



South32 Limited
(Incorporated in Australia under the Corporations Act 2001 (Cth))
(ACN 093 732 597)
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QUARTERLY REPORT

December 2022

- **Group copper equivalent production¹ increased by 12% in H1 FY23, as our recent investments in copper and low-carbon aluminium capacity² delivered strong growth**
- **H1 FY23 Operating unit costs expected to be in-line or below FY23 guidance at the majority of our operations**
- **We are well positioned to capture the benefit of improved market conditions, with further expected production growth in H2 FY23 and our ongoing focus on cost management to mitigate inflationary pressures**
- Worsley Alumina and Brazil Alumina operated above nameplate capacity in the December 2022 quarter, delivering an 8% increase in quarterly alumina volumes
- Aluminium production increased by 15% in the December 2022 half year, with a 50% uplift in low-carbon aluminium, following our acquisition of an additional shareholding in Mozal Aluminium and restart of the Brazil Aluminium smelter
- Sierra Gorda realised sequentially higher copper grades, delivering 45kt of payable copper equivalent production³ in the December 2022 half year
- Cerro Matoso commissioned the Ore Sorting and Mechanical Ore Concentration project in the December 2022 quarter, underpinning a 15 year extension to the mining contract, and supporting higher expected nickel production in H2 FY23
- Australia Manganese achieved record half year production, supporting a 7% increase in total manganese production
- Illawarra Metallurgical Coal delivered a 17% increase in quarterly metallurgical coal production, with improved volumes and labour productivity as we finalised a new industrial agreement at Appin
- FY23 production guidance at Cannington revised lower by 11% due to lower mill throughput and labour availability impacting mining rates, and at Brazil Aluminium by 25kt (or 25%) due to a slower ramp-up to nameplate capacity
- Work completed on Hermosa’s Clark selection phase pre-feasibility study confirmed the opportunity to produce high-purity manganese sulphate monohydrate for the growing North American electric vehicle supply chain

South32 Chief Executive Officer, Graham Kerr: *“In November 2022, we were devastated by the loss of two of our colleagues who were fatally injured in an incident at Mozal Aluminium. Our thoughts and deepest sympathies remain with their families, and we provided them with our support following the incident. We are committed to improving our safety performance. Through our Safety Improvement Program, we are undertaking a significant amount of work to achieve the necessary step-change.*

“Group copper equivalent production increased by 12 per cent in the December half year, as we benefitted from transactions that have repositioned our portfolio toward metals critical for a low-carbon future. Australia Manganese also achieved record half year production, while Cerro Matoso successfully commissioned the Ore Sorting and Mechanical Ore Concentration project, underpinning a 15 year extension to the mining contract.

“Despite industry wide inflationary pressures, we expect Operating unit costs for the first half to be in-line with or below guidance for the 2023 financial year at the majority of our operations. We remain focused on delivering safe and stable operational performance, and efficiencies to mitigate cost pressures and capture higher margins as markets improve.

“We returned US\$927 million to shareholders during the period, paying record fully-franked dividends in respect of the June 2022 half year and continuing our on-market share buy-back. We have returned US\$2.2 billion under our capital management program since inception, with US\$108 million remaining to be returned to shareholders ahead of its extension or expiry in September 2023.

“Looking forward, our capital management framework and disciplined approach to capital allocation is designed to reward shareholders as we grow our production and realise the benefits of improving market conditions. At the same time, we continue to reshape our portfolio toward metals critical for a low-carbon future, advancing construction work, studies and exploration at our high-quality development options.”

Production summary							
South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	QoQ
Alumina production (kt)	2,610	2,613	0%	1,332	1,257	1,356	8%

Aluminium production (kt)	494	568	15%	246	279	289	4%
Payable copper production (kt)	–	37.9	N/A	–	19.0	18.9	(1%)
Payable silver production (koz)	6,710	5,812	(13%)	3,217	2,748	3,064	11%
Payable lead production (kt)	60.2	52.4	(13%)	28.3	24.6	27.8	13%
Payable zinc production (kt)	32.7	30.4	(7%)	17.3	14.0	16.4	17%
Payable nickel production (kt)	20.3	20.4	0%	10.7	9.6	10.8	13%
Metallurgical coal production (kt)	2,767	2,753	(1%)	1,192	1,270	1,483	17%
Manganese ore production (kwmt)	2,757	2,937	7%	1,252	1,460	1,477	1%

Unless otherwise noted: percentage variance relates to performance during the half year ended December 2022 compared with the half year ended December 2021 (HoH), or the December 2022 quarter compared with the September 2022 quarter (QoQ); production and sales volumes are reported on an attributable basis.

CORPORATE UPDATE

- On 7 November 2022, two of our colleagues, Mr Cristovão Alberto Tonela and Mr Alfredo Francisco Domingos João, were fatally injured in an incident at Mozal Aluminium. Our deepest sympathies are with the families and colleagues of the deceased to whom we have provided our support and counselling. The incident occurred during maintenance work on a raising girder. Production operations were temporarily suspended while an investigation was completed. Key learnings from the incident are being shared across our organisation and with industry. As an immediate step, additional controls were put in place for all raising girders at Mozal Aluminium and Hillside Aluminium.
- A non-binding advisory resolution in relation to our Climate Change Action Plan (CCAP) was passed by shareholders at our Annual General Meeting on 27 October 2022, with 89.6% of the votes received in favour of the resolution. Our CCAP included a new goal⁴ of net zero Scope 3 greenhouse gas emissions by 2050 and a commitment not to develop or invest in greenfield metallurgical coal projects.
- Consistent with our focus on securing low-carbon energy, Sierra Gorda's electricity supply will transition to cost efficient, fully renewable sources from January 2023 under an agreement to December 2039. Electricity supplied to the operation will be from solar, wind and hydroelectric power sources, sustainably reducing Sierra Gorda's greenhouse gas emissions and energy costs.
- During the December 2022 quarter, we satisfied the conditions to extend the mining contract at Cerro Matoso by 15 years from 2029 to 2044. As part of this extension, we received third-party certification of the expanded processing capacity⁵ delivered by the Ore Sorting and Mechanical Ore Concentration (OSMOC) project and paid US\$43M to the National Mining Agency in the December 2022 quarter.
- We made a final investment decision to install additional ventilation capacity at Illawarra Metallurgical Coal's Appin mine to enable mining in the current Area 7 until at least 2039⁶. This ~US\$260M investment is expected to be completed by H1 FY26, with our guidance for FY23 and FY24 safe and reliable capital expenditure already reflecting this activity.
- We expect to record a build in working capital of approximately US\$100M in the December 2022 half year, primarily related to an increase in inventories. This impact is most acute in our aluminium value chain in Southern Africa due to ongoing shipping delays.
- During the December 2022 quarter, we returned a record US\$784M in fully-franked ordinary and special dividends in respect of the June 2022 half year.
- We also returned US\$143M via our on-market share buy-back during the December 2022 half year, purchasing a further 56M shares at an average price of A\$3.86. To 31 December 2022, our US\$2.3B capital management program was 95% complete with US\$108M remaining to be returned ahead of its extension or expiry on 1 September 2023⁷.
- We received net distributions⁸ of US\$60M (South32 share) from our manganese equity accounted investments (EAI) in the December 2022 half year, following the payment of income tax (US\$94M, 100% basis), and royalties at Australia Manganese (US\$82M, 100% basis). We did not receive a distribution from our Sierra Gorda EAI in the December 2022 half year.
- We made tax payments of US\$347M in the December 2022 half year, which included US\$111M in relation to our acquisition of Sierra Gorda. Of this amount, ~€92M (~US\$94M at the payment date) relates to pre-closing tax liabilities which we intend to seek to recover from the vendors.
- Our Group Underlying effective tax rate (ETR) for the December 2022 half year is expected to be approximately 35%, reflecting the corporate tax rates of the jurisdictions in which we operate⁹ and our geographical earnings mix, including our manganese and Sierra Gorda EAI's which are proportionally consolidated in our Underlying results. Separately, the Underlying ETR of our manganese business is expected to be in a range of approximately 55 to 60%, including the royalty related tax for Australia Manganese¹⁰ and the derecognition of certain deferred tax assets.
- We extended our undrawn sustainability-linked revolving credit facility during the December 2022 quarter, retaining available capacity of US\$1.4B to December 2026 and US\$1.2B to December 2027.
- Reflecting our strong balance sheet and continued disciplined approach to capital allocation, our current BBB+/Baa1 credit ratings were re-affirmed by S&P Global Ratings and Moody's, respectively.

DEVELOPMENT AND EXPLORATION UPDATE

Hermosa project

- We invested US\$96M at Hermosa in the December 2022 half year as we continued critical path dewatering activity and study work for the Taylor zinc-lead-silver deposit and the Clark battery-grade manganese-zinc-silver deposit.
- We completed drilling of the first two dewatering wells during the December 2022 half year, with a total of six dewatering wells expected to be completed during FY23. The second water treatment plant remains on-track to be commissioned in the June 2023 quarter.
- We progressed the Taylor feasibility study which remains on-track to support a planned final investment decision in mid CY23.
- We completed work on the selection phase of the Clark pre-feasibility study during the December 2022 quarter. While this study remains subject to independent review, work to date has confirmed the opportunity to produce high-purity manganese sulphate monohydrate for the growing North American electric vehicle supply chain.
- In parallel, we progressed metallurgical test work and continued our drilling program at Clark to collect bulk samples that will support initial pilot plant production from mid CY23.
- We directed US\$6M to capitalised exploration in the December 2022 half year, as we continued our planned exploration programs including at the copper-lead-zinc-silver Peake prospect¹¹. We expect to commence exploration drilling at the Flux prospect¹² during CY23, following the receipt of approvals.

Ambler Metals project

- At our Ambler Metals joint venture, the CY22 summer exploration program was completed and the joint venture progressed work on the pre-feasibility study for the Arctic deposit. Our share of capitalised exploration was US\$8M in the December 2022 half year.
- Activity in CY23 is expected to focus on consolidating our geological knowledge and advancing engineering studies, while we monitor progress on approvals for the Ambler Access Project.

Greenfield exploration

- We invested US\$19M during the December 2022 half year in our greenfield exploration opportunities, with multiple programs targeting base metals underway in Australia, USA, Canada, Argentina, Peru and Ireland.

Other exploration

- We invested US\$30M (US\$20M capitalised) in exploration programs at our existing operations and development options in the December 2022 half year, including US\$6M at the Hermosa project (noted above, all capitalised), US\$8M at Ambler Metals (noted above, all capitalised), US\$2M for our manganese EAI (US\$1M capitalised) and US\$3M for our Sierra Gorda EAI (US\$1M capitalised).

PRODUCTION SUMMARY

Production guidance (South32 share)	FY22	1H23	FY23e ^(a)	Guidance comments
Worsley Alumina				
Alumina production (kt)	3,991	1,922	4,000	
Brazil Alumina (non-operated)				
Alumina production (kt)	1,297	691	1,395	
Brazil Aluminium (non-operated)				
Aluminium production (kt)	0.3	23.7	↓ 75	Guidance reduced by 25kt (from 100kt) due to a slower than expected ramp-up to nameplate capacity
Hillside Aluminium¹³				
Aluminium production (kt)	714	362	720	
Mozal Aluminium^{13,14}				
Aluminium production (kt)	278	182	370	
Sierra Gorda (non-operated)				
Payable copper equivalent production ³ (kt)	30.6	44.9	89.0	
Payable copper production (kt)	25.3	37.9	71.8	
Payable molybdenum production (kt)	0.4	0.4	1.5	
Payable gold production (koz)	9.6	15.3	29.9	
Payable silver production (koz)	253	338	582	
Cannington				
Payable zinc equivalent production ¹⁵ (kt)	224.2	98.8	↓ 209.4	Guidance reduced by 11% (from 236.1kt payable zinc equivalent) with lower H1 FY23 mill throughput and labour availability impacting mining rates
Payable silver production (koz)	12,946	5,474	↓ 12,000	
Payable lead production (kt)	120.6	52.4	↓ 108.5	
Payable zinc production (kt)	64.5	30.4	↓ 63.5	
Cerro Matoso				
Payable nickel production (kt)	41.7	20.4	43.5	OSMOC project expected to support higher volumes in H2 FY23
Illawarra Metallurgical Coal				
Total coal production (kt)	6,509	3,331	7,000	Improved labour productivity expected in H2 FY23
Metallurgical coal production (kt)	5,712	2,753	6,000	
Energy coal production (kt)	797	578	1,000	
Australia Manganese				
Manganese ore production (kwmt)	3,363	1,844	3,400	Production tracking ahead of guidance, prior to the wet season
South Africa Manganese				
Manganese ore production (kwmt)	2,069	1,093	2,000	Subject to demand and our continued use of higher cost trucking

a. The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.

MARKETING UPDATE

Commodity prices were broadly lower in the December 2022 half year as we saw a moderation in demand and sentiment following record conditions for many markets in the prior period.

The average realised prices achieved for our commodities are summarised below. Outstanding concentrate sales were revalued at 31 December 2022 with the final price of these to be determined in the June 2023 half year.

Realised prices ¹⁶	1H22	2H22	1H23	1H23 vs 1H22	1H23 vs 2H22
Worsley Alumina					
Alumina (US\$/t)	389	428	354	(9%)	(17%)
Brazil Alumina (non-operated)^(a)					
Alumina (US\$/t)	387	419	364	(6%)	(13%)
Brazil Aluminium (non-operated)^(a)					
Aluminium (US\$/t)	–	–	2,423	N/A	N/A
Hillside Aluminium					
Aluminium (US\$/t)	2,952	3,347	2,555	(13%)	(24%)
Mozal Aluminium					
Aluminium (US\$/t)	3,041	3,591	2,723	(10%)	(24%)
Sierra Gorda (non-operated)^{17(a)(b)}					
Payable copper (US\$/lb)	–	3.50	3.41	N/A	(3%)
Payable molybdenum (US\$/lb)	–	18.48	20.78	N/A	12%
Payable gold (US\$/oz)	–	1,934	1,688	N/A	(13%)
Payable silver (US\$/oz)	–	23.5	17.4	N/A	(26%)
Cannington¹⁸					
Payable silver (US\$/oz)	21.0	21.0	20.1	(4%)	(4%)
Payable lead (US\$/t)	2,180	1,902	2,008	(8%)	6%
Payable zinc (US\$/t)	2,988	3,473	2,436	(18%)	(30%)
Cerro Matoso¹⁹					
Payable nickel (US\$/lb)	8.39	11.64	9.05	8%	(22%)
Illawarra Metallurgical Coal					
Metallurgical coal (US\$/t)	303	457	268	(12%)	(41%)
Energy coal (US\$/t)	108	200	164	52%	(18%)
Australia Manganese²⁰					
Manganese ore (US\$/dmtu, FOB)	4.59	6.05	4.57	0%	(24%)
South Africa Manganese²⁰					
Manganese ore (US\$/dmtu, FOB)	3.47	4.39	3.57	3%	(19%)

- a. While Brazil Alumina and Brazil Aluminium are non-operated, South32 owns the marketing rights for our share of production. While Sierra Gorda is also non-operated, the Joint Venture is responsible for marketing our share of production.
- b. Published 2H22 realised sales prices and Operating unit costs reflect the period 1 March 2022 to 30 June 2022. Whereas production and sales numbers, and all Income Statement items reflect the period from first ownership (22 February 2022).

OPERATING UNIT COST UPDATE

We expect to report H1 FY23 Operating unit costs in-line or below current FY23 guidance at the majority of our operations, with a combination of cost efficiencies and weaker producer currencies partially offsetting industry-wide cost inflation. Looking forward, we remain focused on delivering safe and stable operational performance and further efficiencies to mitigate cost pressures. Further, Operating unit costs in H2 FY23 are expected to benefit from higher production volumes as we realise the benefit of prior investments, embedded improvement projects and maintenance completed in H1 FY23.

The below commentary reflects our current expectations for H1 FY23 Operating unit costs. We will report H1 FY23 Operating unit costs and provide updated FY23 guidance with our financial results announcement for the December 2022 half year.

Operating unit cost ^(a)		
	Guidance FY23e ^{(b)(c)}	H1 FY23 Operating unit costs commentary
Worsley Alumina		
(US\$/t)	296	Expected to be ~2.5% below current FY23 guidance, with a weaker Australian dollar and lower caustic soda costs to more than offset higher energy prices
Brazil Alumina (non-operated)		
	Not provided	Expected to be ~17.5% above H2 FY22 Operating unit costs (US\$312/t), as raw material input and energy prices remain elevated, and we incurred higher contractor costs
Brazil Aluminium (non-operated)		
	Not provided	Gross operating costs of ~US\$120M expected as we invest to support the smelter's ramp-up to nameplate capacity
Hillside Aluminium		
	Not provided	The cost profile of our Southern African aluminium smelters is heavily influenced by the South African rand, and the price of raw materials and energy. We expect to report a modest reduction in Operating unit costs in H1 FY23 relative to H2 FY22, with the benefit of a weaker South African rand, while smelter raw material prices (pitch, coke and aluminium tri-fluoride) remained elevated. H1 FY23 Operating unit costs for Hillside Aluminium are expected to be ~2.5% lower (H2 FY22: US\$2,318/t) and at Mozal Aluminium ~7.5% lower (H2 FY22: \$2,429/t).
Sierra Gorda (non-operated)		
(US\$/t) ^(d)	14.8	Expect to be ~12.5% above current FY23 guidance, with higher coal price-linked energy costs and lower ore processed
Cannington		
(US\$/t) ^(d)	129	Expect to be ~5% above current FY23 guidance, with a weaker Australian dollar and lower price-linked royalties, to be more than offset by lower ore processed
Cerro Matoso		
(US\$/lb)	4.97	Expected to be in-line with current FY23 guidance, with a weaker Colombian peso and lower price-linked royalties, expected to offset lower volumes
Illawarra Metallurgical Coal		
(US\$/t)	116	Expected to be ~7.5% above current FY23 guidance, with a weaker Australian dollar and lower price-linked royalties, to be more than offset by lower volumes
Australia Manganese (FOB)		
(US\$/dmu)	2.08	Expected to be ~15% below current FY23 guidance, benefitting from higher volumes, together with a weaker Australian dollar and lower price-linked royalties
South Africa Manganese (FOB)		
(US\$/dmu)	2.66	Expected to be in-line with current guidance, with a weaker South African rand partially offset by the use of higher cost trucking

- Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes. Operating cost is Revenue less Underlying EBITDA excluding third party sales.
- FY23e Operating unit cost guidance includes royalties (where appropriate) and commodity price and foreign exchange rate forward curves or our internal expectations (refer to footnote 21).
- The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.
- US dollar per tonne of ore processed. Periodic movements in finished product inventory may impact Operating unit costs.

WORSLEY ALUMINA (86% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Alumina production (kt)	1,979	1,922	(3%)	973	920	1,002	3%	9%
Alumina sales (kt)	1,946	1,861	(4%)	1,022	885	976	(5%)	10%

Worsley Alumina saleable production decreased by 3% (or 57kt) to 1,922kt in the December 2022 half year, while saleable production improved by 9% (or 82kt) in the December 2022 quarter following the completion of planned calciner maintenance in the September 2022 quarter. FY23 production guidance remains unchanged at 4,000kt with the expectation that nameplate production rates (4.6Mtpa, 100% basis) are achieved following planned calciner maintenance in the March 2023 quarter.

During the December 2022 quarter, we imported approximately 58kt of low-calorific coal to supplement our domestic coal supply. While we have no current plans to import further coal, we will continue to monitor the performance of our domestic third-party coal suppliers and respond accordingly.

BRAZIL ALUMINA (36% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Alumina production (kt)	631	691	10%	359	337	354	(1%)	5%
Alumina sales (kt)	626	678	8%	379	313	365	(4%)	17%

Brazil Alumina saleable production increased by 10% (or 60kt) to 691kt in the December 2022 half year, as the refinery operated at nameplate capacity (3.86Mtpa, 100% basis), following the bauxite ship unloader outage in the prior period. FY23 production guidance remains unchanged at 1,395kt.

BRAZIL ALUMINIUM (40% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Aluminium production (kt)	–	23.7	N/A	–	8.3	15.4	N/A	86%
Aluminium sales (kt)	–	19.4	N/A	–	3.3	16.1	N/A	388%

Brazil Aluminium saleable production was 23.7kt in the December 2022 half year, following the successful restart of the smelter in the June 2022 quarter. Production increased by 86% (or 7.1kt) in the December 2022 quarter as potlines one and two continued to ramp-up towards capacity and potline three was restarted in November 2022.

During the December 2022 quarter, the smelter experienced temporary challenges with its alumina feeding systems and higher than expected pot failure rates. As a result, fewer pots are in operation than planned, and the ramp-up to nameplate capacity (179ktpa, 40% basis) is delayed to the September 2023 quarter. Accordingly, we have reduced FY23 production by 25kt (or 25%) to 75kt and FY24 production guidance by 31kt (or 17%) to 148kt.

HILLSIDE ALUMINIUM (100% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Aluminium production (kt)	358	362	1%	178	179	183	3%	2%
Aluminium sales (kt)	336	337	0%	176	162	175	(1%)	8%

Hillside Aluminium saleable production increased by 1% (or 4kt) to 362kt in the December 2022 half year as the smelter continued to test its maximum technical capacity despite the impact of elevated load-shedding. FY23 production guidance remains unchanged at 720kt¹³.

While sales increased by 8% in the December 2022 quarter, inventory remained above target levels as two shipments were delayed to January 2023 due to shipping delays at Richards Bay.

MOZAL ALUMINIUM (63.7%¹⁴ SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Aluminium production (kt)	136	182	34%	68	92	90	32%	(2%)
Aluminium sales (kt)	122	177	45%	67	87	90	34%	3%

Mozal Aluminium saleable production increased by 34% (or 46kt) to 182kt in the December 2022 half year, reflecting our increased ownership of the smelter¹⁴. Production decreased by 2% (or 2kt) in the December 2022 quarter as operations in Potroom A were temporarily suspended as we responded to the fatal incident on 7 November 2022. FY23 production guidance remains unchanged at 370kt¹³, with the smelter having subsequently returned to full production and continued to test its maximum technical capacity despite the impact of elevated load-shedding.

SIERRA GORDA (45% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23	2Q23
							vs	vs
							2Q22	1Q23
Payable copper equivalent production ³ (kt)	–	44.9	N/A	–	22.6	22.3	N/A	(1%)
Payable copper production (kt)	–	37.9	N/A	–	19.0	18.9	N/A	(1%)
Payable copper sales (kt)	–	38.4	N/A	–	19.2	19.2	N/A	0%

Sierra Gorda payable copper equivalent production³ was 44.9kt in the December 2022 half year, as the operation realised sequentially higher average copper grades (H1 FY23: 0.45%, H2 FY22: 0.42%) and delivered plant throughput at an annualised rate of ~48Mt (100% basis). FY23 payable copper equivalent production³ guidance of 89.0kt remains unchanged (copper 71.8kt, molybdenum 1.5kt, gold 29.9koz and silver 582koz).

Sierra Gorda progressed work on the plant de-bottlenecking project during the December 2022 quarter, completing planned conveyor upgrades, while commissioning of the third tailings thickener is delayed to the March 2023 quarter. Based on recent performance of the grinding circuit, we now expect annual plant throughput to be in a range of 48 to 49Mtpa (100% basis) following the completion of de-bottlenecking work. In parallel, feasibility study work continues on a potential fourth grinding line, designed to sustainably lift plant throughput above 50Mtpa (100% basis). The feasibility study is expected to be completed in H1 FY24.

We will provide FY24 production guidance with our financial results announcement for the December 2022 half year.

CANNINGTON (100% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23	2Q23
							vs	vs
							2Q22	1Q23
Payable zinc equivalent production ¹⁵ (kt)	114.0	98.8	(13%)	55.9	46.1	52.7	(6%)	14%
Payable silver production (koz)	6,710	5,474	(18%)	3,217	2,568	2,906	(10%)	13%
Payable silver sales (koz)	6,718	5,083	(24%)	4,000	1,704	3,379	(16%)	98%
Payable lead production (kt)	60.2	52.4	(13%)	28.3	24.6	27.8	(2%)	13%
Payable lead sales (kt)	63.3	51.3	(19%)	38.0	18.7	32.6	(14%)	74%
Payable zinc production (kt)	32.7	30.4	(7%)	17.3	14.0	16.4	(5%)	17%
Payable zinc sales (kt)	32.8	27.5	(16%)	18.5	14.9	12.6	(32%)	(15%)

Cannington payable zinc equivalent production¹⁵ decreased by 13% (or 15.2kt) to 98.8kt in the December 2022 half year with mill throughput below plan due to lower than expected performance of temporary mobile crushers deployed to support the transition to truck haulage. Ore mined volumes also declined with lower operator availability due to skilled labour shortages and further COVID-19 absenteeism.

While the transition to truck haulage was completed at the end of the December 2022 quarter and is expected to bring forward higher-grade material in the mine plan, the ability to recover production volumes in H2 FY23 is expected to be constrained with near-term labour availability challenges expected to impact mining rates. Accordingly, we have reduced FY23 production guidance by 11% to 209.4kt payable zinc equivalent¹⁵ (ore processed 2,450kdm, silver 12,000koz, lead 108.5kt and zinc 63.5kt).

Sales volumes in the December 2022 quarter reflected the timing of shipments, including carry-over shipments of silver and lead from the prior quarter. Our realised zinc price of US\$2,436/t in the December 2022 half year is net of treatment and refining charges that have widened in the current market.

CERRO MATOSO (99.9% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Payable nickel production (kt)	20.3	20.4	0%	10.7	9.6	10.8	1%	13%
Payable nickel sales (kt)	20.1	19.8	(1%)	9.7	9.0	10.8	11%	20%

Cerro Matoso payable nickel production was largely unchanged at 20.4kt in the December 2022 half year. Production improved by 13% (or 1.2kt) in the December 2022 quarter as mill throughput returned to normalised rates following the completion of a planned shut, while the OSMOC project was commissioned. FY23 production guidance remains unchanged at 43.5kt, with the OSMOC project expected to support higher production volumes in H2 FY23.

Sales increased by 20% in the December 2022 quarter, which reflected improved product availability. Our ferronickel product typically attracts a discount to the LME Nickel price index on a volume weighted M or M+1 basis, with this discount further widening to 16% in the December 2022 half year (H2 FY22: 8%).

Following a change in tax legislation, we expect Cerro Matoso's effective tax rate to increase in future periods, with the Colombian dividend withholding tax increasing from 10% to 20% and income tax deductions no longer available for royalty payments²² from January 2023.

ILLAWARRA METALLURGICAL COAL (100% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Total coal production (kt)	3,145	3,331	6%	1,257	1,595	1,736	38%	9%
Total coal sales ²³ (kt)	3,255	3,185	(2%)	1,547	1,390	1,795	16%	29%
Metallurgical coal production (kt)	2,767	2,753	(1%)	1,192	1,270	1,483	24%	17%
Metallurgical coal sales (kt)	2,877	2,678	(7%)	1,387	1,193	1,485	7%	24%
Energy coal production (kt)	378	578	53%	65	325	253	289%	(22%)
Energy coal sales (kt)	378	507	34%	160	197	310	94%	57%

Illawarra Metallurgical Coal saleable production increased by 6% (or 186kt) to 3,331kt in the December 2022 half year. Metallurgical coal production increased by 17% (or 213kt) in the December 2022 quarter, with improved labour productivity at the Appin mine following the successful negotiation in October 2022 of a new Enterprise Agreement, which has a four year term to 2026. The benefit to production of improved labour productivity following the conclusion of protected industrial action was partially offset by a temporary outage in the December 2022 quarter. Energy coal production decreased by 22% (or 72kt) during the December 2022 quarter, due to maintenance and water management activity at the Dendrobium mine.

FY23 production guidance remains unchanged at 7.0Mt (metallurgical coal 6.0Mt and energy coal 1.0Mt) with the complex expected to deliver higher volumes over the remainder of FY23, benefitting from an expected improvement in labour productivity.

AUSTRALIA MANGANESE (60% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Manganese ore production (kwmt)	1,704	1,844	8%	807	898	946	17%	5%
Manganese ore sales (kwmt)	1,737	1,652	(5%)	831	779	873	5%	12%

Australia Manganese saleable production increased by 8% (or 140kwmt) to a record of 1,844kwmt in the December 2022 half year as improved yields supported higher primary concentrator output. Separately, our low-cost PCO2 circuit continued to operate above its design capacity, delivering approximately 10% of production (FY22: 11%). FY23 production guidance remains unchanged at 3,400kwmt, with production volumes tracking ahead of plan prior to the commencement of the wet season.

SOUTH AFRICA MANGANESE (ORE 54.6% SHARE)

South32 share	1H22	1H23	HoH	2Q22	1Q23	2Q23	2Q23 vs 2Q22	2Q23 vs 1Q23
Manganese ore production (kwmt)	1,053	1,093	4%	445	562	531	19%	(6%)
Manganese ore sales (kwmt)	1,094	1,032	(6%)	579	473	559	(3%)	18%

South Africa Manganese saleable production increased by 4% (or 40kwmt) to 1,093kwmt in the December 2022 half year, as improved mining performance was partially offset by planned maintenance in the December 2022 quarter. FY23 production guidance remains unchanged at 2,000kwmt, subject to market conditions and our continued use of higher cost trucking.

Sales increased by 18% in the December 2022 quarter as third-party rail and port availability progressively improved after Transnet's industrial action was resolved in October 2022. Notwithstanding this strong quarterly performance, we did see a build in working capital during the December 2022 half year as a result of this disruption.

NOTES

1. Group payable copper equivalent production calculated by applying H1 FY23 production volumes and FY22 realised prices for all operations (except for Brazil Aluminium which is based on FY22 average index prices for aluminium). The 12% increase in H1 FY23 Group payable copper equivalent production is calculated relative to H1 FY22 production volumes and FY22 realised prices for all operations (except for Brazil Aluminium which is based on FY22 average index prices for aluminium).
2. Refers to aluminium produced using renewable power.
3. Payable copper equivalent production (kt) was calculated by aggregating revenues from payable copper, molybdenum, gold and silver, and dividing the total Revenue by the price of copper. FY22 realised prices for copper (US\$3.50/lb), molybdenum (US\$18.48/lb), gold (US\$1,934/oz) and silver (US\$23.5/oz) have been used for FY22, H1 FY23 and FY23e.
4. Goal is defined as an ambition to seek an outcome for which there is no current pathway(s), but for which efforts will be pursued towards addressing that challenge, subject to certain assumptions or conditions. Target is defined as an intended outcome in relation to which we have identified one or more pathways for delivery of that outcome, subject to certain assumptions or conditions.
5. The information in this report that relates to the production target is based on Proved (75%) and Probable (25%) Ore Reserves for Cerro Matoso. Mineral Resources and Ore Reserve estimates for Cerro Matoso was declared as part of South32's Annual Resource and Reserve declaration in the Annual Report 2022 (www.south32.net) issued on 9 September 2022 and prepared by I Espitia (MAUSIMM) and N Monterroza (MAUSIMM) in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement. All material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. Payable nickel is calculated using long-term consensus metal prices and relative metallurgical recoveries.
6. Refer to market release "Dendrobium Next Domain Update" dated 23 August 2022 (market release). The information in the market release that refers to the Production Target and forecast financial information for the Appin mine at Illawarra Metallurgical Coal is based on Proved (14%) and Probable (86%) Coal Reserves from Bulli. The Coal Reserves estimates underpinning the Production Target have been prepared by M Rose (Competent Person) and reported in accordance with the JORC Code. The Coal Reserves estimates are available to view in South32's FY22 Annual Report (<http://www.south32.net>) published on 9 September 2022. The stated Production Target is based on South32's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.
7. Since inception, US\$1.6B has been allocated to the on-market share buy-back (752M shares at an average price of A\$3.00 per share) and US\$525M returned in the form of special dividends.
8. Net distributions from our material equity accounted investments (manganese and Sierra Gorda) 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.
9. The corporate tax rates of the geographies where the Group operates include: Australia 30%, South Africa 27%, Colombia 35%, Mozambique 0%, Brazil 34% and Chile 27%. The South African corporate tax rate reduced from 28% to 27% from 1 July 2022. The Mozambique operations are subject to a royalty on revenues instead of income tax. Sierra Gorda is subject to a royalty related tax based on the amount of copper sold and the mining operating margin, the rate is between 5% and 14% for annual sales over 50kt of refined copper. This royalty is included in tax expense.
10. Australia Manganese is subject to a royalty related tax equal to 20% of adjusted EBIT which is included in tax expense.
11. Peake Prospect Exploration Target: The information in this announcement that relates to the Exploration Target for Peake Prospect is extracted from "Hermosa Project Update" published on 17 January 2022 and is available to view on www.south32.net. The information was prepared by D Bertuch (Competent Person) in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially changed from the original market announcement.
12. Flux Exploration Target: The information in this announcement that relates to the Exploration Target for Flux is extracted from "South32 Strategy and Business Update" published on 18 May 2021 and is available to view on www.south32.net. The information was prepared by D Bertuch (Competent Person) in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially changed from the original market announcement.
13. Production guidance for Hillside Aluminium and Mozal Aluminium does not assume any load-shedding impact on production.
14. Refer to market release "South32 completes acquisition of additional shareholding in Mozal Aluminium" dated 31 May 2022. Historical production and sales figures have not been restated for our increased ownership (presented on a 47.1% basis to 31 May 2022).
15. Payable zinc equivalent production (kt) was calculated by aggregating revenues from payable silver, lead and zinc, and dividing the total Revenue by the price of zinc. FY22 realised prices for zinc (US\$3,248/t), lead (US\$2,046/t) and silver (US\$21.0/oz) have been used for FY22, H1 FY23 and FY23e.
16. 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.
17. Realised prices for Sierra Gorda are net of treatment and refining charges.
18. Realised prices for Cannington are net of treatment and refining charges.
19. Realised nickel sales prices are inclusive of by-products.
20. Realised ore prices are calculated as external sales Revenue less freight and marketing costs, divided by external sales volume.
21. FY23 Operating unit cost guidance includes royalties (where appropriate) and the influence of exchange rates, and includes various assumptions for FY23, including: an alumina price of US\$364/t; an average blended coal price of US\$265/t for Illawarra Metallurgical Coal; a manganese ore price of US\$6.40/dmtu for 44% manganese product; a nickel price of US\$9.94/lb; a silver price of US\$22.11/troy oz; a lead price of US\$2,059/t (gross of treatment and refining charges); a zinc price of US\$3,480/t (gross of treatment and refining charges); a copper price of US\$4.07/lb (gross of treatment and refining charges); a molybdenum price of US\$16.95/lb (gross of treatment and refining charges); a gold price of US\$1,860/troy oz; an AUD:USD exchange rate of 0.69; a USD:ZAR exchange rate of 16.62; a USD:COP exchange rate of 3,851; USD:CLP exchange rate of 814; and a reference price for caustic soda; which reflect forward markets as at June 2022 or our internal expectations.
22. Cerro Matoso is subject to a royalty related tax equal to 13.5% of mine gate value which is included in operating cost.
23. Illawarra Metallurgical Coal sales are adjusted for moisture and will not reconcile directly to Illawarra Metallurgical Coal production.

The following abbreviations have been used throughout this report: US\$ million (US\$M); US\$ billion (US\$B); € (Euro); 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); dry metric tonne unit (dmtu); thousand dry metric tonnes (kdmt).

Figures in Italics indicate that an adjustment has been made since the figures were previously reported. The denotation (e) refers to an estimate or forecast year.

OPERATING PERFORMANCE

South32 share	1H22	1H23	2Q22	3Q22	4Q22	1Q23	2Q23
Worsley Alumina (86% share)							
Alumina hydrate production (kt)	1,994	1,955	997	972	1,014	957	998
Alumina production (kt)	1,979	1,922	973	982	1,030	920	1,002
Alumina sales (kt)	1,946	1,861	1,022	910	1,118	885	976
Brazil Alumina (36% share)							
Alumina production (kt)	631	691	359	335	331	337	354
Alumina sales (kt)	626	678	379	306	367	313	365
Brazil Aluminium (40% share)							
Aluminium production (kt)	-	23.7	-	-	0.3	8.3	15.4
Aluminium sales (kt)	-	19.4	-	-	-	3.3	16.1
Hillside Aluminium (100% share)							
Aluminium production (kt)	358	362	178	177	179	179	183
Aluminium sales (kt)	336	337	176	179	198	162	175
Mozal Aluminium (63.7%¹⁴ share)							
Aluminium production (kt)	136	182	68	66	76	92	90
Aluminium sales (kt)	122	177	67	66	88	87	90
Sierra Gorda (45% share)							
Ore mined (Mt)	-	15.4	-	4.7	9.0	8.8	6.6
Ore processed (Mt)	-	10.7	-	2.3	5.2	5.4	5.3
Copper ore grade processed (% Cu)	-	0.45	-	0.45	0.40	0.45	0.44
Payable copper equivalent production ³ (kt)	-	44.9	-	10.3	20.3	22.6	22.3
Payable copper production (kt)	-	37.9	-	8.4	16.9	19.0	18.9
Payable copper sales (kt)	-	38.4	-	11.1	16.6	19.2	19.2
Payable molybdenum production (kt)	-	0.4	-	0.2	0.2	0.2	0.2
Payable molybdenum sales (kt)	-	0.8	-	0.1	0.5	0.3	0.5
Payable gold production (koz)	-	15.3	-	2.3	7.3	7.8	7.5
Payable gold sales (koz)	-	15.4	-	3.0	6.9	7.7	7.7
Payable silver production (koz)	-	338	-	85	168	180	158
Payable silver sales (koz)	-	345	-	111	171	179	166

South32 share	1H22	1H23	2Q22	3Q22	4Q22	1Q23	2Q23
Cannington (100%)							
Ore mined (kwmt)	1,475	1,123	725	637	641	639	484
Ore processed (kdmmt)	1,385	1,142	698	681	552	518	624
Silver ore grade processed (g/t, Ag)	177	175	169	188	177	179	171
Lead ore grade processed (% Pb)	5.2	5.5	4.9	5.9	5.5	5.6	5.4
Zinc ore grade processed (% Zn)	3.4	3.6	3.6	3.4	3.8	3.7	3.6
Payable zinc equivalent production ¹⁵ (kt)	114.0	98.8	55.9	61.3	48.9	46.1	52.7
Payable silver production (koz)	6,710	5,474	3,217	3,568	2,668	2,568	2,906
Payable silver sales (koz)	6,718	5,083	4,000	2,818	3,362	1,704	3,379
Payable lead production (kt)	60.2	52.4	28.3	34.6	25.8	24.6	27.8
Payable lead sales (kt)	63.3	51.3	38.0	27.9	31.0	18.7	32.6
Payable zinc production (kt)	32.7	30.4	17.3	16.4	15.4	14.0	16.4
Payable zinc sales (kt)	32.8	27.5	18.5	17.3	16.1	14.9	12.6
Cerro Matoso (99.9% share)							
Ore mined (kwmt)	2,416	2,752	1,358	1,310	1,141	1,332	1,420
Ore processed (kdmmt)	1,335	1,392	715	690	678	666	726
Ore grade processed (% Ni)	1.73	1.64	1.71	1.73	1.71	1.63	1.65
Payable nickel production (kt)	20.3	20.4	10.7	10.6	10.8	9.6	10.8
Payable nickel sales (kt)	20.1	19.8	9.7	9.8	11.9	9.0	10.8
Illawarra Metallurgical Coal (100%)							
Total coal production (kt)	3,145	3,331	1,257	1,781	1,583	1,595	1,736
Total coal sales ²³ (kt)	3,255	3,185	1,547	1,465	1,886	1,390	1,795
Metallurgical coal production (kt)	2,767	2,753	1,192	1,565	1,380	1,270	1,483
Metallurgical coal sales (kt)	2,877	2,678	1,387	1,358	1,588	1,193	1,485
Energy coal production (kt)	378	578	65	216	203	325	253
Energy coal sales (kt)	378	507	160	107	298	197	310
Australia Manganese (60% share)							
Manganese ore production (kwmt)	1,704	1,844	807	815	844	898	946
Manganese ore sales (kwmt)	1,737	1,652	831	775	860	779	873
Ore grade sold (% Mn)	44.2	44.2	44.2	44.1	44.2	44.3	44.1
South Africa Manganese (54.6% share)							
Manganese ore production (kwmt)	1,053	1,093	445	391	625	562	531
Manganese ore sales (kwmt)	1,094	1,032	579	495	581	473	559
Ore grade sold (% Mn)	39.5	39.2	38.7	40.5	39.4	38.5	39.8

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. South32 cautions against reliance on any forward looking statements or guidance, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption arising in connection with COVID-19.

FURTHER INFORMATION

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