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## BHP OPERATIONAL REVIEW FOR THE HALF YEAR ENDED 31 DECEMBER 2022

- We remained fatality free at our operated assets for the fourth consecutive year and continued to deliver reliable operational performance during the quarter.
- Western Australia Iron Ore (WAIO) achieved record production of 146 Mt (100% basis) for the half year.
- Production guidance for the 2023 financial year remains unchanged, with Escondida and BHP Mitsubishi Alliance (BMA) trending to the low end of their respective guidance ranges.
- Full year unit cost guidance<sup>1</sup> for Escondida and WAIO remains unchanged. Unit cost guidance for BMA and New South Wales Energy Coal (NSWEC) has been increased, largely reflecting production impacts from significant wet weather and inflationary pressures.
- BHP entered into a Scheme Implementation Deed with OZ Minerals Ltd (OZL) to acquire 100% of OZL by way of a scheme arrangement for a cash price of A\$28.25 per OZL share.

*BHP Chief Executive Officer, Mike Henry:*

“BHP delivered safe and reliable operating performance in the first half of the 2023 financial year. Employees and contractors across BHP continued to prioritise safety, resulting in the fourth consecutive year without a fatality.

WA Iron Ore (WAIO) delivered record production for the half year through strong supply chain performance, supported by the ongoing ramp-up at South Flank. Copper production at Escondida rose despite road blockades in Chile in the December quarter and the Spence Growth Option continued to ramp up, while Olympic Dam’s ongoing smelter performance saw near-record material processing and record gold production. In Queensland, coal production was again impacted by heavy rainfall. As foreshadowed, we are seeing the impact of inflation across our global supply chains and continue to focus on productivity and controllable costs.

BHP believes China will be a stabilising force when it comes to commodity demand in the 2023 calendar year, with OECD nations experiencing economic headwinds. China’s pro-growth policies, including in the property sector, and an easing of COVID-19 restrictions are expected to support progressive improvement from the difficult economic conditions of the first half. China is expected to achieve its fifth straight year of over 1 billion tonnes of steel production.

During the quarter, we continued to progress a number of growth pathways to shape our portfolio toward future facing commodities and reduce our operational emissions. In December 2022, BHP’s scheme implementation deed to acquire 100% of Australian copper producer OZ Minerals received unanimous support from the OZ Minerals Board ahead of a shareholder vote in the coming months.”

Production	Dec H22	Dec Q22	Dec Q22 vs Sep Q22 commentary
	(vs Dec H21)	(vs Sep Q22)	
Copper (kt)	834.4 12%	424.3 3%	Higher volumes at Escondida due to higher throughput, higher concentrate volumes at Spence reflecting the ramp up of the Spence Growth Option, and strong volumes at Olympic Dam as a result of planned refinery maintenance in the prior period.
Iron ore (Mt)	132.0 2%	66.9 3%	Record production at WAIO in the month of December 2022 due to strong supply chain performance and reduced impacts of labour constraints and wet weather.
Metallurgical coal (Mt)	13.6 5%	7.0 4%	Higher volumes due to improved strip ratios and the planned longwall move at Broadmeadow in the prior period, partially offset by continued significant wet weather.
Energy coal (Mt)	5.5 (24%)	2.9 9%	Higher volumes due to improved operating conditions, including less significant wet weather impacts and reduced labour shortages in the December 2022 quarter, partially offset by planned wash plant maintenance completed in November 2022.
Nickel (kt)	38.4 (2%)	17.7 (14%)	Lower volumes due to planned maintenance at the smelter and refinery.

## Summary

### Operational performance

Production and guidance are summarised below.

Production	Dec	Dec	Dec H22	Dec Q22	Dec Q22	Previous FY23 guidance	Current FY23 guidance	
	H22	Q22	vs Dec H21	vs Dec Q21	vs Sep Q22			
Copper (kt)	834.4	424.3	12%	16%	3%	1,635 – 1,825	1,635 – 1,825	
Escondida (kt)	510.7	258.0	5%	5%	2%	1,080 – 1,180	1,080 – 1,180	Low end
Pampa Norte (kt)	147.3	76.7	8%	12%	9%	240 – 290	240 – 290	Unchanged
Olympic Dam (kt)	104.1	54.4	138%	283%	9%	195 – 215	195 – 215	Unchanged
Antamina (kt)	72.3	35.2	(3%)	(8%)	(5%)	120 – 140	120 – 140	Unchanged
Iron ore (Mt)	132.0	66.9	2%	1%	3%	249 – 260	249 – 260	
WAIO (Mt)	129.7	65.8	2%	1%	3%	246 – 256	246 – 256	Unchanged
WAIO (100% basis) (Mt)	146.4	74.3	1%	1%	3%	278 – 290	278 – 290	Unchanged
Samarco (Mt)	2.2	1.1	8%	6%	(5%)	3 – 4	3 – 4	Unchanged
Metallurgical coal - BMA (Mt)	13.6	7.0	5%	10%	4%	29 – 32	29 – 32	
BMA (100% basis) (Mt)	27.2	13.9	5%	10%	4%	58 – 64	58 – 64	Low end
Energy coal – NSWEC (Mt)	5.5	2.9	(24%)	(4%)	9%	13 – 15	13 – 15	Unchanged
Nickel (kt)	38.4	17.7	(2%)	(18%)	(14%)	80 – 90	80 – 90	Unchanged

### Summary of disclosures

BHP expects its financial results for the half year ended 31 December 2022 to reflect certain items as summarised in the table below. The table does not provide a comprehensive list of all items impacting the period. The financial statements are the subject of ongoing work that will not be finalised until the release of the financial results on 21 February 2023. Accordingly, the information in the table below contains preliminary information that is subject to update and finalisation.

Description	H1 FY23 impact US\$M <sup>i</sup>	Classification <sup>ii</sup>
Unit costs for the December 2022 half year at Escondida are expected to be towards the upper end of full year guidance; unit costs at WAIO, BMA and NSWEC are expected to be above full year guidance (at guidance exchange rates) Note: weaker Australian dollar and Chilean peso than guidance rates in the period <sup>iii</sup>	-	Operating costs
For the 2023 financial year, unit costs at WAIO and Escondida are tracking towards the upper end of full year guidance (at guidance exchange rates) Unit cost guidance for BMA has been increased to between US\$100 and US\$105 per tonne (at guidance exchange rates) reflecting full year volumes tracking to the low end of production guidance due to significant wet weather, inventory movements and inflationary pressures Unit cost guidance for NSWEC has been increased to between US\$84 and US\$91 per tonne (at guidance exchange rates) reflecting production impacts from record wet weather, inflationary pressures and price-linked logistics costs	-	Operating costs
Exploration expense	127	Exploration expense
The Group's adjusted effective tax rate for H1 FY23 is expected to be slightly below the full year guidance range of 30 to 35 per cent	-	Taxation expense
Working capital movements relating to royalties, net price impacts on receivables and payables, and other movements	1,000-1,400	↓ Operating cash flow
Settlement of derivative related to the funding of the final FY22 dividend (note: together with the payment of US\$8.7 billion reported in financing cash outflow, the combined payment of US\$8.9 billion represents the final dividend determined on 16 August 2022 in the financial results for the year ended 30 June 2022)	~210	↓ Operating cash flow
Additional net proceeds <sup>iv</sup> received from the sale of BHP's 80 per cent interest in BMC	74	↑ Investing cash flow
Dividends paid to non-controlling interests	527	↓ Financing cash flow
Financial impact on BHP Brasil of the Samarco dam failure The financial impact is expected to primarily relate to amortisation of discounting on the provision and the impact of foreign exchange	Refer footnote <sup>v</sup>	Exceptional item

<sup>i</sup> Numbers are not tax effected, unless otherwise noted.

<sup>ii</sup> There will be a corresponding balance sheet, cash flow and/or income statement impact as relevant, unless otherwise noted.

<sup>iii</sup> Average exchange rates for H1 FY23 of AUD/USD 0.67 (guidance rate AUD/USD 0.72) and USD/CLP 920 (guidance rate USD/CLP 830).

<sup>iv</sup> Second purchase price instalment offset by working capital adjustments.

<sup>v</sup> Financial impact is the subject of ongoing work and is not yet finalised. See corporate update section for further information on Samarco.

## Average realised prices

The average realised prices achieved for our major commodities are summarised below.

Average realised prices <sup>i</sup>	Dec H22	Dec H21	Jun H22	FY22	Dec H22 vs Dec H21	Dec H22 vs Jun H22	Dec H22 vs FY22
Copper (US\$/lb)	3.49	4.31	4.02	4.16	(19%)	(13%)	(16%)
Iron ore (US\$/wmt, FOB)	85.46	113.54	112.65	113.10	(25%)	(24%)	(24%)
Metallurgical coal (US\$/t)	268.73	259.71	423.82	347.10	3%	(37%)	(23%)
Hard coking coal (US\$/t) <sup>ii</sup>	270.65	278.60	437.60	366.82	(3%)	(38%)	(26%)
Weak coking coal (US\$/t) <sup>ii</sup>	252.12	218.65	382.56	296.51	15%	(34%)	(15%)
Thermal coal (US\$/t) <sup>iii</sup>	354.30	137.68	302.60	216.78	157%	17%	63%
Nickel metal (US\$/t)	24,362	19,651	27,399	23,275	24%	(11%)	5%

<sup>i</sup> Based on provisional, unaudited estimates. Prices exclude sales from equity accounted investments, third party product and internal sales, and represent the weighted average of various sales terms (for example: FOB, CIF and CFR), unless otherwise noted. Includes the impact of provisional pricing and finalisation adjustments.

<sup>ii</sup> Hard coking coal (HCC) refers generally to those metallurgical coals with a Coke Strength after Reaction (CSR) of 35 and above, which includes coals across the spectrum from Premium Coking to Semi Hard Coking coals, while weak coking coal (WCC) refers generally to those metallurgical coals with a CSR below 35.

<sup>iii</sup> Includes thermal coal sales from metallurgical coal mines.

The large majority of iron ore shipments were linked to index pricing for the month of shipment, with price differentials predominantly a reflection of market fundamentals and product quality. Iron ore sales for the December 2022 half year were based on an average moisture rate of 6.8 per cent. The large majority of metallurgical coal and energy coal exports were linked to index pricing for the month of scheduled shipment or priced on the spot market at fixed or index-linked prices, with price differentials reflecting product quality. The large majority of copper cathodes sales were linked to index price for quotation periods one month after month of shipment, and three to four months after month of shipment for copper concentrates sales with price differentials applied for location and treatment costs.

At 31 December 2022, the Group had 319 kt of outstanding copper sales that were revalued at a weighted average price of US\$3.80 per pound. The final price of these sales will be determined over the remainder of the 2023 financial year. In addition, 354 kt of copper sales from the 2022 financial year were subject to a finalisation adjustment in the current period. The provisional pricing and finalisation adjustments will decrease Underlying EBITDA by US\$59 million in the December 2022 half year and are included in the average realised copper price in the above table.

## Corporate update

### Portfolio

In December 2022, BHP announced the signing of a [Scheme Implementation Deed \(SID\) with OZ Minerals Ltd \(OZL\)](#) to acquire 100 per cent of OZL through a scheme of arrangement for a cash price of A\$28.25 per OZL share. The SID confirms the terms of the scheme and BHP's non-binding indicative proposal announced on 18 November 2022. The implementation of the scheme is subject to satisfaction of certain conditions including OZL shareholder approval. The OZL Board has unanimously recommended that OZL shareholders vote in favour of the scheme in the absence of a superior proposal and subject to an independent expert concluding that the scheme is in the best interests of OZL shareholders.

In October 2022, BHP agreed to invest an additional US\$50 million (the second investment) in the Kabanga Nickel Project (Kabanga) in Tanzania, subject to the satisfaction of customary conditions precedent. On closing, BHP's equity stake in Kabanga will increase to 14.3 per cent. In addition, BHP has signed an agreement with Kabanga Nickel Limited giving BHP the option to increase its interest in Kabanga to 51 per cent.

### Decarbonisation

Throughout the December 2022 quarter we continued to make progress towards our decarbonisation targets and goals and supported efforts to reduce greenhouse gas (GHG) emissions across our value chain.

In October 2022, BHP entered into an [agreement with ArcelorMittal, Mitsubishi Heavy Industries and Mitsubishi Development](#) for a multi-year trial of carbon capture technology, which will involve a feasibility and design study to support progress to full scale deployment, and trials at two of ArcelorMittal's steel plants.

In November 2022, BHP signed a [renewable Power Purchase Agreement \(PPA\) with Neoen](#), which is expected to meet half of Olympic Dam's electricity needs from the 2026 financial year, based on current forecast demand, and allow Olympic Dam to record a net zero emission position for the contracted volume of supply.

## Samarco

In December 2022, BHP agreed to fund US\$915 million in further financial support for the Renova Foundation. The funding is for the 2023 calendar year and will be offset against the Group's provision for the Samarco dam failure.

We will provide an update to the ongoing potential financial impacts on BHP Brasil of the Samarco dam failure with the release of the financial results on 21 February 2023. Any financial impacts will continue to be treated as an exceptional item.

## Copper

### Production

	Dec H22	Dec Q22	Dec H22 vs Dec H21	Dec Q22 vs Dec Q21	Dec Q22 vs Sep Q22
Copper (kt)	834.4	424.3	12%	16%	3%
Zinc (t)	62,614	29,929	0%	1%	(8%)
Uranium (t)	1,760	943	115%	229%	15%

**Copper** – Total copper production increased by 12 per cent to 834 kt. Guidance for the 2023 financial year remains unchanged at between 1,635 and 1,825 kt.

Escondida copper production increased by five per cent to 511 kt primarily due to higher concentrator feed grade of 0.79 per cent, compared to 0.72 per cent in the December 2021 half year. The higher grade was partially offset by lower throughput and the impact of road blockades across Chile in the December 2022 quarter, which reduced availability of some key mine supplies. Full year production is trending towards the low end of the guidance range of between 1,080 and 1,180 kt as a result of lower than expected concentrator feed grade and throughput. Production is weighted to the second half of the year, with concentrator feed grade expected to improve compared to the December 2022 half year. Medium term guidance of 1.2 Mtpa of copper production on average over the next five years remains unchanged.

Pampa Norte copper production increased by eight per cent to 147 kt reflecting the continued ramp up of the Spence Growth Option (SGO). Guidance for the 2023 financial year remains unchanged at between 240 and 290 kt. The SGO plant modifications started in August 2022 and are planned to be completed in the 2023 calendar year. Expected capital expenditure for the works remains unchanged at approximately US\$100 million. Further studies are ongoing for additional capacity uplift at SGO. Cerro Colorado continues to transition towards planned closure at the end of the 2023 calendar year.

At Spence, we continue to closely monitor previously identified Tailings Storage Facility (TSF) anomalies. We have reduced the volume of water in the tailings facility and continue to work with the local regulatory agencies, including on the implementation of a remediation plan for the TSF. The SGO concentrator continues to operate with no impact to production or market guidance. Spence is expected to reach an average of approximately 270 ktpa of production for four years (including cathodes) following the completion of the SGO plant modifications and remediation of TSF anomalies.

Olympic Dam copper production increased by 138 per cent to 104 kt primarily as a result of the major smelter maintenance campaign (SCM21) in the prior period. Continued strong concentrator and smelter performance resulted in near record material milled and concentrate smelted in the half year. Record gold production was also achieved in the half year as a result of debottlenecking initiatives implemented in the prior year. Copper production guidance for the 2023 financial year remains unchanged at between 195 and 215 kt.

Antamina copper production decreased by three per cent to 72 kt reflecting lower copper head grades partially offset by higher throughput. Zinc production was flat at 63 kt reflecting lower zinc head grades offset by higher throughput. Guidance remains unchanged for the 2023 financial year, with copper production of between 120 and 140 kt, and zinc production of between 115 and 135 kt.

## Iron ore

### Production

	Dec H22	Dec Q22	Dec H22 vs Dec H21	Dec Q22 vs Dec Q21	Dec Q22 vs Sep Q22
Iron ore production (kt)	131,975	66,902	2%	1%	3%

**Iron ore** – Total iron ore production increased by two per cent to 132 Mt. Guidance for the 2023 financial year remains unchanged at between 249 and 260 Mt.

WAIO achieved record production of 130 Mt (146 Mt on a 100 per cent basis) in the December 2022 half year. This reflects continued strong supply chain performance, including improved car dumper utilisation, and lower COVID-19 related impacts than the prior period. This was partially offset by wet weather impacts in the September 2022 quarter. South Flank ramp up to full production capacity of 80 Mtpa (100 per cent basis) by the end of the 2024 financial year remains on track. Natural variability in the ore grade is expected as the mine progresses through the close to surface material, however this is expected to stabilise as we move deeper into the ore body and achieve full ramp up.

WAIO production guidance for the 2023 financial year remains unchanged at between 246 and 256 Mt (278 and 290 Mt on a 100 per cent basis) and reflects the tie-in of the port debottlenecking project (PDP1) as well as the continued ramp up of South Flank in the second half of the year.

Samarco production increased by eight per cent to 2.2 Mt (BHP share), reflecting the successful ramp up of one concentrator, following the recommencement of iron ore pellet production in December 2020. Guidance for the 2023 financial year remains unchanged at between 3 and 4 Mt (BHP share).

## Coal

### Production

	Dec H22	Dec Q22	Dec H22 vs Dec H21	Dec Q22 vs Dec Q21	Dec Q22 vs Sep Q22
Metallurgical coal (kt)	13,614	6,952	5%	10%	4%
Energy coal (kt)	5,473	2,851	(24%)	(4%)	9%

**Metallurgical coal** – BMA production increased by five per cent to 14 Mt (27 Mt on a 100 per cent basis) driven by an improvement in underlying truck productivity, in particular for the autonomous fleets following completion of the transitions at Goonyella and Daunia, higher yields as a result of mine sequencing, as well as the reduced impact of labour constraints relative to the prior period. This was partially offset by the impact of significant wet weather during the December 2022 half year<sup>2</sup>. Full year production is trending to the low end of the guidance range of between 29 and 32 Mt (58 and 64 Mt on a 100 per cent basis) as a result of significant wet weather. An additional long wall move at Broadmeadow has been accelerated into the June 2023 quarter due to improved mining rates.

Negotiations for the BMA Enterprise Agreement (EA) 2022 have concluded with a successful workforce ballot on 22 December 2022. The EA applies to the Goonyella Riverside, Peak Downs, Saraji and Blackwater mines. The new EA has been approved by the Fair Work Commission and will operate from 19 January 2023 for a period of three years.

The Queensland Government's decision to raise coal royalties to the highest maximum rate in the world makes Queensland uncompetitive and puts investment and jobs at risk. We see strong long-term demand from global steelmakers for Queensland's high quality metallurgical coal, however in the absence of government policy that is both competitive and predictable, we are unable to make significant new investments in Queensland. This increase to royalties will impact the local businesses, suppliers and communities in Central Queensland where we operate.

**Energy coal** – NSWEC production decreased by 24 per cent to 5 Mt, reflecting the ongoing impacts of record wet weather, continued labour shortages, planned wash plant maintenance during the December 2022 quarter and an increased proportion of washed coal. Higher quality coals made up approximately 90 per cent of sales, compared to approximately 80 per cent in the December 2021 half year. Production guidance for the 2023 financial year remains unchanged at between 13 and 15 Mt.

## Other

### Nickel production

	Dec H22	Dec Q22	Dec H22 vs Dec H21	Dec Q22 vs Dec Q21	Dec Q22 vs Sep Q22
Nickel (kt)	38.4	17.7	(2%)	(18%)	(14%)

**Nickel** – Nickel West production decreased by two per cent to 38 kt, reflecting the slower than expected ramp up of the refinery following planned smelter and refinery maintenance during the December 2022 quarter. Guidance for the 2023 financial year remains unchanged at between 80 and 90 kt, with volumes weighted to the second half of the financial year.

**Potash** – Our major potash project under development at Jansen is tracking to plan. For the 2023 financial year, we will continue to focus on civil and mechanical construction on the surface and underground, as well as equipment procurement and port construction.

### Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Jansen Stage 1 (Canada) 100%	5,723	End-CY26	Design, engineering and construction of an underground potash mine and surface infrastructure, with capacity to produce 4.35 Mtpa.	Project is 16% complete

## Minerals exploration

Minerals exploration expenditure for the December 2022 half year was US\$156 million, of which US\$127 million was expensed.

In August 2022, we announced the [establishment of BHP Xplor](#), an innovative accelerator program to support early-stage mineral exploration companies to find critical resources, such as copper and nickel. The program merges concepts from venture capital and early-stage accelerators offering participants in-kind services, mentorship, and networking opportunities. Applications for the program closed on 31 October 2022 and we received a significant number of applications from around the world. We have selected seven companies into the accelerator program which begins in January 2023.

We initiated greenfield exploration activities in southern Colombia and continue to progress activity in Australia, Canada, Chile, Ecuador, north-west Mexico, Peru and the south-west United States.

At Oak Dam in South Australia, BHP is continuing next stage resource definition drilling with six drill rigs.

Following a review of prospectivity and core results, BHP acquired a 19.9 per cent interest via a placement in Brixton Metals, providing exposure to a large block of ground prospective for copper in northern British Columbia, Canada.

The termination agreement in respect of the Earn-In Agreement over the Tarqui copper project in Ecuador has been signed by BHP and Luminex. BHP's exit from the project was finalised in early January 2023.

Variance analysis relates to the relative performance of BHP and/or its operations during the six months ended December 2022 compared with the six months ended December 2021, unless otherwise noted. Production volumes, sales volumes and capital and exploration expenditure from subsidiaries are reported on a 100 per cent basis; production and sales volumes from equity accounted investments and other operations are reported on a proportionate consolidation basis. Numbers presented may not add up precisely to the totals provided due to rounding.

The following footnotes apply to this Operational Review:

- 1 2023 financial year unit cost guidance: Escondida US\$1.25-1.45/lb, WAIO US\$18-19/t, BMA US\$100-105/t and NSWEC US\$84-91/t; based on exchange rates of AUD/USD 0.72 and USD/CLP 830.
- 2 493 mm of rainfall recorded at Moranbah in the December 2022 half year compared to 368 mm in the December 2021 half year.

The following abbreviations may have been used throughout this report: cost and freight (CFR); cost, insurance and freight (CIF); dry metric tonne unit (dmtu); free on board (FOB); grams per tonne (g/t); kilograms per tonne (kg/t); kilometre (km); megawatt (MW); metre (m); millimetre (mm); million tonnes (Mt); million tonnes per annum (Mtpa); ounces (oz); pounds (lb); thousand ounces (koz); thousand tonnes (kt); thousand tonnes per annum (ktpa); thousand tonnes per day (ktpd); tonnes (t); and wet metric tonnes (wmt).

In this release, the terms 'BHP', the 'Group', 'BHP Group', 'we', 'us', 'our' and 'ourselves' are used to refer to BHP Group Limited and, except where the context otherwise requires, our subsidiaries. Refer to note 28 'Subsidiaries' of the Financial Statements in BHP's 30 June 2022 Appendix 4E for a list of our significant subsidiaries. Those terms do not include non-operated assets. Notwithstanding that this release may include production, financial and other information from non-operated assets, non-operated assets are not included in the BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless stated otherwise. Our non-operated assets include Antamina and Samarco. BHP Group cautions against undue reliance on any forward-looking statement or guidance in this release, particularly in light of the current economic climate and significant volatility, uncertainty and disruption arising in connection with COVID-19. These forward-looking statements are based on information available as at the date of this release and are not guarantees or predictions of future performance and 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.

Further information on BHP can be found at: [bhp.com](https://www.bhp.com)

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## Production summary

BHP interest	Quarter ended					Year to date		
	Dec	Mar	Jun	Sep	Dec	Dec	Dec	
	2021	2022	2022	2022	2022	2022	2021	
<b>Copper<sup>1</sup></b>								
<b>Copper</b>								
<b>Payable metal in concentrate (kt)</b>								
Escondida <sup>2</sup>	57.5%	196.2	178.2	233.5	203.1	<b>208.3</b>	<b>411.4</b>	390.9
Pampa Norte <sup>3</sup>	100.0%	24.2	32.4	28.2	28.6	<b>32.5</b>	<b>61.1</b>	50.6
Antamina	33.8%	38.4	36.1	39.6	37.1	<b>35.2</b>	<b>72.3</b>	74.2
Total		<u>258.8</u>	<u>246.7</u>	<u>301.3</u>	<u>268.8</u>	<u><b>276.0</b></u>	<u><b>544.8</b></u>	<u>515.7</u>
<b>Cathode (kt)</b>								
Escondida <sup>2</sup>	57.5%	48.4	48.2	55.8	49.6	<b>49.7</b>	<b>99.3</b>	97.4
Pampa Norte <sup>3</sup>	100%	44.1	35.8	49.0	42.0	<b>44.2</b>	<b>86.2</b>	85.2
Olympic Dam	100%	14.2	39.0	55.7	49.7	<b>54.4</b>	<b>104.1</b>	43.7
Total		<u>106.7</u>	<u>123.0</u>	<u>160.5</u>	<u>141.3</u>	<u><b>148.3</b></u>	<u><b>289.6</b></u>	<u>226.3</u>
<b>Total copper (kt)</b>		<u>365.5</u>	<u>369.7</u>	<u>461.8</u>	<u>410.1</u>	<u><b>424.3</b></u>	<u><b>834.4</b></u>	<u>742.0</u>
<b>Lead</b>								
<b>Payable metal in concentrate (t)</b>								
Antamina	33.8%	277	282	181	228	<b>114</b>	<b>342</b>	655
Total		<u>277</u>	<u>282</u>	<u>181</u>	<u>228</u>	<u><b>114</b></u>	<u><b>342</b></u>	<u>655</u>
<b>Zinc</b>								
<b>Payable metal in concentrate (t)</b>								
Antamina	33.8%	29,603	32,732	27,576	32,685	<b>29,929</b>	<b>62,614</b>	62,892
Total		<u>29,603</u>	<u>32,732</u>	<u>27,576</u>	<u>32,685</u>	<u><b>29,929</b></u>	<u><b>62,614</b></u>	<u>62,892</u>
<b>Gold</b>								
<b>Payable metal in concentrate (troy oz)</b>								
Escondida <sup>2</sup>	57.5%	42,937	36,303	45,770	38,236	<b>48,402</b>	<b>86,638</b>	84,899
Pampa Norte <sup>3</sup>	100%	5,776	7,929	8,198	5,521	<b>3,875</b>	<b>9,396</b>	12,743
Olympic Dam (refined gold)	100%	37,805	29,355	26,080	47,184	<b>43,280</b>	<b>90,464</b>	64,082
Total		<u>86,518</u>	<u>73,587</u>	<u>80,048</u>	<u>90,941</u>	<u><b>95,557</b></u>	<u><b>186,498</b></u>	<u>161,724</u>
<b>Silver</b>								
<b>Payable metal in concentrate (troy koz)</b>								
Escondida <sup>2</sup>	57.5%	1,462	1,270	1,311	1,210	<b>1,510</b>	<b>2,720</b>	2,753
Pampa Norte <sup>3</sup>	100%	215	261	262	252	<b>245</b>	<b>497</b>	488
Antamina	33.8%	1,308	1,191	1,212	1,190	<b>923</b>	<b>2,113</b>	2,675
Olympic Dam (refined silver)	100%	258	149	145	295	<b>261</b>	<b>556</b>	449
Total		<u>3,243</u>	<u>2,871</u>	<u>2,930</u>	<u>2,947</u>	<u><b>2,939</b></u>	<u><b>5,886</b></u>	<u>6,365</u>
<b>Uranium</b>								
<b>Payable metal in concentrate (t)</b>								
Olympic Dam	100%	287	781	776	817	<b>943</b>	<b>1,760</b>	818
Total		<u>287</u>	<u>781</u>	<u>776</u>	<u>817</u>	<u><b>943</b></u>	<u><b>1,760</b></u>	<u>818</u>
<b>Molybdenum</b>								
<b>Payable metal in concentrate (t)</b>								
Pampa Norte <sup>3</sup>	100%	-	-	71	34	<b>216</b>	<b>250</b>	-
Antamina	33.8%	217	190	249	262	<b>348</b>	<b>610</b>	359
Total		<u>217</u>	<u>190</u>	<u>320</u>	<u>296</u>	<u><b>564</b></u>	<u><b>860</b></u>	<u>359</u>

## Production summary

BHP interest	Quarter ended					Year to date		
	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Dec 2022	Dec 2022	Dec 2021	
<b>Iron Ore</b>								
<b>Iron Ore</b>								
<b>Production (kt) <sup>4</sup></b>								
Newman	85%	14,577	11,940	14,063	14,053	<b>16,172</b>	<b>30,225</b>	31,038
Area C Joint Venture	85%	22,911	24,888	27,685	26,971	<b>26,302</b>	<b>53,273</b>	41,858
Yandi Joint Venture	85%	12,261	8,418	6,409	5,497	<b>5,613</b>	<b>11,110</b>	24,095
Jimblebar <sup>5</sup>	85%	15,324	13,444	15,005	17,404	<b>17,720</b>	<b>35,124</b>	30,333
Samarco	50%	1,029	994	1,000	1,148	<b>1,095</b>	<b>2,243</b>	2,077
Total		<b>66,102</b>	<b>59,684</b>	<b>64,162</b>	<b>65,073</b>	<b>66,902</b>	<b>131,975</b>	129,401
<b>Coal</b>								
<b>Metallurgical coal</b>								
<b>Production (kt) <sup>6</sup></b>								
BHP Mitsubishi Alliance (BMA)	50%	6,300	7,944	8,183	6,662	<b>6,952</b>	<b>13,614</b>	13,015
Total		<b>6,300</b>	<b>7,944</b>	<b>8,183</b>	<b>6,662</b>	<b>6,952</b>	<b>13,614</b>	13,015
<b>Energy coal</b>								
<b>Production (kt)</b>								
NSW Energy Coal	100%	2,967	2,577	3,919	2,622	<b>2,851</b>	<b>5,473</b>	7,205
Total		<b>2,967</b>	<b>2,577</b>	<b>3,919</b>	<b>2,622</b>	<b>2,851</b>	<b>5,473</b>	7,205
<b>Other</b>								
<b>Nickel</b>								
<b>Saleable production (kt)</b>								
Nickel West	100%	21.5	18.7	18.8	20.7	<b>17.7</b>	<b>38.4</b>	39.3
Total		<b>21.5</b>	<b>18.7</b>	<b>18.8</b>	<b>20.7</b>	<b>17.7</b>	<b>38.4</b>	39.3
<b>Cobalt</b>								
<b>Saleable production (t)</b>								
Nickel West	100%	220	125	110	238	<b>93</b>	<b>331</b>	397
Total		<b>220</b>	<b>125</b>	<b>110</b>	<b>238</b>	<b>93</b>	<b>331</b>	397

- 1 Metal production is reported on the basis of payable metal.
- 2 Shown on a 100% basis. BHP interest in saleable production is 57.5%.
- 3 Includes Cerro Colorado and Spence.
- 4 Iron ore production is reported on a wet tonnes basis.
- 5 Shown on a 100% basis. BHP interest in saleable production is 85%.
- 6 Metallurgical coal production is reported on the basis of saleable product. Production figures may include some thermal coal.

Throughout this report figures in italics indicate that this figure has been adjusted since it was previously reported.

## Production and sales report

	Quarter ended					Year to date	
	Dec	Mar	Jun	Sep	Dec	Dec	Dec
	2021	2022	2022	2022	2022	2022	2021

### Copper

Metals production is payable metal unless otherwise stated.

#### Escondida, Chile <sup>1</sup>

Material mined	(kt)	117,284	107,676	115,409	110,248	<b>101,987</b>	<b>212,235</b>	231,158
Concentrator throughput	(kt)	35,787	30,235	34,318	32,894	<b>33,911</b>	<b>66,805</b>	69,315
Average copper grade - concentrator	(%)	0.71%	0.80%	0.88%	0.83%	<b>0.76%</b>	<b>0.79%</b>	0.72%
Production ex mill	(kt)	203.6	191.5	239.5	214.6	<b>212.8</b>	<b>427.4</b>	404.8

#### Production

Payable copper	(kt)	196.2	178.2	233.5	203.1	<b>208.3</b>	<b>411.4</b>	390.9
Copper cathode (EW)	(kt)	48.4	48.2	55.8	49.6	<b>49.7</b>	<b>99.3</b>	97.4
- Oxide leach	(kt)	13.1	12.2	17.5	15.2	<b>17.6</b>	<b>32.8</b>	27.9
- Sulphide leach	(kt)	35.3	36.0	38.3	34.4	<b>32.1</b>	<b>66.5</b>	69.5
Total copper	(kt)	244.6	226.4	289.3	252.7	<b>258.0</b>	<b>510.7</b>	488.3
Payable gold concentrate	(troy oz)	42,937	36,303	45,770	38,236	<b>48,402</b>	<b>86,638</b>	84,899
Payable silver concentrate	(troy koz)	1,462	1,270	1,311	1,210	<b>1,510</b>	<b>2,720</b>	2,753

#### Sales

Payable copper	(kt)	200.2	177.0	230.4	196.7	<b>216.0</b>	<b>412.7</b>	390.7
Copper cathode (EW)	(kt)	49.7	47.2	58.9	45.9	<b>53.5</b>	<b>99.4</b>	96.4
Payable gold concentrate	(troy oz)	42,937	36,303	45,770	38,236	<b>48,402</b>	<b>86,638</b>	84,899
Payable silver concentrate	(troy koz)	1,462	1,270	1,311	1,210	<b>1,510</b>	<b>2,720</b>	2,753

<sup>1</sup> Shown on a 100% basis. BHP interest in saleable production is 57.5%.

#### Pampa Norte, Chile

##### Cerro Colorado

Material mined	(kt)	4,782	3,516	3,604	3,179	<b>583</b>	<b>3,762</b>	10,160
Ore stacked	(kt)	4,029	3,181	4,259	4,373	<b>4,119</b>	<b>8,492</b>	7,595
Average copper grade - stacked	(%)	0.62%	0.53%	0.55%	0.54%	<b>0.56%</b>	<b>0.55%</b>	0.61%

#### Production

Copper cathode (EW)	(kt)	15.3	11.6	14.7	12.8	<b>12.2</b>	<b>25.0</b>	28.7
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#### Sales

Copper cathode (EW)	(kt)	16.0	10.5	16.2	13.3	<b>12.2</b>	<b>25.5</b>	28.1
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##### Spence

Material mined	(kt)	24,025	24,040	26,749	26,956	<b>26,980</b>	<b>53,936</b>	45,179
Ore stacked	(kt)	5,071	5,055	5,099	5,577	<b>5,155</b>	<b>10,732</b>	10,329
Average copper grade - stacked	(%)	0.66%	0.67%	0.66%	0.70%	<b>0.66%</b>	<b>0.68%</b>	0.65%
Concentrator throughput	(kt)	6,234	6,512	6,311	6,433	<b>7,602</b>	<b>14,035</b>	12,020
Average copper grade - concentrator	(%)	0.60%	0.65%	0.66%	0.63%	<b>0.60%</b>	<b>0.61%</b>	0.62%

#### Production

Payable copper	(kt)	24.2	32.4	28.2	28.6	<b>32.5</b>	<b>61.1</b>	50.6
Copper cathode (EW)	(kt)	28.8	24.2	34.3	29.2	<b>32.0</b>	<b>61.2</b>	56.5
Total copper	(kt)	53.0	56.6	62.5	57.8	<b>64.5</b>	<b>122.3</b>	107.1
Payable gold concentrate	(troy oz)	5,776	7,929	8,198	5,521	<b>3,875</b>	<b>9,396</b>	12,743
Payable silver concentrate	(troy koz)	215	261	262	252	<b>245</b>	<b>497</b>	488
Payable molybdenum	(t)	-	-	71	34	<b>216</b>	<b>250</b>	-

#### Sales

Payable copper	(kt)	24.9	28.1	28.1	26.0	<b>22.0</b>	<b>48.0</b>	53.3
Copper cathode (EW)	(kt)	31.2	20.2	35.4	29.1	<b>33.4</b>	<b>62.5</b>	58.9
Payable gold concentrate	(troy oz)	5,776	7,929	8,198	5,521	<b>3,875</b>	<b>9,396</b>	12,743
Payable silver concentrate	(troy koz)	215	261	262	252	<b>245</b>	<b>497</b>	488
Payable molybdenum	(t)	-	-	25	25	<b>216</b>	<b>241</b>	-

## Production and sales report

	Quarter ended					Year to date	
	Dec	Mar	Jun	Sep	Dec	Dec	Dec
	2021	2022	2022	2022	2022	2022	2021

### Copper (continued)

Metals production is payable metal unless otherwise stated.

#### Antamina, Peru

Material mined (100%)	(kt)	58,179	58,118	64,026	63,865	<b>68,750</b>	<b>132,615</b>	124,760
Concentrator throughput (100%)	(kt)	13,011	13,135	13,131	13,858	<b>14,272</b>	<b>28,130</b>	26,230
Average head grades								
- Copper	(%)	1.00%	0.94%	1.02%	0.93%	<b>0.86%</b>	<b>0.89%</b>	0.98%
- Zinc	(%)	1.11%	1.13%	1.05%	1.09%	<b>0.99%</b>	<b>1.04%</b>	1.14%

#### Production

Payable copper	(kt)	38.4	36.1	39.6	37.1	<b>35.2</b>	<b>72.3</b>	74.2
Payable zinc	(t)	29,603	32,732	27,576	32,685	<b>29,929</b>	<b>62,614</b>	62,892
Payable silver	(troy koz)	1,308	1,191	1,212	1,190	<b>923</b>	<b>2,113</b>	2,675
Payable lead	(t)	277	282	181	228	<b>114</b>	<b>342</b>	655
Payable molybdenum	(t)	217	190	249	262	<b>348</b>	<b>610</b>	359

#### Sales

Payable copper	(kt)	41.9	32.9	40.7	37.6	<b>34.7</b>	<b>72.3</b>	74.6
Payable zinc	(t)	32,513	29,920	30,847	33,820	<b>29,127</b>	<b>62,947</b>	65,148
Payable silver	(troy koz)	1,405	1,078	1,230	1,015	<b>850</b>	<b>1,865</b>	2,508
Payable lead	(t)	344	269	363	130	<b>91</b>	<b>221</b>	576
Payable molybdenum	(t)	170	199	205	250	<b>298</b>	<b>548</b>	256

#### Olympic Dam, Australia

Material mined <sup>1</sup>	(kt)	1,998	2,424	2,477	2,412	<b>2,264</b>	<b>4,676</b>	3,933
Ore milled	(kt)	1,105	2,122	2,436	2,570	<b>2,687</b>	<b>5,257</b>	3,129
Average copper grade	(%)	2.17%	2.21%	2.15%	2.13%	<b>2.08%</b>	<b>2.10%</b>	2.08%
Average uranium grade	(kg/t)	0.55	0.62	0.56	0.58	<b>0.58</b>	<b>0.58</b>	0.55

#### Production

Copper cathode (ER and EW)	(kt)	14.2	39.0	55.7	49.7	<b>54.4</b>	<b>104.1</b>	43.7
Payable uranium	(t)	287	781	776	817	<b>943</b>	<b>1,760</b>	818
Refined gold	(troy oz)	37,805	29,355	26,080	47,184	<b>43,280</b>	<b>90,464</b>	64,082
Refined silver	(troy koz)	258	149	145	295	<b>261</b>	<b>556</b>	449

#### Sales

Copper cathode (ER and EW)	(kt)	17.9	36.3	55.8	45.9	<b>56.8</b>	<b>102.7</b>	47.0
Payable uranium	(t)	541	236	1,031	272	<b>1,127</b>	<b>1,399</b>	1,077
Refined gold	(troy oz)	38,768	30,935	24,622	49,542	<b>41,900</b>	<b>91,442</b>	63,422
Refined silver	(troy koz)	290	182	87	320	<b>233</b>	<b>553</b>	416

<sup>1</sup> Material mined refers to underground ore mined, subsequently hoisted or trucked to surface.

## Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2021	2022	2022	2022	2022	2022	2021

### Iron Ore

Iron ore production and sales are reported on a wet tonnes basis.

#### Western Australia Iron Ore, Australia

##### Production

Newman	(kt)	14,577	11,940	14,063	14,053	<b>16,172</b>	<b>30,225</b>	31,038
Area C Joint Venture	(kt)	22,911	24,888	27,685	26,971	<b>26,302</b>	<b>53,273</b>	41,858
Yandi Joint Venture	(kt)	12,261	8,418	6,409	5,497	<b>5,613</b>	<b>11,110</b>	24,095
Jimblebar <sup>1</sup>	(kt)	15,324	13,444	15,005	17,404	<b>17,720</b>	<b>35,124</b>	30,333
Total production	(kt)	<b>65,073</b>	<b>58,690</b>	<b>63,162</b>	<b>63,925</b>	<b>65,807</b>	<b>129,732</b>	127,324
Total production (100%)	(kt)	<b>73,852</b>	<b>66,674</b>	<b>71,660</b>	<b>72,135</b>	<b>74,292</b>	<b>146,427</b>	144,439

##### Sales

Lump	(kt)	17,827	16,966	20,006	19,561	<b>20,375</b>	<b>39,936</b>	35,373
Fines	(kt)	46,809	42,187	44,308	42,696	<b>44,121</b>	<b>86,817</b>	91,848
Total	(kt)	<b>64,636</b>	<b>59,153</b>	<b>64,314</b>	<b>62,257</b>	<b>64,496</b>	<b>126,753</b>	127,221
Total sales (100%)	(kt)	<b>73,222</b>	<b>67,110</b>	<b>72,796</b>	<b>70,276</b>	<b>72,688</b>	<b>142,964</b>	144,037

<sup>1</sup> Shown on a 100% basis. BHP interest in saleable production is 85%.

#### Samarco, Brazil

Production	(kt)	1,029	994	1,000	1,148	<b>1,095</b>	<b>2,243</b>	2,077
Sales	(kt)	950	943	991	1,146	<b>1,097</b>	<b>2,243</b>	2,061

## Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2021	2022	2022	2022	2022	2022	2021

### Coal

Coal production is reported on the basis of saleable product.

#### BHP Mitsubishi Alliance (BMA), Australia

##### Production <sup>1</sup>

Blackwater	(kt)	1,202	1,478	1,751	1,283	<b>1,160</b>	<b>2,443</b>	2,605
Goonyella	(kt)	1,797	2,336	2,429	1,780	<b>1,997</b>	<b>3,777</b>	3,595
Peak Downs	(kt)	960	1,395	1,366	1,325	<b>1,480</b>	<b>2,805</b>	2,183
Saraji	(kt)	1,081	1,366	1,168	1,020	<b>1,243</b>	<b>2,263</b>	2,080
Daunia	(kt)	304	338	472	324	<b>441</b>	<b>765</b>	681
Caval Ridge	(kt)	956	1,031	997	930	<b>631</b>	<b>1,561</b>	1,871
Total production	(kt)	<b>6,300</b>	<b>7,944</b>	<b>8,183</b>	<b>6,662</b>	<b>6,952</b>	<b>13,614</b>	13,015
Total production (100%)	(kt)	<b>12,600</b>	<b>15,888</b>	<b>16,366</b>	<b>13,324</b>	<b>13,904</b>	<b>27,228</b>	26,030

##### Sales

Coking coal	(kt)	4,875	6,334	6,734	5,615	<b>5,872</b>	<b>11,487</b>	10,290
Weak coking coal	(kt)	754	805	1,118	600	<b>727</b>	<b>1,327</b>	1,488
Thermal coal	(kt)	455	484	765	267	<b>428</b>	<b>695</b>	1,031
Total sales	(kt)	<b>6,084</b>	<b>7,623</b>	<b>8,617</b>	<b>6,482</b>	<b>7,027</b>	<b>13,509</b>	12,809
Total sales (100%)	(kt)	<b>12,168</b>	<b>15,246</b>	<b>17,234</b>	<b>12,964</b>	<b>14,054</b>	<b>27,018</b>	25,618

<sup>1</sup> Production figures include some thermal coal.

#### NSW Energy Coal, Australia

Production	(kt)	2,967	2,577	3,919	2,622	<b>2,851</b>	<b>5,473</b>	7,205
Sales - export	(kt)	3,718	2,703	3,923	2,441	<b>2,862</b>	<b>5,303</b>	7,498

## Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2021	2022	2022	2022	2022	2022	2021

### Other

Nickel production is reported on the basis of saleable product

#### Nickel West, Australia

##### Mt Keith

Nickel concentrate	(kt)	47.0	47.1	48.0	42.6	<b>39.6</b>	<b>82.2</b>	100.7
Average nickel grade	(%)	13.2	14.4	16.1	17.0	<b>15.5</b>	<b>16.3</b>	13.9

##### Leinster

Nickel concentrate	(kt)	77.4	78.0	76.0	66.8	<b>47.9</b>	<b>114.7</b>	151.2
Average nickel grade	(%)	9.1	8.9	10.3	9.9	<b>9.4</b>	<b>9.7</b>	9.0

#### Saleable production

Refined nickel <sup>1</sup>	(kt)	18.2	13.3	11.7	17.5	<b>10.8</b>	<b>28.3</b>	32.6
Nickel sulphate <sup>2</sup>	(kt)	0.4	0.7	0.5	1.2	<b>0.4</b>	<b>1.6</b>	0.4
Intermediates and nickel by-products <sup>3</sup>	(kt)	2.9	4.7	6.6	2.0	<b>6.5</b>	<b>8.5</b>	6.3
Total nickel	(kt)	<b>21.5</b>	<b>18.7</b>	<b>18.8</b>	<b>20.7</b>	<b>17.7</b>	<b>38.4</b>	<b>39.3</b>

Cobalt by-products	(t)	220	125	110	238	<b>93</b>	<b>331</b>	397
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#### Sales

Refined nickel <sup>1</sup>	(kt)	16.9	15.3	11.7	18.1	<b>10.2</b>	<b>28.3</b>	30.7
Nickel sulphate <sup>2</sup>	(kt)	0.1	0.7	0.5	0.8	<b>0.5</b>	<b>1.3</b>	0.1
Intermediates and nickel by-products <sup>3</sup>	(kt)	3.1	2.7	6.4	1.8	<b>7.7</b>	<b>9.5</b>	7.0
Total nickel	(kt)	<b>20.1</b>	<b>18.7</b>	<b>18.6</b>	<b>20.7</b>	<b>18.4</b>	<b>39.1</b>	<b>37.8</b>

Cobalt by-products	(t)	220	125	110	238	<b>93</b>	<b>331</b>	397
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1 High quality refined nickel metal, including briquettes and powder.

2 Nickel sulphate crystals produced from nickel powder.

3 Nickel contained in matte and by-product streams.