

Vale S.A.  
Form 6-K  
April 25, 2013  
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**

**April 2013**

**Vale S.A.**

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

(Address of principal executive office)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

Edgar Filing: Vale S.A. - Form 6-K

(Check One) Form 20-F  Form 40-F

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes  No

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7))

(Check One) Yes  No

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes  No

(If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b). 82- .)

---

Table of Contents

Table of Contents:

Press Release  
Signature Page

---

Table of Contents

**CONTINUING THE TURNAROUND**

**Costs and expenses as a major source of improvement**

VALE S PERFORMANCE IN 1Q13

Rio de Janeiro, April 24, 2013 – Vale S.A. (Vale) had a solid financial performance in the first quarter of 2013 (1Q13), showing sequential increases in operating income, operating margin, earnings and cash generation.

Operating income, at US\$ 4.2 billion, was 41.4% higher than in 4Q12, while operating margin surged to 38.0%, 1,400 basis points higher. Underlying earnings were US\$ 3.2 billion, US\$ 1.2 billion above last quarter.

Cash generation, measured by adjusted EBITDA, was 18.1% higher, reaching US\$ 5.2 billion. It was second only to the figure for a 1Q in 2011, when iron ore, nickel and copper prices peaked on the back of the sharp recovery from the Great Recession of 2008-2009. It is worthwhile to notice that out of the US\$ 1.9 billion cash received in 1Q13 as part of the gold streaming transaction – which has unlocked substantial value hidden in our base metals assets – only US\$ 244 million was accrued as adjusted EBITDA due to accounting rules.

The quality of our financial performance is highlighted by the fact that cost and expenses were an important source of improvement, for the first time in many years. Operating costs as well as SG&A and other expenses were meaningfully reduced as an outcome of several initiatives being implemented. It is not an one-off event and we remain strongly committed to pursue further significant decreases in operating costs, SG&A and other expenses.

Despite the progress achieved, there is still a long road towards the transformation of the cost structure to guarantee shareholder value creation through the cycles, mitigating the influence of price gyrations.

The base metals operations are being revamped. Operating margins and cash generation have improved and the three projects in ramp-up – VNC, Salobo and Lubambe – are running as planned. The ramp-up of Salobo and VNC is reflected on the significant reduction of pre-operating and idle capacity expenses. Moreover, the first review of VNC in 2013 leaves us confident in its feasibility.

## Edgar Filing: Vale S.A. - Form 6-K

As previously reported, 1Q13 was marked by a strong operational performance of the base metals assets, with copper and cobalt posting record production and nickel presenting its best first quarter since 2009.

Even in face of an output fall, we managed to maintain shipments of iron ore slightly above the level of 1Q12, employing our distribution network to use inventories to continue to maximize our exposure to the price recovery.

*IFRS - USD*

*1Q13*

Table of Contents

Realized iron ore prices have risen, but the increase was smoothed due to materially lower prices on contracts priced referencing price indices average for the past quarter with a one month lag.

Capital and R&D expenditures were US\$ 4.0 billion, 8.4% higher than 1Q12 and in line with the US\$ 16.3 billion budgeted for this year. R&D expenditures continued to drop, reflecting discipline in capital allocation, a key strategic priority.

A new milestone in the expansion of Carajás iron ore operations was attained with the environmental license to operate the port facilities of the CLN 150, which was structured to expand logistics capacity to 150 Mtpy of iron ore.

On April 30, the first tranche of the minimum dividend announced in January will be paid. This amounts to US\$ 2.25 billion, equivalent to US\$ 0.4366 per share.

Financial highlights in 1Q13:

- Operating revenues totaled US\$ 11.2 billion, decreasing 10.7% over 4Q12. The reduction was primarily due to the effect of lower volumes.
- Income from existing operations, as measured by adjusted EBIT(a) (earnings before interest and taxes), was US\$ 4.2 billion, rising from an adjusted EBIT - excluding the effects of non-cash non-recurring items - of US\$ 2.9 billion in 4Q12 and US\$ 3.9 billion in 1Q12.
- Operating income margin of 38.0%, as measured by adjusted EBIT margin.
- Underlying earnings in 1Q13 were US\$ 3.2 billion, equal to US\$ 0.62 per share on a fully diluted basis, against US\$ 2.0 billion in 4Q12, net of the accounting effects of non-cash non-recurring items and US\$ 3.6 billion in 1Q12. Higher tax payments and lower monetary and exchange variations are the main reasons for the yearly decrease in underlying earnings, more than offsetting the higher adjusted EBIT.
- Cash generation, as measured by adjusted EBITDA(b) (earnings before interest, taxes, depreciation and amortization) excluding the effects of non-cash non-recurring items - of US\$ 5.2 billion, 18.2% above 4Q12.
- Capex excluding acquisitions in 1Q13 equaled to US\$ 4.0 billion, 8.4% higher than 1Q12.

## Edgar Filing: Vale S.A. - Form 6-K

- Investments in corporate social responsibility reached US\$ 210 million, US\$ 163 million of which was destined to environmental protection and conservation and US\$ 47 million to social projects.
- Maintenance of a strong balance sheet, with low debt leverage, measured by total debt/LTM adjusted EBITDA, equal to 1.6x, long average maturity, 10.0 years, and low average cost, 4.6% per year as of March 31, 2013.

Table of Contents

1Q13

**Table 1 - SELECTED FINANCIAL INDICATORS**

US\$ million	1Q13 (A)	4Q12 (B)	1Q12 (C)	% (A/B)	% (A/C)
Operating revenues	11,201	12,537	11,837	(10.7)	(5.4)
Adjusted EBIT(1)	4,156	2,940	3,893	41.4	6.8
Adjusted EBIT margin(1) (%)	38.0	24.0	33.7		
Adjusted EBITDA(1)	5,202	4,403	4,966	18.2	4.8
Underlying earnings	3,199	1,952	3,559	63.9	(10.1)
Underlying earnings per share on a fully diluted basis (US\$ / share)	0.62	0.38	0.69	63.9	(9.9)
Total debt/ adjusted LTM EBITDA(1) (x)	1.6	1.6	0.8	(2.4)	94.0
ROIC (%)	21.4	21.4	33.6		
Capital and R&D expenditures (excluding acquisitions)	3,987	5,476	3,677	(27.2)	8.4

---

(1) Excluding non-recurring and non-cash items

Except where otherwise indicated the operational and financial information in this release is based on the consolidated figures in accordance with IFRS and, with the exception of information on investments and behavior of markets, quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Compañía Minera Miski Mayo S.A.C., Ferrovia Centro-Atlântica S.A.(FCA), Ferrovia Norte Sul S.A, Mineração Corumbaense Reunida S.A., PT Vale Indonesia Tbk (formerly International Nickel Indonesia Tbk), Sociedad Contractual Minera Tres Valles, Vale Australia Pty Ltd., Vale International Holdings GMBH, Vale Canada Limited (formerly Vale Inco Limited), Vale Fertilizantes S.A., Vale International S.A., Vale Manganês S.A., Vale Mina do Azul S.A., Vale Moçambique S.A., Vale Nouvelle-Calédonie SAS, Vale Oman Pelletizing Company LLC and Vale Shipping Holding PTE Ltd..



Table of Contents

INDEX

<b><u>CONTINUING THE TURNAROUND</u></b>	<b>1</b>
<u>Table 1 - SELECTED FINANCIAL INDICATORS</u>	3
<b><u>OPERATING REVENUES</u></b>	<b>5</b>
<u>Table 2 - OPERATING REVENUE BREAKDOWN</u>	5
<u>Table 3 - OPERATING REVENUE BY DESTINATION</u>	6
<b><u>COSTS AND EXPENSES</u></b>	<b>6</b>
<u>Table 4 - COGS AND EXPENSES BREAKDOWN</u>	8
<b><u>NET EARNINGS</u></b>	<b>9</b>
<b><u>OPERATING INCOME AND CASH GENERATION</u></b>	<b>9</b>
<u>Table 5 - QUARTERLY ADJUSTED EBITDA</u>	10
<u>Table 6 - ADJUSTED EBITDA BY BUSINESS AREA</u>	10
<b><u>CAPITAL AND R&amp;D EXPENDITURES</u></b>	<b>10</b>
<u>Table 7 - CAPITAL AND R&amp;D EXPENDITURES BY CATEGORY</u>	11
<u>Table 8 - CAPITAL AND R&amp;D EXPENDITURES BY BUSINESS AREA</u>	11
<b><u>DEBT INDICATORS</u></b>	<b>16</b>
<u>Table 9 - DEBT INDICATORS</u>	16
<b><u>PERFORMANCE OF THE BUSINESS SEGMENTS</u></b>	<b>17</b>
<u>Table 10 - FERROUS MINERALS</u>	19
<u>Table 11 - COAL</u>	20
<u>Table 12 - BULK MATERIALS</u>	20
<u>Table 13 - BASE METALS</u>	23
<u>Table 14 - FERTILIZER NUTRIENTS</u>	24
<u>Table 15 - LOGISTICS SERVICES</u>	25
<b><u>FINANCIAL INDICATORS OF NON-CONSOLIDATED COMPANIES</u></b>	<b>26</b>
<b><u>CONFERENCE CALL AND WEBCAST</u></b>	<b>26</b>
<b><u>BOX - Transition to IFRS RECONCILIATION WITH USGAAP</u></b>	<b>27</b>
<b><u>ANNEX 1 - FINANCIAL STATEMENTS</u></b>	<b>28</b>
<u>Table 16 - INCOME STATEMENTS</u>	28
<u>Table 17 - FINANCIAL RESULT</u>	28
<u>Table 18 - EQUITY INCOME BY BUSINESS SEGMENT</u>	28
<u>Table 19 - BALANCE SHEET</u>	29
<u>Table 20 - CASH FLOW</u>	30
<b><u>ANNEX 2 - VOLUMES SOLD, PRICES, MARGINS AND CASH FLOWS</u></b>	<b>31</b>
<u>Table 21 - VOLUMES SOLD: MINERALS AND METALS</u>	31
<u>Table 22 - AVERAGE SALE PRICES</u>	31
<u>Table 23 - OPERATING MARGINS BY SEGMENT</u>	32
<b><u>ANNEX 3 - RECONCILIATION OF IFRS and NON-GAAP INFORMATION</u></b>	<b>33</b>

Table of Contents

OPERATING REVENUES

Operating revenues totaled US\$ 11.201 billion, decreasing 10.7% over 4Q12. The reduction was primarily due to seasonally lower shipments (US\$ 2.259 billion), driven mostly by iron ore (US\$ 1.913 billion), pellets (US\$ 171 million) and fertilizers (US\$ 146 million). Higher prices contributed to offset part of this effect, with US\$ 923 million, of which iron ore contributed with US\$ 692 million and pellets with US\$233 million.

As disclosed in the 4Q12 financial performance report, operating revenues are no longer net of maritime freight costs, and data for past quarters were adjusted to allow for a same basis comparison.

The gold streaming transaction, announced in February 2013, in which we sold a portion of future flows of payable gold, produced as a by-product at Sudbury and Salobo mines generated a cash inflow of US\$ 1.9 billion. Although it was an effective contribution to our cash flow, pursuant to the accounting rules it was not recorded as revenue in 1Q13.

For accounting purposes, the cash inflow was classified into two components. The first is accounted as the sale of mining rights for US\$ 581million, of which US\$ 337 million was deducted from the book value of the mining rights and US\$ 244 million reduced other operational expenses. The remaining US\$ 1.319 billion is accounted as deferred revenue to be accrued in our income statement when the actual gold delivery takes place.

The share of bulk materials iron ore, pellets, manganese ore, ferroalloys, metallurgical and thermal coal in operating revenues fell to 71.6% from 73.1% in 4Q12. Given the good operational performance, base metals were responsible for a larger share of total revenues, 16.4% against 14.4% in 4Q12. Fertilizers lost some ground, declining to 6.9% of operating revenues from 7.4% in 4Q12. Logistics services contributed with 3.2% of total revenues and other products 1.9%.

Shipments to Asia represented 51.3% of total revenues in 1Q13, dropping from the 58.6% figure of 4Q12, but only slightly below the 53.3% in 1Q12. The share of the Americas increased to 26.1% from 22.3% in 4Q12. Europe returned to normal levels with 18.5% against 15.3% in the previous quarter, due to the increase of sales to France and Italy. Revenues from shipments to the Middle East were 3.1% and the rest of the world contributed with 1.1%.

On a country basis, the share of sales to China amounted to 39.7% of total revenues in 1Q13, Brazil 18.7%, Germany 6.1%, Japan 4.4%, South Korea 3.2% and the United States, 2.8%.

**Table 2 - OPERATING REVENUE BY BUSINESS AREAS**

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	1Q13	%	4Q12	%	1Q12	%
<b>Bulk materials</b>	<b>8,018</b>	<b>71.6</b>	<b>9,160</b>	<b>73.1</b>	<b>8,738</b>	<b>73.8</b>
<b>Ferrous minerals</b>	<b>7,807</b>	<b>69.7</b>	<b>8,958</b>	<b>71.5</b>	<b>8,349</b>	<b>70.5</b>
Iron ore	6,219	55.5	7,441	59.3	6,470	54.7
Pellets	1,458	13.0	1,396	11.1	1,702	14.4
Manganese ore	64	0.6	72	0.6	42	0.4
Ferroalloys	66	0.6	50	0.4	124	1.0
Pellet plant operation services					10	0.1
<b>Coal</b>	<b>211</b>	<b>1.9</b>	<b>202</b>	<b>1.6</b>	<b>389</b>	<b>3.3</b>
Thermal coal	6	0.1	21	0.2	137	1.2
Metallurgical coal	206	1.8	181	1.4	251	2.1
<b>Base metals</b>	<b>1,842</b>	<b>16.4</b>	<b>1,811</b>	<b>14.4</b>	<b>1,775</b>	<b>15.0</b>
Nickel	1,084	9.7	1,015	8.1	1,103	9.3
Copper	514	4.6	593	4.7	467	3.9
PGMs	125	1.1	75	0.6	105	0.9
Gold	77	0.7	90	0.7	63	0.5
Silver	11	0.1	14	0.1	20	0.2
Cobalt	18	0.2	11	0.1	17	0.1
Others	14	0.1	13	0.1		
<b>Fertilizer nutrients</b>	<b>769</b>	<b>6.9</b>	<b>930</b>	<b>7.4</b>	<b>829</b>	<b>7.0</b>
Potash	57	0.5	79	0.6	70	0.6
Phosphates	496	4.4	622	5.0	548	4.6
Nitrogen	196	1.8	208	1.7	192	1.6
Others	20	0.2	21	0.2	19	0.2
<b>Logistics services</b>	<b>361</b>	<b>3.2</b>	<b>384</b>	<b>3.1</b>	<b>403</b>	<b>3.4</b>
Railroads	271	2.4	268	2.1	265	2.2
Ports	90	0.8	116	0.9	138	1.2
<b>Others</b>	<b>211</b>	<b>1.9</b>	<b>252</b>	<b>2.0</b>	<b>92</b>	<b>0.8</b>
<b>Total</b>	<b>11,201</b>	<b>100.0</b>	<b>12,537</b>	<b>100.0</b>	<b>11,837</b>	<b>100.0</b>

Table of Contents**Table 3 - OPERATING REVENUE BY DESTINATION**

US\$ million	1Q13	%	4Q12	%	1Q12	%
<b>North America</b>	<b>631</b>	<b>5.6</b>	<b>547</b>	<b>4.4</b>	<b>678</b>	<b>5.7</b>
USA	316	2.8	277	2.2	408	3.4
Canada	310	2.8	256	2.0	265	2.2
Mexico	5		13	0.1	5	
<b>South America</b>	<b>2,290</b>	<b>20.4</b>	<b>2,246</b>	<b>17.9</b>	<b>2,580</b>	<b>21.8</b>
Brazil	2,100	18.7	2,113	16.9	2,351	19.9
Others	191	1.7	133	1.1	228	1.9
<b>Asia</b>	<b>5,746</b>	<b>51.3</b>	<b>7,349</b>	<b>58.6</b>	<b>6,312</b>	<b>53.3</b>
China	4,442	39.7	5,411	43.2	4,034	34.1
Japan	498	4.4	1,010	8.1	1,335	11.3
South Korea	358	3.2	458	3.7	532	4.5
Taiwan	282	2.5	177	1.4	171	1.4
Others	166	1.5	293	2.3	240	2.0
<b>Europe</b>	<b>2,067</b>	<b>18.5</b>	<b>1,921</b>	<b>15.3</b>	<b>1,894</b>	<b>16.0</b>
Germany	681	6.1	826	6.6	677	5.7
France	309	2.8	202	1.6	105	0.9
Netherlands	102	0.9	126	1.0	115	1.0
UK	200	1.8	244	1.9	237	2.0
Italy	283	2.5	204	1.6	315	2.7
Turkey	62	0.6	48	0.4	66	0.6
Spain	81	0.7	66	0.5	106	0.9
Others	349	3.1	206	1.6	272	2.3
<b>Middle East</b>	<b>343</b>	<b>3.1</b>	<b>329</b>	<b>2.6</b>	<b>281</b>	<b>2.4</b>
<b>Rest of the World</b>	<b>123</b>	<b>1.1</b>	<b>145</b>	<b>1.2</b>	<b>93</b>	<b>0.8</b>
<b>Total</b>	<b>11,201</b>	<b>100.0</b>	<b>12,537</b>	<b>100.0</b>	<b>11,837</b>	<b>100.0</b>

## COSTS AND EXPENSES

Costs and expenses performed well in the quarter, being an important source of improvement to our financial performance. Compared to the first and last quarters of 2012, costs and expenses showed a material contraction, with savings of, respectively, US\$ 880 million and US\$ 2.539 billion.

Cost of goods sold (COGS) was US\$ 5.720 billion, with a reduction of US\$ 1.283 billion vis-à-vis 4Q12 and US\$ 425 million against 1Q12. After adjusting for the effects of changes in volumes (-US\$ 1.097 billion), currency prices (US\$ 138 million)(1), COGS were down US\$ 324 million when compared to 4Q12.

As stated previously, maritime freight costs are fully accrued as costs of goods sold. They reached US\$ 603 million, falling sharply in relation to the US\$ 922 million in 4Q12.

Edgar Filing: Vale S.A. - Form 6-K

(1) COGS currency exposure in 1Q13 was made up as follows: 54% Brazilian reais, 25% US dollar, 16% Canadian dollars, 3% Australian dollars and 2% other currencies

Table of Contents

Most of the cost items were reduced, and outsourced services, which is the largest one, was US\$ 868 million, declining US\$ 228 million in relation to 1Q12.

SG&A expenses fell by 29.3% on a year-on-year basis, saving US\$ 155 million. When compared to 4Q12, SG&A expenses diminished US\$ 203 million. Research and development (R&D) expenditures(2) were also curtailed, totaling US\$ 176 million, against US\$ 299 million in 1Q12 and US\$ 460 million in 4Q12.

The results achieved so far arise from several initiatives underway aimed at reducing our cost structure on a permanent basis. A first group of cost cutting is made possible by the optimization of scope in our activities – less projects, fewer initiatives, less geographic presence – which allow us the rationalization of corporate and operational support activities. A second group comes from the focus on value and quality over growth and speed. These include changes in procurement which are expected to deliver material opex and capex reductions, a deep reassessment of contracts with service suppliers, development of new suppliers, changes in processes and the idling of loss making operations, among others. Finally, discretionary expenses are also being trimmed across the board.

The opening of new iron ore mining pits, replacing older ones, jointly with the Carajás expansion will help operating costs to drop to a much lower level. This wave of cost reductions is yet to come and so far has not had meaningful impact on the results achieved.

The analysis of individual cost items are net of the effects of volumes and exchange rates changes as well as those of extraordinary events, with the exception of personnel and freight costs.

Cost of materials – 16.8% of COGS – was US\$ 959 million, down 3.6% against 4Q12. After adjusting for volumes and exchange rate variations, there was a net increase of US\$ 90 million, as a consequence of higher costs with materials for the iron ore and phosphates operations, at US\$ 43 million and US\$ 30 million, respectively. We usually schedule preventive maintenance in the first quarter in order to take advantage of the seasonally slower operational activity, adding pressures to costs with materials and outsourced services.

The cost of purchasing products from third parties amounted to US\$ 284 million – 5.0% of COGS – against US\$ 334 million in 4Q12 and US\$ 398 million in 1Q12. Purchases of iron ore were 1.8 Mt, the same quantity as 1Q12

We bought 1,300 t of finished and intermediary nickel against 1,700 t in 1Q12 and 7,800 t of copper, 7,900 in 1Q12. The costs of purchases of other products were US\$ 100 million in 1Q13. These include mostly precious metals to be processed at the Acton refinery to fill idle capacity.

Other operational costs reached US\$ 590 million against US\$ 772 million in 4Q12. The US\$ 182 million decrease was mainly due to a lower provision for profit sharing for our employees (US\$ 105 million). The State Mineral Resources Tax (TFRM) was US\$ 50 million in 1Q13, a reduction of US\$ 15 million vis-à-vis 4Q12. CFEM decreased US\$ 4 million, amounting to US\$ 105 million in 1Q13.

## Edgar Filing: Vale S.A. - Form 6-K

Pre-operating, stoppage and idle capacity expenses<sup>(3)</sup> declined to US\$ 375 million from US\$ 586 million in 4Q12.

Pre-operating expenses were US\$ 126 million in 1Q13 against US\$ 191 million in 4Q12. Once projects ramp up and revenues start to cover costs, pre-operating expenses will be shifted to costs of goods sold. For instance, given the advances in the ramp-up of Salobo, pre-operating expenses fell sharply to US\$ 2 million from US\$ 99 million in 4Q12.

On the other hand, expenses of new projects which are coming on stream in the near future are recorded as pre-operating expenses. This is the case of Long Harbour (US\$ 58 million), Conceição Itabiritos (US\$ 9 million), CLN 150 (US\$ 8 million), Moatize II (US\$ 5 million), Additional 40 Mtpy (US\$ 4 million) and others (US\$ 43 million).

Idle capacity expenses amounted to US\$ 180 million, decreasing US\$ 52 million when compared to 4Q12. The ramp-up of VNC is contributing to reduce these expenses as it accounted for US\$ 142 million in 1Q13 against US\$ 191 million in 4Q12 and US\$ 212 million in 1Q12.

---

(2) This is an accounting figure. In the investment section of this press release we disclose the amount of US\$ 268 million for research and development, computed in accordance with the financial disbursement in 1Q13.

(3) Including depreciation.

Table of Contents

Stoppage expenses reached US\$ 68 million in 1Q13, due to the pellet plants (US\$ 39 million) and Onça Puma (US\$ 29 million).

Pre-operating, idle capacity and stoppage expenses amounted to US\$ 1.592 billion in 2012. We expect them to be much lower in 2013, given the ramp-ups of Salobo and VNC, which contributed last year with US\$ 894 million to these expenses.

Other operating expenses plunged by 80.6%, to US\$ 134 million in 1Q13 from US\$ 692 million in 4Q12. The most meaningful cuts came from profit sharing (US\$ 114 million), tax provisions (US\$ 120 million) and others (US\$128 million). There was a US\$ 244 million reduction deriving from the recording of the gold streaming transaction, a one-off effect, as explained in the last section, Revenues.

**Table 4 - COGS AND EXPENSES****COGS**

US\$ million	1Q13	%	4Q12	%	1Q12	%
<b>Outsourced services</b>	<b>868</b>	<b>15.2</b>	<b>1,153</b>	<b>16.5</b>	<b>1,096</b>	<b>17.8</b>
Cargo freight	248	4.3	294	4.2	278	4.5
Maintenance of equipment and facilities	163	2.8	179	2.6	196	3.2
Operational Services	134	2.3	296	4.2	215	3.5
Others	323	5.7	385	5.5	407	6.6
<b>Material</b>	<b>959</b>	<b>16.8</b>	<b>995</b>	<b>14.2</b>	<b>1,014</b>	<b>16.5</b>
Spare parts and maintenance equipment	279	4.9	301	4.3	365	5.9
Inputs	448	7.8	514	7.3	442	7.2
Tires and conveyor belts	134	2.3	59	0.8	60	1.0
Others	98	1.7	121	1.7	147	2.4
<b>Energy</b>	<b>621</b>	<b>10.9</b>	<b>749</b>	<b>10.7</b>	<b>701</b>	<b>11.4</b>
Fuel and gases	461	8.1	530	7.6	483	7.9
Electric energy	160	2.8	218	3.1	217	3.5
<b>Acquisition of products</b>	<b>284</b>	<b>5.0</b>	<b>334</b>	<b>4.8</b>	<b>398</b>	<b>6.5</b>
Iron ore and pellets	66	1.2	115	1.6	228	3.7
Nickel products	118	2.1	70	1.0	93	1.5
Other products	100	1.7	148	2.1	77	1.3
<b>Personnel</b>	<b>786</b>	<b>13.7</b>	<b>923</b>	<b>13.2</b>	<b>828</b>	<b>13.5</b>
<b>Freight</b>	<b>603</b>	<b>10.5</b>	<b>922</b>	<b>13.2</b>	<b>498</b>	<b>8.1</b>
<b>Depreciation and exhaustion</b>	<b>927</b>	<b>16.2</b>	<b>1,083</b>	<b>15.5</b>	<b>871</b>	<b>14.2</b>
<b>Shared services</b>	<b>82</b>	<b>1.4</b>	<b>73</b>	<b>1.0</b>	<b>76</b>	<b>1.2</b>
<b>Others</b>	<b>590</b>	<b>10.3</b>	<b>772</b>	<b>11.0</b>	<b>663</b>	<b>10.8</b>
<b>Total</b>	<b>5,720</b>	<b>100.0</b>	<b>7,003</b>	<b>100.0</b>	<b>6,145</b>	<b>100.0</b>

**SG&A, R&D and other expenses**

US\$ million	1Q13	%	4Q12	%	1Q12	%
--------------	------	---	------	---	------	---



Edgar Filing: Vale S.A. - Form 6-K

<b>SG&amp;A</b>	<b>374</b>	<b>35.3</b>	<b>577</b>	<b>24.9</b>	<b>529</b>	<b>34.9</b>
Administrative	336	31.7	520	22.5	477	31.5
Personnel	154	14.5	217	9.4	201	13.3
Services	72	6.8	144	6.2	109	7.2
Depreciation	55	5.2	69	3.0	55	3.6
Others	55	5.2	90	3.9	112	7.4
Selling	38	3.6	57	2.5	52	3.4
<b>R&amp;D</b>	<b>176</b>	<b>16.6</b>	<b>460</b>	<b>19.9</b>	<b>299</b>	<b>19.7</b>
<b>Pre-operating, stoppage and idle expenses</b>	<b>375</b>	<b>35.4</b>	<b>586</b>	<b>25.3</b>	<b>319</b>	<b>21.1</b>
<b>Other operating expenses</b>	<b>134</b>	<b>12.7</b>	<b>692</b>	<b>29.9</b>	<b>367</b>	<b>24.2</b>
<b>Total(1)</b>	<b>1,059</b>	<b>100.0</b>	<b>2,315</b>	<b>100.0</b>	<b>1,514</b>	<b>100.0</b>

Table of Contents

NET EARNINGS

Underlying earnings in 1Q13 were US\$ 3.199 billion, equal to US\$ 0.62 per share on a fully diluted basis, against US\$ 1.952 billion in 4Q12.

Underlying earnings are net of the accounting effects of non-cash non-recurring items which for 1Q13 included: (i) mark-to-market of shareholder debentures (-US\$ 172 million) and (ii) foreign exchange and monetary gains (US\$ 81 million).

Including these accounting items, which do not affect our actual financial performance, but are required by the generally accepted accounting rules for IFRS, our net earnings were US\$ 3.109 billion in 1Q13.

In 1Q13, net financial results were negative US\$ 345 million, compared to negative US\$ 709 million in 4Q12. Foreign exchange and monetary variations had a counteracting effect on financial expenses and thus increased earnings by US\$ 82 million (compared to charge to financial expenses and earnings of US\$ 235 million in 4Q12).

Financial revenues totaled US\$ 71 million, slightly lower than the US\$ 74 million in 4Q12. Financial expenses were US\$ 604 million against US\$ 560 million in the previous quarter, mainly due to the negative non-cash charge of US\$ 172 million related to the mark-to-market of shareholders debentures, compared to a positive effect of US\$ 45 million in 4Q12.

The mark-to-market of derivatives presented a non-cash gain of US\$ 106 million compared to US\$ 12 million in 4Q12, with a positive cash effect of US\$ 97 million.

Breakdown of the effect of derivatives:

- Currency and interest rate swaps resulted in a positive non-cash effect of US\$ 114 million and a positive effect on cash flow of US\$ 86 million.
- Nickel derivatives produced a positive non-cash effect of US\$ 14 million. There was a positive cash flow impact of US\$ 10 million.
- Derivative transactions related to bunker oil had a negative non-cash charge of US\$ 15 million, but a positive cash flow effect of US\$ 1 million.

Equity income from affiliated companies totaled US\$ 172 million in 1Q13, up from US\$ 87 million in the previous quarter, mainly as a result of the improvement from bulk materials (US\$ 27 million).

Individually, the greatest contributors to equity income were Samarco (US\$ 161 million) and MRS (US\$ 13 million). It is also noteworthy that the equity loss from our stake in CSA decreased to US\$ 7 million in 1Q13 from US\$ 65 million in 4Q12, reflecting the ramp-up of capacity utilization and better operating performance.

#### OPERATING INCOME AND CASH GENERATION

Notwithstanding the fact that the first quarter is usually a weak quarter due to seasonal factors, both operating income and cash generation rose quarter-on-quarter.

Operating income, as measured by adjusted EBIT, was US\$ 4.156 billion, increasing 41.4% against 4Q12, while the adjusted EBIT margin was 38.0%, 1,400 basis points higher. Operating margin was slightly above the average for the last 17 quarters (1Q09 to 1Q13) 37.7%.

Cash generation, as measured by adjusted EBITDA, was US\$ 5.202 billion in 1Q13, 18.2% above the US\$ 4.403 billion of 4Q12. The cut in costs and expenses (US\$ 1.543 billion) jointly with price increases (US\$ 936 million) were the main factors underpinning the positive performance of the adjusted EBITDA. Lower volumes (US\$ 1.294 billion) and dividends received from affiliated companies (US\$ 263 million) and exchange rate variations (US\$ 123 million) lessened the impact of costs and prices.

Table of Contents

Even though we received a cash payment of US\$ 1.9 billion in 1Q13 as part of the gold streaming transaction, its effect on the adjusted EBITDA was limited to US\$ 244 million via reduction of expenses due to accounting rules.

Before R&D expenditures, which reduced adjusted EBITDA, the share of bulk materials in cash generation decreased to 84.3% from 92.2% in 4Q12, while base metals rose significantly to 14.2% from 3.7%. The share of fertilizers was reduced to 1.7% from 3.8% and logistics to -0.2% from 0.2%.

**Table 5 - ADJUSTED EBITDA**

US\$ million	1Q13	4Q12	1Q12
Net operating revenues	10,935	12,258	11,552
COGS	(5,720)	(7,003)	(6,145)
SG&A	(374)	(577)	(529)
Research and development	(176)	(460)	(299)
Other operational expenses	(509)	(1,278)	(686)
<b>Adjusted EBIT(1)</b>	<b>4,156</b>	<b>2,940</b>	<b>3,893</b>
Depreciation, amortization & exhaustion	1,046	1,200	1,013
Dividends received		263	60
<b>Adjusted EBITDA(1)</b>	<b>5,202</b>	<b>4,403</b>	<b>4,966</b>

---

(1) Excluding non-recurring effects

**Table 6 - ADJUSTED EBITDA BY BUSINESS AREA(1)**

US\$ million	1Q13	4Q12	1Q12
<b>Bulk materials</b>	<b>4,485</b>	<b>4,461</b>	<b>4,845</b>
Ferrous minerals	4,701	4,633	4,774
Coal	(216)	(172)	71
<b>Base metals</b>	<b>757</b>	<b>178</b>	<b>416</b>
<b>Fertilizer nutrients</b>	<b>90</b>	<b>186</b>	<b>169</b>
<b>Logistics</b>	<b>(10)</b>	<b>12</b>	<b>(8)</b>
<b>Others</b>	<b>(120)</b>	<b>(434)</b>	<b>(456)</b>
<b>Total</b>	<b>5,202</b>	<b>4,403</b>	<b>4,966</b>

---

(1) Excluding non-recurring effects

## CAPITAL AND R&amp;D EXPENDITURES

## Edgar Filing: Vale S.A. - Form 6-K

Vale invested(4) US\$ 3.987 billion, excluding acquisitions, in 1Q13, aligned with the US\$ 16.3 billion budgeted for 2013 and already reflecting the plan of balancing investments throughout the year. Capital expenditure on project execution totaled US\$ 2.725 billion and US\$ 994 million was dedicated to the maintenance of existing operations, as well as US\$ 268 million to research and development (R&D).

The allocation of capex by business segment was: US\$ 2.082 billion for bulk materials, US\$ 982 million for base metals, US\$ 382 million for fertilizers, US\$ 216 million for logistics services, US\$ 107 million for power generation, US\$ 150 million for steel projects and US\$ 68 million for corporate activities and other business segments.

Capex dedicated to projects was concentrated on our main programs, especially the expansion of our Carajás integrated iron ore operations - including the CLN 150, Additional 40 Mtpy, Carajás Serra Sul S11D and Serra Leste projects - with US\$ 600 million, Long Harbour integrated nickel smelting and refining plant, US\$ 488 million, Itabirito, US\$ 221 million, and Moatize II/Nacala, US\$ 169 million.

---

(4) Pursuant to IFRS, R&D expenditures here reported as part of the capex figures on a cash basis are expensed and as a consequence impact earnings and adjusted EBITDA. This must be observed by analysts when making comparisons, such as when comparing adjusted EBITDA and capex figures, to avoid double counting which can distort the results of analyses.

Table of Contents

The granting of the environmental license to operate the Pier IV facilities onshore and offshore at the Ponta da Madeira maritime terminal was an important milestone in the expansion of Carajás logistics capacity. CLN 150 will allow the increase in logistics capacity to 150 million metric tons of iron ore per year, involving the duplication of 125 km of the Carajás railroad, and the construction of a rail terminal, in addition to the Pier IV of Ponta da Madeira.

Sustaining capital expenditures of US\$ 994 million were concentrated in iron ore and base metals. The maintenance investments in iron ore included: (i) replacement and acquisition of new equipment (US\$ 188 million), (ii) expansion of tailing dams (US\$ 62 million), (iii) infrastructure enhancement (US\$ 49 million) and (iv) initiatives to improve the current standards of health and safety and environmental protection (US\$ 25 million). Maintenance of railways and ports serving our mining operations in Brazil amounted to US\$ 185 million.

Sustaining capex for base metals operations was mainly dedicated to development of ore bodies, increase in recovery rates and grades in the nickel mines (US\$ 43 million), AER (atmospheric emission reduction) project (US\$ 35 million) and acquisition of equipment related to the improvement of production processes in the copper mines (US\$ 10 million).

In 1Q13, R&D investments comprised expenditures of US\$ 110 million in mineral exploration, US\$ 129 million in conceptual, pre-feasibility and feasibility studies for projects, and US\$ 29 million to develop new processes and for technological innovations and adaptation of technologies. R&D investments showed a reduction of 9.5% when compared to 1Q12, and an even more significant decrease of 43.9% against 4Q12. We continue streamlining our efforts in exploration and project studies and expect to stay within the previously announced US\$ 1.1 billion budget.

In February 2013, Vale concluded a purchase option for Belvedere exercised in June 2010, thus acquiring an additional 24.5% stake in the coal project for A\$ 150 million (US\$ 156 million using AUD/USD of 1.04), reaching 100% participation. In March 2013, Vale acquired an additional 12.47% stake in Capim Branco I and II hydroelectric power plants for R\$ 223 million, subject to fulfillment of customary conditions.

**Table 7 - CAPITAL AND R&D EXPENDITURES BY CATEGORY**

US\$ million	1Q13	%	4Q12	%	1Q12	%
<b>Organic growth</b>	<b>2,993</b>	<b>75.1</b>	<b>3,863</b>	<b>70.5</b>	<b>2,830</b>	<b>77.0</b>
Projects	2,725	68.4	3,386	61.8	2,534	68.9
R&D	268	6.7	477	8.7	296	8.1
<b>Stay-in-business</b>	<b>994</b>	<b>24.9</b>	<b>1,614</b>	<b>29.5</b>	<b>847</b>	<b>23.0</b>
<b>Total</b>	<b>3,987</b>	<b>100.0</b>	<b>5,476</b>	<b>100.0</b>	<b>3,677</b>	<b>100.0</b>

**Table 8 - CAPITAL AND R&D EXPENDITURES BY BUSINESS AREA**

US\$ million	1Q13	%	4Q12	%	1Q12	%
<b>Bulk materials</b>	<b>2,082</b>	<b>52.2</b>	<b>2,970</b>	<b>54.2</b>	<b>1,969</b>	<b>53.5</b>
Ferrous minerals	1,869	46.9	2,556	46.7	1,772	48.2

Edgar Filing: Vale S.A. - Form 6-K

Coal	213	5.3	414	7.6	196	5.3
<b>Base metals</b>	<b>982</b>	<b>24.6</b>	<b>1,241</b>	<b>22.7</b>	<b>881</b>	<b>24.0</b>
<b>Fertilizer nutrients</b>	<b>382</b>	<b>9.6</b>	<b>607</b>	<b>11.1</b>	<b>327</b>	<b>8.9</b>
<b>Logistics services</b>	<b>216</b>	<b>5.4</b>	<b>239</b>	<b>4.4</b>	<b>96</b>	<b>2.6</b>
<b>Power generation</b>	<b>107</b>	<b>2.7</b>	<b>175</b>	<b>3.2</b>	<b>74</b>	<b>2.0</b>
<b>Steel</b>	<b>150</b>	<b>3.8</b>	<b>68</b>	<b>1.2</b>	<b>225</b>	<b>6.1</b>
<b>Others</b>	<b>68</b>	<b>1.7</b>	<b>177</b>	<b>3.2</b>	<b>106</b>	<b>2.9</b>
<b>Total</b>	<b>3,987</b>	<b>100.0</b>	<b>5,476</b>	<b>100.0</b>	<b>3,677</b>	<b>100.0</b>

Table of Contents**CAPITAL AND R&D EXPENDITURES BY BUSINESS AREA - 1Q13**

	Projects		R&D		Stay-in-business		Total	
	US\$ million	%	US\$ million	%	US\$ million	%	US\$ million	%
<b>Bulk materials</b>	<b>1,378</b>	<b>50.6</b>	<b>114</b>	<b>42.6</b>	<b>590</b>	<b>59.3</b>	<b>2,082</b>	<b>52.2</b>
Ferrous minerals	1,204	44.2	94	35.2	570	57.4	1,869	46.9
Coal	173	6.4	20	7.4	20	2.0	213	5.3
<b>Base metals</b>	<b>657</b>	<b>24.1</b>	<b>85</b>	<b>31.7</b>	<b>241</b>	<b>24.2</b>	<b>982</b>	<b>24.6</b>
<b>Fertilizer nutrients</b>	<b>316</b>	<b>11.6</b>	<b>12</b>	<b>4.6</b>	<b>54</b>	<b>5.5</b>	<b>382</b>	<b>9.6</b>
<b>Logistics services</b>	<b>156</b>	<b>5.7</b>	<b>4</b>	<b>1.5</b>	<b>56</b>	<b>5.6</b>	<b>216</b>	<b>5.4</b>
<b>Power generation</b>	<b>70</b>	<b>2.6</b>	<b>37</b>	<b>13.9</b>			<b>107</b>	<b>2.7</b>
<b>Steel</b>	<b>150</b>	<b>5.5</b>	<b>1</b>	<b>0.3</b>			<b>150</b>	<b>3.8</b>
<b>Others</b>			<b>15</b>	<b>5.5</b>	<b>53</b>	<b>5.3</b>	<b>68</b>	<b>1.7</b>
<b>Total</b>	<b>2,725</b>	<b>100.0</b>	<b>268</b>	<b>100.0</b>	<b>994</b>	<b>100.0</b>	<b>3,987</b>	<b>100.0</b>

- Main approved projects under construction**

The pipeline of main projects approved by the Board of Directors, and under construction, is detailed in this section. Estimated start-up dates may be revised due to changes caused by several factors, including delays in environmental permits.

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million	Total	US\$ million	Total	
<b>IRON ORE MINING AND LOGISTICS</b>						
<b>Carajás Additional 40 Mtpy</b>	2H13	190	2,663	548	3,475	Started commissioning the plant. Electromechanical assembly of the long distance conveyor belt steel structure and the loading line in final stage. Concluded assembly of screening plant, stockyard and substation.
Construction of an iron ore dry processing plant, located in Carajás, Pará, Brazil.						
Estimated nominal capacity of 40 Mtpy.						Issuance of operation license (LO) expected for 2H13.
						90% of physical progress of mine and plant.
<b>CLN 150 Mtpy</b>	1H13 to 2H14	213	3,474	498	4,114	Commissioning of offshore and onshore maritime terminal almost



Increase Northern system railway and port capacity, including the construction of a fourth pier at the Ponta da Madeira maritime terminal, located in Maranhão, Brazil.

finalized. Ongoing duplication of rail spurs, with some segments already finalized.

Operation license (LO) for the port, onshore and offshore, issued.

Increase EFC's estimated nominal logistics capacity to approximately 150 Mtpy.

96% of physical progress.

**Carajás Serra Sul S11D**

2H16

170

1,983

658

8,039

High-voltage substation and transmission lines are under construction. Ongoing off-site steel

Development of a mine and processing plant, located in the

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2013	US\$ million Total	US\$ million 2013	US\$ million Total	
Southern range of Carajás, Pará, Brazil.  Estimated nominal capacity of 90 Mtpy.						structure assembly of modules.  Issuance of installation license (LI) expected for 1H13.  43% of physical progress.
<b>Conceição Itabiritos</b>  Construction of a concentration plant, in the Southeastern System, Minas Gerais, Brazil.  Estimated additional nominal capacity of 12 Mtpy. 100% pellet feed, with 67.7% Fe content and 0.8% silica.	2H13	86	867	208	1,174	Electromechanical assembly continues in final stage. Commissioning of the plant.  Operational license (LO) for the plant expected for 1H13.  96% of physical progress.
<b>Vargem Grande Itabiritos</b>  Construction of new iron ore processing plant, in the Southern System, Minas Gerais, Brazil.  Estimated additional nominal capacity of 10 Mtpy. 100% pellet feed, with 67.8% Fe content and 1.2% silica.	1H14	68	983	518	1,645	Installation of steel structures for the screening building continues in progress.  Operation license expected for 1H14.  77% of physical progress.
<b>Conceição Itabiritos II</b>  Adaptation of the plant to process low-grade itabirites from Conceição, located in the Southeastern system, Minas Gerais, Brazil.	2H14	41	465	197	1,189	Ongoing civil engineering and steel structure assembly.  Installation licenses (LI) issued.

						63% of physical progress.
<p>Estimated nominal capacity of 19 Mtpy, without additional capacity. 31.6% sinter feed, with 66.5% Fe content and 3.8% of silica, and 68.4% pellet feed, with 68.8% Fe content and 0.9% silica.</p>						
<b>Serra Leste</b>	2H14	27	320	166	478	Ongoing assembly of the processing plant steel structure. Transmission lines and railroad construction are in progress. Installation licenses (LI) issued.
<p>Construction of new processing plant, located in Carajás, Pará, Brazil.</p>						
<p>Estimated nominal capacity of 6 Mtpy.</p>						
<b>Cauê Itabiritos</b>	2H15	26	146	206	1,504	Earthworks were finalized and civil engineering work is in progress.
<p>Adaptation of the plant to process low-grade itabirites from Minas do Meio, located in the Southeastern system, Minas Gerais, Brazil.</p>						
<p>Estimated nominal capacity of 24 Mtpy, with net additional capacity of 4 Mtpy in 2017. 29% sinter feed, with 65.3% Fe content and 4.4% of</p>						
<p>21% of physical progress.</p>						

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2013	Total	US\$ million 2013	Total	
silica, and 71% pellet feed, with 67.8% Fe content and 2.8% silica.						
<b>Teluk Rubiah</b>	1H14	100	613	443	1,371	Offshore pile driving was completed for the main jetty. Earthworks in final stage. Delivery of stockyard machinery (stacker and reclaimer) to the site initiated.
Construction of a maritime terminal with enough depth for the 400,000 dwt vessels and a stockyard. Located in Teluk Rubiah, Malaysia.						Issuance of operation license expected for 1H14.
Stockyard capable of handling up to 30 Mtpy of iron ore products.						68% of physical progress.
<b>PELLET PLANTS</b>						
<b>Tubarão VIII</b>	2H13	54	943	158	1,088	Commissioning of the equipment in progress.
Eighth pellet plant at our existing site at the Tubarão Port, Espírito Santo, Brazil.						Issuance of operation license (LO) expected for 1H13.
Estimated nominal capacity of 7.5 Mtpy.						93% of physical progress.
<b>Samarco IV(2)</b>	1H14				1,693	Electromechanical assembly of equipment in progress. Slurry pipeline testing almost finalized and commissioning activities initiated.
Construction of Samarco's fourth pellet plant, and expansion of mine, pipeline and maritime terminal infrastructure. Vale has a 50% stake in Samarco.						81% of physical progress of the pellet plant.
						Budget fully sourced by Samarco.

Estimated nominal capacity of 8.3 Mtpy, increasing Samarco's capacity to 30.5 Mtpy.

**COAL MINING AND LOGISTICS**

<p><b>Moatize II</b></p> <p>New pit and duplication of the Moatize CHPP, as well as all related infrastructure, located in Tete, Mozambique.</p> <p>Nominal capacity of 11 Mtpy (mostly comprised of coking coal).</p>	<p>2H15</p> <p>69</p> <p>525</p> <p>344</p> <p>2,068</p>	<p>Ongoing earthworks and civil engineering work in the stockyards. Concreting work for the processing plant is in progress.</p> <p>33% of physical progress.</p>
<p><b>Nacala corridor</b></p> <p>Railway and port infrastructure connecting Moatize site to the Nacala-à-Velha maritime terminal, located in Nacala, Mozambique.</p> <p>Estimated nominal capacity of 18 Mtpy.</p>	<p>2H14</p> <p>100</p> <p>509</p> <p>1,079</p> <p>4,444</p>	<p>Ongoing earthworks for the railway and significant portion of piles driven for the bridge structure in Malawi. Ongoing pile driving for the jetty.</p> <p>17% and 15% of physical progress in railway and port respectively.</p>

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2013	Total	US\$ million 2013	Total	
<b>COPPER MINING</b>						
<b>Salobo II</b>	1H14	63	823	401	1,707	Ongoing electromechanical assembly of equipment in the flotation and milling sections.
Salobo expansion, raising height of tailing dam and increase in mine capacity, located in Marabá, Pará, Brazil.						Issuance of plant operation license (LO) expected for 1H14.
Additional estimated nominal capacity of 100,000 tpy of copper in concentrate.						72% of physical progress.
<b>NICKEL MINING AND REFINING</b>						
<b>Long Harbour</b>	2H13	488	3,644	1,094	4,250	Final stage of electromechanical assembly and started commissioning a critical part of the process.
Hydrometallurgical facility. Located in Long Harbour, Newfoundland and Labrador, Canada.						90% of physical progress.
Estimated nominal capacity for refining 50,000 tpy of finished nickel, and associated copper and cobalt.						
<b>Totten</b>	2H13	39	578	171	759	Construction of the ore/waste storage building was completed.
Nickel mine (re-opening) in Sudbury, Ontario, Canada. Estimated nominal capacity of 8,200 tpy.						82% of physical progress.
<b>POTASH MINING AND LOGISTICS</b>						
<b>Rio Colorado</b>	Under review	308	2,538	611	5,915	Project under review.

Investments in a solution mining system, located in Mendoza, Argentina, renovation of railway tracks (440 km), construction of a railway spur (350 km) and a maritime terminal in Bahia Blanca, Argentina.

Estimated nominal capacity of 4.3 Mtpy of potash (KCl).

**ENERGY**

<b>Biodiesel</b>	2H15	40	466	75	633	Concluded earthworks for the second palm oil plant. Ongoing earthworks for the biodiesel plant.
Project to produce biodiesel from palm oil. Plantation of 80,000 ha of palm trees. Located in Pará, Brazil.						Installation license (LI) of the biodiesel plant postponed for 1H14.
Estimated nominal capacity of 360,000 tpy of biodiesel.						

Table of Contents

Project	Estimated start-up	Executed capex		Expected capex		Status(1)
		US\$ million 2013	US\$ million Total	US\$ million 2013	US\$ million Total	
<b>STEELMAKING</b>						
CSP(2)	2H15	148	724	439	2,648	Earthworks and pile-driving continues to progress.
Development of a steel slab plant in partnership with Dongkuk and Posco, located in Ceará, Brazil. Vale holds 50% of the joint venture. Estimated nominal capacity of 3.0 Mtpy.						26% of physical progress.

(1) as of March 2013.

(2) Realized and expected capex are relative to Vale's stake in the projects.

DEBT INDICATORS

We continue to maintain a healthy balance sheet with a low-risk debt portfolio, characterized by low leverage, high interest coverage, long average maturity and low cost.

Total debt was US\$ 30.191 billion as of March 31, 2013, with a decrease of US\$ 355 million from US\$ 30.546 billion as of December 31, 2012.

As of March 31, 2013, our cash position(5) was US\$ 6.609 billion and net debt was US\$23.582 billion.

Debt leverage, as measured by total debt/LTM adjusted EBITDA(d) ratio excluding non-recurring charges remained at 1.6x. The total debt/enterprise value(e) increased to 26.2% on March 31, 2013, against 22.5% on December 31, 2012, due to the fall in market capitalization. Our equity prices performed poorly, with price action disconnected from the company's performance and value creation potential.

The average debt maturity showed a slight decrease to 10.0 years from 10.1 years at the end of 2012 and the average cost dropped to 4.59% per annum, against 4.63% on December 31, 2012.



## Edgar Filing: Vale S.A. - Form 6-K

Interest coverage, measured by the LTM adjusted EBITDA excluding non-recurring charges/LTM interest payment ratio(f), was 13.7x, against 14.6x, on December 31, 2012.

Considering hedge positions, the total debt on March 31, 2013 was composed of 26% of floating interest rates and 74% fixed interest rates linked debt, while 98% was denominated in US dollars and the remainder in other currencies.

**Table 9 - DEBT INDICATORS**

US\$ million	1Q13	4Q12	1Q12
Total debt	30,191	30,546	24,939
Net debt	23,582	24,468	20,017
Total debt / adjusted LTM EBITDA(1) (x)	1.6	1.6	0.8
Adjusted LTM EBITDA(1) / LTM interest expenses (x)	13.7	14.6	27.5
Total debt / EV (%)	26.2	22.5	17.3

---

(1) Excluding non-recurring effects

(5) Cash holdings include cash and cash equivalents, as well as short-term investments of US\$ 576 million as of March 31, 2013.

Table of Contents

PERFORMANCE OF THE BUSINESS SEGMENTS

**Bulk materials**

*Ferrous minerals*

Revenues from iron ore and pellet sales reached US\$ 7.677 billion in 1Q13 - US\$ 6.219 billion originating from iron ore and US\$ 1.458 billion from pellets against US\$ 8.837 billion in 4Q12. The seasonal reduction in volumes caused a negative impact on revenues of US\$ 2.084 billion, when compared to 4Q12. On the other hand, price recovery added US\$ 925 million to revenues.

Despite the fall in output, shipments of iron ore and pellets were 65.104 Mt, in line with 65.193 Mt in 1Q12, but 23.2% below the 84.824 Mt in 4Q12. Shipments of iron ore were 55.679 Mt, 1.6% higher than 1Q12, while pellets amounted to 9.425 Mt, decreasing 9.4% yoy and 12.2% qoq.

We sold 28.1 Mt of iron ore and pellets on a CFR basis, representing 43% of total shipments against 39.1 Mt in 4Q12 (48%) and 20.9 Mt in 1Q12 (37%). As explained in the 4Q12 financial performance report(6), we are following a new accounting practice for freight cost. Operating revenues are no longer net of the maritime freight cost, which has been added to COGS, and realized prices reflect both FOB and CFR prices.

Iron ore prices followed a V-shaped recovery from the trough of September 6, 2012 influenced by the retrenchment of high cost suppliers, the strengthening of Chinese demand as well as from steel mills in Japan and Europe, the change in expectations about the global economy stemming from the mitigation of tail risks (the disruption of the Euro Zone, a hard landing in China and the so-called plunge off the US fiscal cliff) and the prospects of growth stimuli to be launched by the new Chinese leadership. The upward trend reached a peak in mid-February, when the IODEX 62% Fe reached US\$ 160 and since then prices indices have been range bound between US\$ 130-140.

Iron ore inventories in China at ports and mills remain at low levels while steel stocks were replenished. Property and infrastructure investments, the main drivers of iron ore demand, continued to increase and the soft patch in the Chinese economy in 1Q13 was mostly due to weakness in consumption.

There was a massive expansion of credit in China in 1Q13 determined by a boom in non-bank financing. Despite the implementation by regulators of curbs on wealth management products and other instruments of providing indirect financing to local governments and companies to execute infrastructure and housing projects, past experience indicates that the acceleration of credit growth has a lagged effect on economic activity, producing positive effects over 3 to 6 months ahead.

While there is more iron ore supply coming to market in the second half of the year, global steel consumption is expected to perform better this year after a sluggish expansion in 2012, when it increased at the slowest pace since 2009. The main source of growth will be the emerging

## Edgar Filing: Vale S.A. - Form 6-K

economies, which account for about 75% of global steel consumption.

Our market outlook did not change. We believe that demand and supply conditions will deliver an average price level similar to last year, which is beneficial to our company, a low-cost producer of iron ore.

Global economic prospects have improved but the road to a sustainable recovery will remain bumpy particularly in developed economies. In this environment, the impact on prices of inventory cycles and expectations tend to be magnified. As a consequence, we expect the volatility of iron ore prices to stay at a far higher plateau than in the

---

(6) For more detailed information on our freight accounting practice, please refer to the *New freight accounting practice* box in Vale's 2012 financial performance report, *Starting to deliver the turnaround*, page 25, available at <http://www.vale.com/EN/investors/Pages/default.aspx>.

Table of Contents

past. For instance, even falling from the peak reached in 3Q12, 2.13%, price volatility in 1Q13 remained high, more than twice the level of 1Q12, 0.65%.(7)

Our iron ore sales in 1Q13 were priced through three basic systems: (a) 34% based on the spot price after delivery, involving provisional pricing and an adjustment invoice following delivery; (b) 53% to current quarter, monthly and daily spot prices; (c) 13% linked to a three-month average with a one-month lag (VRP).

Our average realized price was US\$ 111.69, US\$ 11.26 higher than the US\$ 100.43 - computed on the same basis- for 4Q12. The price increase was smoothed by: (1) Lower VRP prices, whereby contracts are priced in 1Q13 with reference to the average IODEX 62% for September, October and November of US\$ 113.00, against US\$ 124.50 in 4Q12 (average for June, July and August 2012); (2) lower positive adjustments for provisional pricing on contracts based on the spot price with reference to the delivery date as prices ended 1Q13 at US\$ 137.00, compared to US\$ 144.50 for the end of 4Q12; and (3) seasonally higher humidity.

Given the use of several pricing formula - involving lagged, contemporaneous and future pricing - different timing of transactions, high daily price volatility and CFR and FOB sales, the relationship of our realized prices to iron ore price indices is non-linear, tending to vary over time. Hence, comparisons to average price indices in the short term have a high potential for misleading investors.

The average sales price of pellets was US\$ 154.67, 19.0% higher than the US\$ 129.97 per metric ton of the previous quarter. In relation to iron ore pricing, pellets presented better quarter-on-quarter price performance because of basically not making reference to spot prices after delivery and hence without effects of provisional pricing - and of lower impact of humidity.

The demand for DR pellets remains steady in the Middle East, the US and Southeast Asia whereas the demand for blast furnace pellets is gradually improving in Europe and Brazil.

China's share in the sales of iron ore and pellets was 48.2%, dropping from the peak of 55.1% reached in 4Q12. This was offset by the larger shares of sales to Brazil, up 13.2% from 10.3%, and Europe, 18.8% from 14.7%, reflecting the improvement in demand from these markets. Shipments to Japan decreased to 7.2% from 8.7% of our total sales in 4Q12, mainly due to the carryover of some March volumes to April.

In 1Q13, revenues of manganese ore reached US\$ 64 million, 52.4% higher than 1Q12 but 11.1% below 4Q12 primarily due to lower volumes (US\$ 9 million). Higher sales prices added US\$ 1 million to revenues. Sales volumes were 417,000 t, compared to 473,000 t in 4Q12 and 316,000 t in 1Q12.

Ferroalloy shipments totaled 48,000 t, compared to 34,000 t in 4Q12 and 103,000 t in 1Q12. Revenues were US\$ 66 million, 32.0% higher on a quarter-on-quarter basis but 46.8% below 1Q12. The significant decrease in relation to 1Q12 is due to the sale of our manganese ferroalloys operations in Europe.

## Edgar Filing: Vale S.A. - Form 6-K

Sales of ferrous minerals products - iron ore, pellets, manganese and ferroalloys - produced total revenues of US\$ 7.807 billion, 6.5% below 1Q12 and 12.9% lower in relation to 4Q12.

In 1Q13, the costs for iron ore, net of depreciation charges, were US\$ 1.961 billion. After adjusting for the effects of lower volumes (US\$ 738 million) and currency prices (US\$ 81 million), COGS were down US\$ 204 million against 4Q12. The cost decrease was mainly driven by the reduction in outsourced services (US\$ 106 million) and personnel (US\$ 49 million), partially offset by the effect of higher costs with materials (US\$ 43 million), which was due to the concentration of maintenance in the first quarter.

Excluding the cost with maritime freight (US\$ 600 million), iron ore cash cost (mine, plant, railroad, and port) was estimated at US\$ 24 per metric ton in 1Q13, as one can track in the segment reporting notes to 1Q13 financial statements.

Pre-operating, stoppage and idle capacity expenses for iron ore were US\$ 50 million, reflecting projects such as: Conceição Itabiritos (US\$ 9 million), CLN 150 (US\$ 8 million) and S11D (US\$ 7 million).

---

(7) Iron ore price volatility was measured as the standard deviation of daily price changes.

Table of Contents

The adjusted EBIT margin for the ferrous minerals business was 56.4% in 1Q13, against 44.4% in 4Q12 and 53.4% in 1Q12.

Adjusted EBITDA for ferrous minerals reached US\$ 4.701 billion, increasing 1.5% compared to 4Q12. The increase of US\$ 68 million was mainly due to the positive impact of prices (US\$ 924 million) and cost and expenses reduction (US\$ 744 million). These effects were partially offset by lower sales volumes (US\$ 1.228 billion) and the decrease in dividends received from non-consolidated affiliated companies (US\$ 247 million).

**Table 10 - FERROUS MINERALS BUSINESS PERFORMANCE****VOLUME SOLD BY DESTINATION IRON ORE AND PELLETS**

000 metric tons	1Q13	%	4Q12	%	1Q12	%
<b>Americas</b>	<b>9,797</b>	<b>15.0</b>	<b>9,618</b>	<b>11.3</b>	<b>10,987</b>	<b>16.9</b>
Brazil	8,575	13.2	8,729	10.3	9,666	14.8
Steel mills and pig iron producers	8,575	13.2	8,729	10.3	8,553	13.1
JVs pellets					1,113	1.7
USA			(0)	(0.0)	213	0.3
Others	1,222	1.9	889	1.0	1,108	1.7
<b>Asia</b>	<b>41,130</b>	<b>63.2</b>	<b>59,550</b>	<b>70.2</b>	<b>41,895</b>	<b>64.3</b>
China	31,405	48.2	46,706	55.1	30,800	47.2
Japan	4,719	7.2	7,352	8.7	7,208	11.1
South Korea	3,287	5.0	4,147	4.9	3,349	5.1
Others	1,718	2.6	1,345	1.6	538	0.8
<b>Europe</b>	<b>12,220</b>	<b>18.8</b>	<b>12,510</b>	<b>14.7</b>	<b>10,546</b>	<b>16.2</b>
Germany	4,260	6.5	5,247	6.2	4,050	6.2
United Kingdom	345	0.5	1,223	1.4	605	0.9
France	2,494	3.8	1,945	2.3	776	1.2
Italy	1,989	3.1	1,513	1.8	2,135	3.3
Turkey	508	0.8	338	0.4	515	0.8
Spain	616	0.9	390	0.5	905	1.4
Netherlands	597	0.9	791	0.9	749	1.1
Others	1,413	2.2	1,063	1.3	811	1.2
<b>Middle East</b>	<b>1,423</b>	<b>2.2</b>	<b>2,177</b>	<b>2.6</b>	<b>1,415</b>	<b>2.2</b>
<b>Rest of the World</b>	<b>534</b>	<b>0.8</b>	<b>969</b>	<b>1.1</b>	<b>350</b>	<b>0.5</b>
<b>Total</b>	<b>65,104</b>	<b>100.0</b>	<b>84,824</b>	<b>100.0</b>	<b>65,193</b>	<b>100.0</b>

**OPERATING REVENUE BY PRODUCT**

US\$ million	1Q13	4Q12	1Q12
Iron ore	6,219	7,441	6,470
Pellet plant operation services			10
Pellets	1,458	1,396	1,702
Manganese ore	64	72	42
Ferroalloys	66	50	124
<b>Total</b>	<b>7,807</b>	<b>8,958</b>	<b>8,349</b>

**AVERAGE SALE PRICE**

<b>US\$/ metric ton</b>	<b>1Q13</b>	<b>4Q12</b>	<b>1Q12</b>
Iron ore	111.69	100.43	118.09
Pellets	154.67	129.97	163.69
Manganese ore	153.10	152.22	132.91
Ferroalloys	1,383.69	1,470.59	1,203.88

**VOLUME SOLD**

<b>000 metric tons</b>	<b>1Q13</b>	<b>4Q12</b>	<b>1Q12</b>
Iron ore	55,679	74,085	54,793
Pellets	9,425	10,739	10,400
Manganese ore	417	473	316
Ferroalloys	48	34	103

Table of Contents

**Coal**

Revenues from sales of coal products reached US\$ 211 million in 1Q13, increasing 4.5% relative to the US\$ 202 million in 4Q12.

Total coal shipments were 1.507 Mt in 1Q13, a decrease of 5.3% from 1.592 Mt in the previous quarter. Coal shipments of metallurgical coal reached 1.447 Mt, a record for a first quarter, increasing from 1.364 Mt in 4Q12. Thermal coal volumes amounted to 60,000 t, against 228,000 t in 4Q12, mainly due to logistics constrains in Moatize.

In 1Q13, revenues from metallurgical coal were US\$ 206 million, 13.8% higher than 4Q12. The increase was due to the higher average realized price of US\$ 142.09 per metric ton, versus US\$ 132.49 in 4Q12. Revenues from sales of thermal coal were US\$ 6 million in 1Q13.

In 1Q13, coal costs were US\$ 261 million, net of depreciation charges, increasing US\$ 40 million when compared to 4Q12. Coal expenses were US\$ 155 million in 1Q13 against US\$ 142 million in the previous quarter. In 1Q13, we recognized expenses US\$ 120 million of thermal coal inventory adjustment, resulting from the high cost in Mozambique at the current production scale. Pre-operating and idle capacity expenses were US\$ 11 million, due to idle capacity of Moatize (US\$ 6 million) and pre-operating expenses of Moatize II (US\$ 5 million). The potential of Moatize will be constrained by rail and port capacity until the Nacala corridor starts operations, which is expected for 2H14.

In 1Q13, adjusted EBITDA for the coal business was - US\$ 216 million against - US\$ 172 million, excluding impairment charges(8) in 4Q12.

**Table 11 - COAL BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	1Q13	4Q12	1Q12
Thermal coal	6	21	137
Metallurgical coal	206	181	251
<b>Total</b>	<b>211</b>	<b>202</b>	<b>389</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	1Q13	4Q12	1Q12
Thermal coal	94.30	93.57	87.58
Metallurgical coal	142.09	132.49	209.53



## VOLUME SOLD

000 metric tons	1Q13	4Q12	1Q12
Thermal coal	60	228	1,570
Metallurgical coal	1,447	1,364	1,199

Table 12 - BULK MATERIALS: SELECTED FINANCIAL INDICATORS

US\$ million	1Q13	4Q12	1Q12
<b>Costs</b>	<b>(2,808)</b>	<b>(3,677)</b>	<b>(3,267)</b>
Ferrous minerals	(2,547)	(3,456)	(2,960)
Coal	(261)	(221)	(307)
<b>Expenses</b>	<b>(505)</b>	<b>(966)</b>	<b>(444)</b>
Ferrous minerals	(350)	(824)	(380)
Coal	(155)	(142)	(64)
<b>Pre-operating, stoppage and idle expenses</b>	<b>(97)</b>	<b>(162)</b>	<b>(79)</b>
Ferrous minerals	(86)	(151)	(72)
Coal	(11)	(11)	(7)
<b>Adjusted EBIT margin(1) (%)</b>			
Ferrous minerals	56.4	44.4	53.4
Coal	(122.3)	(121.8)	(12.3)
<b>Adjusted EBIT(1)</b>	<b>4,072</b>	<b>3,672</b>	<b>4,333</b>
Ferrous minerals	4,330	3,918	4,381
Coal	(258)	(246)	(48)
<b>Adjusted EBITDA(1)</b>	<b>4,485</b>	<b>4,461</b>	<b>4,845</b>
Ferrous minerals	4,701	4,633	4,774
Coal	(216)	(172)	71

---

(1) Excluding non-recurring items

(8) Impairment of Australian coal assets (US\$ 1.029 billion).

Table of Contents

**Base metals**

The first quarter of 2013 was marked by the strong operational performance of the base metals assets, in line with the trend previously conveyed for the business. Output of copper and cobalt reached all-time high figures. Nickel had its best first quarter shipments since 2009, with the ramp-up of VNC and greater operational reliability in Canada. Salobo, the copper with gold operation in Carajás, and Lubambe, our Zambian JV, are ramping up as planned.

Revenues from base metals and their by-products totaled US\$ 1.842 billion, increasing 1.7% quarter-over-quarter and 3.8% from 1Q12. The slight quarterly increase was driven by higher volumes (US\$ 82 million), partially compensated by lower sales prices (US\$ 51 million).

Nickel sales revenues were US\$ 1.084 billion, slightly higher than the US\$ 1.015 billion in 4Q12, chiefly due to higher volumes (US\$ 88 million) mitigated by lower realized prices (US\$ 19 million). Volumes expanded to 63,000 t against 58,000 t in 4Q12, while average prices fell to US\$ 17,206 per metric ton compared to US\$ 17,500 per metric ton in 4Q12.

Nickel prices have been trending downward since early February this year, falling below US\$ 16,000 per metric ton more recently. This is a consequence of oversupply caused by the significant expansion of Chinese nickel in pig iron production. Although demand from stainless and non-stainless steel markets is gradually improving, a trend reversal depends on production cuts by high cost producers.

Copper revenues reached US\$ 514 million, decreasing 13.3% quarter-on-quarter but growing 10.1% year-on-year, due to the ramp-up of Salobo and improved operational efficiency in Canada, where copper is produced as a by-product. The average realized price fell 5.4% to US\$ 7,105 per metric ton from US\$ 7,510 in 4Q12. Sales volumes fell slightly to 72,000 t from 79,000 t in 4Q12, but grew 25.7% year-on-year.

PGMs (platinum group metals) sales generated revenues of US\$ 125 million, 66.7% higher than the US\$ 75 million in 4Q12, due to higher prices and volumes, with 125,000 troy ounces (oz) against 77,000 oz in 4Q12.

Gold sales increased to 47,000 oz from 35,000 oz in 1Q12, while falling from 52,000 oz in 4Q12 due to timing of sales from our copper and gold operations in Brazil. Revenues from gold sales reached US\$ 77 million, compared to US\$ 90 million in 4Q12 and US\$ 63 million in 1Q12, reflecting the lower volumes and prices.

In 1Q13, base metals costs were US\$ 1.059 billion (net of depreciation charges). After adjusting for the effects of higher volumes (US\$ 111 million) and currency prices (-US\$ 5 million), COGS were down US\$ 213 million against 4Q12. All cost items decreased in relation to 4Q12, including outsourced services (US\$ 51 million), personnel (US\$ 33 million) and materials (US\$ 18 million).

## Edgar Filing: Vale S.A. - Form 6-K

Total expenses excluding the effect of the gold streaming transaction totaled US\$ 270 million in 1Q13, falling 43.3% against the US\$ 476 million in 4Q12.

The adjusted EBIT margin of the base metals operations was 16.0% in 1Q13. After excluding pre-operating expenses at Long Harbour (US\$ 58 million) and idle capacity and inventory adjustments expenses at VNC (US\$ 142 million), operating income margin reached 26.8%.

Table of Contents

Adjusted EBITDA(9) rose to US\$ 757 million in 1Q13, against US\$ 178 million in 4Q12. After excluding pre-operating, idle capacity and start-up expenses (US\$ 192 million), adjusted EBITDA reached US\$ 949 million. This suggests that the successful ramp-up of projects presents a major upside to current performance. Once the projects enter into more advanced stages of ramp-up, variable costs tend to decrease, fixed costs are diluted by economies of scale and revenues increase.

**Strategic review**

All of base metals operations production plans are being reviewed with a renewed focus on production at the right cost. This renewed perspective has translated into realized productivity improvements and cost reductions achieved via the optimization of mine plans and shift/shutdown schedules, disciplined management of contracted service requirements and discretionary spending along with rationalization of corporate and operational support activities. We also are nearing completion on the implementation of operational improvements within our Clarabelle mill in Sudbury CORE project - that will increase overall metal recovery by 4% by 2H13, allowing for further reduction of our unit costs of production.

We made a decision to move in the future to a single furnace operation at Sudbury, that will imply significant savings in sustaining capital and alongside some operating improvements will increase furnace productivity. As a consequence, the clean AER project is being optimized in scale and scope to deliver enhanced sulphur capture as well as a cut in approximately CAD 1 billion in sustaining capital to be spent over the next 3 years. Output from the nickel refineries in Canada and UK will not change as both will get topped up by nickel products produced by our Sorowako Indonesian operations, where furnace upgrades and brownfield expansion will lead to increased supply.

Another step towards securing cash flow generation was the conclusion of negotiated amendments to the Voisey's Bay Development Agreement with the province of Newfoundland and Labrador. These amendments include an increase in the volume of nickel in concentrate that can shipped from the province during construction and ramp up of the Long Harbour plant as well an extension of its construction completion. This was a very important agreement as it ensures the continuous operation of the low cost and high quality Voisey's Bay Ovoid mine.

A first review of VNC was concluded last month, which gave us confidence to continue the ramp up. A second review will take place in 2H13, focusing on the capability to continuously run with two autoclaves while simultaneously maximizing the product mix in terms of nickel oxide, as well as on a more detailed evaluation of the evolution of cost reduction plans and the risks involved in their implementation.

After presenting some problems during the commissioning of its operations, VNC produced 5,100 t of nickel in NHC (nickel hydroxide cake) and NiO (nickel oxide), and 372 t of cobalt in 1Q13. The HPALs (high pressure acid leaching) throughput level indicates that VNC is on the way to deliver 40,000 tpy, but reaching full capacity, 57,000 tpy, still requires improvements in plant availability and downstream debottlenecking.

Feasibility depends on the capacity to produce according to the production program and to perform cost savings. Nickel output is estimated to reach 26,000 t this year and 45,000 t in 2014, rising to full capacity in 2016. VNC has had a negative cash flow of about US\$ 750 million per year, which is expected to be significantly reduced this year to an estimated US\$ 250 million and moving into positive territory next year.

## Edgar Filing: Vale S.A. - Form 6-K

In addition to the exploration of opportunities to divest non-core assets, we are considering a strategic partnership at our Thompson nickel operation located in the well-known Manitoba nickel belt. Our aim is to finance brownfield expansions in the existing underground mine and those resulting from high potential exploration targets recently detected in the wider surrounding geological nickel belt.

---

(9) Not including impairment charges.

Table of Contents**Table 13 - BASE METALS BUSINESS PERFORMANCE****OPERATING REVENUE BY PRODUCT**

US\$ million	1Q13	4Q12	1Q12
Nickel	1,084	1,015	1,103
Copper	514	593	467
PGMs	125	75	105
Gold	77	90	63
Silver	11	14	20
Cobalt	18	11	17
Others	14	13	
<b>Total</b>	<b>1,842</b>	<b>1,811</b>	<b>1,775</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	1Q13	4Q12	1Q12
Nickel	17,205.76	17,500.00	19,696.43
Copper	7,104.54	7,510.35	8,117.28
Platinum (US\$/oz)	1,626.29	1,670.11	1,741.17
Gold (US\$/oz)	1,626.13	1,736.23	1,800.99
Silver (US\$/oz)	26.09	36.83	36.80
Cobalt (US\$/lb)	10.11	10.97	13.36

**VOLUME SOLD**

000 metric tons	1Q13	4Q12	1Q12
Nickel	63	58	56
Copper	72	79	58
Gold ( 000 oz)	47	52	35
Silver ( 000 oz)	408	391	532
PGMs ( 000 oz)	125	77	97
Cobalt (metric ton)	805	455	577

**SELECTED FINANCIAL INDICATORS**

US\$ million	1Q13	4Q12	1Q12
Costs	(1,059)	(1,164)	(1,109)
Expenses	166	(161)	(85)
Pre-operating, stoppage and idle expenses	(192)	(315)	(165)
Adjusted EBIT margin(1) (%)	16.0	(16.0)	2.4
Adjusted EBIT(1)	294	(290)	42
Adjusted EBITDA(1)	757	178	416

---

(1) Excluding non-recurring items

**Fertilizer nutrients**

Revenues from fertilizer nutrients reached US\$ 769 million in 1Q13, decreasing 17.3% against US\$ 930 million in 4Q12, due to seasonality, as demand is more concentrated in the second half of the year.

Sales of potash generated revenues of US\$ 57 million, compared to US\$ 79 million in 4Q12. Volumes were smaller at 120,000 t compared to 143,000 t in 4Q12. The average realized price for potash in 1Q13 was US\$ 471.66 per metric ton, against US\$ 552.45 in 4Q12.

In 1Q13, revenues from phosphate products totaled US\$ 496 million, 20.3% below the US\$ 622 million in 4Q12, due to the reduced volumes, US\$ 114 million, and slightly lower prices, US\$ 12 million. Total shipments of MAP were 298,000 t, TSP 94,000 t, SSP 430,000 t, and DCP 100,000 t. Sales of phosphate rock amounted to 590,000 t, 38.2% below the 954,000 t in 4Q12, due to high client inventories in the Americas and India after a buildup in 4Q12, as well as the end of agricultural subsidies in India.

Revenues from sales of nitrogen fertilizers were US\$ 196 million, 5.8% below 4Q12.

Table of Contents

In 1Q13, fertilizer nutrients costs were US\$ 554 million, a decrease of US\$ 61 million. Fertilizer nutrients expenses were slightly below 4Q12, US\$ 55 million in 1Q13 against US\$ 58 million in the previous quarter. Pre-operating and idle capacity expenses were US\$ 22 million.

The adjusted EBIT margin of the fertilizer business was -4.0%, down from the 8.3% in the previous quarter.

Adjusted EBITDA for the fertilizers business was US\$ 90 million, compared to US\$ 186 million excluding the non-recurring effect of accounting losses related to the sale of the Araucária refinery of US\$ 129 million in 4Q12. The reduction in adjusted EBITDA was a result of the mix of products, mainly driven by the seasonality of the grain crops in Brazil.

**Table 14 - FERTILIZER NUTRIENTS BUSINESS PERFORMANCE****OPERATING REVENUE BY PRODUCT**

US\$ million	1Q13	4Q12	1Q12
Potash	57	79	70
Phosphates	496	622	548
Nitrogen	196	208	192
Others	20	21	19
<b>Total</b>	<b>769</b>	<b>930</b>	<b>829</b>

**AVERAGE SALE PRICE**

US\$/ metric ton	1Q13	4Q12	1Q12
Potash	471.66	552.45	546.88
Phosphates			
MAP	605.18	646.89	693.67
TSP	505.59	526.59	567.80
SSP	285.99	299.00	248.86
DCP	642.68	593.50	706.88
Phosphate rock	122.03	116.35	114.76
Nitrogen	644.04	624.62	542.37

**VOLUME SOLD**

'000 metric tons	1Q13	4Q12	1Q12
Potash	120	143	128
Phosphates			
MAP	298	310	280
TSP	94	142	88



Edgar Filing: Vale S.A. - Form 6-K

SSP	430	501	499
DCP	100	124	108
Phosphate rock	590	954	816
Others phosphates	32	43	39
Nitrogen	305	333	354

**SELECTED FINANCIAL INDICATORS**

US\$ million	1Q13	4Q12	1Q12
Costs	(554)	(615)	(557)
Expenses	(55)	(58)	(29)
Pre-operating, stoppage and idle expenses	(22)	(23)	(25)
Adjusted EBIT margin(1) (%)	(4.0)	8.3	7.7
Adjusted EBIT(1)	(29)	73	60
Adjusted EBITDA(1)	90	186	169

---

(1) Excluding non-recurring items

**Logistics services**

Logistics services generated revenues of US\$ 361 million, weakening from US\$ 384 million in 4Q12 due to seasonally weak demand in Brazil and reducing 10.4% compared to 1Q12, due to lower volumes and prices.

Table of Contents

Revenue from rail transportation of general cargo was US\$ 271 million, compared to US\$ 268 million in 4Q12 and US\$ 265 million in 1Q12.

Vale railroads – Carajás (EFC), Vitória a Minas (EFVM), Norte-Sul (FNS) and Centro-Atlântica (FCA) – transported 5.900 billion ntk(10) of general cargo for clients in 1Q13, 19.6% less than the 7.336 billion ntk in 4Q12, but 16.4% above 1Q12

The main cargoes carried by our railroads in 1Q13 were agricultural products (39.6%), steel industry inputs and products (36.4%), building materials and forestry products (15.0%), fuels (8.5%) and others (0.5%).

Port services revenues totaled US\$ 90 million, 22.3% below US\$ 116 million in 4Q12 after a longer than expected crop season in Brazil at the end of 2012. Our ports and maritime terminals handled 2.850 Mt of general cargo, 29.1% below 4Q12 and 46.4% below 1Q12, still reflecting lower demand for imported metallurgical coal from the Brazilian steel industry.

Adjusted EBIT margin was -17.4%, compared to -15.5% in 4Q12 and -22.4% in 1Q12.

Adjusted EBITDA was negative US\$ 10 million, compared to US\$ 12 million in 4Q12 and negative US\$ 8 million in 1Q12. The US\$ 22 million decrease was mainly due to higher costs and expenses (US\$ 76 million) and lower sales volume (US\$ 41 million), which were partially offset by higher prices (US\$ 72 million).

**Table 15 - LOGISTICS BUSINESS PERFORMANCE**

**OPERATING REVENUE BY PRODUCT**

US\$ million	1Q13	4Q12	1Q12
Railroads	271	268	265
Ports	90	116	138
Total	361	384	403

**VOLUME SOLD**

000 metric tons	1Q13	4Q12	1Q12
Railroads (million ntk)	5,900	7,336	5,070
Ports	2,850	4,022	5,314

**SELECTED FINANCIAL INDICATORS**

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	1Q13	4Q12	1Q12
Costs	(254)	(315)	(290)
Expenses	(44)	10	(54)
Adjusted EBIT margin (%)	(17.4)	(15.5)	(21.4)
Adjusted EBIT	(50)	(49)	(72)
Adjusted EBITDA	(10)	12	(8)

---

(10) Ntk=net ton kilometer

Table of Contents

FINANCIAL INDICATORS OF NON-CONSOLIDATED COMPANIES

For selected financial indicators of the main non-consolidated companies, see our quarterly financial statements on [www.vale.com/investors/Quarterly-results-reports/Financial-statements](http://www.vale.com/investors/Quarterly-results-reports/Financial-statements)

CONFERENCE CALL AND WEBCAST

Vale will host two conference calls and webcasts on Thursday, April 25. The first, in Portuguese (without translation), will begin at 10:00 a.m. Rio de Janeiro time. The second, in English, at 12:00 p.m. Rio de Janeiro time, 11:00 a.m. US Eastern Standard Time, 4:00 p.m. British Standard Time, and 11:00 p.m. Hong Kong time.

Dial in to conference calls/webcasts:

In Portuguese:

Participants from Brazil: (55 11) 4688-6361

Participants from the US: (1 855) 281-6021

Participants from other countries: (1 786) 924-6977

Access code: VALE

In English:

Participants from Brazil: (55 11) 4688-6361

Participants from USA: (1 866) 262-4553

Participants from other countries: (1 412) 317-6029

Access code: VALE

Instructions for participation will be available on the website [www.vale.com/Investors](http://www.vale.com/Investors). A recording will be available on Vale's website for 90 days as of April 25, 2012.



Table of Contents

TRANSITION TO IFRS

As previously announced, starting this quarter, we adopted the IFRS for preparing our reports and financial statements filed with the U.S. Securities and Exchanges Commission (SEC), and therefore ceased following US GAAP. As a result, and given the previous transition to IFRS in Brazil, we now publish all our financial statements according to IFRS.

The differences between IFRS and US GAAP for our results are not material as we have demonstrated in the reconciliation of IFRS and US GAAP throughout the quarters. Those differences are mainly related to accounting treatment of goodwill generated by business combinations and returns coming from overfunded pension plans, net of the respective deferred tax impact.

Table of Contents

## ANNEX 1 FINANCIAL STATEMENTS

**Table 16 - INCOME STATEMENT**

US\$ million	1Q13	4Q12	1Q12
<b>Gross operating revenues</b>	<b>11,201</b>	<b>12,537</b>	<b>11,837</b>
Taxes	(266)	(279)	(285)
<b>Net operating revenue</b>	<b>10,935</b>	<b>12,258</b>	<b>11,552</b>
Cost of goods sold	(5,720)	(7,003)	(6,145)
<b>Gross profit</b>	<b>5,215</b>	<b>5,255</b>	<b>5,407</b>
Gross margin (%)	47.7	42.9	46.8
Selling, general and administrative expenses	(374)	(577)	(529)
Research and development expenses	(176)	(460)	(299)
Gain (loss) from sale of assets		(129)	
Impairment		(4,023)	
Others	(509)	(1,278)	(686)
<b>Operating profit</b>	<b>4,156</b>	<b>(1,212)</b>	<b>3,893</b>
Financial revenues	71	74	119
Financial expenses	(604)	(560)	(613)
Gains (losses) on derivatives, net	106	12	296
Monetary and exchange variation	82	(235)	328
Tax and social contribution (Current)	(1,100)	(614)	(813)
Tax and social contribution (Deferred)	169	1,638	279
Impairment on investments		(1,941)	
Equity income and provision for losses	172	86	246
Minority shareholding participation	57	48	58
<b>Net earnings</b>	<b>3,109</b>	<b>(2,704)</b>	<b>3,793</b>
<b>Earnings per share (US\$)</b>	<b>0.60</b>	<b>(0.52)</b>	<b>0.74</b>

**Table 17 - FINANCIAL RESULTS**

US\$ million	1Q13	4Q12	1Q12
Gross interest	(333)	(315)	(338)
Debt with third parties	(333)	(311)	(338)
Debt with related parties		(4)	
Tax and labour contingencies	(17)	(19)	(36)
Others	(254)	(226)	(239)
<b>Financial expenses</b>	<b>(604)</b>	<b>(560)</b>	<b>(613)</b>
<b>Financial income</b>	<b>71</b>	<b>74</b>	<b>119</b>
<b>Derivatives</b>	<b>106</b>	<b>12</b>	<b>296</b>
<b>Exchange and monetary gain (losses), net</b>	<b>82</b>	<b>(235)</b>	<b>328</b>
<b>Financial result, net</b>	<b>(345)</b>	<b>(709)</b>	<b>130</b>

**Table 18 - EQUITY INCOME BY BUSINESS SEGMENT**

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	1Q13	%	4Q12	%	1Q12	%
Ferrous minerals	162	94.2	131	152.3	234	95.1
Coal	5	2.9	9	10.5	14	5.7
Base metals	(1)	(0.6)	(1)	(1.2)	34	13.8
Logistics	17	9.9	25	29.1	30	12.2
Steel	(2)	(1.2)	(69)	(80.2)	(34)	(13.8)
Others	(9)	(5.2)	(9)	(10.5)	(32)	(13.0)
<b>Total</b>	<b>172</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>	<b>246</b>	<b>100.0</b>



Table of Contents**Table 19 - BALANCE SHEET**

US\$ million	31/03/2013	31/12/2012	31/03/2012
<b>Assets</b>			
Current	22,876	22,526	21,533
Long-term	7,948	7,579	5,497
Fixed	102,330	100,477	99,876
<b>Total</b>	<b>133,154</b>	<b>130,582</b>	<b>126,906</b>
<b>Liabilities</b>			
Current	11,393	12,582	11,093
Long term	44,225	43,074	37,941
Shareholders' equity	77,536	74,926	77,872
Paid-up capital	56,101	56,101	54,916
Reserves	19,901	17,237	20,628
Non controlling interest	1,534	1,588	1,715
Mandatory convertible notes			613
<b>Total</b>	<b>133,154</b>	<b>130,582</b>	<b>126,906</b>

Table of Contents**Table 20 - CASH FLOW**

US\$ million	1Q13	4Q12	1Q12
<b>Cash flows from operating activities:</b>			
Net income	3,052	(2,752)	3,735
Adjustments to reconcile net income with cash provided by operating activities:			
Depreciation, depletion and amortization	1,046	1,200	1,013
Equity in results of affiliates and joint ventures and change in provision for losses on equity investments	(172)	(86)	(246)
Deferred income taxes	(169)	(1,638)	(279)
Impairment		5,963	
Loss on sale of property, plant and equipment	78	14	44
Gain on sale of investment		129	
Gain on sale of assets	(244)		
Exchange and monetary losses	(77)	300	(92)
Net unrealized derivative losses	(9)	(9)	(114)
Debentures	167	(48)	97
Others	(51)	(107)	17
Decrease (increase) in assets:			
Accounts receivable	377	125	645
Inventories	(338)	168	(445)
Recoverable taxes	12	(227)	355
Others	184	454	(21)
Increase (decrease) in liabilities:			
Suppliers	(366)	(276)	(391)
Payroll and related charges	(658)	422	(601)
Income tax	(25)	(368)	(472)
Goldstream transaction	1,319		
Others	(258)	(83)	(50)
<b>Net cash provided by operating activities</b>	<b>3,868</b>	<b>3,181</b>	<b>3,195</b>
Cash flows from investing activities:			
Short term investments	(321)	439	
Loans and advances receivable	24	5	(38)
Guarantees and deposits	(24)	(18)	(12)
Additions to investments	(182)	(173)	(217)
Additions to property, plant and equipment	(3,547)	(4,756)	(2,961)
Dividends received		263	60
Proceeds from disposals of investment	95	608	
Proceeds from Goldstream transaction	581		
Net cash used to acquire subsidiaries			
<b>Net cash used in investing activities</b>	<b>(3,374)</b>	<b>(3,632)</b>	<b>(3,168)</b>
Cash flows from financing activities:			
Short-term debt, net issuances (repayments)	(14)	(483)	464
Long-term debt	129	2,019	1,014
Repayment of long-term debt	(410)	(257)	(63)
Transactions of noncontrolling interest		92	(76)
Interest attributed to shareholders		(3,000)	
Dividends to minority interest		(10)	
Net cash used in financing activities	(295)	(1,639)	1,339
Increase (decrease) in cash and cash equivalents	199	(2,090)	1,366
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>11</b>	<b>(29)</b>	<b>25</b>
Cash and cash equivalents, beginning of period	5,832	7,951	3,531
Cash and cash equivalents, end of period	6,042	5,832	4,922
Interest on short-term debt		(7)	(1)

Edgar Filing: Vale S.A. - Form 6-K

Interest on long-term debt	(434)	(321)	(325)
Income tax	(824)	(247)	(656)
Interest capitalized	117	176	56

Table of Contents

## ANNEX 2 VOLUMES SOLD, PRICES, MARGINS AND CASH FLOWS

**Table 21 - VOLUME SOLD - MINERALS AND METALS**

000 metric tons	1Q13	4Q12	1Q12
Iron ore	55,679	74,085	54,793
Pellets	9,425	10,739	10,400
Manganese ore	417	473	316
Ferroalloys	48	34	103
Thermal coal	60	228	1,570
Metallurgical coal	1,447	1,364	1,199
Nickel	63	58	56
Copper	72	79	58
Gold ( 000 oz)	47	52	35
Silver ( 000 oz)	455	443	567
PGMs ( 000 oz)	125	77	97
Cobalt (metric ton)	805	455	577
Potash	120	143	128
Phosphates			
MAP	298	310	280
TSP	94	142	88
SSP	430	501	499
DCP	100	124	108
Phosphate rock	590	954	816
Others phosphates	32	43	39
Nitrogen	305	333	354
Railroads (million ntk)	5,900	7,336	5,070
Ports	2,850	4,022	5,314

**Table 22 - AVERAGE SALE PRICES**

US\$/ton	1Q13	4Q12	1Q12
Iron ore	111.69	100.43	118.09
Pellets	154.67	129.97	163.69
Manganese ore	153.10	152.22	132.91
Ferroalloys	1,383.69	1,470.59	1,203.88
Thermal coal	94.30	93.57	87.58
Metallurgical coal	142.09	132.49	209.53
Nickel	17,205.76	17,500.00	19,696.43
Copper	7,104.54	7,510.35	8,117.28
Platinum (US\$/oz)	1,626.29	1,670.11	1,741.17
Gold (US\$/oz)	1,626.13	1,736.23	1,800.99
Silver (US\$/oz)	26.09	36.83	36.80
Cobalt (US\$/lb)	10.11	10.97	13.36
Potash	471.66	552.45	546.88
Phosphates			
MAP	605.18	646.89	693.67
TSP	505.59	526.59	567.80

Edgar Filing: Vale S.A. - Form 6-K

SSP	285.99	299.00	248.86
DCP	642.68	593.50	706.88
Phosphate rock	122.03	116.35	114.76
Nitrogen	644.04	624.62	542.37

Table of Contents**Table 23- OPERATING MARGIN BY SEGMENT (EBIT ADJUSTED MARGIN)**

%	1Q13	4Q12	1Q12
<b>Bulk materials(1)</b>	<b>51.6</b>	<b>40.7</b>	<b>50.5</b>
Ferrous minerals	56.4	44.4	53.4
Coal	(122.3)	(121.8)	(12.3)
<b>Base metals</b>	<b>16.0</b>	<b>(16.0)</b>	<b>2.4</b>
<b>Fertilizer nutrients</b>	<b>(4.0)</b>	<b>8.3</b>	<b>7.7</b>
<b>Logistics</b>	<b>(17.4)</b>	<b>(15.5)</b>	<b>(21.4)</b>
<b>Total(1)</b>	<b>38.0</b>	<b>24.0</b>	<b>33.7</b>

---

(1) excluding non-recurring effects

Table of Contents

## ANNEX 3 RECONCILIATION OF IFRS and NON-GAAP INFORMATION

**(a) Adjusted EBIT**

US\$ million	1Q13	4Q12	1Q12
Net operating revenues	10,935	12,258	11,552
COGS	(5,720)	(7,003)	(6,145)
SG&A	(374)	(577)	(529)
Research and development	(176)	(460)	(299)
Other operational expenses	(509)	(1,278)	(686)
<b>Adjusted EBIT(1)</b>	<b>4,156</b>	<b>2,940</b>	<b>3,893</b>

---

(1) Excluding non-recurring effects

**(b) Adjusted EBITDA**

EBITDA defines profit or loss before interest, tax, depreciation and amortization. Vale uses the term adjusted EBITDA to reflect exclusion, also, of: monetary variations; equity income from the profit or loss of affiliated companies and joint ventures, less the dividends received from them; provisions for losses on investments; adjustments for changes in accounting practices; minority interests; and non-recurrent expenses. However our adjusted EBITDA is not the measure defined as EBITDA under IFRS, and may possibly not be comparable with indicators with the same name reported by other companies. Adjusted EBITDA should not be considered as a substitute for operational profit or as a better measure of liquidity than operational cash flow, which are calculated in accordance with GAAP. Vale provides its adjusted EBITDA to give additional information about its capacity to pay debt, carry out investments and cover working capital needs. The following table shows the reconciliation between adjusted EBITDA and operational cash flow, in accordance with its statement of changes in financial position:

**RECONCILIATION BETWEEN ADJUSTED EBITDA AND OPERATIONAL CASH FLOW**

US\$ million	1Q13	4Q12	1Q12
Operational cash flow	3,868	3,181	3,195
Income tax	1,100	614	813
FX and monetary losses	77	(65)	92
Financial expenses	349	506	(147)
Net working capital	(515)	(215)	883
Dividends received		263	60
Other	323	119	70
<b>Adjusted EBITDA</b>	<b>5,202</b>	<b>4,403</b>	<b>4,966</b>

**(c) Net debt**

Edgar Filing: Vale S.A. - Form 6-K

US\$ million	1Q13	4Q12	1Q12
Total debt	30,191	30,546	24,939
Cash and cash equivalents	6,609	6,078	4,922
Net debt	23,582	24,468	20,017

US\$ million	1Q13	4Q12	1Q12
Total debt / LTM Adjusted EBITDA(1) (x)	1.6	1.6	0.8
Total debt / LTM operational cash flow (x)	1.8	1.9	1.1

---

(1) excluding non-recurring items

US\$ million	1Q13	4Q12	1Q12
Total debt / EV (%)	26.2	22.5	17.3
Total debt / total assets (%)	22.7	23.4	19.7
Enterprise value = Market capitalization + Net debt			

US\$ million	1Q13	4Q12	1Q12
LTM adjusted EBITDA(1) / LTM interest payments (x)	13.7	14.6	27.5
LTM operational profit / LTM interest payments (x)	6.7	7.1	23.0

---

(1) excluding non-recurring items



Table of Contents

US\$ million	1Q13	4Q12	1Q12
Underlying earnings	3,199	1,952	3,559
Impairment on assets		(4,023)	
Gain(loss) on sale of assets		(129)	
Deferred Income Tax of Impairment		1,627	
Impairment on investments		(1,941)	
Shareholders Debentures	(172)	45	(103)
Foreign exchange gains (losses) , net	107	(162)	238
Indexation gains (losses), net	(25)	(73)	99

This press release may include statements that present Vale's expectations about future events or results. All statements, when based upon expectations about the future and not on historical facts, involve various risks and uncertainties. Vale cannot guarantee that such statements will prove correct. These risks and uncertainties include factors related to the following: (a) the countries where we operate, especially Brazil and Canada; (b) the global economy; (c) the capital markets; (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature; and (e) global competition in the markets in which Vale operates. To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports Vale files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM), the French Autorité des Marchés Financiers (AMF), and The Stock Exchange of Hong Kong Limited, and in particular the factors discussed under "Forward-Looking Statements" and "Risk Factors" in Vale's annual report on Form 20-F.

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: April 24, 2013

By:

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

---