Owners/Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Patented Lands (b) term: indefinite |
| | Underground | 88,362 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Patented Lands (b) term: indefinite |
| | Underground | 2,922 | Vale Canada | Land use right: (a) scope: Mining Licence of Occupation (b) term: indefinite |
| | Underground | 17 | Xstrata/Vale Canada | Land use right: (a) scope: Mining Licence of Occupation (b) term: indefinite |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|---------------------------------------------------|---------------------|---------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Underground | 1,157 | Vale Canada | Land use right: (a) scope: Licence of Occupation (b) term: indefinite |
| Thompson, Manitoba | Underground | 40,720 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Mining Claims (b) term: 2010 to 2015 ⁽⁸⁾ |
| | Underground | 108,555 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Order-in-Council Leases (b) term: 2010 to 2018 ⁽⁸⁾ |
| | Underground | 488 | Mystery Lake Nickel Mines Ltd. (a company 82.62% of whose shares are held by Vale Canada) | Concession/mining rights ⁽⁶⁾ : (a) scope: Order-in-Council Leases (b) term: 2010 to 2018 ⁽⁸⁾ |
| | Underground | 33,240 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Mineral Exploration Licence (b) term: three years ⁽⁸⁾ |
| | Underground | 4,903 | Vale Canada | Concession/mining rights ⁽⁶⁾ : (a) scope: Order-in-Council Leases (b) term: indefinite |
| Voisey's Bay, Newfoundland and Labrador | Open-pit | 1,599 | Vale Newfoundland and Labrador Limited | Concession/mining rights ⁽⁶⁾ : (a) scope: Mining Lease (b) term: 2027 ⁽⁹⁾ |
| | Open-pit | 49,450 | Vale Newfoundland and Labrador Limited | Concession/mining rights ⁽⁶⁾ : (a) scope: Mapped-Staked Licence (b) term: 2014 to 2029 ⁽⁹⁾ |
| | Open-pit | 4,015 | Vale Newfoundland and Labrador Limited | Land use right: (a) scope: Surface Lease (b) term: 2027 ⁽⁹⁾ |
| <i>Indonesia</i> | | | | |
| Sorowako, Sulawesi | Open-cast | 190,513 | PTI | Concession/mining rights: (a) scope: Contract of Work dated 27 July 1968, subject to Agreement on Modification and Extension dated 15 January 1996 ⁽¹⁰⁾ (b) term: to 28 December 2025 |
| | | | | Land use right: (a) scope: land certificates covering 28,630,241 square metres (b) term: principal title valid until 13 December 2029 |
| | | | | Other rights, licences and consents: (a) Minister of Public Works and Electric Power Decree No. 48/KPTS/1975 concerning Grant of an Electricity Business Licence to PT International Nickel Indonesia dated 27 February 1975 (b) Port licences to build special port facilities in Balintang and Tanjung Mangkasa |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|------------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>New Caledonia</i> | | | | |
| Vale New Caledonia, Goro, Southern Province | Open-cast | 8,210.14 | Vale Nouvelle — Calédonie S.A.S. | Concession/mining rights: (a) scope: 8 mining concessions (b) term: to 2016, 2048 or 2051 (as applicable) Land use right: (a) scope: 7,951,613 square metres held under lease by Vale Nouvelle-Calédonie S.A.S. (b) term: to 7 December 2056 |
| Copper | | | | |
| <i>Brazil</i> | | | | |
| <i>Carajás, Pará</i> | | | | |
| Sossego | Open pit | 7,140 | Vale | Concession/mining rights: (a) scope: Mining Concession 851.355/1991 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| Salobo | Open pit | 9,180 | Salobo Metais S.A. (a wholly-owned subsidiary of Vale) | Concession/mining rights: (a) scope: Mining Concession 807.426/1974 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Canada</i> | | | | |
| For concession and other rights in Canada, see "Nickel — Canada" | | | | |
| Fertilizer nutrients | | | | |
| Potash | | | | |
| <i>Brazil</i> | | | | |
| Taquari-Vassouras, Sergipe | Underground | 92,498 | Petrobras — Petróleo Brasileiro S.A. | Concession/mining rights: (a) scope: Mining Concession 605.626/1976. leased to Vale ⁽¹⁾ (b) term: to October 2016 Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|---------------------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Phosphates | | | | |
| <i>Brazil</i> | | | | |
| Araxá, Minas Gerais Barreiro (Minas Gerais State Government) | Open-pit | 841 | Companhia de Desenvolvimento Econômico de Minas Gerais | Concession/mining rights: (a) scope: Mining Concession 035.101/1946 leased to Vale Fosfatados S.A. ⁽¹⁾ (b) term: to May 2027 Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: to May 2027 |
| Barreiro (CBMM) | Open-pit | 186 | Companhia Brasileira de Metalurgia e Mineração - CBMM | Concession/mining rights: (a) scope: Mining Concession 006.746/1956 leased to Vale Fosfatados S.A. ⁽¹⁾ (b) term: to December 2025 Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: to December 2025 |
| Cajati, São Paulo Morro da Mina | Open-pit | 250 | Governo do Estado de São Paulo | Concession/mining rights: (a) scope: Mining Concession 001.546/1940 Leased to Vale Fosfatados S.A. ⁽¹⁾ (b) term: to November 2023 Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: to November 2023 |
| Mesquita Sampaio | Open-pit | 255 | Vale Fosfatados S.A. | Concession/mining rights: (a) scope: Mining Concession 003.081/1962 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|---------------------------------------------------------|---------------------|---------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalão, Goiás <i>Mina do CMC</i> | Open-pit | 903 | Ultrafertil S.A. (a wholly-owned subsidiary of Vale Fertilizantes) | Concession/mining rights: (a) scope: Mining Concession 009.291/1967 ⁽¹⁾ (b) term: 1987-2012 Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽⁴⁾ (b) term: indefinite |
| <i>Mina do CMC</i> | Open-pit | 2 | Ultrafertil S.A. | Concession/mining rights: (a) scope: Mining Concession 861.100/1981. ⁽¹⁾ (b) term: indefinite Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite |
| Tapira, Minas Gerais <i>Mina de Tapira</i> | Open-pit | 483 | Vale | Concession/mining rights: (a) scope: Mining Concession 810.330/1968 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Mina de Tapira</i> | Open-pit | 1,371 | Vale Fertilizantes | Concession/mining rights: (a) scope: Mining Concessions 810.331/1968, 812.362/1968, 821.674/1969, 816.066/1970 and 827.081/1972 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |
| <i>Mina de Tapira</i> | Open-pit | 947 | Vale | Concession/mining rights: (a) scope: Mining Concessions 803.387/1974 ⁽¹⁾ (b) term: indefinite ⁽²⁾ Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code ⁽³⁾ (b) term: indefinite ⁽⁵⁾ |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|-------------------------------------------------------------------------|---------------------|---------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mina de Tapira</i> | Open-pit | 1040 | Vale Fertilizantes | <p>Concession/mining rights: (a) scope: Mining Concessions 831.405/1997⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Patos de Minas, Minas Gerais <i>Rocinha and Pirubinhas</i> | Open-pit | 1,986 | Vale Fertilizantes | <p>Concession/mining rights: (a) scope: Mining Concessions 808.115/1974⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Anitápolis, Santa Catarina <i>Anitápolis</i> | Open-pit | 364 | IFC Indústria de Fosfatos Catarinense Ltda. (an indirect wholly-owned subsidiary of Vale) | <p>Concession/mining rights: (a) scope: Mining Concessions 808.936/1969⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Salitre, Minas Gerais <i>Salitre I.</i> | Open-pit | 2,525 | Vale and Vale Fertilizantes | <p>(a) scope: 804.380/1969</p> <p>Concession/mining rights: (a) scope: Mining Concessions 804.380/1969 (Vale), 807.503/1969 (Vale Fertilizantes S.A.) and 807.805/1974 (Vale)⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |

BUSINESS

| <u>Mining complex/Mine</u> | <u>Type of mine</u> | <u>Approximate area</u> (hectares) | <u>Holder of mining, land use and other related rights</u> | <u>Description of mining, land use and other related rights</u> (Concession reference numbers appear in parentheses) |
|---------------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Iperó, São Paulo <i>Fazendas Ipanema and Boa Vista</i> | Open-pit | 6,692 | Vale Fosfatados S.A. | <p>Concession/mining rights: (a) scope: Mining Concessions 816.160/1968, 804.995/1973, 820.529/1981, 820.530/1981 and 820.531/1981⁽¹⁾ (b) term: indefinite⁽²⁾</p> <p>Land use right: (a) scope: owned and/or occupied by virtue of easements under Brazilian Mining Code⁽³⁾ (b) term: indefinite⁽⁵⁾</p> |
| Coal <i>Mozambique</i> | | | | |
| Moatize | Open-pit | 23,780 | Vale | <p>Concession/mining rights: (a) scope: mining concession 867C specifies rights to use and occupy the land and, on an exclusive basis, to exploit the mineral resources identified in the research phase and undertake the necessary works; to sell or otherwise dispose of the mineral products resulting from mining operations. The holder of the mining concession shall also be entitled to request and be granted the title of usage and benefit of the land in accordance with applicable land law legislation. (b) term: to 1 March 2032</p> <p>Land use right: (a) scope: provisional right to use and development of land on portion of land located in Moatize (Moatize Administrative Post, District of Moatize) granted through Resolution 66/2008, passed by the Council of Ministers (the Cabinet) of Mozambique. (b) term: indefinite upon confirmation</p> |

Notes:

- (1) The named holder in each of these Brazilian concessions is permitted to exploit the commodity to the geographical extent and for the term specified in such concession, subject to:
 - (i) the obligation to pay royalties to the Brazilian Government; and
 - (ii) various Brazilian regulatory obligations and restrictions relating to, among others:
 - (I) the manner in which the deposits of the commodity are exploited;
 - (II) the health and safety of mining workers; and
 - (III) the prevention of pollution and protection of the environment, including certain obligations relating to mine closure and the reclamation of the land.
- (2) The named holder in each of these Brazilian concessions is permitted to exploit the commodity specified in such concession for an indeterminate period of time lasting until the exhaustion of the deposit of the commodity.
- (3) The land with respect to which the concession (or each of the concessions, as the case may be) has been granted and the bordering properties are either owned by the holder of the concession or occupied under easements (servidao) obtained

pursuant to the Brazilian Mining Code or are partly owned and partly occupied under easements. The easements so granted are subject to:

- (i) the obligation to pay royalties to the landowner(s) if they own the land where the ore body is located; and
 - (ii) the obligation to compensate such landowner(s) for damage and loss of income caused by use and occupation of the land where the mines are located.
- (4) The land with respect to which the concession (or each of the concessions, as the case may be) has been granted and leased to us is either owned by the lessor or occupied under easements (servidao) which are either held by the lessor or which we, as the lessee, have the right under the relevant lease agreement to require the lessor to obtain on our behalf pursuant to the Brazilian Mining Code. The easements so granted are subject to:
- (i) the obligation to pay royalties to the landowner(s), if they own the land where the ore body is located; and
 - (ii) the obligation to compensate such landowner(s) for damage and loss of income caused by use and occupation of the land where the mines are located.
- (5) Easements obtained pursuant to the Brazilian Mining Code last for the duration for which the mining concession has been granted.
- (6) In Canada, mining rights are rights to exploit and extract minerals on, in or under the land and surface rights are rights to use the surface of the land. Mining rights and surface rights may be owned or leased. Mining and surface rights that are owned remain in effect for so long as we own the land to which the rights apply. Vale Canada's mines in Sudbury, Ontario are largely on mining and surface rights owned by Vale Canada. Mining rights and surface rights that are leased remain in effect for the term of the lease provided that the rent is paid and the terms of the lease are complied with. Vale Canada's mines in Thompson, Manitoba and Voisey's Bay, Newfoundland and Labrador are on lands leased from the provincial governments. The provincial and mineral tax or royalty regimes generally levy tax based on the sale price less certain costs. In Canada, legislation varies from province to province. However in all provinces, mining companies are subject to legislative requirements relating to mine closure and rehabilitation, environmental protection and worker health and safety.
- (7) In Ontario, Canada, holders of unpatented mining claims must perform annual assessment work in order to renew them but there is no limit on the amount of time the holder can renew. Mining leases are renewable for a further term of 21 years as long as:
- (i) the production of minerals has occurred continuously for more than one year since the last renewal of the lease; or
 - (ii) the lessee has demonstrated a reasonable effort to bring the property into production.
- (8) In Manitoba, Canada, Order-in-Council Leases, provide for an initial 21-year term and two subsequent guaranteed renewals of 21 years each. Subsequent lease renewals beyond the initial guaranteed lease period of 63 years are at the discretion of the Province of Manitoba. Mineral exploration licences have a term of three years with the option to renew only once for an additional three year term.
- (9) In Newfoundland and Labrador, Canada, mining leases can be renewed for further 10-year terms provided there is no subsisting breach of the terms of the lease and renewal is applied for at least three months prior to expiry. Surface leases may also be renewed for 10-year terms. Mapped-staked licences can be renewed every five years for up to twenty years, at which point holders must apply for a mining lease to keep rights to the land.
- (10) PTI's operations in Indonesia are conducted pursuant to a Contract of Work with the Indonesian Government that expires in 2025. The Contract of Work gives PTI the exclusive right to mine nickel and nickel containing minerals in certain areas on the Island of Sulawesi and to process and export the nickel and associated minerals recovered from those areas. In exchange, PTI pays a royalty based on sales volume. The Contract of Work grants PTI the right to construct facilities and to acquire land titles as it deems necessary to carry out its activities, subject to laws and regulations in effect from time to time. Mining companies in Indonesia are subject to environmental regulations and permits issued by the Indonesian Government. In addition there are restrictions on mining in forestry areas.

Many concessions impose specific obligations on the concessionaire governing such matters as how operations are conducted and what investments are required to be made. For example, under the concession for our Indonesian mining operations (known as the Contract of Work), we are required to construct two production plants, each in a specific region, subject to economic and technical feasibility. Our ability to maintain our mineral rights depends on meeting these requirements, which often involve significant capital expenditures and operating costs.

BUSINESS

INFRASTRUCTURE

Logistics services

We have developed our logistics business based on the transportation needs of our mining operations, mainly iron ore, and it also provides transportation services for customers' products and for passengers. We carry on our logistics businesses through our Company as well as through subsidiaries and joint ventures, as set forth in the following table.

| <u>Company</u> | <u>Business</u> | <u>Location</u> | <u>Our shareholding percentage</u> | | <u>Partners</u> |
|------------------|----------------------------------------------------------------|-----------------|------------------------------------|------------------|-----------------------------------------------------|
| | | | <u>Voting (%)</u> | <u>Total (%)</u> | |
| Vale | Railroad (EFVM and EFC), port and maritime terminal operations | Brazil | — | — | — |
| FCA | Railroad operations | Brazil | 99.9 | 99.9 | Former employees of Rede Ferroviária Federal S.A. |
| FNS | Railroad operations | Brazil | 100.0 | 100.0 | — |
| MRS | Railroad operations | Brazil | 37.9 | 41.5 | Companhia Siderúrgica Nacional, Usiminas and Gerdau |
| CPBS | Port and maritime terminal operations | Brazil | 100.0 | 100.0 | — |
| Log-in | Port and maritime terminal operations and shipping activities | Brazil | 31.3 | 31.3 | Mitsui & Co., Ltd., public investors |
| PTI | Port and maritime terminal operations | Indonesia | 59.1 | 59.1 | Sumitomo Metal Mining Co., Ltd., public investors |
| SPRC | Port and maritime terminal operations | Colombia | 100.0 | 100.0 | — |
| FENOCO | Railroad operations | Colombia | 8.4 | 8.4 | Drummond, Glencore and Coalcorp |

Railroads

Brazil

Vitória a Minas (EFVM)

The EFVM railroad links our Southeastern System mines in the Iron Quadrangle region in the Brazilian state of Minas Gerais to the Tubarão Port, in Vitória, in the Brazilian state of Espírito Santo. We operate this 905-kilometre railroad under a 30-year concession, which expires in 2027, but is renewable for another 30 years at the grantor's discretion. The EFVM railroad consists of two lines of track extending for a distance of 601 kilometres to permit continuous railroad travel in opposite directions, and single-track branches of 304 kilometres. The EFVM railroad runs through areas where industrial manufacturers are located as well as major agricultural regions. The EFVM railroad has a daily capacity of 342,000 metric tons of iron ore. In 2009, the EFVM railroad carried a total of 60.5 billion ntk of iron ore and other cargo, of which 13.5 billion ntk, or 22%, consisted of cargo transported for customers, including iron ore for Brazilian customers. The EFVM railroad also carried 0.9 million passengers in 2009. In 2009, EFVM had a fleet of 331 locomotives and 19,395 wagons.

Carajás (EFC)

We operate the EFC railroad under a 30-year concession, which expires in 2027, but is renewable for another 30 years at the grantor's discretion. EFC is located in the Northern System, beginning at our Carajás iron ore mines in the Brazilian state of Pará and extending 892 kilometres to our Ponta da Madeira maritime terminal complex facilities located near the Itaqui Port in the Brazilian state of Maranhão. Its main cargo is iron ore, principally carried for us. It has a daily capacity of 301,000 metric tons of iron ore. In 2009, the EFC railroad carried a total of 85.04 billion ntk of iron ore and other cargo, 3.11 billion ntk of which was cargo for customers, including iron ore for Brazilian customers. EFC also carried 342,665 passengers in 2009. EFC supports a large capacity train, which measures 3.4 kilometres, weighs 42,300 gross metric tons when loaded and has 330 cars. In 2009, EFC also had a fleet of 226 locomotives and 12,627 wagons.

Ferrovía Centro-Atlântica S.A. (FCA)

Our subsidiary FCA operates the central-east regional railway network of the Brazilian national railway system under a 30-year concession, which expires in 2026, but is renewable for another 30 years at the grantor's discretion. The central east network has 8,023 kilometres of track extending into the states of Sergipe, Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro and Goiás and Brasília, the Federal District of Brazil. It connects with our EFVM railroad near the cities of Belo Horizonte, in the state of Minas Gerais and in Vitória, in the state of Espírito Santo. FCA operates on the same track gauge as our EFVM railroad and provides access to the Santos Port in the state of São Paulo. In 2009, the FCA railroad transported a total of 10.62 billion ntk of cargo for customers. In 2009, FCA had a fleet of 498 locomotives and 13,061 wagons.

Ferrovía Norte-Sul S.A. (FNS)

In October 2007, we won the auction for the subconcession for commercial operation for 30 years of a 720-kilometre section of the FNS railroad, in Brazil. As of the execution of the subconcession agreement in December 2007, approximately 133.5 kilometres were under construction with federal government resources and 361.5 kilometres were under construction by VALEC- Engenharia, Construções e Ferrovias S.A. A 452-kilometre extension was completed in December 2008. Since 1989, we have operated a segment of the FNS, which connects to the EFC railroad, enabling access to the port of Itaqui, in São Luís, where our Ponta da Madeira maritime terminal is located. In 2009, the FNS railroad transported a total of 1.16 billion ntk of cargo for customers. This new railroad creates a new corridor for the transportation of general cargo, mainly for the export of soybeans, rice and corn produced in the central-northern region of Brazil. In 2009, FNS had a fleet of 6 locomotives and 370 wagons.

The principal items of cargo of the EFVM, EFC, FCA and FNS railroads are:

- iron ore and iron ore pellets, carried for us and customers;
- steel, coal, pig iron, limestone and other raw materials carried for customers with steel mills located along the railroad;
- agricultural products, such as soybeans, soybean meal and fertilizers; and
- other general cargo, such as building materials, pulp, fuel and chemical products.

We charge market prices for customer freight, including iron ore pellets originating from joint ventures and other enterprises in which we do not have a 100% equity interest. Market prices vary based on the distance travelled, the type of product transported and the weight of the freight, and are regulated by the Brazilian transportation regulatory agency, Agência Nacional de Transportes Terrestres.

MRS Logística S.A. (MRS)

Our affiliate MRS operates the Southeastern regional railway network of the Brazilian national railway system under a 30-year renewable concession, which expires in 2026, but is renewable for another 30 years at the grantor's discretion. The MRS railroad is 1,643 kilometres long and links the Brazilian states of Rio de Janeiro, São Paulo and Minas Gerais. In 2009, the MRS railroad carried a total of 56.25 million metric tons of cargo, including 51.1 million metric tons of iron ore and other cargo from Vale.

Colombia

Ferrocarriles del Norte de Colombia S.A. (FENOCO)

We own an 8.4% equity stake in FENOCO, a company that owns a concession to restore and operate the Chiriguana — Santa Marta section (220 kilometres) of the Atlantic Railroad, which connects the Cesar coal-producing region with various ports in the Atlantic Ocean.

Ports and maritime terminals

Brazil

Our Company operates a port and six maritime terminals principally as a means to complete the delivery of our iron ore and iron ore pellets to bulk carrier vessels serving the seaborne market. We also use our port and terminals to handle customers' cargo. In 2009, 10% of the cargo handled by our port and terminals represented cargo handled for customers. The construction, development and operation of private use maritime terminals in Brazil must be authorised under Brazilian law by ANTAQ by means of a concession, whereas public maritime terminals are usually leased under lease agreements.

Tubarão Port

The Tubarão Port, which covers an area of 18 square kilometres, is located near the Vitória Port in the Brazilian state of Espírito Santo, and comprises four maritime terminals operated by us: (i) the iron ore maritime terminal, (ii) Praia Mole Terminal, (iii) Terminal de Produtos Diversos, and (iv) Terminal de Granéis Líquidos.

- The iron ore maritime terminal has two piers. Pier I can accommodate two vessels at a time, one of up to 170,000 DWT on the southern side and one of up to 200,000 DWT on the northern side. Pier II can accommodate one vessel of up to 365,000 DWT at a time, limited at 20 metres draft plus tide. In Pier I there are two ship loaders, which can load up to a combined total of 14,000 metric tons per hour. In Pier II there are two ship loaders that work alternately and can each load up to 16,000 metric tons per hour. In 2009, 77.42 million metric tons of iron ore and iron ore pellets were shipped through the terminal for us. The iron ore maritime terminal has a stockyard capacity of 2.8 million metric tons.
- Praia Mole terminal is principally a coal terminal and handled 8.9 million metric tons in 2009. For details of certain litigation in respect of this terminal, please see the section in this Listing Document headed "Business — Legal proceedings".
- Terminal de Produtos Diversos handled 5.9 million metric tons of grains and fertilizers in 2009.
- Terminal de Granéis Líquidos handled 1 million metric tons of bulk liquid in 2009.

Our operation of each of these terminals subsists pursuant to a concession agreement, granted by ANTAQ. The concession comprises the stocking and shipping of goods destined to or proceeding from maritime transport.

According to the concession and applicable laws, ANTAQ may only terminate the concession in the following cases: (i) occurrence of unequivocal environmental damage; (ii) discontinuance of the terminal's operation; (iii) bankruptcy or winding-up of our Company; and (iv) forfeiture, in the event of: (a) failure by our Company to comply with any penalties imposed by ANTAQ; (b) failure by our Company to comply with any formal notices in respect of operation of the terminal; (c) hindering or prevention by our Company of the right to supervision by ANTAQ; (d) failure by our Company to provide reports on cargo handling or any additional information requested by ANTAQ; (e) unauthorised suspension of the terminal's operation longer than 180 days; (f) failure by our Company to comply with the rules established by ANTAQ, and; (g) failure by our Company to maintain the conditions required for the concession.

Ponta da Madeira maritime terminal

The Ponta da Madeira maritime terminal is located near the Itaqui Port in the Brazilian state of Maranhão. The terminal facilities can accommodate four vessels. Pier I can accommodate vessels displacing up to 420,000 DWT. Pier II can accommodate vessels of up to 155,000 DWT. Pier I has a maximum loading rate of 16,000 tons per hour. Pier II has a maximum loading rate of 8,000 tons per hour. Pier III, which has two berths and three shiploaders, can accommodate vessels of up to 220,000 DWT and has a maximum loading rate of 8,000 metric tons per hour in each shiploader. Cargo shipped through our Ponta da Madeira maritime terminal consists principally of our own iron ore production. Other cargo includes manganese ore, copper concentrate and pig iron produced by us and pig iron and soybeans for unrelated parties. In 2009, 87.3 million metric tons were handled through the terminal for us and 4.5 million metric tons for customers. The Ponta da Madeira maritime terminal has a stockyard capacity of 5.4 million metric tons.

Itaguaí maritime terminal — Cia. Portuária Baía de Sepetiba (CPBS)

CPBS is a wholly-owned subsidiary that operates the Itaguaí terminal, in the public port of Sepetiba, in the Brazilian state of Rio de Janeiro. Itaguaí's maritime terminal has a pier that allows the loading of ships up to 18 metres of draft and up to 230,000 DWT. In 2009, the terminal uploaded 19.6 million metric tons of iron ore. From December 2007 to February 2008, Itaguaí operated with limited capacity as a result of an accident with a ship in the terminal.

Guaíba Island maritime terminal — Minerações Brasileiras Reunidas S.A.

Through Minerações Brasileiras Reunidas S.A., we operate a private maritime terminal on Guaíba Island in the Sepetiba Bay, in the Brazilian state of Rio de Janeiro pursuant to a concession agreement. The term of the concession is 25 years from 25 November 1993. The concession is subject to termination in the event of: (i) rescission; (ii) discontinuance of the terminal's operation; (iii) bankruptcy or winding-up of Minerações Brasileiras Reunidas S.A.; and (iv) forfeiture. The iron ore terminal has a pier that allows the loading of ships of up to 300,000 DWT. In 2009, the terminal uploaded 36.8 million metric tons of iron ore.

Inácio Barbosa maritime terminal (TMIB)

We operate the Inácio Barbosa maritime terminal, located in the Brazilian state of Sergipe. The terminal is owned by Petrobras. We entered into an agreement with Petrobras in December 2002, which allows us to operate this terminal for a period of 10 years. In 2009, 0.9 million metric tons of fuel and agricultural and steel products were shipped through TMIB.

Colombia

Sociedad Portuaria Rio Cordoba (SPRC)

SPRC is a seaport facility wholly-owned by us and used to export coal from the El Hatillo operation, as well as other nearby mines. The port is located in Cienaga, on the Caribbean coast of

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Colombia, in the Magdalena Department, about 67 kilometres from Barranquilla and 31 kilometres from Santa Marta.

Indonesia

PTI owns and operates two ports in Indonesia to support its nickel mining activities.

- The Balintang Special Port is located in Balintang Village, South Sulawesi, and has a pier that can accommodate vessels displacing up to 6,000 DWT.
- The Harapan Tanjung Mangkasa Village is located in Harapan Tanjung Mangkasa Village, South Sulawesi, and has a pier that can accommodate vessels displacing up to 39,000 DWT.

Shipping

We operate in two distinct shipping areas: seaborne dry bulk shipping and tug boat services. The following table sets forth information on the volume of cargo that our seaborne dry bulk shipping service carried for the periods indicated.

| | Year ended 31 December | | |
|-----------------|------------------------|-------|-------|
| | 2007 | 2008 | 2009 |
| | (thousand metric tons) | | |
| Iron ore: | | | |
| Vale | 1,324 | 1,884 | 2,739 |
| Customers | — | — | — |
| Coal | 147 | — | — |
| Other | — | — | — |
| Total | 1,471 | 1,884 | 2,739 |

We are developing a low-cost freight portfolio. Since 2007, we have operated three capesize vessels, which have been fully dedicated to performing shuttle services from Brazil to Asia. In 2009, we bought 17 used capesize vessels, seven of which begin operation this year. We have also entered into long-term freight contracts and have placed orders with shipyards for the construction of 16 large ore carriers, each with a capacity of 400,000 DWT, and four additional capesize vessels, each with a capacity of 180,000 DWT. We expect this service to enhance our ability to offer our products in the Asian market at competitive prices and to increase our market share in China and the global seaborne market.

We have also entered into long-term freight contracts to transport pellet feed from Brazil to Oman, where we are building a pellet plant with nominal capacity of 9 million metric tons of direct reduction iron ore pellets per year and a distribution centre with capacity to handle 40 Mt of iron ore or iron ore pellets.

We own 31.3% of Log-In, which conducts intermodal shipping business. Log-In offers port handling and container transportation services, by sea or rail, as well as container storage. It operates owned and chartered ships for coastal shipping, a container terminal (*Terminal Vila Velha*, or **TVV**) and two multimodal terminals. In 2009, Log-In's coastal shipping service transported 110,547 twenty-foot equivalent units (teus), TVV handled 211,387 teus and its express train service moved 41,475 teus.

We also operate a fleet of 25 tug boats (14 owned and 11 chartered) in maritime terminals in Brazil, in Vitória (state of Espírito Santo), Trombetas (state of Pará), São Luís (state of Maranhão) and Aracaju (state of Sergipe).

Energy

Electric power

We have developed our energy assets based on the current and projected energy needs of our mining operations, with the goal of reducing our energy costs and minimising the risk of energy shortages.

Brazil

Energy management and efficient supply in Brazil are priorities for us, given the uncertainties associated with changes in the regulatory environment, and the risk of rising electricity prices and electric energy shortages (as experienced in Brazil in the second half of 2001). We currently have several hydroelectric power plants in operation. In 2009, our total energy capacity in Brazil was 12,509 GWh. We use the electricity produced by these plants for our internal consumption needs. As a large consumer of electricity, we expect that investing in power projects will help us reduce costs and will protect us against energy price volatility. However, we may experience delays in the construction of certain generation projects due to environmental and regulatory issues, which may lead to higher costs.

In Brazil, we and our subsidiaries operate, jointly with other companies by means of consortia, the following energy concessions:

| <u>Hydroelectric power plant</u> | <u>Our participation</u> | <u>Installed capacity</u> | <u>Term</u> |
|-------------------------------------------------|--------------------------|------------------------------------------------------------|--------------------------|
| Igarapava | 38% | 210 MW | 30 years from 30/12/1998 |
| Porto Estrela | 33% | 112 MW | 35 years from 10/07/1997 |
| Capim Branco I and Capim Branco II | 48% | 240 MW (Capim Branco I) and 210 MW (Capim Branco II) | 35 years from 29/08/2001 |
| Funil | 51% | 180 MW | 35 years from 20/12/2000 |
| Aimorés | 51% | 330 MW | 35 years from 20/12/2000 |
| Candongá | 50% | 95 MW | 35 years from 25/05/2000 |

In the above-mentioned concessions, we assume, in consortia, positions as independent electricity producer or self-producer.

Canada

In 2009, our wholly-owned and operated hydroelectric power plants in Sudbury generated 31% of the electricity requirements of our Sudbury operations. The power plants consist of five separate generation stations with an installed generator nameplate capacity of 56 MW. The output of the plants is limited by water availability, as well as constraints imposed by a water management plan regulated by the provincial government. During 2009, the power system operator distributed electrical energy at the rate of 80.0 MW to all surface plants and mines in the Sudbury area.

In 2009, diesel generation provided 100% of the electric requirements of our Voisey's Bay operations. We have six diesel generators on-site, of which normally only four are in operation, producing 12 MW.

Indonesia

Energy costs are a significant component of our nickel production costs for the processing of lateritic ores at PTI's operations in Indonesia. A major portion of PTI's electric furnace power requirements are supplied at low-cost by its two hydroelectric power plants on the Larona River: (i) the Larona plant, which generates an average of 180 MW, and (ii) the Balambano plant, which generates an average of 110 MW. PTI has thermal generating facilities which include 24 Caterpillar

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diesel generators, with capacity of 1 MW each, five Mirrlees Blackstone diesel generators, and one oil burning steam turbine generator. These generators have the capacity to provide 80 MW of power.

Oil and natural gas

The use of natural gas in our energy matrix in Brazil is expected to increase from 1.3 million cubic metres per day in 2009 to 12.8 cubic metres per day in 2020. In order to mitigate supply and price risks we started investing in natural gas exploration. Since 2007, we have developed a 29-block portfolio in Brazilian onshore and offshore basins.

During 2009, the operators of the consortia in which we participate drilled six offshore wells in the Santos and Espírito Santo basins. These wells delivered two oil and gas discoveries that are going to be delimited and tested this year. Both of them are located in the Santos basin, on the BM-S-48 concession area. Oil or gas existence has been detected at three other wells but common technical or commercial issues prevented their development.

Other investments

Bauxite

We conduct our operations through our joint venture, Mineração Rio do Norte S.A. (**MRN**).

| <u>Firm</u> | <u>Our participation</u> | | |
|-------------|--------------------------|---------------|--------------|
| | <u>Location</u> | <u>Voting</u> | <u>Total</u> |
| | | (%) | |
| MRN | Brazil | 40.00% | 40.00% |

MRN, is located in the northern region of the Brazilian state of Pará and operates four open-pit bauxite mines that produce high-quality bauxite. In addition, MRN controls substantial additional high-quality bauxite reserves.

MRN also operates ore beneficiation facilities at its mines, which are connected by rail to a loading terminal and port facilities as the Trombetas River, a tributary of the Amazon River, that can handle vessels of up to 60,000 DWT. MRN owns and operates the rail and port facilities serving its mines. The MRN mines are accessible by road from the port area and obtain electricity from their thermal power plant.

Steel

We conduct our operations through affiliates California Steel Industries, Inc. (**CSI**) and ThyssenKrupp CSA Siderúrgica do Atlântico Ltda (**TKCSA**).

| <u>Firm</u> | <u>Our participation</u> | | |
|-------------|--------------------------|---------------|--------------|
| | <u>Location</u> | <u>Voting</u> | <u>Total</u> |
| CSI | United States | 50.00% | 50.00% |
| TKCSA | Brazil | 26.87% | 26.87% |

We own a 50% stake in CSI, a producer of flat-rolled steel and pipes, located in the United States. The other 50% belongs to JFE Steel. CSI produces approximately 1.8 million metric tons of flat rolled steel products per year. CSI is adding a second reheating furnace with cutting-edge environmental technology which will increase its capacity by about 50%. The total estimated project cost is US\$71.0 million.

We hold a 26.87% stake in TKCSA, an integrated producer of steel plates in the state Rio de Janeiro, Brazil. TKCSA started producing slabs this year.

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RECENT DEVELOPMENTS AND FUTURE PROJECTS

For 2010, we budgeted US\$12,894 million for capital expenditures. This amount includes expenditures on project development as well as maintenance of existing operations, and research and development, which are headed as current expenses for accounting purposes. Our actual capital expenditures may differ from the budgeted amount for a variety of reasons, including changes in exchange rates. In the first half of 2010, we spent US\$4,533 million on capital expenditures, excluding acquisitions.

The allocation of total expenditures in 2009 and in the six months ended 30 June 2010 is set forth in the following table.

| | 2009 expenditures | Six months ended 30 June 2010 | |
|------------------------------------------------------|-------------------|----------------------------------|--------------|
| | (US\$ million) | (US\$ million) | (% of total) |
| Organic growth | 6,855 | <u>3,693</u> | <u>81.5</u> |
| Project execution | 5,845 | 3,234 | 71.4 |
| Research and development | 1,010 | <u>458</u> | <u>10.1</u> |
| Investments to support existing operations | <u>2,158</u> | <u>840</u> | <u>18.5</u> |
| Total | <u>9,013</u> | <u>4,533</u> | <u>100.0</u> |

The following table summarises by major business area the breakdown of our capital expenditures in 2007, 2008 and 2009, and for the six months ended 30 June 2010.

| | 2007 | | 2008 | | 2009 | | Six months ended 30 June 2010 | |
|-----------------------------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------------------------|--------------|
| | (US\$ million) | (% of total) | (US\$ million) | (% of total) | (US\$ million) | (% of total) | (US\$ million) | (% of total) |
| Ferrous minerals | 1,748 | 15.9 | 2,171 | 21.3 | 2,124 | 23.6 | 1,193 | 26.3 |
| Non-ferrous minerals | 3,988 | 36.2 | 4,614 | 45.3 | 3,144 | 34.9 | 1,453 | 32.1 |
| Logistics services | 977 | 8.9 | 1,952 | 19.2 | 1,985 | 22.0 | 893 | 19.7 |
| Coal | 169 | 1.5 | 392 | 3.8 | 564 | 6.3 | 384 | 8.5 |
| Power generation | 165 | 1.5 | 406 | 4.0 | 688 | 7.6 | 295 | 6.5 |
| Steel | 279 | 2.5 | 146 | 1.4 | 184 | 2.0 | 71 | 1.6 |
| Other | 298 | 2.7 | 510 | 5.0 | 324 | 3.6 | 244 | 5.4 |
| Acquisitions | <u>3,379</u> | <u>30.7</u> | — | — | — | — | — | — |
| Total | <u>11,004</u> | <u>100%</u> | <u>10,191</u> | <u>100.0</u> | <u>9,013</u> | <u>100.0</u> | <u>4,533</u> | <u>100.0</u> |

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The following table sets forth total expenditures in 2009 for our main investment projects and expenditures budgeted for those projects in 2010, together with estimated total expenditures for each project.

| <u>Business area</u> | <u>Project</u> | <u>Actual⁽¹⁾</u> | <u>Budgeted</u> | |
|-----------------------------------------|--------------------------------------------------------|-----------------------------|-----------------|----------------------------|
| | | <u>2009</u> | <u>2010</u> | <u>Total⁽²⁾</u> |
| (US\$ million) | | | | |
| Ferrous minerals and Logistics . . . | Carajás — additional 20 Mtpy iron ore mine | 45 | 90 | 575 |
| | Carajás — additional 30 Mtpy iron ore mine | 384 | 480 | 2,478 |
| | Carajás Serra Sul (mine S11D) iron ore mine | 213 | 1,126 | 11,297 |
| | Apolo iron ore mine | 9 | 38 | 2,509 |
| | Vargem Grande Itabiritos iron ore mine | — | 78 | 975 |
| | Conceição Itabiritos iron ore mine | 7 | 184 | 1,174 |
| | Tubarão VIII pellet plant | 208 | 122 | 636 |
| | Oman pellet plant and iron ore distribution centre | 344 | 484 | 1,356 |
| | Teluk Rubiah maritime terminal and distribution centre | 4 | 98 | 900 |
| | Non-ferrous minerals | Onça Puma nickel mine | 486 | 510 |
| Totten nickel mine | | 56 | 146 | 362 |
| Long-Harbour nickel processing facility | | 101 | 441 | 2,821 |
| Tres Valles copper mine | | 52 | 27 | 109 |
| Salobo copper mine | | 436 | 600 | 1,808 |
| Salobo copper mine expansion | | 2 | 66 | 1,025 |
| Konkola North copper mine | | — | 50 | 145 |
| Bayóvar phosphate mine | | 296 | 219 | 566 |
| Rio Colorado potash mine | | — | 304 | 4,118 |
| Coal | Moatize coal mine | 302 | 595 | 1,322 |
| Energy | Estreito hydroelectric power plant | 284 | 186 | 703 |
| | Karebbe hydroelectric power plant | 53 | 126 | 410 |
| | Biofuels | 46 | 55 | 407 |
| Total | | 3,328 | 6,025 | 38,342 |

(1) All figures presented on a cash basis.

(2) Estimated total capital expenditure cost for each project.

Bulk materials

Ferrous minerals

Iron ore

Recent developments

Acquisition of Simandou iron ore assets

On 30 April 2010, we announced the acquisition from BSG Resources Ltd. (**BSGR**) of a 51% interest in BSG Resources (Guinea) Ltd., which indirectly holds iron ore concession rights in Guinea, in Simandou South (Zogota), and iron ore exploration permits in Simandou North and Blocks 1 and 2, for a cash consideration of US\$2,500 million, of which US\$500 million was payable immediately and the remaining US\$2,000 million on a phased basis subject to the achievement of specific milestones by the end of 2011.

We believe Simandou Blocks 1 and 2 and Zogota are one of the world's best undeveloped sources of high-grade iron ore with potential to support the development of a large-scale long-lived project, with low capital expenditure and operating costs.

The joint venture established between the Group and BSGR will implement the Zogota project and conduct a feasibility study for Blocks 1 and 2 with the creation of a logistics corridor for shipment through Liberia. In order to be granted the right to ship through Liberia, the joint venture is committed to renovate 660 kilometres of the Trans-Guinea railway for passenger transportation and light commercial use. We will be responsible for the management control and marketing of the

joint venture and will have exclusivity for the off-take of all iron ore produced. The start-up of Phase I (Zogota) is expected for the second half of 2012. Conclusion is scheduled for 2014.

Carajás — additional 20 Mtpy

This brownfield project, located in the Northern System, will add 20 million metric tons per year to our capacity with the investment applied in part to overhauling a dry plant and the acquisition of a new plant.

Future projects

Carajás — additional 30 Mtpy

This brownfield project, located in the Northern System, will add 30 million metric tons per year to our capacity with investments in the installation of a new plant, composed of primary crushing, processing and classification units and significant investment in logistics. The required environmental licences have been obtained, and start-up is planned for 2012.

Vargem Grande — Itabiritos

This project in the Southern System will add 10 million metric tons per year of iron ore to current capacity. It involves investment in a new iron ore treatment plant, which will receive low-grade iron ore from the Abóboras, Tamanduá and Capitão do Mato mines. The total budget includes the capital expenditures for increasing capacity at the Andaime railroad terminal. Start-up is expected in the second half of 2013.

Conceição Itabiritos

This is a brownfield project aimed at increasing pellet feed capacity through the processing of low-grade itabirites. The project involves the construction of a concentration plant to add 12 million metric tons per year to the current nominal capacity of pellet feed, using as feed run-of-mine from the Conceição mine, in the Itabira complex in the Southeastern System. Start-up is targeted for the second half of 2013.

Carajás Serra Sul (mine S11D)

This project, located on the Southern range of Carajás, in the Brazilian state of Pará in the Northern System, is the largest greenfield project in our history and in the history of the iron ore industry. We expect it to have a production capacity of 90 million metric tons of iron ore per year. Completion is currently scheduled for the second half of 2014, subject to obtaining the required environmental licences.

Apolo

We expect this greenfield project, located in the Southeastern System, to have production capacity of 24 million metric tons per year of iron ore. Start-up is expected in the first half of 2014.

Teluk Rubiah

We have started construction of distribution facilities in Teluk Rubiah, Malaysia. The project comprises a maritime terminal with enough depth to receive 400,000 DWT ore carriers and a stockyard capable of handling up to 30 million metric tons per year in an initial phase. There is potential to expand it in future to up to 90 million metric tons per year. Start-up is targeted for the second half of 2013.

Iron ore pellets

Future projects

Oman

We are building a pelletising plant in the Sohar industrial district, Oman, in the Middle East, with capacity for the production of 9 million metric tons per year of direct reduction pellets and a distribution centre with capacity to handle 40 million metric tons per year.

Tubarão VIII

We are building a new pellet plant at our existing seven-plant complex at the Tubarão Port. We expect the plant to have production capacity of 7.5 million metric tons per year. Start-up is scheduled for the second half of 2012.

Coal

Future projects

Moatize

On 27 March 2009, we announced the construction of the Moatize Project, in the province of Tete, Mozambique, was in progress.

Moatize, our first greenfield project in Africa, has proven and probable coal reserves of 838 million metric tons. We believe it is one of the world's largest unexploited coal reserves. It has high-quality metallurgical coal, hard coking coal, which is traded at a premium over prices of other types of coal.

The project involves an investment of US\$1.3 billion and it will have a nominal capacity to produce 11 million metric tons of coal per year, which is expected to comprise 8.5 million metric tons of metallurgical coal and 2.5 million metric tons of thermal coal. Start-up is expected in the first half of 2011.

We are building in Moatize what we believe to be one of the world's largest coal handling preparation plants in an operational site, with capacity to process 26 million metric tons of coal per year.

Coal production from the Moatize mine will be transported by a railroad approximately 600 kilometres in length to a new maritime terminal in the port of Beria, province of Sofala, Mozambique. The coal terminal will be built by a concessionary owned by the Mozambican Government.

Our project in Moatize also involves initiatives dedicated to investment in human capital (health, education and professional trading), the creation of infrastructure and the development of sustainable economic activity (a model farm for cattle raising and agriculture) to create jobs and generate income for the local population.

Moatize II

The project comprises investments in a new pit, duplication of the Moatize CHPP, increasing production to 22 Mtpy. Start-up is scheduled for the second half of 2013.

Base metals

Nickel

Recent developments

Vale New Caledonia, New Caledonia

We are in the initial stage of ramping up our Vale New Caledonia (formerly Goro) nickel project in New Caledonia.

We announced the project had successfully produced its first nickel metal product on 9 August 2010. We expect to ramp-up Vale New Caledonia over a three-year period to reach nominal production capacity of 60,000 metric tons per year of nickel and 4,600 metric tons per year of cobalt.

Onça Puma

On 21 September 2010 we announced that the commissioning phase for Onça Puma would be completed by the end of September 2010 and the ramp-up period began in October 2010. Commercial production is expected to commence in January 2011. Onça Puma is a nickel operation (comprising both mine and plant) built on deposits of nickel laterite saprolite in the Brazilian state of Pará. We expect it to reach nominal production capacity of 58,000 metric tons per year in nickel contained in ferro-nickel, its final product in 2013.

Future projects

Totten

We are working on the re-opening of the Totten nickel mine in Sudbury, Ontario, Canada which was closed in 1972. We are aiming for it to have annual production capacity of 8,200 metric tons of nickel, with copper and precious metals (platinum, gold and silver) as by-products. Completion is scheduled for the first half of 2011.

Long-Harbour

We are building a nickel processing facility pursuant to a commitment with the government of the Province of Newfoundland and Labrador, Canada. The facility will have nominal production capacity of 50,000 metric tons per year of finished nickel, together with up to 5,000 metric tons of copper and 2,500 metric tons of cobalt, utilising feed from the Ovoid mine at Voisey's Bay. Start-up is scheduled for the first half of 2013.

Copper

Future projects

Tres Valles

We are building the Tres Valles project in the Coquimbo region of Chile, which has an estimated nominal production capacity of 18,000 metric tons per year of copper cathode.

Salobo

The first phase of development of the Salobo copper deposit in Carajás, will have an annual nominal production capacity of 100,000 metric tons of copper in concentrates. Project implementation is under way and civil engineering work has started. Salobo is scheduled to begin operation in the second half of 2011.

Salobo expansion

This project will expand the Salobo mine's production capacity from 100,000 to 200,000 metric tons per year of copper in concentrates. The scope of the project contemplates the expansion of the industrial and support facilities, raising the height of the tailing dam and increasing mine movement. This project is estimated to be completed in the second half of 2013.

Konkola North

Located in the Zambian copper belt, this is an underground mine and will have an estimated nominal production capacity of 45,000 metric tons per year of copper in concentrate, which will be toll smelted in Zambia. This project is part of our 50/50 joint venture with African Rainbow Minerals Limited in Africa. The project is expected to start production in 2013 and to reach full capacity in 2015. The expected mine life is 28 years.

Cristalino

This project is located in the Carajás region, with nominal capacity of 95,000 tons per year of copper in concentrates. Start-up is scheduled for the second half of 2014.

Fertilizer nutrients

Recent developments

Acquisition of fertilizer nutrient assets in Brazil

In January and February 2010, we announced that we had, through our subsidiary Mineração Naque S.A., entered into various agreements and option contracts to acquire (a) 100% of the outstanding shares of Bunge Participações e Investimentos S.A. (now known as Vale Fosfatados S.A.), a company with assets and investments in the fertilizer business in Brazil; and (b) the controlling interest in Fertilizantes Fosfatados S.A. — Fosfertil (now known as Vale Fertilizantes), a company listed on BM&FBOVESPA. Vale Fosfatados S.A. owns a portfolio of Brazilian fertilizer assets composed of two phosphate rock mines in the states of Minas Gerais and São Paulo and phosphate assets as well as direct and indirect interests in the equity capital of Vale Fertilizantes. Vale Fertilizantes operates three phosphate rock mines in the states of Goiás and Minas Gerais. The acquisitions of the Brazilian fertilizer assets of Vale Fosfatados S.A. and the controlling interest in Vale Fertilizantes were completed in May and September 2010, respectively. We currently hold 78.90% of the total equity capital of Vale Fertilizantes, of which we hold 99.81% of its ordinary shares and 68.24% of its preferred shares. The Company is also implementing a mandatory tender offer to acquire the remaining 0.19% of the common shares of Vale Fertilizantes.

Bayóvar

In July 2010, we announced the commencement of production at our Bayóvar open-pit mine in Peru which has a nominal capacity of 3.9 million metric tons per year of phosphate rock. In addition to the mine, the operation includes a phosphate concentration plant, a conveyor belt system and a maritime terminal.

Future projects

Rio Colorado

This project includes the development of a mine with an initial nominal production capacity of 2.4 million metric tons per year of potash, with potential for a future expansion to 4.3 million metric tons per year, construction of a railway spur of 350 kilometres, port facilities and a power plant. Start-up is expected to take place in the second half of 2013.

Bayóvar II

This is the brownfield expansion of the Bayóvar project, targeting an additional 1.9 Mt of phosphate rock production. Start-up is scheduled for the second half of 2012.

Salitre

This project, located in Minas Gerais, Brazil, involves the development of a new phosphate mine with a production capacity of 2.2 Mtpy of phosphate concentrates and establishment of a fertilizer production plant with capacity of 560,000 tons per year of P205, linked by an 18km pipeline. Start-up is scheduled for 2014.

Logistics

Future projects

CLN 150 Mtpy

This project includes investments in railway capacity and in the Ponta da Madeira terminal in Maranhao, Brazil, including construction of a fourth pier. It will increase the railway and port capacity to 150 Mtpy. Start-up is scheduled for the second half of 2012.

Serra Leste

This project includes investments in mining equipment, new processing plant and logistics to meet additional iron ore production of 10 Mtpy in 2013. The iron ore flow will be transported by the EFC railroad. Start-up is scheduled for the first half of 2012.

CLN S11D

This project will expand the railway and the Ponta da Madeira terminal in the Northern System to increase capacity in line with the expansion in Carajás, as well as the construction of a rail branch connecting the EFC railroad to the Serra Sul S11D mine. Start-up is planned for the second half of 2014.

Nacala Corridor

This project is to develop the Nacala corridor, involving construction of a 200 km railway connecting the Moatize mine to Malawi, a new coal maritime terminal in Nacala, Mozambique and a 21 km rail branch that will connect the existing railway to the new coal maritime terminal, and the recovery of existing railways in Malawi and Mozambique. Start-up is scheduled for 2014.

Other future projects

We are engaged in several significant energy projects, including the construction of the Estreito hydroelectric power plant in Brazil which is expected to be fully operational with all its generation units in September 2012 and the Karebbe hydroelectric power plant in Sulawesi, Indonesia. We have also entered into a consortium with Biopalma to invest in biodiesel to supply our mining and logistics operations in the Northern region of Brazil.

CUSTOMERS

For the three financial years ended 31 December 2009, our five largest customers combined accounted for less than 30% of our total operating revenues for each such period. For the financial year ended 31 December 2009, all our five largest customers were customers of iron ore and iron ore pellets.

SUPPLIERS

Our suppliers include suppliers for ancillary materials. Fuel and gases are the largest components of our supplies of ancillary materials. For the three financial years ended 31 December 2009, our five largest suppliers combined accounted for less than 30% of our purchases for each such period.

OPERATIONAL RISK

Operational risk management is the structured approach we take to manage uncertainty related to inadequate or failed internal processes, people and systems and to external events.

We mitigate operational risk with new controls and improvement of existing ones, with transfer of risk through insurance and establishment of financial provisions. As a result, our Company seeks to have a clear view of its major risks, the best cost-benefit mitigation plans it must invest in, and the controls in place to monitor the impact of operational risk closely and to allocate capital efficiently to reduce such risk.

During the Track Record Period and up to the Latest Practicable Date, our Company was not subject to any material adverse effect to its operations as a result of the occurrence of:

- (a) any major incidents of electricity shortages;
- (b) any failure in obtaining mining concessions, authorisations, licences and permits; or
- (c) any failure to comply with environmental, health and safety rules and regulations in any material respect.

Save as otherwise disclosed in this Listing Document, there were no findings notified to our Company by any regulating authority in the jurisdictions in which the Group operates of any material non-compliance with any rule, regulation or law to which its business was subject, or any failure to obtain any material permits and licences required for our Company's business operations during the Track Record Period and up to the Latest Practicable Date.

RESEARCH AND DEVELOPMENT

Our research and development expenditure was US\$361 million in the period of six months ended 30 June 2010, US\$981 million in the financial year ended 31 December 2009, US\$1,085 million in the financial year ended 31 December 2008 and US\$733 million in the financial year ended 31 December 2007.

CORPORATE SOCIAL RESPONSIBILITY

We have implemented a number of policies in relation to the impact of our business activities on the environment, health and safety at work and community relations.

Environmental policy

We have adopted an Environmental Management System which sets out standards and procedures for monitoring and managing conservation, environmental protection and rehabilitation issues in our operations and helps us to ensure the protection and recovery of ecosystems where we conduct our mining operations. Our system is based on ISO 14001 guidelines, to which we have added additional features to make up our standard of environmental quality. We also carry out internal and external environmental audits from time to time.

Listed below are our business units that were compliant with ISO 14001 environmental standards as at the Latest Practicable Date:

- (a) sixteen of our iron ore mines (constituting 47% of the mines for which Competent Persons' reports were prepared for the purposes of this Listing Document) and the Tubarão and Fábrica pelletising plants;
- (b) our manganese and ferroalloy operations at Azul, Morro da Mina and Vale Manganèse France;
- (c) our nickel operations in Europe and at the Taiwan Nickel Refining Corporation; and
- (d) the port of Tubarão.

In many cases, we operate to higher environmental standards than is legally required. We spent US\$1,700 million in connection with the operation of our Environmental Management System in the last three years, of which US\$1,079 million was spent in Brazil. The financial resources were allocated to three areas:

- (a) the acquisition and implementation of environmental control equipment, to improve compliance with environmental standards in existing operations;
- (b) environmental geotechnical maintenance of our dams and tailings piles; and
- (c) reforestation and reclamation of degraded areas, as part of the Vale Florestar programme and agreements with particular Brazilian states.

Our guidelines for decommissioning mines include practical and technical procedures to be followed during the closure of our mines, including the procedures for monitoring and recovery of degraded areas and the main steps to be observed during closure. Our guidelines also provide standardised basic criteria, based on the guidelines of the CVM and the SEC, for cost evaluation, budgeting, future decommissioning and restoration.

Health and safety policy

Health and safety at work is a priority for our Company. We have a clearly defined strategy, based on a proactive and preventive approach, to continuously improve health and safety for our employees.

We act together with education and governmental institutions in the mining sector to develop practices designed to strengthen our value of "Prioritising Life and Safety". We participate in ICMM (International Council on Mining and Metals) activities, seeking to enhance mining sector health and safety standards in all the countries where we operate.

In 2009, we made investments of over US\$110 million in capital projects to achieve improvements in health and safety. In 2009 we surpassed our goal of having 70% of our critical activities requirements (**RACs**) implemented in our Brazilian operations, achieving 72.4%. The RACs are internally generated requirements for accident reduction. Those requirements include the adoption of standards, training events and investment in infrastructure, aiming at safe execution of the ten operational activities that, historically, account for 91.7% of fatalities. We have revised all of our requirements in order to improve and adapt them for our operations outside Brazil. Our objective is to implement the RACs in all our international units in 2010.

Community relations

Code of Ethical Conduct

We have adopted a code of ethical conduct that applies to all Directors, Executive Officers and employees, including the Chief Executive Officer, the Chief Financial Officer and members of our accounting committee. The code of ethical conduct stipulates desirable behaviour with respect to

fellow employees, administrators, Shareholders and investors, such as impartiality, honesty and transparency; and intolerable behaviour, such as illegitimate personal benefit, discrimination and harassment. We have not granted any implicit or explicit waivers from any provision of our code of ethical conduct since its adoption.

Human Rights Policy

In 2009, we approved our Human Rights Policy. This policy sets out guidelines and principles relating to actions of our Company with regard to human rights issues that may arise in connection with our projects and operations. The policy reinforces the ethical ideas and principles that are established by our Code of Ethical Conduct.

Sustainable Development Policy

We have also adopted a Sustainable Development Policy. The search for building a positive social, economic and environmental legacy in the areas where we operate is one of the principles that uphold our Sustainable Development Policy. Our activities, especially mining, are limited to the life of the deposit being mined; therefore, our presence in a specific area is generally finite. Our challenge, during the mineral development cycle, is to perform actions that will foster regional economic strengths which will then contribute to improving social welfare for the local communities.

To meet this challenge, we undertake activities to increase the positive effects of our presence, reduce the social risks of operations, and, simultaneously, contribute to strengthening the basis for local development in the long run. We invest in integration with public and social agents to encourage:

- local hiring of employees and suppliers;
- education for human development, work and income generation;
- planning for the use of taxes generated by our operations;
- diversification of the local economy;
- strengthening of institutions; and
- environmental and cultural conservation.

EMPLOYEES AND LABOUR RELATIONS

The following table sets forth the number of our employees by category as of the dates indicated.

| | <u>At 31 December</u> | | | <u>At 30 June</u> |
|--------------------------------|-----------------------|-------------|-------------|-------------------|
| | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> |
| Ferrous minerals | 21,700 | 23,859 | 24,176 | 26,870 |
| Logistics services | 11,679 | 13,049 | 13,455 | 13,430 |
| Non-ferrous minerals | 20,955 | 22,902 | 19,728 | 25,138 |
| Administrative | 2,709 | 2,680 | 2,677 | 2,749 |
| Total | 57,043 | 62,490 | 60,036 | 68,187 |

We negotiate wages and benefits with approximately 50 trade unions in Brazil and 15 trade unions worldwide that represent our overseas employees. We have collective agreements with unionised employees at our Australian, Brazilian, Canadian, Indonesian, New Caledonian and U.K. operations.

Some of our Canadian nickel operations have been affected by strikes since mid-2009. Unionised employees at our operations in Sudbury and Port Colborne, in the province of Ontario were on strike in the period from July 2009 to July 2010. Striking employees at our Sudbury and Port Colborne

operations returned to work in the last week of July and the first week of August 2010. Unionised employees working in mining and mill operations at Voisey's Bay, in the province of Newfoundland and Labrador, went on strike in August 2009 and continue to be on strike. For details of the operational and financial impact on the Company, see the sections in this Listing Document headed "Financial information — Results of operations — Six Months ended 30 June 2010 Compared with Six Months ended 30 June 2009 — Revenues — Nickel and other products" and "Financial information — Results of operations — Financial Year ended 31 December 2009 Compared with Financial Year ended 31 December 2008 — Revenues — Nickel and other products." Unsuccessful collective bargaining negotiations with that union have been ongoing for more than 20 months. In January 2010, we announced our intention to resume production at Voisey's Bay utilising management, unionised employees who were not on strike and non-unionised staff. Voisey's Bay has been in full production since June 2010.

On 31 March 2009, members of USW Local 2020-005, which represents office, technical and professional employees in Canada, ratified a new three-year collective agreement with us (not as a consequence of the strikes described above). This agreement included increases to salaries in each of the three years, a defined contribution pension plan for new employees and the introduction of an annual incentive plan that supports the achievement of strategic objectives and rewards performance and various other improvements to collective agreement language.

On 8 July 2010, we announced that new five-year collective bargaining agreements were ratified with United Steelworkers (USW) Locals 6500 and 6200 representing production and maintenance employees in Sudbury and Port Colborne representing full settlement of the strikes concerning those unions.

INTELLECTUAL PROPERTY RIGHTS

In respect of our intellectual property rights, please see the section headed "Material intellectual properties of our Group" in Appendix VIII to this Listing Document.

PROPERTIES

We have applied for, and the Stock Exchange has granted, a waiver from the requirement under Rule 5.01 of the Listing Rules that valuations of and information on all our interests in land or buildings are required to be included in this Listing Document. For more details, see the section in this Listing Document headed "Waivers". As at 30 September 2010, the aggregate net book value of the land and buildings owned by the Group amounted to approximately 3.9% of the Group's total assets.

The Company and its Major Subsidiaries engaged in mining activities in relation to the Material Reserves have interests in land and buildings located in Brazil, Canada, Indonesia, Mozambique and New Caledonia. As at 31 October 2010, the Group had:

(a) interests in a total of 8,717 real properties in Brazil, the significant majority of which located in the Brazilian states of Minas Gerais, Pará and Espírito Santo. Please see below a breakdown by state and function:

| <u>State</u> | <u>Total</u> |
|------------------------------------|--------------|
| Bahia | |
| Operational buildings | 5 |
| Administrative buildings | 2 |
| Total Bahia | 7 |
| Espírito Santo | |
| Operational buildings | 519 |
| Administrative buildings | 108 |

| |
|-----------------|
| BUSINESS |
|-----------------|

| <u>State</u> | <u>Total</u> |
|------------------------------------------------------------------|--------------|
| Social buildings (schools and hospitals, among others) | 47 |
| Rural buildings (schools and hospitals, among others). | 32 |
| Land | 1,180 |
| Total Espírito Santo | 1,886 |
| Maranhão | |
| Operational buildings | 393 |
| Administrative buildings | 42 |
| Social buildings (school and hospitals, among others) | 193 |
| Land | 307 |
| Total Maranhão | 935 |
| Minas Gerais | |
| Operational buildings | 1,718 |
| Administrative buildings | 181 |
| Social buildings (schools and hospitals, among others) | 121 |
| Rural buildings (schools and hospitals, among others). | 20 |
| Land | 1,298 |
| Total Minas Gerais | 3,338 |
| Pará | |
| Laboratory | 1 |
| Operational buildings | 171 |
| Administrative buildings | 108 |
| Social buildings (schools and hospitals, among others) | 1,451 |
| Rural buildings (schools and hospitals, among others). | 1 |
| Land | 791 |
| Total Pará | 2,523 |
| Rio de Janeiro | |
| Operational buildings | 2 |
| Administrative buildings | 7 |
| Land | 1 |
| Total Rio de Janeiro | 10 |
| Sergipe | |
| Operational buildings | 14 |
| Administrative buildings | 1 |
| Land | 3 |
| Total Sergipe | 18 |
| Total | 8,717 |

The total gross floor area of the operational buildings, the administrative buildings and the social and rural buildings listed above amounts to approximately 204,590 square metres, 88,140 square metres and 250,160 square metres, respectively. The total site area of the land listed above amounts to approximately 828,740 square metres. For the purposes of seeking the waiver from the requirement to prepare a valuation of our interests in land and buildings under Rule 5.01 of the Listing Rules, our Company is of the view that the production plants in relation to its iron ore operations in Brazil are not properties which are material to its business operations on the basis that they principally consist of beneficiation/concentration plants in relation to two of its iron ore mining systems, the Southern and Southeastern Systems.

(b) surface rights covering 59,995 hectares in Ontario, Canada, including a combination of mining and surface rights co-owned with third parties covering 1,198 hectares; a smelter, mill, oxygen plant, nickel refinery and office building in Sudbury and a refinery in Port Colborne, Ontario, all located subject to surface rights owned by the Group; a mill, smelter, refinery and office building in Thompson located subject to surface rights owned by the Group in Manitoba, Canada; in

conjunction with the mining lease for Voisey's Bay, Newfoundland and Labrador, Canada, a surface lease entitling the Group to use certain lands necessary for mining operations, upon which the Voisey's Bay mill is located. Like the mining lease, the surface lease is for a period of 25 years, and may be renewed for a further 10-year term. The processing plant being constructed at Long Harbour, Newfoundland and Labrador is also located subject to surface rights owned by the Group. The Group's registered title to those Canadian properties as at the Latest Practicable Date was supported by legal opinion;

(c) a total of four levels in office buildings together with accommodation for employees in Noumea, New Caledonia. Our hydrometallurgical plant and base camp for the Vale New Caledonia (Goro) mine is located on land with a total area of 7,951,613 square metres rented under a lease with a 52-year term from 7 December 2004. Our Company does not consider that plant to be crucial to its present operations on the basis that is a relatively early stage project which has yet to make a continuing significant contribution to the Group's operating revenues, given it only commenced production in August 2010. The Group's documentary title to those properties as at the Latest Practicable Date was supported by legal opinion;

(d) certain properties which are utilised as manufacturing plants, power plants, warehouses, a residential complex, an airport, and seaports in Indonesia, mostly located in Sorowako, South Sulawesi and its surrounding areas with one office building in Makassar.

All of the major Indonesian properties mentioned below are covered by two types of land titles, the so-called "right to build" and "right to use". The main difference between the two types of land titles is the term of validity: right to build is valid for 30 years, extendable for 20 years, while right to use is valid for 10 years, extendable for another 10 years; both land titles could be renewed. PTI is entitled to construct buildings on the basis of both types of land rights. PTI currently holds 8 land title certificates covering 6 rights to build and 2 rights to use. The total gross site area covered by those land certificates is 28,630,241 square metres. One of them (under a right to build) covers the land where PTI's processing plant is built, with an area of approximately 745,584 square metres, located in Sorowako Village. This right has been extended to be valid until 13 December 2029.

PTI has acquired a right to build the Balambano Hydropower Plant located at Balambano Village which is valid until 24 September 2030 in a total area of approximately 2,815,400 square metres; and a right to use with respect to the Larona Hydropower Plant with a total area of approximately 18,559,600 square metres, located at Balambano Village. PTI has also obtained a right to build use in respect of the Balantang Port with a total area of approximately 392,000 square metres, located at Balantang Village. The Group's registered title to those Indonesian properties subject to certificates of title described in this Listing Document as at the Latest Practicable Date was supported by legal opinion; and

(e) a construction camp of 32,815 square metres and buildings under construction of 22,273 square metres related to the Moatize Material Reserve in Mozambique. Our Company does not consider that camp to be crucial to its present operations on the basis that it is a relatively early stage project which has yet to make a continuing significant contribution to group operating revenues, given the project is not scheduled to commence production until mid-2011. The Group's registered title application for that camp as at the Latest Practicable Date was supported by legal opinion.

LEGAL PROCEEDINGS

We set out below a summary of the various material legal actions in which our Company and/or its subsidiaries are defendants. The amounts claimed in Reais are stated as of 31 October 2010. Based on legal advice in respect of each of these material legal actions, we are of the view that none would have any material adverse impact on the Group. In arriving at that view, we took into account the facts of each action, the maximum amount of potential liability that may arise under each action and the relative exposure of the Group taking into account the size of its market capitalisation.

Praia Mole suit

We were among the defendants in a public civil action filed on 10 November 1997 seeking to annul the concession agreement through which we and certain other defendants operate the Praia Mole maritime terminal in the Brazilian state of Espírito Santo. The alleged basis of the claim is that the port is public property. We have defended the claim on the basis that our private right to use the terminal was inherent with the privatisation of our Company. This case was decided in our favour in November 2007 with a decision recognising the validity of that concession agreement, but the plaintiff, the federal public prosecutor, filed an appeal with the federal circuit court on 1 April 2008, which is still pending.

Based on the current progress of this action and legal advice on the claim, we have not made any provision in our consolidated financial statements in respect of this action. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiff in this claim as remote.

Itabira suits

We are a defendant in two separate actions brought by the municipality of Itabira, in the Brazilian state of Minas Gerais.

In one of the actions, filed on 22 August 1996, the municipality of Itabira alleges that our Itabira iron ore mining operations have caused environmental and social damages and claims damages with respect to the degradation of the site of one of our mines, as well as the immediate restoration of the affected ecological complex and the performance of compensatory environmental programmes in the region. The damages sought, as adjusted from the date of the claim, amount to R\$2,381,364,241.56 (US\$1,399,649,842.22).

There have been hearings in respect of this action, but a decision in respect of this case is still pending agreement upon the submission of expert evidence.

In the other action, filed on 26 September 1996, the municipality of Itabira is claiming the right to be reimbursed for expenses it has incurred in connection with public services rendered as a consequence of our mining activities. The damages sought, as adjusted from the date of the claim, amount to R\$2,757,524,063.23 (US\$1,620,738,252.75).

This case has been suspended pending findings from another lawsuit.

Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of these actions. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiff in its principal claims as remote.

CFEM-related proceedings

We are currently a defendant in a series of administrative and judicial proceedings brought by the National Mineral Production Department (*Departamento Nacional de Produção Mineral*), or **DNPM**, an agency of the Ministry of Mines and Energy of the Brazilian Government.

The most significant of these proceedings was brought against us in March 2006, alleging that we have failed to pay the full amount of a mining royalty, known as the CFEM, on revenues generated by our iron ore and manganese activities. The claim alleges both: (i) chargeability of CFEM on certain of our pelletised iron ore production; and (ii) Vale had over-deducted certain permissible deductions (taxes, insurance, transportation) from sales to arrive at the amounts subject to CFEM. The dispute relates to assessments concerning the years 1991 to 2007 (Southern System) and 1991 to 2009 (Northern System).

The DNPM levying CFEM on the basis claimed is subject to a suspensory injunction pending resolution of the legal proceedings. In respect of assessments relating to the Northern System, first instance decisions have been issued which were partially favourable on the question of permissible deductions. Assessments in both the Northern and Southern Systems remain subject to final judicial resolution. The aggregate amount claimed in the administrative and judicial proceedings is R\$7,630,000,000 (US\$4,484,542,141.77).

We are a defendant in a judicial proceeding brought in 2002 by the Brazilian municipality of Mariana, alleging that we owe that municipality a customary proportion of CFEM claimed to be payable in respect of certain of our pelletised iron ore product. We claim principal defences on the basis of (i) lack of jurisdiction on the part of the municipality to claim, even if CFEM were chargeable on pelletised product; and (ii) CFEM not being chargeable upon iron ore pellets (per the litigation referred to above) in any event. The first instance judgment was partially unfavourable. We have appealed.

We have requested a declaration by way of appeal that CFEM is not chargeable on our pelletised product on a national basis.

We have made a provision of R\$217,408,568 (US\$127,782,161) in our consolidated financial statements for the period of the six months ended 30 June 2010 in respect of potential liability that may arise from this litigation.

We were also involved in litigation with the DNPM regarding the applicable CFEM rate for certain potash products. The DNPM claimed that the relevant potash products should be chargeable at the 3% CFEM rate applicable to the mineral product, notwithstanding its ultimate incorporation into fertilizer nutrient which would otherwise be charged at 2%.

The amount in dispute was R\$39,320,658.52. Based on uncertainty as to the correct legal position, we entered into a settlement agreement with the DNPM which essentially conceded the amount of payment in accordance with DNPM's claim.

Tax litigation

We are engaged in litigation with respect to Article 74 of the Brazilian Provisional Measure 2,158-34/2001, a tax regulation requiring payment of income tax in Brazil on net income from foreign subsidiaries (the **Provisional Measure**).

In 2003, we initiated a legal proceeding challenging the applicability of such regulation based on the following arguments: (i) Article 74 of the Provisional Measure disregards double taxation treaties between Brazil and the countries where some of our subsidiaries are based; (ii) the Brazilian Tax Code prohibits the establishment of conditions and timing of any tax assessment by means of a regulation such as Article 74 of the Provisional Measure; (iii) even if Article 74 of the Provisional Measure is valid, exchange gain and loss must be excluded from the net income of our foreign subsidiaries in the calculation of taxes owed (in accordance with new Brazilian accounting principles and IFRS); and (iv) the constitutional principle prohibiting retroactive application of tax laws would be violated if this regulation were applied to net income generated before December 2001.

We did not obtain a favourable decision on the merits of the case at first instance, but we did obtain a preliminary injunction suspending our obligation to pay the disputed amounts.

We appealed from the lower court's decision in July 2005, and the injunction remains in effect pending the outcome of this appeal. The appeal court's decision on the merits is suspended pending the outcome of a parallel lawsuit filed by the Brazilian Industry Association challenging the constitutionality of Article 74 of the Provisional Measure. The outcome of this decision will validate or state the voidability of the provision being challenged. Even if that constitutional claim fails, we presently intend to pursue the other challenges specified above in respect of the Provisional Measure.

Meanwhile, the tax authorities filed two new administrative proceedings on 11 January 2010 and 12 February 2010, respectively, bringing our total claims to four, claiming total payment of R\$26,609,735,000.00 (US\$15,639,905,000.00) from us. The original proceedings, in respect of assessments filed on 10 December 2007 and 28 March 2008, as well as the two new administrative proceedings, are presently the subject of appeals to the second instance administrative court in respect of matters including those aspects of the first instance administrative judgment that were unfavourable to us.

We are contesting these suits. Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of these actions. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the tax authorities in their claims as remote.

We have also initiated one legal proceeding in order to prevent collection of social contribution (CSLL) on export revenues. We had a favourable decision in February, 2008, in order to avoid CSLL taxation on all export operations, but the tax authorities have appealed. Based on such decision, our Company is allowed to exclude export sales revenues from taxable income values and has not been subject to CSLL payment due to a negative tax basis. In August, 2010, the Brazilian Supreme Court (*Supremo Tribunal Federal*) decided that all export operations are subject to CSLL, but the case is subject to one final appeal. We have a present liability as a result for R\$2,596 million. If the Brazilian Supreme Court's final decision is unfavourable, the payment will be made without penalties.

Railway litigation

The Brazilian federal rail network, Rede Ferroviária Federal S.A. (**RFFSA**), succeeded by the Brazilian Government, filed a claim on 18 August 2006 before a Brazilian Court of first instance claiming damages for alleged breach of contract by Vale.

Prior to the commencement of the first step of its privatisation in 1997, Vale entered into a contract in 1994 with RFFSA (which was itself subsequently privatised) to construct two railway networks in Belo Horizonte, Brazil which would be incorporated into an existing segment, in a project called "Transposição de Belo Horizonte". Vale initially omitted to do so.

The amount of damages claimed is R\$2,627,979,530.39 (US\$1,544,598,289.87). Under a related agreement with the Brazilian Government, Vale began the construction of an alternative segment, because the initially agreed segments cannot presently be constructed.

Preceding the filing of the RFFSA lawsuit, Vale filed a claim against RFFSA, succeeded by the Brazilian Government, challenging the inflation adjustment provisions in the contract with RFFSA. Vale contends that the method of calculation employed by the Brazilian Government is not lawful under Brazilian law.

Vale has claimed that the construction costs of the new segment should be capable of set-off against the damages under the original RFFSA claim, which would reduce the amount to be paid significantly.

The lawsuit has yet to be heard and no date has been fixed for a hearing.

Based on the current progress of this action and legal advice on the claim, we have not made any provision in any of our consolidated financial statements in respect of this litigation. It is not our Company's practice to make such provision where we have been advised that, were the construction costs of the new segment set-off against the original claim, it could significantly reduce the value of the claim.

Gold forward contracts

In 1988 and 1989, we entered into gold forward contracts with various Brazilian private pension funds. Under the terms of these contracts, settlement was permitted by either physical delivery or cash payment. In May 1989, however, the Brazilian Government, through the Brazilian central bank, passed a law prohibiting settlement by delivery, and we were consequently obligated to settle in cash. During these years, Brazil experienced severe inflation, and beginning in 2005, some of the pension funds sued us, claiming that the inflation adjustment provided for in the contracts did not adequately compensate them for monetary losses arising from the Brazilian Government's measures to control inflation during this period. There are 11 such suits. We have prevailed in two cases in the lower court, and the amounts claimed in those cases and the remaining cases are not material. We have lost in the lower courts in four cases, and we are pursuing appeals in those cases. The five remaining cases are still pending decision from the lower courts (fase probatória). The amount claimed is now of R\$491,211,441.55 (US\$288,710,145.50). Based on the current progress of these actions and legal advice on the claims, we have not made any provision in our consolidated financial statements in respect of this litigation. It is not our Company's practice to make such provision where, on the basis of such advice, our Company has classified the chances of success for the plaintiffs in their claims as remote.