

# Quarterly Report

## December 2018



South32 Limited  
 (Incorporated in Australia under the Corporations Act 2001 (Cth))  
 (ACN 093 732 597)  
 ASX, LSE, JSE Share Code: S32 ADR: SOUHY  
 ISIN: AU000000S320

- FY19 production guidance remains unchanged for all operations with the exception of Illawarra Metallurgical Coal where improved longwall performance has underpinned a 7% increase to our prior estimate.
- Achieved record ore production at Australia Manganese in the December 2018 half year as the primary circuit maintained high utilisation rates and the PC02 circuit operated at 120% of design capacity.
- Increased premium ore production at South Africa Manganese, partially offsetting a decline in fine grained secondary products.
- Benefitted from improved calciner availability and the opportunistic sale of three shipments of stockpiled hydrate with saleable production increasing by 23% at Worsley Alumina in the December 2018 quarter.
- Maintained saleable aluminium production despite an increase in the frequency of load-shedding events at Hillside Aluminium and Mozal Aluminium during the December 2018 half year.
- Finalised plans for the Klipspruit dragline to return to service by the end of January 2019, enabling a strong recovery in export volumes at South Africa Energy Coal in the June 2019 half year.

*“We achieved a strong quarter of production, maintaining full year guidance for all operations with the exception of Illawarra Metallurgical Coal where improved longwall performance has underpinned a seven per cent increase to our prior estimate.*

*“We achieved record production at Australia Manganese as our PC02 circuit continued to exceed its design capacity, delivering additional tonnes into a strong market.*

*“Our plans to transform the ownership of South Africa Energy Coal remain on track, with binding bids expected in the June 2019 half year.*

*“As we have benefitted from strong prices for our core commodities we have continued to return cash to shareholders. In the December 2018 half year we distributed US\$316M in dividends and allocated US\$167M to our on-market share buy-back.”*

Graham Kerr, South32 CEO

### Production summary

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	QoQ
Alumina production (kt)	2,541	<b>2,542</b>	0%	1,262	1,159	<b>1,383</b>	19%
Aluminium production (kt)	495	<b>495</b>	0%	246	248	<b>247</b>	(0%)
Energy coal production (kt)	14,001	<b>12,929</b>	(8%)	6,987	6,560	<b>6,369</b>	(3%)
Metallurgical coal production (kt)	1,282	<b>3,082</b>	140%	788	1,515	<b>1,567</b>	3%
Manganese ore production (kwmt)	2,830	<b>2,886</b>	2%	1,526	1,447	<b>1,439</b>	(1%)
Manganese alloy production (kt)	118	<b>109</b>	(8%)	62	52	<b>57</b>	10%
Payable nickel production (kt)	21.8	<b>21.1</b>	(3%)	10.1	10.7	<b>10.4</b>	(3%)
Payable silver production (koz)	5,175	<b>6,067</b>	17%	2,412	3,185	<b>2,882</b>	(10%)
Payable lead production (kt)	49.4	<b>48.3</b>	(2%)	23.6	25.8	<b>22.5</b>	(13%)
Payable zinc production (kt)	20.2	<b>26.3</b>	30%	9.2	13.2	<b>13.1</b>	(1%)

Unless otherwise noted: percentage variance relates to performance during the half year ended December 2018 compared with the half year ended December 2017 (HoH) or the December 2018 quarter compared with the September 2018 quarter (QoQ); production and sales volumes are reported on an attributable basis.

## Corporate Update

- The process to transform the ownership of South Africa Energy Coal progressed in the December 2018 quarter with binding bids expected in the June 2019 half year.
- We received net distributions<sup>1</sup> of US\$262M (South32 share) from our manganese equity accounted investments (EAI) during the December 2018 half year as achieved prices continued to reflect the respective ore indices<sup>2</sup>.
- In accordance with our disciplined capital management framework we paid our US\$316M final dividend in respect of FY18 in October 2018 and purchased a further 68M shares for a cash consideration of US\$167M during the December 2018 half year. To 31 December 2018, we had completed 79% of our US\$1B capital management program, having paid a US\$154M special dividend on 5 April 2018 and purchased 272M shares at a volume weighted average price of A\$3.09 per share through our on-market share buy-back.
- The primary corporate tax rates applicable to the Group include: Australia 30%, South Africa 28%, Colombia 34%<sup>3</sup>, Mozambique 0%<sup>3</sup> and Brazil 34%. The disproportionate effect of permanent differences can, however, impact the Effective Tax Rate (ETR) of the Group when margins are compressed, or losses are incurred in specific jurisdictions given these differential tax rates and intragroup agreements. For this reason, we now expect the Group's ETR (excluding EAI) for the December 2018 half year to increase to between 35% and 40%. This rate is expected to decline in the June 2019 half year, particularly if the alumina to aluminium price ratio falls from its currently elevated level. Separately, the Group made tax payments totalling US\$207M (excluding EAI) during the December 2018 half year.

Production guidance (South32's share)	FY18	1H19	FY19e	Comments
<b>Worsley Alumina</b>				
Alumina production (kt)	3,764	1,906	3,965	
<b>Brazil Alumina</b>				
Alumina production (kt)	1,304	636	1,355	
<b>Hillside Aluminium</b>				
Aluminium production (kt)	712	360	720	
<b>Mozal Aluminium</b>				
Aluminium production (kt)	271	135	269	
<b>South Africa Energy Coal<sup>4</sup></b>				
Energy coal production (kt)	27,271	12,171	29,000	
Domestic coal production (kt)	15,154	7,731	17,500	
Export coal production (kt)	12,117	4,440	11,500	
<b>Illawarra Metallurgical Coal</b>				
Total coal production (kt)	4,244	3,840	↑6,500	Improved longwall performance with two moves scheduled in the March 2019 quarter
Metallurgical coal production (kt)	3,165	3,082	↑5,200	
Energy coal production (kt)	1,079	758	↑1,300	
<b>Australia Manganese</b>				
Manganese ore production (kwmt)	3,396	1,811	3,350	Subject to market demand
<b>South Africa Manganese</b>				
Manganese ore production <sup>5</sup> (kwmt)	2,145	1,075	2,050	Subject to market demand
<b>Cerro Matoso</b>				
Payable nickel production (kt)	43.8	21.1	40.5	
<b>Cannington</b>				
Payable zinc equivalent production <sup>6</sup> (kt)	187.2	95.2	188.1	
Payable silver production (koz)	12,491	6,067	11,750	
Payable lead production (kt)	104.4	48.3	98.0	
Payable zinc production (kt)	41.3	26.3	51.0	

The denotation (e) refers to an estimate or forecast year.

## Marketing Update

Realised prices <sup>7</sup>	1H18	2H18	1H19	1H19 vs 1H18	1H19 vs 2H18
<b>Worsley Alumina</b>					
Alumina (US\$/t)	354	429	457	29%	7%
<b>Brazil Alumina</b>					
Alumina (US\$/t)	370	449	504	36%	12%
<b>Hillside Aluminium</b>					
Aluminium (US\$/t)	2,134	2,313	2,144	0%	(7%)
<b>Mozal Aluminium</b>					
Aluminium (US\$/t)	2,218	2,386	2,171	(2%)	(9%)
<b>South Africa Energy Coal</b>					
Domestic coal (US\$/t)	24	25	22	(8%)	(12%)
Export coal (US\$/t)	76	82	83	9%	1%
<b>Illawarra Metallurgical Coal</b>					
Metallurgical coal (US\$/t)	189	211	207	10%	(2%)
Energy coal (US\$/t)	71	82	68	(4%)	(17%)
<b>Australia Manganese<sup>8</sup></b>					
Manganese ore (US\$/dmtu, FOB)	5.96	6.80	6.59	11%	(3%)
<b>South Africa Manganese<sup>9</sup></b>					
Manganese ore (US\$/dmtu, FOB)	4.57	5.90	5.85	28%	(1%)
<b>Cerro Matoso<sup>10</sup></b>					
Payable nickel (US\$/lb)	5.20	6.49	5.27	1%	(19%)
<b>Cannington</b>					
Payable silver (US\$/oz)	16.8	16.4	14.7 <sup>(a)</sup>	(13%)	(10%)
Payable lead (US\$/t)	2,517	2,409	1,625 <sup>(a)</sup>	(35%)	(33%)
Payable zinc (US\$/t)	3,192	3,176	2,120 <sup>(a)</sup>	(34%)	(33%)

(a) H1 FY19 realised prices for Cannington reflect the Group's adoption of AASB 15 *Revenue from Contracts with Customers*, with revenue recognised net of treatment and refining charges, which will no longer be treated as an expense item. These changes result in lower realised prices and Operating unit costs, with no net impact to earnings. Prior period realised prices have not been restated to reflect these changes.

## Development and Exploration Update

- We remain on track to declare a Mineral Resource<sup>11</sup> for the Hermosa project in accordance with the JORC Code during the June 2019 half year.
- We completed our review of the Eagle Downs metallurgical coal project's development plan during the December 2018 quarter and commenced the feasibility study ahead of a final investment decision scheduled for H2 CY20.
- We invested US\$26.9M in exploration programs during the December 2018 half year, of which US\$10.6M was capitalised (including US\$0.9M for our EAI) and US\$7.9M was directed to our portfolio of high quality, early stage greenfield exploration projects.

## Worsley Alumina

(86% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Alumina production (kt)	1,865	<b>1,906</b>	2%	923	854	<b>1,052</b>	14%	23%
Alumina sales (kt)	1,886	<b>1,885</b>	(0%)	920	850	<b>1,035</b>	13%	22%

Worsley Alumina saleable production increased by 2% (or 41kt) to 1,906kt in the December 2018 half year as the refinery benefitted from improved calciner availability in the December 2018 quarter and three shipments of stockpiled hydrate were sold opportunistically at alumina equivalent rates. FY19 production guidance remains unchanged at 3,965kt with calciner maintenance scheduled for the March 2019 quarter.

The average realised price for alumina sales in the December 2018 half year was a discount of approximately 10% to the Platts Alumina Index (PAX)<sup>12</sup> on a volume weighted M-1 basis. This discount reflects the structure of specific legacy supply contracts with our Mozal Aluminium smelter that are linked to the LME aluminium price and the elevated alumina to aluminium price ratio in the spot market. All alumina sales to other customers were at market based prices.

## Brazil Alumina

(36% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Alumina production (kt)	676	<b>636</b>	(6%)	339	305	<b>331</b>	(2%)	9%
Alumina sales (kt)	649	<b>619</b>	(5%)	316	302	<b>317</b>	0%	5%

Brazil Alumina saleable production decreased by 6% (or 40kt) to 636kt in the December 2018 half year as unplanned maintenance and power outages impacted performance. FY19 production is expected to approach guidance of 1,355kt with the refinery anticipated to creep production over the remainder of the year following the completion of the De-bottlenecking Phase One project in March 2018.

## Hillside Aluminium

(100%)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Aluminium production (kt)	358	<b>360</b>	1%	178	180	<b>180</b>	1%	0%
Aluminium sales (kt)	344	<b>360</b>	5%	182	178	<b>182</b>	0%	2%

Hillside Aluminium saleable production increased by 1% (or 2kt) to 360kt in the December 2018 half year as the smelter continued to test its maximum technical capacity, despite an increase in the frequency of load-shedding events. FY19 production guidance remains unchanged at 720kt.

Notwithstanding the smelter's strong operating performance, a reduction in aluminium prices and still elevated alumina, pitch and coke input costs are expected to result in a loss in the December 2018 half year.

## Mozal Aluminium

(47.1% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Aluminium production (kt)	137	<b>135</b>	(1%)	68	68	<b>67</b>	(1%)	(1%)
Aluminium sales (kt)	147	<b>129</b>	(12%)	82	59	<b>70</b>	(15%)	19%

Mozal Aluminium saleable production decreased by 1% (or 2kt) to 135kt in the December 2018 half year as the smelter's operating performance was impacted by an increase in the frequency of load-shedding events. Aluminium sales decreased by 12% with the scheduling of shipments between periods resulting in a temporary build of finished goods inventory during the December 2018 half year. FY19 production guidance remains unchanged at 269kt.

Notwithstanding the smelters strong operating performance, higher prices for alumina and still elevated prices for pitch and coke continue to impact its cost base and erode operating margin. The smelter sources alumina from our Worsley Alumina refinery with approximately 50% of its requirements priced as a percentage of the LME aluminium index, providing it with some relief during the December 2018 half year.

## South Africa Energy Coal

(100%)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Energy coal production (kt)	13,423	<b>12,171</b>	(9%)	6,734	6,170	<b>6,001</b>	(11%)	(3%)
Domestic sales (kt)	7,334	<b>7,749</b>	6%	3,546	4,103	<b>3,646</b>	3%	(11%)
Export sales (kt)	5,865	<b>4,206</b>	(28%)	3,117	1,923	<b>2,283</b>	(27%)	19%

South Africa Energy Coal saleable production decreased by 9% (or 1,252kt) to 12.2Mt in the December 2018 half year. Export production was impacted by the dragline incident at Klipspruit in August 2018, while domestic production benefitted from the commencement of a contract to sell lower quality stockpiled product in the June 2018 quarter.

FY19 production guidance remains unchanged at 29Mt (17.5Mt domestic, 11.5Mt Export), with the Klipspruit dragline expected to return to service by the end of January, underpinning an increase in export volumes in the June 2019 half year. Domestic volumes are also expected to benefit from a further increase in the sale of lower quality stockpiled product and implementation of a new shift pattern at Khutala.

## Illawarra Metallurgical Coal

(100%)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Total coal production (kt)	1,860	<b>3,840</b>	106%	1,041	1,905	<b>1,935</b>	86%	2%
Total coal sales (kt)	1,660	<b>3,259</b>	96%	882	1,504	<b>1,755</b>	99%	17%
Metallurgical coal production (kt)	1,282	<b>3,082</b>	140%	788	1,515	<b>1,567</b>	99%	3%
Metallurgical coal sales (kt)	1,057	<b>2,527</b>	139%	654	1,178	<b>1,349</b>	106%	15%
Energy coal production (kt)	578	<b>758</b>	31%	253	390	<b>368</b>	45%	(6%)
Energy coal sales (kt)	603	<b>732</b>	21%	228	326	<b>406</b>	78%	25%

Illawarra Metallurgical Coal saleable production increased by 106% (or 1,980kt) to 3.8Mt in the December 2018 half year as the Dendrobium and Appin longwalls continued to perform strongly. Metallurgical coal stockpiles were also established during the period in advance of two longwall moves scheduled for the March 2019 quarter.

We reached agreement with employees covered by the Dendrobium Mine Trades and Operators Enterprise Agreement during the December 2018 quarter, having previously reached agreement with the Dendrobium and Appin Deputies. We continue to renegotiate the remaining labour agreements at Illawarra Metallurgical Coal and this process is being closely managed.

FY19 production guidance has been increased by 7% to 6.5Mt, however a substantial uplift in development rates at Appin is required to sustain the operation of two longwalls in parallel from H2 FY20. This uplift in production guidance is expected to result in a commensurate reduction in our FY19 Operating unit cost guidance, on the basis of constant currency and price assumptions.

## Australia Manganese

(60% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Manganese ore production (kwmt)	1,701	<b>1,811</b>	6%	893	932	<b>879</b>	(2%)	(6%)
Manganese ore sales (kwmt)	1,612	<b>1,740</b>	8%	822	884	<b>856</b>	4%	(3%)
Manganese alloy production (kt)	82	<b>76</b>	(7%)	43	41	<b>35</b>	(19%)	(15%)
Manganese alloy sales (kt)	78	<b>76</b>	(3%)	42	29	<b>47</b>	12%	62%

Australia Manganese achieved record ore performance in the December 2018 half year, increasing saleable ore production by 6% (or 110kwmt) to 1,811kwmt. The primary circuit continued to achieve high utilisation rates, while the Premium Concentrate Ore (PC02) circuit operated at approximately 120% of its design capacity, contributing 9% of total production. FY19 production guidance remains unchanged at 3,350kwmt, with the wet season expected to impact production across the remainder of the financial year.

Manganese alloy saleable production decreased by 7% (or 6kt) to 76kt in the December 2018 half year due to an unplanned outage at one of the four furnaces during the December 2018 quarter. While the furnace has subsequently returned to service, additional maintenance is planned for the June 2019 half year.

## South Africa Manganese

(60% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Manganese ore production (kwmt)	1,129	<b>1,075</b>	(5%)	633	515	<b>560</b>	(12%)	9%
Manganese ore sales (kwmt)	1,067	<b>1,010</b>	(5%)	539	487	<b>523</b>	(3%)	7%
Manganese alloy production (kt)	36	<b>33</b>	(8%)	19	11	<b>22</b>	16%	100%
Manganese alloy sales (kt)	28	<b>35</b>	25%	14	16	<b>19</b>	36%	19%

South Africa Manganese saleable ore production decreased by 5% (or 54kwmt) to 1,075kwmt in the December 2018 half year as an increase in higher quality premium material was more than offset by a decline in fine grained secondary products. While FY19 production guidance remains unchanged at 2,050kwmt, we will continue to monitor market demand and optimise the use of higher cost trucking.

Manganese alloy saleable production decreased by 8% (or 3kt) to 33kt in the December 2018 half year as a planned furnace shutdown was completed.

## Cerro Matoso

(99.9% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Payable nickel production (kt)	21.8	<b>21.1</b>	(3%)	10.1	10.7	<b>10.4</b>	3%	(3%)
Payable nickel sales (kt)	21.3	<b>21.3</b>	0%	9.9	10.9	<b>10.4</b>	5%	(5%)

Cerro Matoso payable nickel production decreased by 3% (or 0.7kt) to 21.1kt in the December 2018 half year following a planned increase in the contribution of lower grade stockpiled ore feed. FY19 production guidance remains unchanged at 40.5kt.

## Cannington

(100% share)

South32's share	1H18	1H19	HoH	2Q18	1Q19	2Q19	2Q19 vs 2Q18	2Q19 vs 1Q19
Payable zinc equivalent production (kt)	85.4	<b>95.2</b>	11%	40.0	49.7	<b>45.5</b>	14%	(8%)
Payable silver production (koz)	5,175	<b>6,067</b>	17%	2,412	3,185	<b>2,882</b>	19%	(10%)
Payable silver sales (koz)	5,429	<b>6,340</b>	17%	2,503	3,057	<b>3,283</b>	31%	7%
Payable lead production (kt)	49.4	<b>48.3</b>	(2%)	23.6	25.8	<b>22.5</b>	(5%)	(13%)
Payable lead sales (kt)	48.6	<b>47.1</b>	(3%)	22.7	22.5	<b>24.6</b>	8%	9%
Payable zinc production (kt)	20.2	<b>26.3</b>	30%	9.2	13.2	<b>13.1</b>	42%	(1%)
Payable zinc sales (kt)	25.7	<b>24.7</b>	(4%)	12.1	8.8	<b>15.9</b>	31%	81%

Cannington payable zinc equivalent production increased by 11% (or 9.8kt) to 95.2kt in the December 2018 half year as silver and zinc grades improved in accordance with our expectations and mill throughput continued to track to plan. FY19 zinc equivalent<sup>6</sup> production guidance remains unchanged at 188.1kt (silver 11,750koz, lead 98.0kt and zinc 51.0kt).

Finalisation adjustments and the provisional pricing of Cannington concentrates will decrease Underlying EBIT<sup>13</sup> by US\$9.8M in the December 2018 half year (US\$0.1M FY18; US\$5.5M H1 FY18). Outstanding concentrate sales (containing 2Moz of silver, 25.3kt of lead and 6.2kt of zinc) were revalued at 31 December 2018. The final price of these sales will be determined in the June 2019 half year.

## Notes:

1. Net distributions from equity accounted investments includes net debt movements and dividends, which are unaudited and should not be considered as an indication of or alternative to an IFRS measure of profitability, financial performance or liquidity.
2. The quarterly sales volume weighted average on the basis of a one month lag to published pricing (Month minus one or "M-1") in the December 2018 half year was US\$6.98/dmtu for the Metal Bulletin 44% manganese lump ore index (CIF Tianjin, China) and US\$5.91/dmtu for the Metal Bulletin 37% manganese lump ore index (FOB Port Elizabeth, South Africa).
3. The Colombian corporate tax rate was 40% until 31 December 2017. The Mozambique operations are subject to a royalty on Revenue instead of income tax.
4. 8% of South Africa Energy Coal is owned by a Broad-Based Black Economic Empowerment (B-BBEE) consortium. The interests owned by the B-BBEE consortium were acquired using vendor finance, with the loans repayable to South32 via distributions attributable to these parties, pro rata to their share in South Africa Energy Coal. Until these loans are repaid, South32's interest in South Africa Energy Coal is accounted at 100%.
5. Consistent with the presentation of South32's segment information, South Africa Manganese ore and sales have been reported at 60%. The Group's financial statements will continue to reflect a 54.6% interest in South Africa Manganese ore.
6. Payable Zinc Equivalent (kt) is calculated by aggregating Revenue from payable silver, lead and zinc, and dividing the total Revenue by the price of zinc. FY18 realised prices for zinc (US\$3,185/t), lead (US\$2,463/t) and silver (US\$16.6/oz) have been used for FY18 and FY19e. Zinc equivalent is used to compare Cannington with the recently acquired Hermosa project which is currently reported in zinc equivalent terms.
7. Realised prices are unaudited. Volumes and prices do not include any third party trading that may be undertaken independently of equity production. Realised sales price is calculated as sales Revenue divided by sales volume unless otherwise stated.
8. Realised ore prices are unaudited and calculated as external sales Revenue less freight and marketing costs, divided by external sales volume. Ore converted to sinter and alloy, and sold externally, is eliminated as an intracompany transaction.
9. Realised ore prices are unaudited and calculated as external sales Revenue less freight and marketing costs, divided by external sales volume. Ore converted to sinter and alloy, and sold externally, is eliminated as an intracompany transaction. Manganese ore sales are grossed-up to reflect a 60% accounting effective interest.
10. Realised nickel sales prices are unaudited and inclusive of by-products.
11. The information in this release that relates to estimates of Mineral Resources for the Hermosa project are foreign estimates under ASX Listing Rules and reference should be made to the clarifying statement on Mineral Resources in the market announcement 'South32 to acquire Arizona Mining in agreed all cash offer' dated 18 June 2018, in accordance with ASX Listing Rule 5.12. South32 is not in possession of any new information or data relating to the foreign estimate that materially impacts on the reliability of the estimates. South32 confirms that the information contained in the clarifying statement in the 18 June 2018 market announcement continues to apply and has not materially changed. The estimates of Mineral Resources are not reported in accordance with the JORC Code. Competent Persons have not done sufficient work to classify the foreign estimates as Mineral Resources in accordance with JORC Code. It is uncertain that following evaluation and further exploration that the foreign estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.
12. The quarterly sales volume weighted average of the Platts Alumina Index (PAX) (FOB Australia) on the basis of a one month lag to published pricing (Month minus one or "M-1") was US\$501/t in the December 2018 half year.
13. Underlying EBIT is earnings before net finance costs, taxation and any earnings adjustments. Underlying EBIT is reported net of South32's share of net finance costs and taxation of equity accounted investments.
14. The following abbreviations have been used throughout this report: US\$ million (US\$M); US\$ billion (US\$B); grams per tonne (g/t); tonnes (t); thousand tonnes (kt); thousand tonnes per annum (ktpa); million tonnes (Mt); million tonnes per annum (Mtpa); ounces (oz); thousand ounces (koz); million ounces (Moz); thousand wet metric tonnes (kwmt); million wet metric tonnes (Mwmt); million wet metric tonnes per annum (Mwmt pa); thousand dry metric tonnes (kdmt).



## Operating Performance

South32's share	1H18	1H19	2Q18	3Q18	4Q18	1Q19	2Q19
<b>Worsley Alumina (86% share)</b>							
Alumina hydrate production (kt)	1,947	<b>1,947</b>	973	938	911	959	<b>988</b>
Alumina production (kt)	1,865	<b>1,906</b>	923	918	981	854	<b>1,052</b>
Alumina sales (kt)	1,886	<b>1,885</b>	920	910	967	850	<b>1,035</b>
<b>Brazil Alumina (36% share)</b>							
Alumina production (kt)	676	<b>636</b>	339	314	314	305	<b>331</b>
Alumina sales (kt)	649	<b>619</b>	316	314	378	302	<b>317</b>
<b>Hillside Aluminium (100%)</b>							
Aluminium production (kt)	358	<b>360</b>	178	175	179	180	<b>180</b>
Aluminium sales (kt)	344	<b>360</b>	182	184	183	178	<b>182</b>
<b>Mozal Aluminium (47.1% share)</b>							
Aluminium production (kt)	137	<b>135</b>	68	67	67	68	<b>67</b>
Aluminium sales (kt)	147	<b>129</b>	82	51	76	59	<b>70</b>
<b>South Africa Energy Coal (100%)</b>							
Energy coal production (kt)	13,423	<b>12,171</b>	6,734	6,741	7,107	6,170	<b>6,001</b>
Domestic sales (kt)	7,334	<b>7,749</b>	3,546	3,835	4,227	4,103	<b>3,646</b>
Export sales (kt)	5,865	<b>4,206</b>	3,117	3,472	3,181	1,923	<b>2,283</b>
<b>Illawarra Metallurgical Coal (100%)</b>							
Total coal production (kt)	1,860	<b>3,840</b>	1,041	1,149	1,235	1,905	<b>1,935</b>
Total coal sales (kt)	1,660	<b>3,259</b>	882	1,091	1,365	1,504	<b>1,755</b>
Metallurgical coal production (kt)	1,282	<b>3,082</b>	788	794	1,089	1,515	<b>1,567</b>
Metallurgical coal sales (kt)	1,057	<b>2,527</b>	654	760	1,120	1,178	<b>1,349</b>
Energy coal production (kt)	578	<b>758</b>	253	355	146	390	<b>368</b>
Energy coal sales (kt)	603	<b>732</b>	228	331	245	326	<b>406</b>
<b>Australia Manganese (60% share)</b>							
Manganese ore production (kwmt)	1,701	<b>1,811</b>	893	830	865	932	<b>879</b>
Manganese ore sales (kwmt)	1,612	<b>1,740</b>	822	803	875	884	<b>856</b>
Ore grade sold (% , Mn)	46.0	<b>46.0</b>	46.0	45.0	45.7	46.1	<b>45.8</b>
Manganese alloy production (kt)	82	<b>76</b>	43	41	42	41	<b>35</b>
Manganese alloy sales (kt)	78	<b>76</b>	42	37	55	29	<b>47</b>
<b>South Africa Manganese (60% share)</b>							
Manganese ore production (kwmt)	1,129	<b>1,075</b>	633	539	477	515	<b>560</b>
Manganese ore sales (kwmt)	1,067	<b>1,010</b>	539	476	539	487	<b>523</b>
Ore grade sold (% , Mn)	40.3	<b>40.3</b>	39.9	40.1	39.1	40.0	<b>40.5</b>
Manganese alloy production (kt)	36	<b>33</b>	19	21	22	11	<b>22</b>
Manganese alloy sales (kt)	28	<b>35</b>	14	21	18	16	<b>19</b>

South32's share	1H18	1H19	2Q18	3Q18	4Q18	1Q19	2Q19
<b>Cerro Matoso (99.9% share)</b>							
Ore mined (kwmt)	2,087	<b>1,209</b>	1,036	831	823	613	<b>596</b>
Ore processed (kdmt)	1,340	<b>1,401</b>	644	672	710	712	<b>689</b>
Ore grade processed (% Ni)	1.83	<b>1.68</b>	1.75	1.76	1.73	1.68	<b>1.69</b>
Payable nickel production (kt)	21.8	<b>21.1</b>	10.1	10.7	11.3	10.7	<b>10.4</b>
Payable nickel sales (kt)	21.3	<b>21.3</b>	9.9	10.8	11.2	10.9	<b>10.4</b>
<b>Cannington (100%)</b>							
Ore mined (kwmt)	1,209	<b>1,306</b>	562	571	683	623	<b>683</b>
Ore processed (kdmt)	1,168	<b>1,244</b>	575	544	643	638	<b>606</b>
Silver ore grade processed (g/t, Ag)	165	<b>183</b>	155	207	237	184	<b>181</b>
Lead ore grade processed (% Pb)	5.1	<b>4.8</b>	4.9	5.2	5.8	4.9	<b>4.7</b>
Zinc ore grade processed (% Zn)	2.6	<b>2.9</b>	2.3	2.5	2.8	2.9	<b>3.0</b>
Payable Zinc equivalent production (kt)	85.4	<b>95.2</b>	40.0	42.9	58.9	49.7	<b>45.5</b>
Payable silver production (koz)	5,175	<b>6,067</b>	2,412	3,082	4,234	3,185	<b>2,882</b>
Payable silver sales (koz)	5,429	<b>6,340</b>	2,503	3,014	3,542	3,057	<b>3,283</b>
Payable lead production (kt)	49.4	<b>48.3</b>	23.6	23.6	31.4	25.8	<b>22.5</b>
Payable lead sales (kt)	48.6	<b>47.1</b>	22.7	23.5	25.8	22.5	<b>24.6</b>
Payable zinc production (kt)	20.2	<b>26.3</b>	9.2	8.6	12.5	13.2	<b>13.1</b>
Payable zinc sales (kt)	25.7	<b>24.7</b>	12.1	6.3	13.0	8.8	<b>15.9</b>

### Forward-looking statements

This release contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this release, however they are not guarantees or predictions of future performance. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this release. Readers are cautioned not to put undue reliance on forward-looking statements. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

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