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BHP OPERATIONAL REVIEW FOR THE HALF YEAR ENDED 31 DECEMBER 2019

- All production and unit cost guidance⁽¹⁾ (based on exchange rates of AUD/USD 0.70 and USD/CLP 683) remains unchanged for the 2020 financial year. Escondida unit costs tracking below full year guidance at the December 2019 half year largely as a result of higher by-product credits.
- Group copper equivalent production was broadly unchanged in the December 2019 half year, with volumes for the full year expected to be slightly higher than last year.
- All major projects under development are tracking to plan. In Petroleum, BHP and Woodside signed a non-binding Heads of Agreement to progress the Scarborough gas development.
- In Copper exploration, the third phase of the drilling program at Oak Dam in South Australia is in progress and is expected to be completed in the June 2020 quarter.
- The financial results for the December 2019 half year are expected to reflect certain items as summarised in the table on page two.

Production	Dec H19 (vs Dec H18)	Dec Q19 (vs Sep Q19)	Dec Q19 vs Sep Q19 commentary
Petroleum (MMboe)	57 (9%)	28 (4%)	Lower gas sales at Bass Strait and Trinidad and Tobago, partially offset by higher volumes from the Gulf of Mexico following Tropical Storm Barry impacts in the prior quarter.
Copper (kt)	885 7%	455 6%	Strong concentrator throughput at Escondida more than offset the impact from social unrest in Chile. Higher production at Olympic Dam following planned preparatory work in the prior quarter related to the refinery crane replacement.
Iron ore (Mt)	121 2%	60 (1%)	Lower volumes at Western Australia Iron Ore (WAIO) due to completion of a major car dumper maintenance program in October 2019.
Metallurgical coal (Mt)	20 (2%)	11 17%	Higher volumes following completion of significant planned wash plant maintenance activities in the prior quarter.
Energy coal (Mt)	12 (12%)	6 8%	Higher volumes at New South Wales Energy Coal (NSWEC) as a result of a higher average strip ratio in the prior quarter, and higher volumes at Cerrejon due to adverse weather in the prior quarter.
Nickel (kt)	35 (11%)	14 (37%)	Volumes reflected the impact of major quadrennial maintenance activities at the Kwinana refinery and Kalgoorlie smelter.

Mike Henry assumed the role of BHP Chief Executive Officer and Executive Director on 1 January 2020.

BHP Chief Executive Officer, Mike Henry, said: “We delivered solid operational performances across the portfolio in the first half of the 2020 financial year, offsetting the expected impacts of planned maintenance and natural field decline. Production and cost guidance is unchanged, and we remain on track to deliver slightly higher production than last year. Our six major development projects are progressing well, and we continue to advance our exploration programs in petroleum and copper.”

Summary

Operational performance

Production and guidance are summarised below.

Production	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19	FY20 guidance	
Petroleum (MMboe)	57	28	(9%)	(6%)	(4%)	110 - 116	Lower end of range
Copper (kt)	885	455	7%	9%	6%	1,705 - 1,820	
Escondida (kt)	602	309	4%	9%	5%	1,160 - 1,230	Unchanged
Other copper ⁽ⁱ⁾ (kt)	283	147	15%	11%	7%	545 - 590	Unchanged
Iron ore (Mt)	121	60	2%	4%	(1%)	242 - 253	
WAIO (100% basis) (Mt)	137	68	2%	4%	(2%)	273 - 286	Unchanged
Metallurgical coal (Mt)	20	11	(2%)	6%	17%	41 - 45	
Queensland Coal (100% basis) (Mt)	36	20	0%	9%	21%	73 - 79	Unchanged
Energy coal (Mt)	12	6	(12%)	(9%)	8%	24 - 26	
NSWEC (Mt)	7	4	(11%)	(13%)	5%	15 - 17	Unchanged
Carrejón (Mt)	4	2	(13%)	(2%)	13%	~9	Unchanged
Nickel (kt)	35	14	(11%)	(24%)	(37%)	~87	Unchanged

(i) Other copper comprises Pampa Norte, Olympic Dam and Antamina.

Summary of disclosures

BHP expects its December 2019 half year financial results 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 18 February 2020. Accordingly the information is subject to update.

Description	H1 FY20 impact US\$M ⁽ⁱ⁾	Classification ⁽ⁱⁱ⁾
Unit costs for Petroleum, WAIO, Queensland Coal and NSWEC expected to be in line with full year guidance	Refer footnote ⁽ⁱⁱⁱ⁾	Operating costs
Unit costs for Escondida tracking below full year guidance in H1 FY20 primarily due to higher by-product credits	Refer footnote ⁽ⁱⁱⁱ⁾	↓ Operating costs
Exploration expense (including petroleum and minerals exploration programs)	231	↑ Exploration expense
The Group's adjusted effective tax rate for H1 FY20 is expected to be at the lower end of the guidance range of 33 to 38 per cent	Refer footnote ⁽ⁱⁱⁱ⁾	↓ Taxation expense
Application of IFRS 16 Leases, new leases, lease payments, remeasurement of vessel lease contracts ^(iv) and inclusion of derivatives in net debt	2,100 - 2,500	↑ Net debt
The Group's net debt target range is US\$12 to US\$17 billion, with net debt expected to remain towards the lower end of the range in the near term	-	Net debt
Dividends received from equity accounted investments	~110	↑ Operating cash inflow
Dividends paid to non-controlling interests	~610	↑ Financing cash outflow
Provision related to cancellation of power contracts (after taxation) as part of shift towards 100 per cent renewable energy at Escondida and Spence (no cash outflow in H1 FY20)	~500 ^(v)	↑ Exceptional item charge
Financial impact on BHP Brasil of the Samarco dam failure	Refer footnote ⁽ⁱⁱⁱ⁾	↑ Exceptional item charge

(i) Numbers are not tax effected, unless otherwise noted.

(ii) There will be a corresponding balance sheet, cash flow and/or income statement impact as relevant.

(iii) Financial impact is the subject of ongoing work and is not yet finalised.

(iv) Vessel lease contracts must be remeasured at each reporting date and are priced with reference to a freight index.

(v) Provision related to cancellation of power contracts of approximately US\$780 million before taxation.

Major development projects

At the end of December 2019, BHP had six major projects under development in petroleum, copper, iron ore and potash, with a combined budget of US\$11.4 billion over the life of the projects. All major projects under development are tracking to plan.

Average realised prices

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

Average realised prices ⁽ⁱ⁾	Dec H19	Dec H18	Jun H19	FY19	Dec H19 vs Dec H18	Dec H19 vs Jun H19	Dec H19 vs FY19
Oil (crude and condensate) (US\$/bbl)	60.64	69.91	63.29	66.59	(13%)	(4%)	(9%)
Natural gas (US\$/Mscf) ⁽ⁱⁱ⁾	4.26	4.67	4.42	4.55	(9%)	(4%)	(6%)
LNG (US\$/Mscf)	7.62	10.19	8.53	9.43	(25%)	(11%)	(19%)
Copper (US\$/lb)	2.60	2.54	2.70	2.62	2%	(4%)	(1%)
Iron ore (US\$/wmt, FOB)	78.30	55.62	77.74	66.68	41%	1%	17%
Metallurgical coal (US\$/t)	140.94	179.82	179.53	179.67	(22%)	(21%)	(22%)
Hard coking coal (US\$/t) ⁽ⁱⁱⁱ⁾	154.01	197.86	201.33	199.61	(22%)	(24%)	(23%)
Weak coking coal (US\$/t) ⁽ⁱⁱⁱ⁾	101.06	134.12	126.46	130.18	(25%)	(20%)	(22%)
Thermal coal (US\$/t) ^(iv)	58.55	84.15	72.18	77.90	(30%)	(19%)	(25%)
Nickel metal (US\$/t)	15,715	12,480	12,444	12,462	26%	26%	26%

(i) 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.

(ii) Includes internal sales.

(iii) 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.

(iv) Export sales only; excludes Cerrejón. Includes thermal coal sales from metallurgical coal mines.

The large majority of iron ore shipments were linked to the index price for the month of shipment, with price differentials predominantly a reflection of market fundamentals and product quality. The large majority of metallurgical coal and energy coal exports were linked to the index price for the month of shipment or sold on the spot market at fixed or index-linked prices, with price differentials reflecting product quality.

At 31 December 2019, the Group had 345 kt of outstanding copper sales that were revalued at a weighted average price of US\$2.80 per pound. The final price of these sales will be determined over the remainder of the 2020 financial year. In addition, 322 kt of copper sales from the 2019 financial year were subject to a finalisation adjustment in the current period. The provisional pricing and finalisation adjustments will increase Underlying EBITDA⁽²⁾ by US\$16 million in the 2020 financial year and is included in the average realised copper price in the above table.

Corporate update

In November 2019, BHP approved US\$44 million for BHP Brasil's share of the funding for work related to the restart of one concentrator at Samarco. The funding will enable the construction of a filtration plant and the commencement of operation readiness activities. This follows the approval of the Corrective Operating Licence (LOC) for Samarco's operating activities at its Germano Complex in October 2019. Restart can occur when the filtration system is complete and Samarco has met all necessary safety requirements, and will be subject to final approval by Samarco's shareholders.

In December 2019, BHP agreed to fund a total of US\$793 million in further financial support for the Renova Foundation and Samarco. This comprises US\$581 million to fund the Renova Foundation until 31 December 2020 which will be offset against the Group's provision for the Samarco dam failure, and a short-term facility of up to US\$212 million⁽³⁾ to be made available to Samarco until 31 December 2020.

As at the date of this Operational Review, for the purpose of the December 2019 half year financial results, we are not in a position to provide an update on the ongoing potential financial impacts on BHP Brasil of the Samarco dam failure. Any financial impacts will continue to be treated as an exceptional item.

Petroleum

Production

	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19
Crude oil, condensate and natural gas liquids (MMboe)	26	13	(9%)	(7%)	7%
Natural gas (bcf)	189	89	(8%)	(6%)	(12%)
Total petroleum production (MMboe)	57	28	(9%)	(6%)	(4%)

Petroleum – Total petroleum production decreased by nine per cent to 57 MMboe. Guidance for the 2020 financial year remains unchanged at between 110 and 116 MMboe, with volumes expected to be towards the lower end of the guidance range.

Crude oil, condensate and natural gas liquids production declined by nine per cent to 26 MMboe due to the impact of Tropical Storm Barry in the Gulf of Mexico and natural field decline across the portfolio. This decline was partially offset by higher uptime at Pyrenees following the 70 day dry dock maintenance program during the September 2018 quarter.

Natural gas production decreased by eight per cent to 189 bcf, reflecting a decrease in tax barrels at Trinidad and Tobago in accordance with the terms of our Production Sharing Contract, maintenance at North West Shelf, reduced domestic gas sales in Western Australia, and natural field decline across the portfolio.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Atlantis Phase 3 (US Gulf of Mexico) 44% (non-operator)	696	CY20	New subsea production system that will tie back to the existing Atlantis facility, with capacity to produce up to 38,000 gross barrels of oil equivalent per day.	On schedule and budget. The overall project is 36% complete.
Ruby (Trinidad & Tobago) 68.46% (operator)	283	CY21	Five production wells tied back into existing operated processing facilities, with capacity to produce up to 16,000 gross barrels of oil per day and 80 million gross standard cubic feet of natural gas per day.	On schedule and budget. The overall project is 13% complete.
Mad Dog Phase 2 (US Gulf of Mexico) 23.9% (non-operator)	2,154	CY22	New floating production facility with the capacity to produce up to 140,000 gross barrels of crude oil per day.	On schedule and budget. The overall project is 65% complete.

The Bass Strait West Barracouta project is tracking to plan and is expected to achieve first production in the 2021 calendar year.

On 18 November 2019, BHP and Woodside signed a non-binding Heads of Agreement to progress the Scarborough gas development which, amongst other terms, includes agreement on a competitive tariff for gas processing through the Pluto LNG facility and BHP's election not to exercise its option for an additional 10 per cent of the WA-1-R lease. BHP and Woodside are targeting finalisation of the required conditional binding agreements by the end of March 2020. A final investment decision by BHP is expected from the middle of the 2020 calendar year.

Petroleum exploration

Exploration and appraisal wells drilled during the December 2019 quarter are summarised below.

Well	Location	Target	Formation age	BHP equity	Spud date	Water depth	Total well depth	Status
Carnival-1	Trinidad & Tobago Block 14	Gas	Late Miocene	70% (BHP Operator)	30 September 2019	2,119 m	4,347 m	Dry hole; Plugged and abandoned

In Trinidad and Tobago, we completed the exploration program on our Northern licences as part of Phase 4 of our deepwater drilling campaign. The Carnival-1 well was spud on 30 September 2019 and was a dry hole. The well was plugged and abandoned on 13 October 2019. Development planning studies of the discoveries in the North are ongoing. Following Carnival-1, the Deepwater Invictus rig returned to the US Gulf of Mexico where it is currently completing regulatory abandonment work on Shenzi appraisal and exploration boreholes.

During the December 2019 quarter, we extended our contract for the Deepwater Invictus rig for an additional year through to May 2021 to support our ongoing exploration activities.

As reported in the September 2019 Operational Review, we were the apparent highest bidder on blocks GC124 and GC168 in Green Canyon in the central Gulf of Mexico and on 18 additional blocks⁽⁴⁾ in the western Gulf of Mexico. All leases were awarded by the Regulator in the December 2019 quarter.

Petroleum exploration expenditure for the December 2019 half year was US\$306 million, of which US\$164 million was expensed. A US\$0.7 billion exploration and appraisal program is being executed for the 2020 financial year.

Copper

Production

	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19
Copper (kt)	885	455	7%	9%	6%
Zinc (t)	42,937	22,483	(22%)	(7%)	10%
Uranium (t)	1,886	949	27%	2%	1%

Copper – Total copper production increased by seven per cent to 885 kt. Guidance for the 2020 financial year remains unchanged at between 1,705 and 1,820 kt.

Escondida copper production increased by four per cent to 602 kt, with record average concentrator throughput of 367 ktpd for the half year, driven by ongoing improvements in maintenance and operational performance under our Transformation program. This offset expected grade decline and a 5 kt concentrate production impact related to stoppages associated with the social unrest in Chile. Including cathodes, the total production impact of the stoppages is expected to be 7 kt for the 2020 financial year. The Escondida Water Supply Expansion project was completed in December 2019, on schedule and budget, further increasing total desalinated water capacity to 3,800 litres per second. Guidance for the 2020 financial year remains unchanged at between 1,160 and 1,230 kt, with further improvements in concentrator throughput expected to offset an approximately five per cent reduction in the copper grade of concentrator feed versus the prior year.

Pampa Norte copper production increased by 18 per cent to 124 kt, reflecting the impact of a fire at the electro-winning plant at Spence in the prior year. Guidance for the 2020 financial year remains unchanged at between 230 and 250 kt, including expected grade decline of approximately 10 per cent.

Olympic Dam copper production increased by 32 per cent to 86 kt as a result of the prior period acid plant outage, partially offset by the impact of planned preparatory work undertaken in the September 2019 quarter related to the replacement of the refinery crane. The physical replacement and commissioning of the refinery crane is scheduled for the March 2020 quarter. Guidance for the 2020 financial year remains unchanged at between 180 and 205 kt.

Antamina copper production decreased by two per cent to 74 kt and zinc production decreased by 22 per cent to 43 kt, reflecting lower copper and zinc head grades, in line with the mine plan. Guidance for the 2020 financial year remains unchanged at approximately 135 kt for copper and approximately 110 kt for zinc.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Spence Growth Option (Chile) 100%	2,460	H1 FY21	New 95 ktpd concentrator is expected to increase Spence's payable copper in concentrate production by approximately 185 ktpa in the first 10 years of operation and extend the mining operations by more than 50 years.	On schedule and budget. The overall project is 81% complete.

Iron Ore

Production

	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19
Iron ore production (kt)	121,400	60,395	2%	4%	(1%)

Iron ore – Total iron ore production increased by two per cent to 121 Mt (137 Mt on a 100 per cent basis). Guidance for the 2020 financial year remains unchanged at between 242 and 253 Mt (273 and 286 Mt on a 100 per cent basis), with a stronger second half performance expected in line with our plans.

At WAIO, higher volumes reflected record production at Jimblebar and the impact of the train derailment in the December 2018 half year. This was partly offset by a major car dumper maintenance campaign (completed on 16 October 2019) to further improve port reliability and provide a stable base for our tightly coupled supply chain. Mine operations continued to deliver consistent performance.

Consistent with our revised mine plan, we expect Jimblebar fines Fe grade to improve in the second half of the 2020 financial year, with the typical specification returning to above 60 per cent in the June 2020 quarter.

Mining and processing operations at Samarco remain suspended following the failure of the Fundão tailings dam and Santarém water dam on 5 November 2015. Approval of the Corrective Operating Licence (LOC) for Samarco's operating activities at its Germano Complex was received in October 2019 and operation readiness activities for restart have commenced. Restart can occur when the filtration system is complete and Samarco has met all necessary safety requirements, and will be subject to final approval by Samarco's shareholders.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
South Flank (Australia) 85%	3,061	CY21	Sustaining iron ore mine to replace production from the 80 Mtpa (100 per cent basis) Yandi mine.	On schedule and budget. The overall project is 58% complete.

Coal

Production

	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19
Metallurgical coal (kt)	20,282	10,924	(2%)	6%	17%
Energy coal (kt)	11,725	6,078	(12%)	(9%)	8%

Metallurgical coal – Metallurgical coal production was down two per cent to 20 Mt (36 Mt on a 100 per cent basis). Guidance for the 2020 financial year remains unchanged at between 41 and 45 Mt (73 and 79 Mt on a 100 per cent basis), with a stronger second half performance expected in line with our plans.

At Queensland Coal, strong underlying operational performance at Poitrel, Peak Downs, Caval Ridge and Broadmeadow was offset by planned major wash plant shutdowns at Goonyella, Peak Downs and Caval Ridge, low opening raw coal inventories at Blackwater, and truck and shovel underperformance at South Walker Creek.

Energy coal – Energy coal production decreased by 12 per cent to 12 Mt. Guidance for the 2020 financial year remains unchanged at between 24 and 26 Mt.

New South Wales Energy Coal production decreased by 11 per cent to 7 Mt as a result of the change in product strategy to focus on higher quality products. Smoke from regional bushfires and dust have reduced air quality at our operations, which has impacted December 2019 production. We are monitoring the situation and if air quality continues to deteriorate then operations could be constrained further in the second half of the year. Guidance for the 2020 financial year remains unchanged at between 15 and 17 Mt.

Cerrejón production decreased by 13 per cent to 4 Mt as a result of a focus on higher quality products, in line with the mine plan, and the impact of adverse weather in the September 2019 quarter. Guidance for the 2020 financial year remains unchanged at approximately 9 Mt.

Other

Nickel production

	Dec H19	Dec Q19	Dec H19 vs Dec H18	Dec Q19 vs Dec Q18	Dec Q19 vs Sep Q19
Nickel (kt)	35.3	13.7	(11%)	(24%)	(37%)

Nickel – Nickel West production decreased by 11 per cent to 35 kt due to the major quadrennial maintenance shutdowns at the Kwinana refinery and the Kalgoorlie smelter, as well as planned routine maintenance at the concentrators, in the December 2019 quarter. Guidance for the 2020 financial year remains unchanged, with production expected to be broadly in line with the 2019 financial year.

Operations Services – In Australia, Operations Services has now been deployed at 13 locations across WAIO, Queensland Coal and NSWEC, with over 1,500 permanent jobs created. Deployments are successfully accelerating safety and productivity outcomes.

Potash project

Project and ownership	Investment US\$M	Scope	Progress
Jansen Potash (Canada) 100%	2,700	Investment to finish the excavation and lining of the production and service shafts, and to continue the installation of essential surface infrastructure and utilities.	The project is 85% complete and within the approved budget. Final shaft lining work is continuing.

Minerals exploration

Minerals exploration expenditure for the December 2019 half year was US\$84 million, of which US\$67 million was expensed. Greenfield minerals exploration is predominantly focused on advancing copper targets within Chile, Ecuador, Mexico, Peru, Canada, South Australia and the south-west United States.

Consistent with our focus on copper, in November 2019, BHP increased its interest in SolGold Plc, the majority owner and operator of the Cascabel porphyry copper-gold project in Ecuador, by 3.6 per cent to 14.7 per cent.

At Oak Dam in South Australia, the third phase of the drilling program commenced in November 2019 and is expected to be completed in the June 2020 quarter. This follows encouraging results from the previous drilling phases, which confirmed high-grade mineralised intercepts of copper, with associated gold, uranium and silver.

Variance analysis relates to the relative performance of BHP and/or its operations during the December 2019 half year compared with the December 2018 half year, 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. Copper equivalent production based on 2019 financial year average realised prices.

The following footnotes apply to this Operational Review:

- (1) 2020 financial year unit cost guidance: Petroleum US\$10.50-11.50/boe, Escondida US\$1.20-1.35/lb, WAIO US\$13-14/t, Queensland Coal US\$67-74/t and NSWEC US\$55-61/t; based on exchange rates of AUD/USD 0.70 and USD/CLP 683.
- (2) Underlying EBIT and Underlying EBITDA are used to reflect the underlying performance of BHP. Underlying EBIT is earnings before net finance costs, taxation and any exceptional items. Underlying EBITDA is Underlying EBIT before depreciation, amortisation and impairment.
- (3) Short-term facility of up to US\$212 million includes US\$2 million related to the decommissioning of the Germano dam which will be offset against the Group's provision.
- (4) We were the apparent high bidder on 18 additional blocks: GB630, GB574, GB575, GB619, GB676, GB677, EB655, EB656, EB701, GB762, GB805, GB806, GB851, GB852, GB895, GB672, GB716 and GB760.

The following abbreviations may have been used throughout this report: barrels (bbl); billion cubic feet (bcf); 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); metre (m); million barrels of oil equivalent (MMboe); million cubic feet per day (MMcf/d); million tonnes (Mt); million tonnes per annum (Mtpa); ounces (oz); pounds (lb); thousand barrels of oil equivalent (Mboe); thousand barrels of oil equivalent per day (Mboe/d); thousand ounces (koz); thousand standard cubic feet (Mscf); 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', 'Group', 'BHP Group', 'we', 'us', 'our' and ourselves' are used to refer to BHP Group Limited, BHP Group plc and, except where the context otherwise requires, their respective subsidiaries as defined in note 28 'Subsidiaries' in section 5.1 of BHP's 30 June 2019 Annual Report and Form 20-F, unless stated otherwise. 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.

Further information on BHP can be found at: bhp.com

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Production summary

	BHP interest	Quarter ended				Year to date		
		Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019	Dec 2018	
Petroleum ⁽¹⁾								
Petroleum								
Production								
Crude oil, condensate and NGL (Mboe)		14,497	13,236	13,366	12,507	13,412	25,919	28,584
Natural gas (bcf)		93.9	92.9	97.8	100.4	88.7	189.1	206.2
Total (Mboe)		30,147	28,719	29,666	29,240	28,195	57,436	62,951
Copper ⁽²⁾								
Copper								
Payable metal in concentrate (kt)								
Escondida ⁽³⁾	57.5%	212.6	205.4	224.1	237.0	240.3	477.3	452.6
Antamina	33.8%	38.3	34.5	37.4	37.6	36.2	73.8	75.3
Total		250.9	239.9	261.5	274.6	276.5	551.1	527.9
Cathode (kt)								
Escondida ⁽³⁾	57.5%	71.9	62.4	63.5	55.9	68.4	124.3	127.3
Pampa Norte ⁽⁴⁾	100%	61.8	67.2	74.1	63.9	60.0	123.9	105.2
Olympic Dam	100%	31.6	50.2	45.2	35.1	50.5	85.6	64.9
Total		165.3	179.8	182.8	154.9	178.9	333.8	297.4
Total copper (kt)		416.2	419.7	444.3	429.5	455.4	884.9	825.3
Lead								
Payable metal in concentrate (t)								
Antamina	33.8%	600	456	770	405	383	788	1,163
Total		600	456	770	405	383	788	1,163
Zinc								
Payable metal in concentrate (t)								
Antamina	33.8%	24,237	20,848	22,469	20,454	22,483	42,937	54,795
Total		24,237	20,848	22,469	20,454	22,483	42,937	54,795
Gold								
Payable metal in concentrate (troy oz)								
Escondida ⁽³⁾	57.5%	73,726	73,998	74,704	48,801	49,209	98,010	137,304
Olympic Dam (refined gold)	100%	17,856	28,609	37,032	43,205	35,382	78,587	41,327
Total		91,582	102,607	111,736	92,006	84,591	176,597	178,631
Silver								
Payable metal in concentrate (troy koz)								
Escondida ⁽³⁾	57.5%	2,570	2,189	2,074	1,626	1,798	3,424	4,567
Antamina	33.8%	1,178	1,062	1,209	1,101	1,173	2,274	2,487
Olympic Dam (refined silver)	100%	212	230	268	245	203	448	425
Total		3,960	3,481	3,551	2,972	3,174	6,146	7,479
Uranium								
Payable metal in concentrate (t)								
Olympic Dam	100%	929	1,106	975	937	949	1,886	1,484
Total		929	1,106	975	937	949	1,886	1,484
Molybdenum								
Payable metal in concentrate (t)								
Antamina	33.8%	417	82	178	405	527	932	881
Total		417	82	178	405	527	932	881

Production summary

BHP interest	Quarter ended					Year to date		
	Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019	Dec 2019	Dec 2018	
Iron Ore								
Iron Ore								
Production (kt) ⁽⁵⁾								
Newman	85%	17,578	15,608	17,058	16,316	15,766	32,082	33,956
Area C Joint Venture	85%	10,280	11,627	13,837	12,620	12,727	25,347	21,976
Yandi Joint Venture	85%	15,627	15,214	17,486	17,827	14,857	32,684	32,497
Jimblebar ⁽⁶⁾	85%	14,326	13,658	14,209	14,239	17,045	31,284	30,679
Wheelarra	85%	30	10	5	3	-	3	144
Samarco	50%	-	-	-	-	-	-	-
Total		57,841	56,117	62,595	61,005	60,395	121,400	119,252
Coal								
Metallurgical coal								
Production (kt) ⁽⁷⁾								
BMA	50%	7,694	7,608	9,090	6,905	8,723	15,628	15,438
BHP Mitsui Coal ⁽⁸⁾	80%	2,578	2,269	2,804	2,453	2,201	4,654	5,192
Total		10,272	9,877	11,894	9,358	10,924	20,282	20,630
Energy coal								
Production (kt)								
Australia	100%	4,311	4,552	5,412	3,592	3,763	7,355	8,293
Colombia	33.3%	2,356	2,199	2,017	2,055	2,315	4,370	5,014
Total		6,667	6,751	7,429	5,647	6,078	11,725	13,307
Other								
Nickel								
Saleable production (kt)								
Nickel West ⁽⁹⁾	100%	18.1	19.2	28.7	21.6	13.7	35.3	39.5
Total		18.1	19.2	28.7	21.6	13.7	35.3	39.5
Cobalt								
Saleable production (t)								
Nickel West	100%	154	194	302	211	120	331	403
Total		154	194	302	211	120	331	403

- (1) LPG and ethane are reported as natural gas liquids (NGL). Product-specific conversions are made and NGL is reported in barrels of oil equivalent (boe). Total boe conversions are based on 6 bcf of natural gas equals 1,000 Mboe.
- (2) Metal production is reported on the basis of payable metal.
- (3) Shown on a 100% basis. BHP interest in saleable production is 57.5%.
- (4) Includes Cerro Colorado and Spence.
- (5) Iron ore production is reported on a wet tonnes basis.
- (6) Shown on a 100% basis. BHP interest in saleable production is 85%.
- (7) Metallurgical coal production is reported on the basis of saleable product. Production figures include some thermal coal.
- (8) Shown on a 100% basis. BHP interest in saleable production is 80%.
- (9) Production restated to include other nickel by-products.

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
		2018	2019	2019	2019	2019	2019	2018
Petroleum ⁽¹⁾								
Bass Strait								
Crude oil and condensate	(Mboe)	1,401	893	1,246	1,409	1,427	2,836	3,054
NGL	(Mboe)	1,447	849	1,299	1,810	1,405	3,215	3,287
Natural gas	(bcf)	25.2	21.0	30.6	36.6	27.8	64.4	60.3
Total petroleum products	(Mboe)	7,048	5,242	7,645	9,319	7,465	16,784	16,391
North West Shelf								
Crude oil and condensate	(Mboe)	1,520	1,431	1,357	1,337	1,376	2,713	3,034
NGL	(Mboe)	206	193	189	202	200	402	448
Natural gas	(bcf)	37.5	36.6	34.8	32.1	32.9	65.0	74.1
Total petroleum products	(Mboe)	7,976	7,724	7,346	6,889	7,059	13,948	15,832
Pyrenees								
Crude oil and condensate	(Mboe)	1,101	940	1,001	979	934	1,913	1,383
Total petroleum products	(Mboe)	1,101	940	1,001	979	934	1,913	1,383
Other Australia ⁽²⁾								
Crude oil and condensate	(Mboe)	8	6	7	8	1	9	15
Natural gas	(bcf)	13.9	13.0	12.2	12.0	11.4	23.4	27.7
Total petroleum products	(Mboe)	2,325	2,173	2,040	2,008	1,901	3,909	4,632
Atlantis ⁽³⁾								
Crude oil and condensate	(Mboe)	3,802	3,888	3,607	2,759	3,525	6,284	6,992
NGL	(Mboe)	268	275	248	192	245	437	483
Natural gas	(bcf)	1.9	2.0	2.2	1.4	1.8	3.2	3.4
Total petroleum products	(Mboe)	4,387	4,496	4,222	3,184	4,070	7,254	8,042
Mad Dog ⁽³⁾								
Crude oil and condensate	(Mboe)	1,158	1,258	1,246	1,096	1,202	2,298	2,428
NGL	(Mboe)	54	58	23	49	52	101	115
Natural gas	(bcf)	0.2	0.2	0.2	0.2	0.2	0.4	0.4
Total petroleum products	(Mboe)	1,245	1,349	1,302	1,178	1,287	2,466	2,610
Shenzi ⁽³⁾								
Crude oil and condensate	(Mboe)	2,024	1,881	1,725	1,345	1,671	3,016	4,040
NGL	(Mboe)	121	112	(2)	70	94	164	243
Natural gas	(bcf)	0.4	0.4	0.4	0.2	0.3	0.5	0.8
Total petroleum products	(Mboe)	2,212	2,060	1,790	1,448	1,815	3,263	4,416
Trinidad/Tobago								
Crude oil and condensate	(Mboe)	200	284	235	175	166	341	647
Natural gas	(bcf)	14.0	19.5	17.3	17.9	14.2	32.1	38.0
Total petroleum products	(Mboe)	2,533	3,534	3,118	3,158	2,533	5,691	6,980
Other Americas ^{(3) (4)}								
Crude oil and condensate	(Mboe)	218	284	272	185	230	415	425
NGL	(Mboe)	4	18	3	2	4	6	7
Natural gas	(bcf)	0.1	0.2	0.1	-	0.1	0.1	0.1
Total petroleum products	(Mboe)	239	335	292	187	251	438	449
UK ⁽⁵⁾								
Crude oil and condensate	(Mboe)	36	-	-	-	-	-	72
NGL	(Mboe)	21	-	-	-	-	-	42
Natural gas	(bcf)	0.7	-	-	-	-	-	1.4
Total petroleum products	(Mboe)	174	-	-	-	-	-	347
Algeria								
Crude oil and condensate	(Mboe)	908	866	910	889	880	1,769	1,869
Total petroleum products	(Mboe)	908	866	910	889	880	1,769	1,869

Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2018	2019	2019	2019	2019	2019	2018

Petroleum ⁽¹⁾

Total production

Crude oil and condensate	(Mboe)	12,376	11,731	11,606	10,182	11,412	21,594	23,959
NGL	(Mboe)	2,121	1,505	1,760	2,325	2,000	4,325	4,625
Natural gas	(bcf)	93.9	92.9	97.8	100.4	88.7	189.1	206.2
Total	(Mboe)	30,147	28,719	29,666	29,240	28,195	57,436	62,951

- (1) Total boe conversions are based on 6 bcf of natural gas equals 1,000 Mboe. Negative production figures represent finalisation adjustments.
- (2) Other Australia includes Minerva and Macedon.
- (3) Gulf of Mexico volumes are net of royalties.
- (4) Other Americas includes Neptune, Genesis and Overriding Royalty Interest.
- (5) BHP completed the sale of its interest in the Bruce and Keith oil and gas fields on 30 November 2018. The sale has an effective date of 1 January 2018.

Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2018	2019	2019	2019	2019	2019	2018

Copper

Metals production is payable metal unless otherwise stated.

Escondida, Chile ⁽¹⁾

Material mined	(kt)	105,580	103,936	100,693	101,026	100,057	201,083	212,840
Sulphide ore milled	(kt)	30,507	32,027	32,519	33,956	33,659	67,615	61,020
Average concentrator head grade	(%)	0.87%	0.82%	0.86%	0.86%	0.87%	0.86%	0.91%
Production ex mill	(kt)	219.9	216.9	230.9	245.0	246.1	491.1	461.8

Production

Payable copper	(kt)	212.6	205.4	224.1	237.0	240.3	477.3	452.6
Copper cathode (EW)	(kt)	71.9	62.4	63.5	55.9	68.4	124.3	127.3
- Oxide leach	(kt)	23.4	20.9	23.4	21.9	28.3	50.2	42.9
- Sulphide leach	(kt)	48.5	41.5	40.1	34.1	40.1	74.2	84.3
Total copper	(kt)	284.5	267.8	287.6	292.9	308.7	601.6	579.9

Payable gold concentrate	(troy oz)	73,726	73,998	74,704	48,801	49,209	98,010	137,304
Payable silver concentrate	(troy koz)	2,570	2,189	2,074	1,626	1,798	3,424	4,567

Sales

Payable copper	(kt)	229.2	212.0	223.4	222.2	248.3	470.5	445.7
Copper cathode (EW)	(kt)	72.3	56.6	67.5	52.3	70.6	122.9	125.5
Payable gold concentrate	(troy oz)	73,726	73,999	74,704	48,801	49,209	98,010	137,304
Payable silver concentrate	(troy koz)	2,570	2,189	2,074	1,626	1,798	3,424	4,567

(1) Shown on a 100% basis. BHP interest in saleable production is 57.5%.

Pampa Norte, Chile

Cerro Colorado

Material mined	(kt)	19,875	15,561	13,534	15,071	18,102	33,173	38,363
Ore milled	(kt)	5,069	4,277	4,740	3,995	5,009	9,004	9,871
Average copper grade	(%)	0.62%	0.63%	0.64%	0.54%	0.57%	0.56%	0.58%

Production

Copper cathode (EW)	(kt)	19.4	18.2	23.4	16.4	13.8	30.2	33.6
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Sales

Copper cathode (EW)	(kt)	19.0	15.5	26.8	14.5	15.8	30.3	32.8
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Spence

Material mined	(kt)	21,661	18,632	19,213	21,040	23,132	44,172	44,668
Ore milled	(kt)	5,428	4,376	5,224	5,635	5,133	10,768	11,070
Average copper grade	(%)	1.10%	1.03%	1.02%	0.95%	0.90%	0.93%	1.16%

Production

Copper cathode (EW)	(kt)	42.4	49.0	50.7	47.5	46.2	93.7	71.6
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Sales

Copper cathode (EW)	(kt)	39.1	46.1	55.0	46.7	44.3	91.0	68.8
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Production and sales report

	Quarter ended					Year to date	
	Dec	Mar	Jun	Sep	Dec	Dec	Dec
	2018	2019	2019	2019	2019	2019	2018

Copper (continued)

Metals production is payable metal unless otherwise stated.

Antamina, Peru

Material mined (100%)	(kt)	62,850	57,900	58,994	59,299	63,224	122,523	125,320
Sulphide ore milled (100%)	(kt)	12,912	11,466	12,864	13,121	13,637	26,758	26,109
Average head grades								
- Copper	(%)	1.02%	1.04%	1.02%	0.99%	0.96%	0.97%	0.99%
- Zinc	(%)	0.85%	0.87%	0.86%	0.80%	0.82%	0.81%	0.98%

Production

Payable copper	(kt)	38.3	34.5	37.4	37.6	36.2	73.8	75.3
Payable zinc	(t)	24,237	20,848	22,469	20,454	22,483	42,937	54,795
Payable silver	(troy koz)	1,178	1,062	1,209	1,101	1,173	2,274	2,487
Payable lead	(t)	600	456	770	405	383	788	1,163
Payable molybdenum	(t)	417	82	178	405	527	932	881

Sales

Payable copper	(kt)	40.7	33.3	36.0	33.1	43.6	76.7	74.3
Payable zinc	(t)	26,072	20,595	21,750	20,196	23,808	44,004	57,894
Payable silver	(troy koz)	1,236	1,027	937	954	1,396	2,350	2,429
Payable lead	(t)	649	749	296	844	432	1,276	1,261
Payable molybdenum	(t)	535	256	127	173	400	573	743

Olympic Dam, Australia

Material mined ⁽¹⁾	(kt)	2,434	2,191	2,425	2,477	2,347	4,824	4,478
Ore milled	(kt)	2,157	2,371	2,195	2,200	2,153	4,353	3,399
Average copper grade	(%)	2.10%	2.22%	2.30%	2.31%	2.36%	2.33%	2.08%
Average uranium grade	(kg/t)	0.62	0.65	0.65	0.65	0.71	0.68	0.62

Production

Copper cathode (ER and EW)	(kt)	31.6	50.2	45.2	35.1	50.5	85.6	64.9
Payable uranium	(t)	929	1,106	975	937	949	1,886	1,484
Refined gold	(troy oz)	17,856	28,609	37,032	43,205	35,382	78,587	41,327
Refined silver	(troy koz)	212	230	268	245	203	448	425

Sales

Copper cathode (ER and EW)	(kt)	26.6	47.4	50.5	32.1	49.0	81.1	60.5
Payable uranium	(t)	828	550	1,427	778	638	1,416	1,593
Refined gold	(troy oz)	17,812	27,574	36,133	40,073	36,507	76,580	38,957
Refined silver	(troy koz)	177	241	257	250	202	452	393

(1) Material mined refers to run of mine ore mined and hoisted.

Production and sales report

Quarter ended					Year to date	
Dec	Mar	Jun	Sep	Dec	Dec	Dec
2018	2019	2019	2019	2019	2019	2018

Iron Ore

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

Pilbara, Australia

Production

Newman	(kt)	17,578	15,608	17,058	16,316	15,766	32,082	33,956
Area C Joint Venture	(kt)	10,280	11,627	13,837	12,620	12,727	25,347	21,976
Yandi Joint Venture	(kt)	15,627	15,214	17,486	17,827	14,857	32,684	32,497
Jimblebar ⁽¹⁾	(kt)	14,326	13,658	14,209	14,239	17,045	31,284	30,679
Wheelarra	(kt)	30	10	5	3	-	3	144
Total production	(kt)	57,841	56,117	62,595	61,005	60,395	121,400	119,252
Total production (100%)	(kt)	65,515	63,609	71,133	69,257	68,044	137,301	134,857

Sales

Lump	(kt)	14,020	13,603	15,568	14,785	15,982	30,767	29,034
Fines	(kt)	44,059	41,981	48,064	45,509	45,785	91,294	90,586
Total	(kt)	58,079	55,584	63,632	60,294	61,767	122,061	119,620
Total sales (100%)	(kt)	65,758	62,853	72,173	68,291	69,481	137,772	135,179

(1) Shown on a 100% basis. BHP interest in saleable production is 85%.

Samarco, Brazil ⁽¹⁾

Production	(kt)	-	-	-	-	-	-	-
Sales	(kt)	10	-	-	-	-	-	10

(1) Mining and processing operations remain suspended following the failure of the Fundão tailings dam and Santarém water dam on 5 November 2015.

Production and sales report

	Quarter ended					Year to date	
	Dec	Mar	Jun	Sep	Dec	Dec	Dec
	2018	2019	2019	2019	2019	2019	2018

Coal

Coal production is reported on the basis of saleable product.

Queensland Coal

Production ⁽¹⁾

<u>BMA</u>								
Blackwater	(kt)	1,680	1,484	1,735	1,045	1,734	2,779	3,384
Goonyella	(kt)	1,813	2,141	2,620	1,489	2,662	4,151	3,802
Peak Downs	(kt)	1,685	1,468	1,649	1,423	1,386	2,809	2,816
Saraji	(kt)	1,288	1,250	1,243	1,214	1,325	2,539	2,399
Daunia	(kt)	419	470	669	556	579	1,135	1,039
Caval Ridge	(kt)	809	795	1,174	1,178	1,037	2,215	1,998
Total BMA	(kt)	7,694	7,608	9,090	6,905	8,723	15,628	15,438
Total BMA (100%)	(kt)	15,388	15,216	18,180	13,810	17,446	31,256	30,876

BHP Mitsui Coal ⁽²⁾

South Walker Creek	(kt)	1,636	1,429	1,624	1,378	1,196	2,574	3,141
Poitrel	(kt)	942	840	1,180	1,075	1,005	2,080	2,051
Total BHP Mitsui Coal	(kt)	2,578	2,269	2,804	2,453	2,201	4,654	5,192
Total Queensland Coal	(kt)	10,272	9,877	11,894	9,358	10,924	20,282	20,630
Total Queensland Coal (100%)	(kt)	17,966	17,485	20,984	16,263	19,647	35,910	36,068

Sales

Coking coal	(kt)	7,514	7,221	7,932	7,299	7,775	15,074	14,870
Weak coking coal	(kt)	3,058	3,282	2,942	2,466	2,475	4,941	5,871
Thermal coal	(kt)	157	379	350	94	30	124	298
Total	(kt)	10,729	10,882	11,224	9,859	10,280	20,139	21,039
Total (100%)	(kt)	18,818	19,176	19,789	17,145	18,459	35,604	36,920

(1) Production figures include some thermal coal.

(2) Shown on a 100% basis. BHP interest in saleable production is 80%.

NSW Energy Coal, Australia

Production	(kt)	4,311	4,552	5,412	3,592	3,763	7,355	8,293
Sales								
Export thermal coal	(kt)	4,809	3,529	5,181	3,075	3,952	7,027	8,358
Inland thermal coal	(kt)	393	302	975	567	-	567	725
Total	(kt)	5,202	3,831	6,156	3,642	3,952	7,594	9,083

Cerrejón, Colombia

Production	(kt)	2,356	2,199	2,017	2,055	2,315	4,370	5,014
Sales thermal coal - export	(kt)	2,297	2,200	2,245	2,069	2,261	4,330	4,886

Production and sales report

Quarter ended					Year to date	
Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019	Dec 2019	Dec 2018

Other

Nickel production is reported on the basis of saleable product

Nickel West, Australia

Mt Keith

Nickel concentrate	(kt)	44.9	52.5	52.8	43.7	31.5	75.2	95.1
Average nickel grade	(%)	19.8	19.2	19.5	18.3	17.3	17.9	19.3

Leinster

Nickel concentrate	(kt)	65.3	51.8	48.3	67.2	56.6	123.8	144.1
Average nickel grade	(%)	8.4	9.3	10.8	10.0	8.6	9.4	8.4

Saleable production

Refined nickel ^{(1) (2)}	(kt)	16.3	17.6	19.9	17.4	11.1	28.5	36.1
Intermediates and nickel by-products ^{(1) (3)}	(kt)	1.8	1.6	8.8	4.2	2.6	6.8	3.4
Total nickel ⁽¹⁾	(kt)	18.1	19.2	28.7	21.6	13.7	35.3	39.5

Cobalt by-products	(t)	154	194	302	211	120	331	403
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Sales

Refined nickel ^{(1) (2)}	(kt)	17.3	17.9	19.9	17.0	10.6	27.6	36.6
Intermediates and nickel by-products ^{(1) (3)}	(kt)	2.1	0.1	8.4	5.7	2.7	8.4	4.3
Total nickel ⁽¹⁾	(kt)	19.4	18.0	28.3	22.7	13.3	36.0	40.9

Cobalt by-products	(t)	154	194	302	212	131	343	403
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(1) Production and sales restated to include other nickel by-products.

(2) High quality refined nickel metal, including briquettes and powder.

(3) Nickel contained in matte and by-product streams.