

Vale S.A.  
Form 6-K  
February 16, 2012  
[Table of Contents](#)

**United States**  
**Securities and Exchange Commission**

Washington, D.C. 20549

**FORM 6-K**

**Report of Foreign Private Issuer**

**Pursuant to Rule 13a-16 or 15d-16**

**of the**

**Securities Exchange Act of 1934**

**For the month of**

**February 2012**

**Vale S.A.**

**Avenida Graça Aranha, No. 26  
20030-900 Rio de Janeiro, RJ, Brazil**

(Address of principal executive office)

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Table of Contents

Table of Contents:

Press Release

Signature Page

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Table of Contents

*Production Report*

**Vale Production Report 2011**

**A SOLID PERFORMANCE**

Rio de Janeiro, February 15, 2012 Vale S.A. (Vale) operational performance continued to improve in 2011. Even in the face of challenges stemming from severe weather conditions in Brazil and Australia, particularly in the first quarter, a natural disaster in Indonesia and some operational problems, three annual production records were achieved - iron ore (322.6 Mt), pellets (51.8 Mt) and coal (7.3 Mt) while base metals had their best year since 2008.

Notwithstanding the challenges in project execution, ten new projects came on stream in 2010/2011 Additional 20Mtpy, Vargem Grande, Oman, Moatize I, Onça Puma, VNC, Tres Valles, Bayóvar, Estreito and Karebbe and eight of them are still ramping up, meaning that most of their growth and value creation potential will be materialized through 2012 and 2013. In addition, over the next few years the growth and value creation dynamics will be supported by the delivery of iron ore, pellets, coal, nickel, copper and potash projects.

Our iron ore production increased 14.8 Mt(1) in 2011, which was more than twice the expansion of the world's second largest producer. Carajás, the source of the best iron ore in the world, produced 109.8 Mt, an all-time high mark. In 4Q11, our production reached 82.9 Mt, being the highest production ever in a fourth quarter.

From mid-December to mid-January this year, heavy rains and flooding in the Brazilian states of Minas Gerais, Rio de Janeiro and Espírito Santo, generated challenges for our operations in the Southeastern and Southern Systems, in particular for the movement of our trains. We were obliged to declare force majeure effective as of January 11, lasting until January 23, 2012. The estimated loss was of 2 million metric tons of iron ore shipments.

The operating permit for the N5 South pit, in the Northern Range of Carajás, announced last month, is important in that it allows the exploitation of high Fe content ores, contributing to sustain the high quality of our iron ore output. In light of the impoverishment of the quality of mineral reserves around the world, which is one of the factors leading to higher capex and opex costs, Vale enjoys a competitive edge in the industry.

By the end of January, line #2 of the Onça Puma ferronickel operations produced its first metal.

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| 000 metric tons          | 2007           | 2008           | 2009           | 2010           | 2011           | % Change<br>2011 / 2010 |
|--------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|
| <b>Iron ore(a)</b>       | <b>303,163</b> | <b>301,696</b> | <b>237,953</b> | <b>307,795</b> | <b>322,632</b> | <b>4.8%</b>             |
| <b>Pellets(a)</b>        | <b>44,825</b>  | <b>44,762</b>  | <b>23,856</b>  | <b>48,993</b>  | <b>51,882</b>  | <b>5.8%</b>             |
| <b>Manganese ore</b>     | <b>1,333</b>   | <b>2,383</b>   | <b>1,657</b>   | <b>1,841</b>   | <b>2,556</b>   | <b>38.9%</b>            |
| <b>Ferroalloy</b>        | <b>542</b>     | <b>475</b>     | <b>223</b>     | <b>451</b>     | <b>436</b>     | <b>-3.3%</b>            |
| <b>Coal</b>              | <b>2,204</b>   | <b>4,094</b>   | <b>5,420</b>   | <b>6,892</b>   | <b>7,272</b>   | <b>5.5%</b>             |
| <b>Nickel</b>            | <b>248</b>     | <b>275</b>     | <b>187</b>     | <b>179</b>     | <b>242</b>     | <b>35.1%</b>            |
| <b>Copper</b>            | <b>284</b>     | <b>312</b>     | <b>198</b>     | <b>207</b>     | <b>302</b>     | <b>45.7%</b>            |
| <b>Potash</b>            | <b>671</b>     | <b>607</b>     | <b>717</b>     | <b>662</b>     | <b>625</b>     | <b>-5.5%</b>            |
| <b>Phosphate rock(b)</b> |                |                |                | <b>5,256</b>   | <b>7,359</b>   | <b>40.0%</b>            |

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(a) Including attributable production of JV s.

(b) Acquisition of fertilizer assets was completed in May 2010. For comparison purposes we used the full year of 2010.

(1) Mt = million metric tons

Kt = thousand metric tons

t = metric tons

Table of Contents**BULK MATERIALS**• *Iron ore*

| 000 metric tons            | 4Q10          | 3Q11          | 4Q11          | 2010           | 2011           | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|----------------------------|---------------|---------------|---------------|----------------|----------------|-----------------------|-----------------------|-----------------------|
| <b>IRON ORE</b>            | <b>80,262</b> | <b>87,890</b> | <b>82,944</b> | <b>307,795</b> | <b>322,632</b> | <b>-5.6%</b>          | <b>3.3%</b>           | <b>4.8%</b>           |
| <b>Southeastern System</b> | <b>30,028</b> | <b>31,297</b> | <b>29,635</b> | <b>116,913</b> | <b>120,153</b> | <b>-5.3%</b>          | <b>-1.3%</b>          | <b>2.8%</b>           |
| Itabira                    | 10,036        | 10,919        | 9,508         | 38,704         | 40,007         | -12.9%                | -5.3%                 | 3.4%                  |
| Mariana                    | 8,933         | 9,923         | 9,838         | 36,635         | 38,996         | -0.9%                 | 10.1%                 | 6.4%                  |
| Minas Centrais             | 11,058        | 10,455        | 10,289        | 41,574         | 41,150         | -1.6%                 | -7.0%                 | -1.0%                 |
| <b>Midwestern System</b>   | <b>1,268</b>  | <b>1,642</b>  | <b>1,610</b>  | <b>4,208</b>   | <b>5,583</b>   | <b>-1.9%</b>          | <b>27.0%</b>          | <b>32.7%</b>          |
| Corumbá                    | 876           | 1,203         | 1,234         | 2,829          | 4,074          | 2.6%                  | 40.9%                 | 44.0%                 |
| Urucum                     | 392           | 439           | 376           | 1,379          | 1,509          | -14.3%                | -4.0%                 | 9.4%                  |
| <b>Southern System</b>     | <b>18,214</b> | <b>21,200</b> | <b>18,778</b> | <b>74,703</b>  | <b>76,253</b>  | <b>-11.4%</b>         | <b>3.1%</b>           | <b>2.1%</b>           |
| Minas Itabiritos           | 7,470         | 7,917         | 7,635         | 30,050         | 30,420         | -3.6%                 | 2.2%                  | 1.2%                  |
| Vargem Grande              | 5,127         | 6,168         | 5,015         | 22,065         | 21,425         | -18.7%                | -2.2%                 | -2.9%                 |
| Paraopebas                 | 5,617         | 7,115         | 6,128         | 22,587         | 24,408         | -13.9%                | 9.1%                  | 8.1%                  |
| <b>Northern System</b>     | <b>28,007</b> | <b>30,894</b> | <b>30,232</b> | <b>101,171</b> | <b>109,795</b> | <b>-2.1%</b>          | <b>7.9%</b>           | <b>8.5%</b>           |
| Carajás                    | 28,007        | 30,894        | 30,232        | 101,171        | 109,795        | -2.1%                 | 7.9%                  | 8.5%                  |
| <b>Samarco(1)</b>          | <b>2,746</b>  | <b>2,858</b>  | <b>2,689</b>  | <b>10,800</b>  | <b>10,847</b>  | <b>-5.9%</b>          | <b>-2.1%</b>          | <b>0.4%</b>           |

(1) Vale's attributable production of 50%.

Iron ore output, at 322.6 Mt, reached the highest level in our history, being 4.8% higher than previous record in 2010(1).

As expected due to the normal seasonality, production in 4Q11 was 82.9 Mt, 5.6% lower than the previous quarter. It was negatively impacted by the beginning of the rainy season which hit the Southeast region of Brazil where our Southern and Southeastern Systems are located. Output increased 3.3% year-on-year.

Carajás, a unique mining site given its size and quality, produced 109.8 Mt in 2011, a new record figure, 8.5% higher than in 2010. The conclusion of the ramp up of the Additional 20 Mtpa brownfield project, which started up in April 2010, and better productivity, were the sources of this outstanding performance. The Carajás share in Vale's total production rose to 34.0% in 2011 from 30.2% in 2007.

The Southeastern System, which encompasses the Itabira, Mariana and Minas Centrais mining sites, also had a good performance in 2011, producing 120.1 Mt, 2.8% higher than in 2010. While Carajás is our main source of quality, the Southeastern System remains number one in terms of volume, representing 37.2% of Vale's total production last year.

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Southeastern System production in 4Q11 was 29.6 Mt, 5.3% below 3Q11, due to seasonal factors.

The Southern System reached a production of 18.8 Mt, 11.4% lower than 3Q11. Production at Vargem Grande has decreased by 18.7% due to a scheduled stoppage for maintenance.

The Midwestern System, comprised of Urucum and Corumbá, produced 1.6 Mt in 4Q11, decreasing 1.9% on a quarter-on-quarter basis. Urucum's performance in the quarter was

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(1) 311.8 Mt on a US GAAP basis.

Table of Contents

negatively affected by problems with the main power substation and mining equipment.

Yearly production had a sharp rise, 32.7% over 2010, due to the output increase of the lump-rich Corumbá to 4.1 Mt from 2.8 Mt in 2010. Despite that, the share of lump ores in our total production was only 7.7%, remaining roughly to the average for the last 10 years.

- *Pellets*

| 000 metric tons  | 4Q10          | 3Q11          | 4Q11          | 2010          | 2011          | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|------------------|---------------|---------------|---------------|---------------|---------------|-----------------------|-----------------------|-----------------------|
| <b>PELLETS</b>   | <b>12,210</b> | <b>14,230</b> | <b>11,936</b> | <b>48,993</b> | <b>51,822</b> | <b>-16.1%</b>         | <b>-2.3%</b>          | <b>5.8%</b>           |
| Tubarão I and II | 1,189         | 1,561         | 1,393         | 5,435         | 5,730         | -10.8%                | 17.1%                 | 5.4%                  |
| Fábrica          | 1,016         | 1,033         | 971           | 3,809         | 3,943         | -5.9%                 | -4.4%                 | 3.5%                  |
| São Luís         | 1,154         | 1,328         | 1,046         | 4,545         | 5,060         | -21.2%                | -9.3%                 | 11.3%                 |
| Vargem Grande    | 1,061         | 970           | 504           | 5,174         | 4,071         | -48.0%                | -52.5%                | -21.3%                |
| Nibrasco         | 2,493         | 2,514         | 2,123         | 8,958         | 9,337         | -15.6%                | -14.8%                | 4.2%                  |
| Kobrasco         | 1,201         | 1,167         | 1,168         | 4,748         | 4,558         | 0.1%                  | -2.8%                 | -4.0%                 |
| Hispanobras(1)   | 493           | 559           | 423           | 1,948         | 2,068         | -24.3%                | -14.2%                | 6.1%                  |
| Itabrasco        | 769           | 1,102         | 974           | 3,621         | 4,231         | -11.6%                | 26.7%                 | 16.8%                 |
| Samarco(2)       | 2,833         | 2,841         | 2,726         | 10,754        | 10,726        | -4.1%                 | -3.8%                 | -0.3%                 |
| Oman             | 0             | 1,155         | 607           | 0             | 2,097         | -47.4%                | n.m.                  | n.m.                  |

(1) Vale's attributable production capacity of 50.89%.

(2) Vale's attributable production capacity of 50%.

In 2011, pellet production reached 51.8 Mt, an all-time high figure, surpassing by 5.8% the previous record reached in 2010. The start-up of the two Oman plants contributed 74% of the increase. Plant number two commenced operations in November, producing 282,000 t in 4Q11.

Total output of Oman was 2.1 Mt for the year and 607,000 t in 4Q11. Volume was lower than planned for the last quarter of 2011 as a consequence of a stoppage in line #1 of plant number one to adjust pellet quality parameters.

Due to temporarily weak global demand conditions, caused primarily by the recession in Europe, pellet production was reduced in 4Q11. We took the opportunity to perform maintenance in several plants: Tubarão I and II, the two Nibrasco plants, Hispanobras, Fábrica and São Luís.

Vargem Grande output dropped significantly in 4Q11, by 48%, on a quarter-on-quarter basis, due to operational issues with mills #1 and #2. The operations were normalized in the first half of January 2012.



The production attributable to the three Samarco pellet plants was 2.7 Mt in 4Q11, 4.1% lower quarter-on-quarter than 3Q11.

Table of Contents

- Manganese ore and ferroalloys*

| 000 metric tons      | 4Q10       | 3Q11       | 4Q11       | 2010         | 2011         | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|----------------------|------------|------------|------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| <b>MANGANESE ORE</b> | <b>477</b> | <b>681</b> | <b>757</b> | <b>1,841</b> | <b>2,556</b> | <b>11.1%</b>          | <b>58.7%</b>          | <b>38.9%</b>          |
| Azul                 | 391        | 535        | 628        | 1,550        | 2,065        | 17.3%                 | 60.6%                 | 33.2%                 |
| Urucum               | 41         | 88         | 80         | 184          | 302          | -9.1%                 | 94.5%                 | 63.6%                 |
| Other mines          | 46         | 59         | 50         | 106          | 189          | -15.1%                | 9.6%                  | 78.3%                 |
| <b>FERROALLOYS</b>   | <b>116</b> | <b>103</b> | <b>106</b> | <b>451</b>   | <b>436</b>   | <b>3.4%</b>           | <b>-8.6%</b>          | <b>-3.3%</b>          |
| Brazil               | 55         | 51         | 49         | 207          | 204          | -3.8%                 | -10.1%                | -1.3%                 |
| Dunkerque            | 36         | 27         | 30         | 138          | 131          | 9.9%                  | -16.7%                | -5.7%                 |
| Mo I Rana            | 26         | 24         | 27         | 106          | 101          | 11.4%                 | 5.8%                  | -4.2%                 |

In 2011, manganese ore production increased 38.9% over 2010, being the best annual performance since 2005. On a quarter-on-quarter basis, our output reached 757,000 t against 681,000 t in 3Q11.

In 4Q11, the output of the Carajás manganese mine Azul was 17.3% higher than the previous quarter, reaching 628,000 t. It was influenced by the higher ore grade feed and improvements in operational performance due to preventive maintenance in the previous quarter.

Urucum output decreased 9.1% on a quarter-on-quarter basis, due to the effects of the rainy season. On the other hand, our production almost doubled compared to 4Q10, as a result of the arrival of two new trucks and one loader used to transport mine output to the beneficiation plant, which started to operate at the end of 1Q11. It contributed to set a new level of production, increasing 63.6% on an annual basis.

Morro da Mina, which is part of the other mines, also suffered from heavy rainfalls; output was 15.1% lower than 3Q11. However, this performance was 9.6% higher than 4Q10 reflecting the increase in demand from ferroalloys plants.

Ferroalloy quarterly production was comprised of 52,100 t of FeSiMn, 48,800 t of FeMnHc and 5,100 t of medium-carbon manganese alloys (FeMnMC). Total output for 2011 was 436,000 t, slightly lower than the 2010 figure.

In 4Q11, Brazilian output of ferroalloys was slightly lower than 3Q11 due to preventive maintenance stoppage. Our French operations in Dunkerque improved production by 9.9% over the previous quarter, returning to full capacity after a non-scheduled stoppage for maintenance in the previous quarter. Additionally, the Norwegian operations of Mo I Rana were 11.4% higher on a quarterly basis, also reflecting the increased pace of production after operational maintenance.

Table of Contents*Coal*

| 000 metric tons           | 4Q10       | 3Q11         | 4Q11         | 2010         | 2011         | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|---------------------------|------------|--------------|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| <b>METALLURGICAL COAL</b> | <b>770</b> | <b>586</b>   | <b>1,174</b> | <b>3,059</b> | <b>2,766</b> | <b>100.5%</b>         | <b>52.5%</b>          | <b>-9.6%</b>          |
| Integra Coal              | 279        | 82           | 169          | 1,151        | 467          | 107.7%                | -39.3%                | -59.5%                |
| Broadlea                  | 0          | 0            | 0            | 101          | 0            | n.m.                  | n.m.                  | n.m.                  |
| Carborough Downs          | 367        | 277          | 514          | 1,216        | 1,390        | 85.7%                 | 40.1%                 | 14.3%                 |
| Moatize                   | 0          | 0            | 275          | 0            | 275          | n.m.                  | n.m.                  | n.m.                  |
| Others                    | 124        | 227          | 216          | 590          | 635          | -5.0%                 | 74.1%                 | 7.6%                  |
| <b>THERMAL COAL</b>       | <b>976</b> | <b>1,262</b> | <b>1,524</b> | <b>3,833</b> | <b>4,506</b> | <b>20.7%</b>          | <b>56.1%</b>          | <b>17.6%</b>          |
| El Hatillo                | 830        | 941          | 1,090        | 2,991        | 3,565        | 15.8%                 | 31.3%                 | 19.2%                 |
| Integra Coal              | 74         | 107          | 122          | 305          | 325          | 13.9%                 | 65.1%                 | 6.5%                  |
| Broadlea(1)               | 0          | 0            | 0            | 165          | 0            | n.m.                  | n.m.                  | n.m.                  |
| Moatize                   | 0          | 130          | 212          | 0            | 342          | 64.0%                 | n.m.                  | n.m.                  |
| Others                    | 72         | 84           | 99           | 371          | 274          | 18.3%                 | 37.8%                 | -26.1%                |

(1) Broadlea Coal is in care and maintenance since December 2009. The washing of the ROM stockpiles was finalized in June 2010.

Vale's coal production achieved a new record in 2011, 7.3 Mt, of which 2.8 Mt was metallurgical coal and 4.5 Mt thermal coal.

In 4Q11, coal output was 2.7 Mt, versus 1.8 Mt in the previous quarter, due to the good performance of our assets: metallurgical coal doubled quarterly production and thermal coal output increased 20.7% compared to 3Q11.

Production of metallurgical and thermal coal at Integra Coal, in Australia, was 169,000 t and 122,000 t, respectively, in 4Q11. The performance was a result of the resumption of longwall operations after the longwall move in 3Q11 as well as the ramp-up of the new mining pit at the western extension.

Carborough Downs, whose production is 100% metallurgical coal, increased its output in 4Q11 to 514,000 t from 277,000 t in 3Q11, an increase of 85.7%. The sharp rise is a consequence of good geological conditions where the longwall was mining during most of the quarter.

Moatize I, the first phase of the Moatize coal project, in Tete, Mozambique, came on stream last quarter and is ramping up production. In 4Q11, 275,000 t of metallurgical coal and 212,000 t of thermal coal were produced. Output composition will converge over time to be 80% met coal and 20% thermal. The flotation system operation was initiated allowing the production of metallurgical coal for the first time.

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El Hatillo, our Colombian thermal coal mine, reached a production of 1.1 Mt, 15.8% higher than 3Q11, in line with the ramp-up process to the 4.5 Mtpy nominal capacity.

Table of Contents**BASE METALS**

- *Nickel*

| 000 metric tons | 4Q10      | 3Q11      | 4Q11      | 2010       | 2011       | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|-----------------|-----------|-----------|-----------|------------|------------|-----------------------|-----------------------|-----------------------|
| <b>NICKEL</b>   | <b>65</b> | <b>58</b> | <b>69</b> | <b>179</b> | <b>242</b> | <b>18.2%</b>          | <b>5.7%</b>           | <b>35.1%</b>          |
| Sudbury         | 8         | 16        | 19        | 22         | 60         | 23.7%                 | 134.3%                | 166.6%                |
| Thompson        | 8         | 4         | 6         | 30         | 25         | 49.1%                 | -26.5%                | -16.1%                |
| Voisey Bay      | 25        | 16        | 21        | 42         | 69         | 32.5%                 | -16.0%                | 63.0%                 |
| Sorowako        | 20        | 16        | 15        | 78         | 68         | -4.9%                 | -22.5%                | -13.5%                |
| VNC             | 0         | 1         | 1         | 0          | 5          | -1.3%                 | n.m.                  | n.m.                  |
| Onça Puma       | 0         | 2         | 3         | 0          | 7          | 43.1%                 | n.m.                  | n.m.                  |
| Others*         | 3         | 2         | 2         | 6          | 8          | -25.0%                | -42.8%                | 37.2%                 |

\*External feed purchased from third parties and processed into finished nickel in our operations

Vale's finished nickel production was 242,000 t in 2011, showing a 35.1% year-on-year increase. It has recovered from the poor performance levels of 2009/2010 caused by the labor strikes - but was still well below its 2008 peak, at 275,000 t.

In 4Q11, nickel production was 69,500 t, 11,500 t higher than the previous quarter. This was primarily driven by the performance of the Sudbury operations, as they returned to normalcy after the problem with furnace #2 of the Copper Cliff smelter. The ramp-up process and replenishing of the production pipeline occurred throughout 3Q11 and the operation reached full capacity in 4Q11. Thus, the output from Sudbury, Thompson and Voisey's Bay increased 23.7%, 49.1% and 32.5%, respectively.

Finished nickel production sourced from Sorowako, Indonesia, was 15,200 t, down 4.9% from the previous quarter and 22.5% lower than 4Q10. The decrease was due to a leak of molten metal out of furnace #2 in 4Q11. An initial assessment revealed damage to control systems associated with furnace #1. Operation of furnace #1 will be resumed only this month. The estimated production loss is approximately 4,600 t, of which 3,300 t in 2011 and 1,300 t in 2012.

VNC produced 1,300 t of nickel in nickel hydroxide cake (NHC) in 4Q11, slightly below 3Q11. We continued to retain NHC to be used in tests that are being conducted throughout 1Q12.

During 4Q11 Onça Puma's line #1 continued to ramp-up and produced 3,300 t. Line #2 was commissioned in the quarter, producing the first matte in January 2012, an important milestone.



Table of Contents

- Copper*

| 000 metric tons | 4Q10      | 3Q11      | 4Q11      | 2010       | 2011       | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|-----------------|-----------|-----------|-----------|------------|------------|-----------------------|-----------------------|-----------------------|
| <b>COPPER</b>   | <b>76</b> | <b>84</b> | <b>85</b> | <b>207</b> | <b>302</b> | <b>0.7%</b>           | <b>12.5%</b>          | <b>45.7%</b>          |
| Sossego         | 30        | 31        | 32        | 117        | 109        | 5.6%                  | 8.3%                  | -6.9%                 |
| Sudbury         | 14        | 26        | 27        | 34         | 101        | 2.5%                  | 98.8%                 | 200.6%                |
| Thompson        | 1         | 1         | 0         | 1          | 1          | -94.9%                | n.m.                  | n.m.                  |
| Voisey's Bay    | 16        | 13        | 14        | 33         | 51         | 6.4%                  | -14.6%                | 54.0%                 |
| Tres Valles     | 0         | 2         | 3         | 0          | 9          | 37.8%                 | n.m.                  | n.m.                  |
| Others          | 15        | 11        | 8         | 22         | 31         | -26.3%                | -45.7%                | 38.5%                 |

In 2011, copper production increased 45.7% compared with 2010, reaching 302,000 t, the highest level after the peak of 312,000 t in 2008.

In 4Q11, production of copper in concentrates from the Sossego mine at Carajás increased 5.6% on a quarter-on-quarter basis and 8.3% year-on-year, mainly due to the higher grade of copper received by the processing plant.

Output from our Canadian operations reached 49,100 t in 4Q11, down 2,000 t from 3Q11, mainly due to the reduction of 3,000 t of copper in ore bought from small mines due to the normalization of operations in the Sudbury Basin.

Operations at Tres Valles, in Chile, continued to ramp-up to nominal capacity reaching 3,300 t of copper cathodes in 4Q11. Tres Valles is our first SX-EW operation.

Table of Contents

- Nickel by-products*

|                                | 4Q10       | 3Q11       | 4Q11       | 2010         | 2011         | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|--------------------------------|------------|------------|------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| <b>COBALT (metric tons)</b>    | <b>624</b> | <b>667</b> | <b>787</b> | <b>1,066</b> | <b>2,675</b> | <b>17.9%</b>          | <b>26.1%</b>          | <b>151.0%</b>         |
| Sudbury                        | 258        | 248        | 247        | 302          | 593          | -0.3%                 | -4.1%                 | 96.3%                 |
| Thompson                       | 30         | 34         | 31         | 189          | 158          | -8.7%                 | 4.9%                  | -16.1%                |
| Voisey Bay                     | 288        | 300        | 448        | 524          | 1,585        | 49.3%                 | 55.3%                 | 202.7%                |
| VNC                            | 0          | 58         | 51         | 0            | 245          | -12.4%                | n.m.                  | n.m.                  |
| Others                         | 48         | 27         | 10         | 51           | 93           | -64.0%                | -79.8%                | 82.2%                 |
| <b>PLATINUM (000 oz troy)</b>  | <b>26</b>  | <b>25</b>  | <b>41</b>  | <b>35</b>    | <b>174</b>   | <b>61.8%</b>          | <b>59.7%</b>          | <b>392.7%</b>         |
| Sudbury                        | 26         | 25         | 41         | 35           | 174          | 61.8%                 | 59.7%                 | 392.7%                |
| <b>PALLADIUM (000 oz troy)</b> | <b>35</b>  | <b>40</b>  | <b>64</b>  | <b>60</b>    | <b>248</b>   | <b>61.3%</b>          | <b>83.1%</b>          | <b>312.0%</b>         |
| Sudbury                        | 35         | 40         | 64         | 60           | 248          | 61.3%                 | 83.1%                 | 312.0%                |
| <b>GOLD (000 oz troy)</b>      | <b>27</b>  | <b>23</b>  | <b>34</b>  | <b>42</b>    | <b>182</b>   | <b>44.9%</b>          | <b>25.4%</b>          | <b>337.5%</b>         |
| Sudbury                        | 27         | 23         | 34         | 42           | 182          | 44.9%                 | 25.4%                 | 337.5%                |
| <b>SILVER (000 oz troy)</b>    | <b>443</b> | <b>572</b> | <b>683</b> | <b>1,492</b> | <b>2,535</b> | <b>19.3%</b>          | <b>54.1%</b>          | <b>69.9%</b>          |
| Sudbury                        | 443        | 572        | 683        | 1,492        | 2,535        | 19.3%                 | 54.1%                 | 69.9%                 |

Cobalt production in 4Q11 amounted to 787,000 t, up 120,000 t from 3Q11, and continued to be positively impacted by the return to normalcy of the Sudbury operations.

In 4Q11, production of platinum and palladium was 105,000 troy ounces, 40,000 troy ounces higher than 3Q11 and 44,000 troy ounces higher than the same quarter last year, also reflecting the strong asset performance at Sudbury.



Table of Contents**FERTILIZER NUTRIENTS**• *Potash*

| 000 metric tons   | 4Q10       | 3Q11       | 4Q11       | 2010       | 2011       | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|-------------------|------------|------------|------------|------------|------------|-----------------------|-----------------------|-----------------------|
| <b>POTASH</b>     | <b>169</b> | <b>166</b> | <b>180</b> | <b>662</b> | <b>625</b> | <b>8.3%</b>           | <b>6.6%</b>           | <b>-5.5%</b>          |
| Taquari-Vassouras | 169        | 166        | 180        | 662        | 625        | 8.3%                  | 6.6%                  | -5.5%                 |

Production of the Taquari-Vassouras potash operation in 2011 625,000 t - remained well below the all-time high figure reached in 2009 717,000 t, reflecting the impact of low-grade ores, a phenomenon caused by the ageing of the mine.

In 4Q11 production was 180,000 t, 8.3% quarter-on-quarter higher and 6.6% year-on-year higher due to an improvement in grades.

• *Phosphates*

| 000 metric tons                     | 4Q10         | 3Q11         | 4Q11         | 2010         | 2011         | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| <b>Phosphate Rock</b>               | <b>1,785</b> | <b>1,925</b> | <b>1,833</b> | <b>5,256</b> | <b>7,359</b> | <b>-4.8%</b>          | <b>2.7%</b>           | <b>40.0%</b>          |
| Vale Fertilizantes                  | 1,202        | 1,274        | 1,120        | 4,464        | 4,815        | -12.0%                | -6.8%                 | 7.8%                  |
| Bayóvar                             | 582          | 651          | 713          | 791          | 2,544        | 9.5%                  | n.m.                  | n.m.                  |
| <b>MAP - Monoammonium phosphate</b> | <b>245</b>   | <b>217</b>   | <b>266</b>   | <b>898</b>   | <b>823</b>   | <b>22.6%</b>          | <b>8.4%</b>           | <b>-8.3%</b>          |
| Vale Fertilizantes                  | 245          | 217          | 266          | 898          | 823          | 22.6%                 | 8.4%                  | -8.3%                 |
| <b>TSP - Triple superphosphate</b>  | <b>162</b>   | <b>199</b>   | <b>205</b>   | <b>788</b>   | <b>811</b>   | <b>3.0%</b>           | <b>26.6%</b>          | <b>3.0%</b>           |
| Vale Fertilizantes                  | 162          | 199          | 205          | 788          | 811          | 3.0%                  | 26.6%                 | 3.0%                  |
| <b>SSP -Single superphosphate</b>   | <b>525</b>   | <b>777</b>   | <b>649</b>   | <b>2,147</b> | <b>2,638</b> | <b>-16.4%</b>         | <b>23.7%</b>          | <b>22.9%</b>          |
| Vale Fertilizantes                  | 525          | 692          | 620          | 2,147        | 2,419        | -10.3%                | 18.2%                 | 12.6%                 |
| Others                              | 0            | 85           | 29           | 0            | 219          | -65.7%                | n.m.                  | n.m.                  |
| <b>DCP Dicalcium Phosphate</b>      | <b>101</b>   | <b>154</b>   | <b>111</b>   | <b>491</b>   | <b>261</b>   | <b>-28.2%</b>         | <b>9.5%</b>           | <b>-46.8%</b>         |
| Vale Fertilizantes                  | 101          | 154          | 111          | 491          | 261          | -28.2%                | 9.5%                  | -46.8%                |

In February 2011, Vale Fosfatados was incorporated into Vale Fertilizantes. The following assets are now part of Vale Fertilizantes: two phosphate rock mines, at Araxá, in the state of Minas Gerais, and Cajati, in the state of São Paulo, Brazil. Alongside the mining operations, the

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assets also comprise 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; (d) Guará, state of São Paulo.

Phosphate rock, which is used to feed the production of phosphate nutrients, reached an output of 7.3 Mt, which was 40.0% higher than the 5.3 Mt (on a pro-forma basis) for 2010.

In 4Q11, total production of phosphate rock was 4.8% lower than the previous quarter. Vale Fertilizantes output decreased 12% on a quarterly

Table of Contents

basis due to a non-scheduled stoppage for maintenance. The decrease was partially offset by production from Bayóvar, which increased 9.5% over 3Q11.

Bayóvar has been ramping up well, with its output running at 2.8 Mt on an annualized basis.

The production of MAP (monoammonium phosphate) amounted to 266,000 t, up 22.6% on a quarter-on-quarter basis, recovering from maintenance stoppages in 3Q11.

TSP (Triple superphosphate) production was 3% higher than 3Q11. In 2011, we managed to produce 811,000 t of TSP.

In 4Q11, the production of SSP (single superphosphate) was 16.4% lower than 3Q11, as a result of a scheduled stoppage for maintenance at Vale Fertilizantes and the shutting down process at the Vale Cubatão plant.

DCP (dicalcium phosphate) production was 28.2% lower than 3Q11 due to the annual stoppage for maintenance during November and December.

- Nitrogen*

| 000 metric tons         | 4Q10       | 3Q11       | 4Q11       | 2010       | 2011       | % Change<br>4Q11/3Q11 | % Change<br>4Q11/4Q10 | % Change<br>2011/2010 |
|-------------------------|------------|------------|------------|------------|------------|-----------------------|-----------------------|-----------------------|
| <b>Ammonia</b>          | <b>140</b> | <b>138</b> | <b>157</b> | <b>508</b> | <b>619</b> | <b>13.6%</b>          | <b>12.3%</b>          | <b>22.0%</b>          |
| Vale Fertilizantes      | 140        | 138        | 157        | 508        | 619        | 13.6%                 | 12.3%                 | 22.0%                 |
| <b>Urea</b>             | <b>146</b> | <b>134</b> | <b>159</b> | <b>511</b> | <b>628</b> | <b>18.8%</b>          | <b>8.7%</b>           | <b>22.7%</b>          |
| Vale Fertilizantes      | 146        | 134        | 159        | 511        | 628        | 18.8%                 | 8.7%                  | 22.7%                 |
| <b>Nitric Acid</b>      | <b>120</b> | <b>117</b> | <b>122</b> | <b>454</b> | <b>468</b> | <b>4.2%</b>           | <b>1.7%</b>           | <b>3.1%</b>           |
| Vale Fertilizantes      | 120        | 117        | 122        | 454        | 468        | 4.2%                  | 1.7%                  | 3.1%                  |
| <b>Ammonium Nitrate</b> | <b>115</b> | <b>114</b> | <b>127</b> | <b>447</b> | <b>458</b> | <b>11.8%</b>          | <b>10.6%</b>          | <b>2.5%</b>           |
| Vale Fertilizantes      | 115        | 114        | 127        | 447        | 458        | 11.8%                 | 10.6%                 | 2.5%                  |

In 4Q11, ammonia and urea production increased 13.6% and 18.8%, respectively, when compared to 3Q11, due to the recovery from non-scheduled stoppage for maintenance at the ammonia plant, which consequently affects urea production.

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The output of nitric acid and ammonium nitrate was 4.2% and 11.8% higher, respectively, than the previous quarter due to increased demand.

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Table of Contents

**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Vale S.A.  
(Registrant)

Date: February 15, 2012

By: /s/ Roberto Castello Branco  
Roberto Castello Branco  
Director of Investor Relations