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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

October 2014

Vale S.A.

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

(Address of principal executive office)

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3Q14ProductionReport

Production Highlights

Rio de Janeiro, October 23, 2014 Vale S.A. (Vale) reached 85.7 Mt of iron ore production, ex-Samarco's attributable production, the highest output in Vale s history, with gains in all production Systems when compared to 2Q14. The good operational performance was supported by the ramp-ups of Plant 2 in Carajás and of Conceição Itabiritos in the Southeastern System.

In the first nine months of the year, Vale produced 236.2 Mt, which is also a new production record, against 232.2 Mt in 9M08. Over the last twelve-month period ended on September 30, 2014 our iron ore output ex-Samarco s attributable production reached 317.5 Mt.

Carajás production reached its all time high at 32.2 Mt, 9.8% and 7.9% higher than in 2Q14 and 3Q13, respectively.

Excluding Samarco s attributable production of 3.3 Mt, Vale s pellet production reached 11.4 Mt in 3Q14, 15.0% higher than in the 2Q14 and 17.6% above the same period of last year, reflecting the ramp-ups of the Tubarão VIII and Oman pellet plants.

Tubarão VIII and Oman output reached 1.0 Mt and 2.3 Mt, respectively, in 3Q14.

Production of nickel was 72,100 t in 3Q14, 16.9% higher than in 2Q14, the best performance for a third quarter since 3Q08 despite planned maintenance at Thompson in 3Q14.

VNC is continuing its ramp-up, operating with 2 HPALs as of the beginning of September.

In 3Q14, copper output was 104,800 t, 29.3% and 10.8% higher than in 2Q14 and in 3Q13, respectively, reaching a historical production record.

Salobo copper production totaled 25,900 t in 3Q14, a new record for that operation driven by the ramp up of Salobo II.

Total coal output in 3Q14 reached 2.3 Mt, 5.9% higher than in 2Q14, mostly due to the stronger performance of Carborough Downs (CD), Moatize and Isaac Plains.

In 3Q14, Moatize produced 1.296 Mt of which 0.828 Mt of met coal and 0.468 Mt of thermal coal. Met and thermal coal output increased by 16.1% and 2.4%, respectively, when compared to 2Q14. As we have anticipated the coal mix improved during the 3Q14 with the opening of new mine faces.

Total production of phosphate rock reached 2.2 Mt, a record output for a third quarter, representing a production increase of 1.7% and 2.6% when compared to 2Q14 and 3Q13, respectively.

Production Summary

000 metric tons	3014	2014	3Q13	% Change 3014/2014	% Change 3014/3013	9M14	9M13	% Change 9M14/9M13
Iron ore (1)	85,731	79,448	83,118	7.9%	3.1%	236,242	218,544	8.1%
Pellets(1)	11,444	9,951	9,731	15.0%	17.6%	31,323	28,586	9.6%
Nickel	72.1	61.7	62.0	17.0%	16.4%	201	192	4.7%
Copper(2)	104.8	81.0	94.6	29.3%	10.8%	274.3	275.5	-0.4%
Coal	2,340	2,209	2,377	5.9%	-1.5%	6,335	6,505	-2.6%
Manganese	654	505	621	29.4%	5.3%	1,629	1,739	-6.3%
Potash	140	96	132	45.0%	5.5%	345	366	-5.6%
Phosphate rock	2,158	2,122	2,104	1.7%	2.6%	6,212	5,992	3.7%

(1)Excluding Samarco s attributable production.

(2) Including Lubambe s attributable production.

3Q14ProductionReport

Iron ore

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
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Northern System	32,153	29,281	29,793	84,799	73,301	9.8%		
Carajás	32,153	29,281	29,793	84,799	73,301	9.8%	7.9%	
Southeastern System	28,714	26,475	29,743	81,010	81,248	8.5%	-3.5%	-0.3%
Itabira	9,579	8,455	10,139	25,861	24,854	13.3%	-5.5%	4.1%
Minas Centrais	8,975	8,415	9,542	25,824	28,622	6.7%	-5.9%	-9.8%
Mariana	10,159	9,605	10,062	29,325	27,772	5.8%	1.0%	5.6%
Southern System	23,236	22,311	21,713	66,139	59,221	4.1%	7.0%	11.7%
Paraopeba	7,454	7,685	7,222	22,056	19,165	-3.0%	3.2%	15.1%
Vargem Grande	6,755	6,644	6,061	18,873	16,910	1.7%	11.4%	11.6%
Minas Itabirito	9,027	7,981	8,430	25,210	23,146	13.1%	7.1%	8.9%
Midwestern System	1,629	1,381	1,869	4,294	4,774	17.9%	-12.9%	-10.0%
Corumbá	1,081	912	1,306	2,767	3,288	18.6%	-17.2%	-15.8%
Urucum	548	469	563	1,527	1,486	16.7%	-2.7%	2.8%
TOTAL IRON ORE	85,731	79,448	83,118	236,242	218,544	7.9%	3.1%	8.1%
Samarco(1)	3,761	3,148	2,772	9,323	8,107	19.5%	35.7%	15.0%

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

Production overview

Iron ore production in 3Q14 ex-Samarco's attributable production was the highest in Vale s history, amounting to 85.7 Mt, up 0.7 Mt when compared to the previous record of 85.0 Mt in 3Q11. On the last twelve-month period ended on September 30, 2014 our iron ore output ex-Samarco's attributable production reached 317.5 Mt.

Despite the good production figures, shipments reduced by 3.6 Mt mainly as a result of the interdiction of the Carajás Railroad (Estrada de Ferro Carajás, EFC) at the end of September.

Including the abovementioned 3.6 Mt not shipped mainly as a result of the interdiction of the EFC, Vale s iron ore inventories increased by 9.3 Mt along its supply chain.

Northern System

Production reached 32.2 Mt in 3Q14, a new all-time high level. The increase of 9.8% over 2Q14 reflects the ramp-ups of Plant 2 and Serra Leste which produced 4.3 Mt and 1.0 Mt, respectively.

Southeastern System

The Southeastern System, which encompasses the Itabira, Minas Centrais and Mariana mining hubs, produced 28.7 Mt in 3Q14, 8.5% higher than in 2Q14, driven by the ramp-up of Conceição Itabiritos (CI). However, output was 3.5% lower than in 3Q13 mainly due to the low production at Gongo Soco which is approaching the end of its mine life.

Production of the Itabira mining hub was 13.3% higher than in 2Q14 due to the ramp-up of CI. Output of CI was 1.8 Mt, 0.4 Mt higher than in 2Q14.

Production of the Minas Centrais mining hub was 9.0 Mt in 3Q14, 6.7% higher than in 2Q14 as a result of good operational performance, and 5.9% lower than in 3Q13 due to the rundown of the Gongo Soco mine.

Output of the Mariana mining hub reached 10.2 Mt, the best ever quarterly performance, 5.8% higher than in 2Q14, as a result of good operational performance after the exploitation of new mine sections at Fábrica Nova following the grant of a mining license at the end of May 2013.

Southern System

The Southern System, composed of the Paraopeba, Vargem Grande and Minas Itabirito mining hubs, produced 23.2 Mt in 3Q14, a new all-time high level due to the good operational performance.

Production at the Paraopeba mining hub was 3.0% lower than in 2Q14 mainly due to corrective maintenance and lower equipment reliability.

Production at the Vargem Grande mining hub was 1.7% and 11.4% higher than in 2Q14 and in 3Q13, respectively, due to the good operational performance of the Vargem Grande processing plant.

Production at the Minas Itabirito mining hub was 13.1% higher than in 2Q14 a new quarterly record after the recovery from the scheduled maintenance carried out in Fábrica in 2Q14.

Midwestern System

The Midwestern System, comprising the Urucum and Corumbá mining hubs, produced 1.6 Mt in 3Q14, 17.9% higher than in 2Q14, when it was decided to slow down production to reduce inventory levels. In 2014, production will be slightly lower than in 2013 without any impact on sales.

Samarco

Output of pellet feed for pellet production in 3Q14 was 3.8 Mt, 0.6 Mt higher than in 2Q14.

3Q14ProductionReport

Pellets

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
Southeastern System	6,698	5,820	5,088	18,327	15,928	15.1%	31.6%	15.1%
Tubarão VIII	1,039	195	0	1,234	0	432.7%	n.m.	n.m.
Nibrasco	2,363	2,317	1,953	7,082	6,541	2.0%	21.0%	8.3%
Kobrasco	1,073	1,131	921	3,374	3,170	-5.1%	16.5%	6.4%
Hispanobras(1)	1,096	1,079	1,112	3,294	2,924	1.6%	-1.4%	12.7%
Itabrasco	1,127	1,099	1,103	3,344	3,294	2.6%	2.2%	1.5%
Southern System	2,426	2,076	2,392	6,780	6,682	16.9%	1.4%	1.5%
Fabrica	882	748	896	2,432	2,817	17.9%	-1.6%	-13.7%
Vargem Grande	1,545	1,328	1,496	4,348	3,864	16.3%	3.2%	12.5%
Oman	2,320	2,055	2,250	6,217	5,976	12.9%	3.1%	4.0%
TOTAL PELLETS	11,444	9,951	9,731	31,323	28,586	15.0%	17.6%	9.6%
Samarco(2)	3,318	2,988	2,655	8,525	7,808	11.0%	25.0%	9.2%

(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 of 50%.

Production overview

Excluding Samarco s attributable production of 3.3 Mt, Vale s pellet production reached 11.4 Mt in 3Q14, 15.0% and 17.6% higher than in 2Q14 and in 3Q13 respectively, due to the ramp-ups of the Tubarão VIII and Oman pellet plants.

Southeastern System

Production volumes at the Tubarão operating plants Nibrasco, Kobrasco, Hispanobras, Itabrasco and Tubarão VIII of 6.7 Mt in 3Q14 was 15.1% higher than in 2Q14 and 31.6% higher than in 3Q13, mostly due to the abovementioned ramp-up of Tubarão VIII. The output of Tubarão VIII reached 1.0 Mt, 0.8 Mt higher than in 2Q14.

Southern System

The Fábrica pellet plant produced 0.9 Mt of pellets, 17.9% higher than in 2Q14 and in line with 3Q13, recovering from a preventive maintenance carried out in 2Q14.

The Vargem Grande pellet output was 1.5 Mt, 16.3% higher than in 2Q14 showing a good performance after the scheduled maintenance carried out in 2Q14.

Oman operations

The Oman operation run rate exceeded the plant's nominal capacity of 9 Mt on an annual basis and produced 2.3 Mt of direct reduction pellets in 3Q14, 15.0% higher than in 2Q14.

Samarco

Attributable production from Samarco s four pellet plants was 3.3 Mt, 11.0% and 25.0% higher than in 2Q14 and in 3Q13, respectively, due to the ramp-up of pellet plant IV, which reached attributable production of 0.7 Mt in the current quarter.

Samarco's pellet plant IV has a nominal capacity of 8.3 Mtpy.

Manganese ore and ferroalloys

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
MANGANESE ORE	654	505	621	1,629	1,739	29.4%	5.3%	-6.3%
Azul	481	370	508	1,183	1,360	30.2%	-5.2%	-13.1%
Urucum	158	136	82	424	294	16.5%	92.8%	44.0%
Other mines	15	0	31	23	85	n.m.	-53.5%	-73.2%
FERROALLOYS	41	44	52	130	125	-6.5%	-22.3%	3.7%
Brazil	41	44	52	130	125	-6.5%	-22.3%	3.7%

Production overview

In 3Q14, production of manganese ore reached 654,000 t compared to 505,000 t in 2Q14 and 621,000 t in 3Q13, due to good operational performance across all mine hubs.

Manganese ore production

Output from the Carajás Azul manganese mine increased by 30.2% when compared to 2Q14 and decreased by 5.2% against 3Q13, reaching 481,000 t in 3Q14. The higher production was due to the use of ore recovered from the tailings dam and the end of the rainy season. However, given the annual mine planning, production decreased when compared to 3Q13.

In 3Q14, output from Urucum reached the historical record of 158,000 t, an increase of 16.5% against 2Q14 and 92.8% against 3Q13, as a result of the end of the rainy season and operational improvements carried out in the beneficiation plant in 4Q13, which improved productivity and physical availability of the plant during 2014.

A mine expansion, which will allow significant production increases as of next year, is currently ongoing and in 2H14 the infrastructure in the underground mine to access high quality ore bodies will be built.

Since 4Q13, we have been processing dumped ore due to the geological conditions in the north section of Morro da Mina. We expect to return production to normal levels during 1H15 by exploring the south section of the mine.

Ferroalloys production

Production of ferroalloys was 6.5% lower than in 2Q14, due to a decision to shut down furnaces and sell excess energy to the Brazilian national grid.

Ferroalloy quarterly production was comprised of 18,900 t of ferrosilicon manganese alloys (FeSiMn), 17,000 t of high-carbon manganese alloys (FeMnHc) and 4,800 t of medium-carbon manganese alloys (FeMnMC).

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Nickel

Finished production by source

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
Canada	41.7	30.8	35.2	114.1	120.2	35.6%	18.7%	-5.1%
Sudbury	22.5	9.1	16.4	49.3	51.4	146.5%	37.4%	-4.2%
Thompson	5.1	6.9	4.8	19.6	18.2	-26.4%	5.9%	7.9%
Voisey s Bay	9.1	12.1	12.4	35.6	46.1	-24.7%	-26.4%	-22.7%
Ore from third parties(1)	5.0	2.7	1.6	9.6	4.6	90.0%	214.1%	110.1%
Indonesia(2)	20.8	21.2	22.1	58.4	57.8	-1.6%	-6.0%	1.0%
New Caledonia	3.8	4.6	4.7	12.5	14.2	-17.1%	-19.1%	-12.4%
Brazil (Onça Puma)	5.8	5.2	0.0	16.4	0.0	11.3%	n.m.	n.m.
TOTAL NICKEL	72.1	61.7	62.0	201.4	192.3	16.9%	16.4%	4.7%

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

(2) Total production of 20.8 Kt includes 1.5 Kt of nickel in matte that was in transit by the end of the previous quarter and was processed in other refineries in the current quarter.

Production overview

Nickel production reached 72,100 t in 3Q14, 16.9% and 16.4% higher than in 2Q14 and in 3Q13, respectively. Production in 3Q14 was the highest for a third quarter since 3Q08 despite the planned maintenance carried out in Thompson in 3Q14.

Canadian Operations

In 3Q14, Sudbury production reached 22,500 t, 146.5% and 37.4% higher than in 2Q14 and 3Q13, respectively. Having completed the planned maintenance shutdown in some of the mines and in all of the surface facilities in 2Q14, the Sudbury operation returned to normal operations in 3Q14, processing much of the inventory of feed stock pilled in 2Q14.

Thompson production in 3Q14 was 5,100 t,26.4% lower than in 2Q14 due to the abovementioned scheduled maintenance carried out in the month of August.

Voisey s Bay nickel in concentrate production amounted to 9,100 t in 3Q14, a decrease of 24.7% and 26.4% in relation to 2Q14 and 3Q13, respectively, due to planned maintenance carried out at the Voisey s Bay mill for a period of 10 days in July.

Long Harbour commissioning work continues as planned. As part of its commissioning activities, Long Harbour produced its first nickel cathode rounds on July 14. Initially Long Harbour will process primarily nickel in matte from PTVI, processing entirely nickel from Voisey's Bay concentrate at a later stage.

Indonesian Operations

In 3Q14, production of nickel in matte from our Indonesian operations at Sorowako totaled 19,300 t, an increase of 0.5% over 2Q14 and a decrease of 2.5% relative to 3Q13.

The production of finished nickel based on matte sourced from PTVI was 20,800 t, 1.6% and 6.0% lower than in 2Q14 and in 3Q13, respectively.

New Caledonia Operations

VNC production of NiO and NHC was 4,300 t in 3Q14, an increase of 31.5% when compared to 2Q14, but a decrease of 24.4% relative to 3Q13.

Following the leak of acidic solution that occurred on May 7, operations resumed with a single HPAL line in the last week of June. In the 3Q14 VNC continued its ramp-up, operating with 2 HPALs as of September. The target for the 4Q14 is to stabilize the operation with two HPALs running consistently and improving the safe operation of the plant.

Production of finished products (NHC, NiO and Utility Nickel) from VNC totaled 3,800 t in 3Q14.

Brazilian Operation (Onça Puma)

Onça Puma reached 93% of its nominal capacity, producing 5,800 t of nickel contained in ferronickel in 3Q14, 11.3% higher than in 2Q14. A shutdown of approximately ten days is being carried out in the 4Q14 to permanently repair the refractory in the rotary kiln furnace.

3Q14ProductionReport

Copper

Finished production by source

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
Brazil	56.3	46.2	48.5	149.9	131.5	21.9%	16.2%	14.0%
Sossego	30.4	26.5	30.9	83.2	87.5	14.9%	-1.4%	-4.9%
Salobo	25.9	19.7	17.6	66.7	44.0	31.4%	46.9%	51.5%
Canada	45.8	32.0	41.1	116.4	127.1	43.2%	11.5%	-8.4%
Sudbury	30.8	19.0	26.7	74.3	79.1	62.2%	15.3%	-6.1%
Thompson	0.4	0.4	0.6	1.1	1.7	0.0%	-27.8%	-33.5%
Voisey s Bay	7.4	7.2	8.6	21.5	27.2	2.5%	-13.7%	-21.0%
Ore from third parties	7.2	5.4	5.3	19.5	19.0	34.1%	37.1%	2.3%
Zambia (Lubambe)	2.6	2.8	2.1	0.0	10.3	-5.8%	28.2%	20.2%
Chile	0.0	0.0	2.9	8.0	6.6	n.m.	-100.0%	-100.0%
TOTAL COPPER	104.8	81.0	94.6	274.2	275.5	29.3%	10.8%	-0.4%

Production overview

In 3Q14, copper output was 104,800 t, 29.3% and 10.8% higher than in 2Q14 and in 3Q13, respectively, reaching a historical production record.

Brazilian Operations

Production of copper in 3Q14 at the Sossego mine totaled 30,400 t in the form of copper in concentrates, 14.9% higher than in 2Q14, but 1.4% lower than in 3Q13. Grades in the mine returned to historic averages and the mill operated at normal rates. Milling was reduced in June due to repairs in the primary crusher and SAG mill.

Production of copper in 3Q14 at Salobo totaled 25,900 t, a new record for that operation as a result of the ongoing ramp up of Salobo II.

Canadian Operations

Sudbury production reached 30,800 t, 62.2% and 15.3% higher than in 2Q14 and in 3Q13, respectively. The Sudbury operation carried out a planned maintenance in 2Q14 and operated fully in 3Q14.

Voisey s Bay produced 7,400 t of copper in copper concentrate, 2.5% higher than in 2Q14 and 13.7% lower than in 3Q13. In July, a 10-days planned

maintenance was carried out in the Voisey s Bay mill.

African Operation (Lubambe)

Lubambe, our Zambian JV, is ramping up and delivering 6,500 t of copper in concentrates on a 100% basis (attributable production of 2,600 t). Lubambe has a nominal capacity of 45,000 t per year.

Chile Operation discontinued operation

As previously announced, Vale completed the sale of Tres Valles in Chile on December 9th, 2013.

3Q14ProductionReport

Nickel and copper by-products

Finished production by source

	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
GOLD (000 oz troy)	84.0	70.0	76.1	228	197	20.0%	10.3%	15.4%
Sudbury	20.5	18.1	21.7	59	65	13.4%	-5.3%	-9.1%
Sossego	21.8	17.9	22.2	58	56	21.6%	-2.0%	2.3%
Salobo	41.7	33.9	32.2	111	76	22.7%	29.2%	45.8%
COBALT (metric tons)	884.3	735.7	950.3	2,477	2,820	20.2%	-6.9%	-12.2%
Sudbury	320	113	176	607	639	182.9%	81.7%	-5.1%
Thompson	142	84	121	330	208	70.0%	17.7%	58.2%
Voisey s Bay	74	354	231	711	970	-79.0%	-67.9%	-26.7%
VNC	294	174	413	755	981	69.5%	-28.8%	-23.1%
Others	53	11	8	75	22	376.0%	544.3%	244.5%
PLATINUM (000 oz troy)	53.8	27.0	35.4	130	102	99.4%	52.0%	27.0%
Sudbury	53.8	27.0	35.4	130	102	99.4%	52.0%	27.0%

PALLADIUM (000 oz troy) Sudbury	110.5 110.5	66.5 66.5	86.4 86.4	286 286	256 256	66.2% 66.2%	27.9% 27.9%	12.0% 12.0%
SILVER (000 oz troy)	274	269	429	976	1,401	2.0%	-36.0%	-30.3%
Sudbury	274	269	429	976	1,401	2.0%	-36.0%	-30.3%

Gold

Gold production amounted to 84,000 oz in 3Q14, 20.0% higher than in 2Q14, reaching the best performance ever for a third quarter.

Cobalt

Output of cobalt reached 884 t in 3Q14, 20.2% higher than in 2Q14, mainly reflecting the recovery from the planned maintenance shutdown in Sudbury, Port Colborne and the interruption of VNC production.

Platinum and palladium

Platinum output was 53,800 oz and palladium was 110,500 oz, 99.4% and 66.2% higher than in 2Q14, respectively.

3Q14ProductionReport

Coal

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
METALLURGICAL								
COAL	1,759	1,671	1,823	4,653	5,035	5.3%	-3.6%	-7.6%
Moatize	828	714	706	2,137	1,972	16.1%	17.3%	8.4%
Carborough Downs	620	591	409	1,284	1,633	4.9%	51.5%	-21.4%
Integra Coal	101	235	561	715	977	-57.0%	-82.0%	-26.8%
Isaac Plains	209	131	147	516	454	59.8%	42.4%	13.7%
THERMAL COAL	582	539	553	1,682	1,469	8.0%	5.2%	14.5%
Moatize	468	457	462	1,338	1,166	2.4%	1.2%	14.8%
Integra Coal	28	16	24	92	53	76.8%	17.9%	72.7%
Isaac Plains	86	66	67	252	250	30.1%	28.1%	0.7%
TOTAL COAL	2,340	2,209	2,377	6,335	6,505	5.9%	-1.5%	-2.6%

Production overview

Total coal output in 3Q14 reached 2.3 Mt, 5.9% higher than in 2Q14, mostly due to the stronger performance of Carborough Downs (CD), Moatize and Isaac Plains.

Australian operations

CD output was 620,000 t in 3Q14, 4.9% and 51.5% higher than in 2Q14 and in 3Q13, respectively, continuing the good performance after the longwall move in 1Q14. Production was supported by improved mining conditions and equipment reliability in 3Q14.

In 2Q14, the Integra Coal mine was placed in care and maintenance, which resulted in the suspension of its longwall activity. The open cut production continued throughout 3Q14 in a reduced capacity, until coal production ceased. The last shipment occurred on September 24th 2014.

Production from Isaac Plains was 295,000 t in 3Q14, an increase from the 197,000 t registered in 2Q14. In 3Q14, Isaac Plains benefited from consistent equipment reliability and favorable weather conditions. On September 29th, Vale announced that the operation was placed in care and maintenance, and production will ramp-down during 4Q14.

Moatize operations

In 3Q14, Moatize produced 1.296 Mt, of which 0.828 Mt of met coal and 0.468 Mt of thermal coal. Met and thermal coal output increased by 16.1% and 2.4%, respectively, when compared to 2Q14. As anticipated, the coal mix improved

during 3Q14 with the prioritization of the opening of new mine faces.

The ramp-up of the first phase of the Moatize coal project is being currently restricted by the existing limitations of the logistics infrastructure railway and port which do not allow for total utilization of the mine s nominal capacity of 11 Mtpy.

The start-up of the Nacala logistics corridor, expected by the end of 2H14, will gradually eliminate the above-mentioned logistics bottleneck.

3Q14ProductionReport

Potash

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
POTASH	140	96	132	345	366	45.0%	5.5%	-5.6%
Taquari-Vassouras	140	96	132	345	366	45.0%	5.5%	-5.6%

Phosphates

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
PHOSPHATE ROCK	2,158	2,122	2,104	6,212	5,992	1.7%	2.6%	3.7%
Brazil	1,185	1,204	1,229	3,416	3,497	-1.6%	-3.6%	-2.3%
Bayóvar	973	918	875	2,797	2,495	6.0%	11.2%	12.1%
MAP(1)	248	263	229	787	823	-5.8%	8.1%	-4.4%
TSP(2)	226	223	187	656	653	0.9%	20.4%	0.4%
SSP(3)	531	506	595	1,394	1,643	5.0%	-10.7%	-15.1%
DCP(4)	121	128	85	367	317	-5.4%	42.1%	16.1%

⁽¹⁾ Monoammonium phosphate

(2) Triple superphosphate

(3) Single superphosphate

(4) Dicalcium phosphate

Potash

In 3Q14, potash production totaled 140,000 t, 45.0% and 5.5% higher than in 2Q14 and in 3Q13, respectively, due to: (i) higher physical availability of equipment, (ii) higher grades at the mine and (iii) recovery from a corrective maintenance of the conveyor bells carried out last quarter.

Phosphate Rock

Total production of phosphate rock reached 2.2 Mt, a record output for a third quarter, representing a production increase of 1.7% and 2.6% when compared to 2Q14 and 3Q13, respectively.

In 3Q14, Bayóvar output was 973,000 t, 6.0% and 11.2% higher than in 2Q14 and in 3Q13, respectively, as the project ramped-up to achieve its nominal capacity in 3Q14.

MAP

In 3Q14, the production of MAP (monoammonium phosphate) totaled 248,000 t, 5,8% lower than in 2Q14, as a result of lower production in Uberaba due to the annual maintenance stoppage.

The Uberaba industrial complex, located in Minas Gerais, produces sulphuric acid, phosphoric acid, TSP, SSP, DCP and MAP.

TSP

The output of TSP (Triple superphosphate) was 226,000 t in 3Q14, in line with 2Q14 and 20.4%, higher than in 3Q13, when the operation faced a loss of phosphoric acid, which impacted production in August and September of 2013.

SSP

Production of SSP (single superphosphate) was 5.0% higher than in 2Q14, reaching 531,000 t in 3Q14, due to the good operational performance, after the maintenance stoppage in Cubatão, Catalão and Araxá in 2Q14.

DCP

DCP (dicalcium phosphate) production was 121,000 t, in line with 2Q14, and 42.1% higher than in the 3Q13, reflecting a stronger demand for the product.

Nitrogen

000 metric tons	3Q14	2Q14	3Q13	9M14	9M13	% Change 3Q14/2Q14	% Change 3Q14/3Q13	% Change 9M14/9M13
AMMONIA	48	47	55	143	307	3.1%	-12.6%	-53.4%
NITRIC ACID	121	115	110	349	300	5.1%	10.4%	16.5%
AMMONIUM								
NITRATE	129	117	112	359	296	10.8%	15.5%	21.4%

Ammonia Production

In 3Q14, ammonia production was 48,000 t, in line with the previous quarter. The decrease in production when compared to 3Q13 is explained by the lower gas availability and corrective maintenance stoppage in 3Q14.

Nitric Acid and Ammonium Nitrate Production

Production of nitric acid and ammonium nitrate was 5.1% and 10.8% higher than in 2Q14 with an output of 121,000 t and 129,000 t, respectively, refelecting stronger demand for the products.

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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 ValoresMobiliários (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.

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: October 23, 2014

By:

/s/ Rogerio T. Nogueira Rogerio T. Nogueira Director of Investor Relations