

Vale S.A.
Form 6-K
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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

August 2013

Vale S.A.

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

(Address of principal executive office)

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2Q13 Production Report

A SOLID PERFORMANCE IN BASE METALS AND COAL

Rio de Janeiro, August 7, 2013 Vale S.A. (Vale) continued to show a strong operational performance for base metals in 2Q13. The production of copper reached an all-time high, at 91,300 metric tons, while nickel had its best second quarter since 2Q08, with 65,000 metric tons.

At the same time, coal output achieved a record figure, at 2.4 Mt(1), rising 35.6% against 1Q13.

While the successful ramp-up of Salobo is proving instrumental in the rising copper output, 181,000 t in 1H13 vs 143,000 t in 1H12, the production of coal, 4.1 Mt in 1H13 against 3.4 Mt in 1H12, was positively influenced by the performance of Carborough Downs and the ramp-up of Moatize.

Iron ore output in 2Q13 was 8.4% higher than 1Q13, at 73.2 Mt, but 9.1% lower than in 2Q12. We missed the production target for 1H13 by 2.7 Mt, but we still maintain the 306 Mt guidance for the year.

An important milestone to our future growth was reached in July, with the granting of the installation license (LI) for the S11D project. S11D is the highest grade and lowest cash-cost world-class project in the iron ore industry, with a nominal capacity of 90 Mtpy of iron ore. It is seated in a deposit with proven and probable reserves of 4.240 billion metric tons with an average ferrous content of 66.7% and low impurities while its estimated operational cash cost (mine, plant, railway and port after royalties) is US\$ 15.00 per metric ton (at a BRL 2.00 per USD exchange rate). S11D is expected to start up in 2H16 and to deliver full capacity production in the 2018 calendar year.

(1) Mt= million metric tons.

Kt = thousand metric tons

t = metric tons

Production

000 metric

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| tons | 1Q13 | 2Q13 | % | 1H12 | 1H13 | % |
|----------------|--------|--------|------|---------|---------|-------|
| Iron ore(a) | 67,536 | 73,225 | 8.4 | 150,536 | 140,761 | -6.5 |
| Pellets(a) | 11,672 | 12,336 | 5.7 | 28,015 | 24,008 | -14.3 |
| Manganese | 501 | 617 | 23.1 | 1,068 | 1,118 | 4.7 |
| Coal | 1,752 | 2,376 | 35.6 | 3,398 | 4,128 | 21.5 |
| Nickel | 65 | 65 | 0.1 | 124 | 130 | 4.9 |
| Copper | 90 | 91 | 2.0 | 143 | 181 | 26.7 |
| Potash | 120 | 113 | -5.4 | 247 | 233 | -5.3 |
| Phosphate rock | 1,991 | 1,896 | -4.8 | 3,843 | 3,888 | 1.2 |

(a) Including Samarco's attributable production.

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BULK MATERIALS

• *Iron ore*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|----------------------------|---------------|---------------|---------------|----------------|----------------|-----------------------|-----------------------|-----------------------|
| IRON ORE | 80,542 | 67,536 | 73,225 | 150,536 | 140,761 | 8.4% | -9.1% | -6.5% |
| Northern System | 27,362 | 21,605 | 21,904 | 49,073 | 43,508 | 1.4% | -19.9% | -11.3% |
| Carajás | 27,362 | 21,605 | 21,904 | 49,073 | 43,508 | 1.4% | -19.9% | -11.3% |
| Southeastern System | 28,296 | 24,782 | 26,723 | 55,054 | 51,505 | 7.8% | -5.6% | -6.4% |
| Itabira | 9,184 | 6,780 | 7,936 | 17,338 | 14,716 | 17.0% | -13.6% | -15.1% |
| Mariana | 9,080 | 8,856 | 8,853 | 18,420 | 17,709 | 0.0% | -2.5% | -3.9% |
| Minas Centrais | 10,032 | 9,146 | 9,934 | 19,297 | 19,080 | 8.6% | -1.0% | -1.1% |
| Southern System | 20,743 | 17,039 | 20,469 | 38,409 | 37,508 | 20.1% | -1.3% | -2.3% |
| Minas Itabirito | 7,993 | 6,624 | 8,092 | 15,338 | 14,716 | 22.2% | 1.2% | -4.1% |
| Vargem Grande | 5,950 | 4,891 | 5,958 | 10,750 | 10,849 | 21.8% | 0.1% | 0.9% |
| Paraopeba | 6,800 | 5,524 | 6,419 | 12,321 | 11,943 | 16.2% | -5.6% | -3.1% |
| Midwestern System | 1,366 | 1,425 | 1,480 | 2,668 | 2,905 | 3.8% | 8.3% | 8.9% |
| Corumbá | 915 | 988 | 994 | 1,890 | 1,982 | 0.7% | 8.7% | 4.9% |
| Urucum | 451 | 437 | 486 | 778 | 923 | 11.0% | 7.6% | 18.7% |
| Samarco(1) | 2,775 | 2,685 | 2,650 | 5,331 | 5,334 | -1.3% | -4.5% | 0.1% |

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

Vale produced 73.2 Mt of iron ore in 2Q13. Excluding the attributable production of Samarco, iron ore output reached 70.6 Mt, which was 8.8% higher than 1Q13. Considering the first half of the year, production was 2.7 Mt short of the 138.1 Mt budgeted for the period. That target recognized the rainfall distribution across the year and the evolution of mining plans in Carajás while we do not have the permits to open the N4WS mine and other pits. However, the operational performance was affected by the extension of the rainy season through May in the North of Brazil and the lack of flexibility of deeper pits under rainy conditions.

With the dry season already under way, operating performance in Carajás is improving and we are still aiming to produce close to the budgeted volume for 2013. Iron ore production in July was 27.9 Mt against 27.6 Mt in the same month of last year, driven by a strong performance from Carajás, where output rose to 10.4 Mt from 9.5 Mt in July 2012.

Of the iron ore output, 10.9 Mt was designated to feed the pelletizing plants, while 2.4 Mt was bought from third parties to complement our production. Iron ore sales in 2Q13 totaled 61.9 Mt, 1.0 Mt below 2Q12, but 7.1 Mt higher than 1Q13.

In 2Q13 we produced 21.9 Mt at Carajás, and as a result we missed the Carajás production budget for 1H13 by 4 Mt. The longer rainy season was one of the factors underlying Carajás weaker performance. In addition, we are still working to obtain all the necessary permits to fully

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exploit our mineral reserves. In response to the constraints posed by the licenses, we have adapted the mining plans to enable the exploitation of more productive mine sections in order to meet the demand for iron ore from our clients. As a result, we expect Carajás production in 2H13 to be in line with the 67.0 Mt budget.

The Southeastern System, which encompasses the Itabira, Mariana and Minas Centrais mining

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sites, produced 26.7 Mt in 2Q13, an increase of 7.8% compared to 1Q13, but 5.6% below 2Q12.

The production of Itabira was 17.0% above last quarter, positively influenced by the high grade ROM (run-of-mine) fed to the processing plant by the crusher due to better weather conditions. However, output was 13.6% below 2Q12, given the impoverishment of resources. Conceição Itabiritos, scheduled to start up in 4Q13, will improve quality and add extra capacity of 12 Mt.

The output of Mariana was in line with 1Q13, and 2.5% lower than 2Q12. We expect to increase production in 4Q13 as a result of the permit to exploit new mine sections at Fábrica Nova granted at the end of May.

The production of Minas Centrais was 8.6% above last quarter due to the good performance of Gongo Soco mine, as a result of the maximization of the use of its remaining reserves. Mine closure is planned for 2014.

The Southern System – Minas Itabirito, Vargem Grande and Paraopeba – produced 20.5 Mt, in line with 2Q12 and 20.1% higher than 1Q13.

The output of Minas Itabirito was 22.2% higher than 1Q13 and 1.2% above the same period of last year, a record for a second quarter. The resumption of Pico B plant operation and better weather conditions contributed to the good performance.

The production of Vargem Grande was 21.8% higher than 1Q13 showing a good operational performance after the scheduled maintenance stoppage in 1Q13.

The output of Paraopeba was 16.2% higher than last quarter due to lower levels of rain in 2Q13.

The Midwestern System, comprised of Urucum and Corumbá, produced 1.5 Mt in 2Q13, 3.8% higher than 1Q13 and 8.3% above than the same period of last year due to better operational performance.

• *Pellets*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|------------------|---------------|---------------|---------------|---------------|---------------|-----------------------|-----------------------|-----------------------|
| PELLETS | 14,802 | 11,672 | 12,336 | 28,015 | 24,008 | 5.7% | -16.7% | -14.3% |
| Tubarão I and II | 1,530 | 0 | 0 | 2,592 | 0 | n.m. | n.m. | n.m. |

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| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Fábrica | 956 | 954 | 968 | 1,863 | 1,921 | 1.5% | 1.2% | 3.1% |
| São Luís | 1,373 | 0 | 0 | 2,334 | 0 | n.m. | n.m. | n.m. |
| Vargem Grande | 1,383 | 1,053 | 1,315 | 2,206 | 2,368 | 24.8% | -5.0% | 7.3% |
| Oman | 1,593 | 1,965 | 1,760 | 3,008 | 3,725 | -10.4% | 10.5% | 23.8% |
| Nibrasco | 1,977 | 2,191 | 2,397 | 4,234 | 4,588 | 9.4% | 21.2% | 8.3% |
| Kobrasco | 1,258 | 1,133 | 1,116 | 2,397 | 2,249 | -1.5% | -11.3% | -6.2% |
| Hispanobras(1) | 1,111 | 755 | 1,056 | 2,172 | 1,812 | 39.9% | -4.9% | -16.6% |
| Itabrasco | 1,020 | 1,090 | 1,101 | 2,039 | 2,191 | 1.0% | 7.9% | 7.5% |
| Samarco(2) | 2,599 | 2,530 | 2,623 | 5,169 | 5,153 | 3.7% | 0.9% | -0.3% |

(1) Production attributable to Vale on a pro forma basis. In July 2012, we entered into a leasing contract for the Hispanobras pelletizing operation. As a consequence, their production is being consolidated 100% on a pro forma basis.

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

Pellet production reached 12.3 Mt, 5.7% higher than 1Q13 but 16.7% below the same period of last year, reflecting the shutdown of the Tubarão I and II and São Luis pellet plants. These three plants delivered 2.9 Mt in 2Q12.

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Following the shift in demand composition, the share of direct reduction pellets in our production amounted to 32% in 2Q13 against 25% in 2Q12.

Production volumes at the Tubarão plants ex- Tubarão I and II Nibrasco, Kobrasco, Hispanobras and Itabasco increased to 5.670 Mt in 2Q13 from 5.169 Mt in 1Q13 and 5.366 Mt in 2Q12, showing a good operational performance in Nibrasco after the scheduled maintenance stoppage in 1Q13.

In 2Q13, Vargem Grande expanded production by 24.8% when compared to 1Q13, recovering from the weaker demand in the period.

The Oman operations delivered 1.8 Mt of direct reduction pellets in 2Q13, 10.4% lower than the previous quarter due to the annual maintenance stoppage.

The attributable production from the three Samarco plants was in line with 1Q13 and 2Q12.

- ***Manganese ore and ferroalloys***

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|----------------------|------------|------------|------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| MANGANESE ORE | 584 | 501 | 617 | 1,068 | 1,118 | 23.1% | 5.6% | 4.7% |
| Azul | 463 | 381 | 472 | 843 | 853 | 23.8% | 1.8% | 1.2% |
| Urucum | 81 | 98 | 114 | 148 | 212 | 17.0% | 40.6% | 43.4% |
| Other mines | 39 | 23 | 31 | 78 | 53 | 35.7% | -22.1% | -31.4% |
| FERROALLOYS | 109 | 32 | 41 | 215 | 73 | 26.3% | -62.6% | -66.1% |
| Brazil | 46 | 32 | 41 | 96 | 73 | 26.3% | -11.9% | -23.8% |
| Dunkerque | 35 | 0 | 0 | 64 | 0 | n.m. | n.m. | n.m. |
| Mo I Rana | 28 | 0 | 0 | 55 | 0 | n.m. | n.m. | n.m. |

In 2Q13, manganese output continued to respond to stronger demand and higher prices, showing good operational figures at 617,000 t against 501,000 t in 1Q13 and 584,000 t in 2Q12.

Output from the Carajás Azul manganese mine was 472,000 t, 23.8% higher than 1Q13 as a result of the high level of ore recovery at the processing plant following the end of rainy season.

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Production from Urucum was the best for a second quarter since 2Q03, at 114,000 t, continuing to reflect the efficiency gains brought by the operation of new equipment.

Morro da Mina output, which is part of other mines, was 35.7% higher than 1Q13, recovering from a scheduled maintenance stoppage, but 22.1% lower than 2Q12.

Ferroalloy quarterly production was comprised of 30,100 t of ferrosilicon manganese alloys (FeSiMn), 6,900 t of high-carbon manganese alloys (FeMnHc) and 3,700 t of medium-carbon manganese alloys (FeMnMC).

In 2Q13, ferroalloy production was 26.3% higher than 1Q13 due to the recovery after a maintenance stoppage.

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- *Coal*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|----------------------|--------------|--------------|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| METALLURGICAL | | | | | | | | |
| COAL | 1,277 | 1,373 | 1,839 | 2,403 | 3,212 | 33.9% | 44.0% | 33.6% |
| Moatize | 728 | 417 | 849 | 1,229 | 1,265 | 103.5% | 16.6% | 3.0% |
| Carborough | | | | | | | | |
| Downs | 82 | 554 | 670 | 407 | 1,224 | 20.8% | 719.6% | 201.1% |
| Integra Coal | 266 | 218 | 198 | 390 | 416 | -9.3% | -25.8% | 6.5% |
| Others | 201 | 184 | 123 | 378 | 307 | -33.1% | -38.7% | -18.7% |
| THERMAL COAL | | | | | | | | |
| Moatize | 390 | 256 | 448 | 583 | 704 | 74.8% | 14.9% | 20.7% |
| Integra Coal | 121 | 24 | 5 | 202 | 29 | -77.8% | -95.6% | -85.5% |
| Others | 108 | 99 | 84 | 210 | 183 | -15.4% | -22.5% | -12.8% |

Coal output in 2Q13, at 2.4 Mt, achieved a new historic record, mostly influenced by the performance of Carborough Downs (CD) and the ramp-up of Moatize.

In 2Q13, CD, which is a 100% metallurgical coal underground mining operation, increased its output by 20.8% when compared to 1Q13, reaching a record volume of 670,000 t, continuing to show high performance after the longwall move in early January.

The ramp-up of Moatize, the first phase of the Moatize coal project, in Tete, Mozambique, is progressing well, with a record production of 1.3 Mt in 2Q13. The end of the rainy season, which had negative effects in 1Q13, contributed to the better performance.

Production of metallurgical and thermal coal at Integra Coal was 198,000 t and 5,000 t, respectively, in 2Q13.

The Integra underground mine, which only produces semi-hard coking coal, experienced electrical issues with the longwall. The operation of the open cut mine, which produces both thermal and metallurgical coal, was affected by a ROM (run-of-mine) wall replacement that started on June 1st and took 27 days to be concluded. During this period no ROM was fed into the coal-handling preparation plant (CHPP), meaning almost zero production in June. On the other hand, all the ROM accumulated in 2Q13, due to the wall replacement, will pave the way for a strong recovery in 3Q13.

In addition to the wall replacement, the open cut ROM fed into the CHPP in April and May came from seams that produce predominantly semi-soft coking coal as opposed to thermal coal.

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Production from our other Australian mines was 207,000 t in 2Q13, decreasing from 283,000 t in 1Q13, as a result of temporary problems caused by the removal of a bridge between two pits, creating a larger single pit, but this will provide better mining efficiency in the future.

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BASE METALS

• *Nickel*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|-----------------|-----------|-----------|-----------|------------|------------|-----------------------|-----------------------|-----------------------|
| NICKEL | 61 | 65 | 65 | 124 | 130 | 0.1% | 6.9% | 4.9% |
| Sudbury | 17 | 17 | 18 | 40 | 35 | 4.6% | 2.9% | -12.2% |
| Thompson | 7 | 7 | 6 | 13 | 13 | -13.1% | -8.0% | 5.1% |
| Voisey s Bay | 15 | 19 | 15 | 29 | 34 | -19.2% | 2.7% | 15.8% |
| Sorowako | 17 | 17 | 18 | 29 | 36 | 5.1% | 9.1% | 22.7% |
| VNC | 2 | 3 | 7 | 4 | 10 | 127.9% | 249.5% | 128.0% |
| Onça Puma | 2 | 0 | 0 | 6 | 0 | n.m. | n.m. | n.m. |
| Others(1) | 2 | 2 | 1 | 3 | 3 | -44.7% | -37.4% | -13.5% |

(1) External feed purchased from third parties and processed into finished nickel in our operations

Total finished nickel production in 2Q13 was 65,000 t, in line with 1Q13 and 6.9% above 2Q12. The ramp-up of VNC and the performance of Sorowako more than offset the effect of the slight output decreases at Voisey s Bay and Thompson.

Finished nickel production using feed delivered by the Sudbury operations was 4.6% higher than 1Q13, at 17,900 t, and 2.9% above 2Q12. Despite some operational issues at the smelter, the high productivity showed by the Sudbury mines led to a preferential treatment of its feed to avoid excessive inventories and contributed to a higher output of finished nickel in 2Q13. As the Copper Cliff smelter (CCS) processed more Sudbury feed, there was some inventory accumulation of Voisey s Bay feed - which is also processed by CCS - to support future finished nickel production.

Finished nickel production sourced from Voisey s Bay concentrates which are processed through the Sudbury and Thompson smelters amounted to 15,100 t in 2Q13 with a decrease of 19.2% in relation to 1Q13. Maintenance of the Voisey s Bay mill and the preferential treatment of Sudbury feed by the CCS caused the decrease.

The output at Thompson in 2Q13 was 6,200 t, a decrease of 600 t against 1Q13 and 1,000 t against 2Q12.

Production of nickel in matte from our Indonesian Sorowako operations totaled 19,200 t, 2,100 t higher than 1Q13, which was affected by a three-week furnace shutdown in March. This resulted in an output of finished nickel sourced from Sorowako - which is primarily processed at the Matsuzaka refinery in Japan - of 18,300 t, 5.1% higher than 1Q13.

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VNC is operating with two autoclaves simultaneously in accordance with the ramp-up plans. As a result of the anticipated maintenance of the acid plant, originally planned for August 2013, its performance was inferior to 1Q13, when it produced 5,100 t of nickel contained in nickel hydroxide cake (NHC) and nickel oxide (NiO). VNC produced 3,400 t of nickel in 2Q13, of which 1,800 t contained in NHC and 1,600 t of NiO. In early June the operations at VNC were normalized.

In terms of final products saleable directly to clients, VNC production reached an all-time high figure of 6,600 t of nickel, comprised of 400 t of NiO, 1,800 t of NHC and 4,400 t of finished nickel, thus increasing by 249.5% on year-on-year basis. VNC NiO output is mostly processed into finished nickel (utility nickel) at our Asian refineries, primarily at Dalian, in China.

Onça Puma remains shut down, and it is expected to resume operation in 4Q13 with one furnace only.

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- Copper*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|-----------------|-----------|-----------|-----------|------------|------------|-----------------------|-----------------------|-----------------------|
| COPPER | 70 | 90 | 91 | 143 | 181 | 2.0% | 30.3% | 26.7% |
| Sossego | 28 | 28 | 29 | 53 | 57 | 4.2% | 3.0% | 6.5% |
| Salobo | 0 | 11 | 15 | 0 | 26 | 38.8% | n.m. | n.m. |
| Sudbury | 22 | 26 | 26 | 46 | 52 | 1.6% | 20.1% | 14.7% |
| Thompson | 1 | 0 | 1 | 2 | 1 | 61.6% | -18.1% | -44.7% |
| Voisey s Bay | 8 | 11 | 8 | 19 | 19 | -30.6% | -2.0% | -2.9% |
| Tres Valles | 3 | 4 | 4 | 7 | 7 | -2.7% | 3.9% | 4.0% |
| Lubambe(1) | 0 | 2 | 3 | 0 | 5 | 47.2% | n.m. | n.m. |
| Others | 8 | 8 | 6 | 15 | 14 | -21.9% | -19.7% | -10.7% |

(1) Vale s attributable production capacity of 40%.

In 2Q13, copper production was 91,300 t, a new production record, due to the successful ramp-up of Salobo I and Lubambe.

Salobo I produced 15,300 t of copper in concentrates, approximately 61% of its nominal capacity, and 25,000 troy ounces (oz) of gold as a by-product.

Lubambe, our Zambian JV, is also ramping up, delivering 6,800 t of copper in concentrates on a 100% basis (attributable production of 2,700 t). Lubambe has a nominal capacity of 45,000 t per year.

Production of copper in concentrates at the Sossego mine at Carajás totaled 28,900 t, in 2Q13, an increase of 4.2% when compared to 1Q13.

Production of copper, a co-product from our Canadian nickel operations, was 34,700 t, decreasing 7.3% on a quarter-on-quarter basis.

Sudbury production was 26,400 t, a 1.6% increase, as a result of the preferential treatment of Sudbury concentrates in the smelter.

Voisey s Bay production was 7,600 t, 3,400 t lower than 1Q13, due primarily to scheduled maintenance in the Voisey s Bay mill and test work in Sudbury for the future single furnace operation at the CCS.

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Output at Tres Valles, in Chile, was 3,600 t of copper cathodes in 2Q13, in line with the previous quarter and 3.9% higher year-on-year, as a result of the ramp-up to nominal capacity.

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- Nickel and copper by-products*

| | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|--------------------------------|------------|------------|------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| COBALT (metric tons) | 693 | 993 | 877 | 1,285 | 1,870 | -11.7% | 26.6% | 45.6% |
| Sudbury | 166 | 175 | 287 | 372 | 463 | 63.9% | 72.7% | 24.2% |
| Thompson | 22 | 14 | 74 | 44 | 87 | 435.4% | 232.7% | 98.1% |
| Voisey's Bay | 316 | 432 | 307 | 626 | 739 | -28.9% | -2.9% | 18.0% |
| VNC | 177 | 372 | 196 | 217 | 568 | -47.3% | 10.5% | 161.5% |
| Others | 11 | 0 | 14 | 25 | 14 | n.m. | 22.8% | -46.0% |
| PLATINUM (000 oz troy) | 39 | 34 | 33 | 77 | 67 | -4.2% | -16.2% | -13.1% |
| Sudbury | 39 | 34 | 33 | 77 | 67 | -4.2% | -16.2% | -13.1% |
| PALLADIUM (000 oz troy) | 66 | 89 | 81 | 125 | 169 | -9.2% | 21.9% | 35.3% |
| Sudbury | 66 | 89 | 81 | 125 | 169 | -9.2% | 21.9% | 35.3% |
| GOLD (000 oz troy) | 37 | 58 | 63 | 37 | 43 | 9.0% | 72.6% | 16.3% |
| Sudbury | 18 | 22 | 21 | 37 | 43 | -4.0% | 17.5% | 16.3% |
| Sossego | 18 | 17 | 17 | 0 | 0 | -3.3% | -6.8% | n.m. |
| Salobo | 1 | 19 | 25 | 0 | 0 | 35.7% | n.m. | n.m. |
| SILVER (000 oz troy) | 567 | 425 | 547 | 1,162 | 972 | 28.8% | -3.4% | -16.3% |
| Sudbury | 567 | 425 | 547 | 1,162 | 972 | 28.8% | -3.4% | -16.3% |

Output of cobalt reached 877 t, 11.7% below 1Q13, mainly reflecting the lower production from VNC, which totaled 196 t, 47.3% lower than 1Q13.

Platinum output was 33,000 oz and palladium was 81,000 oz, 4.2%, and 9.2% below 1Q13, respectively.

Gold production achieved an all-time high figure of 63,000 oz in 2Q13, 9.0% higher than 1Q13, due to the increase in Salobo's output.

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FERTILIZER NUTRIENTS

• *Potash*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|-------------------|------------|------------|------------|------------|------------|-----------------------|-----------------------|-----------------------|
| POTASH | 129 | 120 | 113 | 247 | 233 | -5.4% | -11.7% | -5.3% |
| Taquari-Vassouras | 129 | 120 | 113 | 247 | 233 | -5.4% | -11.7% | -5.3% |

• *Phosphates*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|-----------------------|--------------|--------------|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| PHOSPHATE ROCK | 2,017 | 1,991 | 1,896 | 3,843 | 3,888 | -4.8% | -6.0% | 1.2% |
| Brazil | 1,237 | 1,137 | 1,131 | 2,349 | 2,267 | -0.5% | -8.6% | -3.5% |
| Bayóvar | 779 | 855 | 766 | 1,493 | 1,621 | -10.4% | -1.7% | 8.5% |
| MAP(1) | 286 | 288 | 306 | 597 | 594 | 6.2% | 7.1% | -0.5% |
| TSP(2) | 213 | 251 | 216 | 454 | 466 | -14.0% | 1.3% | 2.8% |
| SSP(3) | 507 | 554 | 494 | 991 | 1,048 | -10.9% | -2.6% | 5.7% |
| DCP(4) | 136 | 121 | 124 | 280 | 245 | 2.9% | -8.6% | -12.5% |

(1) Monoammonium phosphate

(2) Triple superphosphate

(3) Single superphosphate

(4) Dicalcium phosphate

Production of potash was 113,000 t in 2Q13, decreasing 5.4% quarter-over-quarter and 11.7% lower than 2Q12, due to a non-scheduled maintenance stoppage.

Total production of phosphate rock, which is used to feed the production of phosphate nutrients, decreased 4.8% over 1Q13, due to a non-scheduled maintenance stoppage in Bayóvar.

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The production of MAP (monoammonium phosphate) totaled 306,000 t in 2Q13, a 6.2% rise on a quarter-over-quarter basis, having recovered from operational issues in 1Q13.

TSP (triple superphosphate) production reached 216,000 t, 14.0% lower than 1Q13, due to lower availability of feed in Uberaba.

In 2Q13, production of SSP (single superphosphate) was 10.9% and 2.6% lower than 1Q13 and 2Q12, respectively, due to a non- scheduled corrective maintenance stoppage during 2Q13.

DCP (dicalcium phosphate) production was 8.6% lower than 2Q12, reflecting production adjustments due to weaker demand.

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- Nitrogen*

| 000 metric tons | 2Q12 | 1Q13 | 2Q13 | 1H12 | 1H13 | % Change 2Q13/1Q13 | % Change 2Q13/2Q12 | % Change 1H13/1H12 |
|-----------------------------|------|------|------|------|------|-----------------------|-----------------------|-----------------------|
| AMMONIA | 101 | 141 | 111 | 233 | 252 | -21.6% | 9.6% | 8.1% |
| UREA | 143 | 128 | 91 | 250 | 219 | -28.9% | -36.1% | -12.3% |
| NITRIC ACID | 120 | 115 | 75 | 238 | 190 | -34.1% | -37.0% | -20.1% |
| AMMONIUM NITRATE | 124 | 120 | 64 | 242 | 184 | -46.6% | -48.1% | -23.9% |

In 2Q13, ammonia and urea production decreased 21.6% and 28.9% respectively, when compared to 1Q13. The sale of Araucária on June 1st, 2013 was responsible for the decrease in 2Q13. We will no longer produce urea, while ammonia will be produced exclusively in Cubatão.

The output of nitric acid and ammonium nitrate was 34.1% and 46.6%, lower than 1Q13, respectively, due to the extended rainy season in 2Q13.

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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

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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.

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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: August 7, 2013

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