

## Rio Tinto releases first quarter production results

17 April 2020

Rio Tinto Chief Executive J-S Jacques said “In these uncertain and unprecedented times we continue to deliver products to our customers with our first priority to protect the health and safety of all our employees and communities. We are focused on maintaining a business as usual approach and have taken extensive measures to ensure we can do so safely.

“All of our assets continue to operate and we achieved a very robust production performance in the first quarter. Our world-class portfolio and strong balance sheet serve us well in all market conditions and are particularly valuable in the current volatile environment. Our resilience and value over volume strategy mean we can continue to invest in our business, and support our communities and host governments.”

Production*		Q1 2020	vs Q1 2019	vs Q4 2019
Pilbara iron ore shipments (100% basis)	Mt	72.9	+5%	-16%
Pilbara iron ore production (100% basis)	Mt	77.8	+2%	-7%
Bauxite	Mt	13.8	+8%	-9%
Aluminium	kt	783	-2%	0%
Mined copper	kt	133.0	-8%	-4%
Titanium dioxide slag	kt	293	-1%	+3%
IOC iron ore pellets and concentrate	Mt	2.6	+3%	0%

\*Rio Tinto share unless otherwise stated

### Q1 Operational update

- We are protecting the health of our employees and communities through rapid implementation of health and hygiene controls in response to Covid-19. We have also strengthened our focus on safety programmes to ensure the safety of our employees during a period of significant change.
- Pilbara iron ore shipments of 73 million tonnes (100% basis) were 5% higher than the first quarter of 2019, driven by a strong recovery across the network in March following tropical cyclone Damien in February 2020. The portside trading trial continues in China with the 1 millionth tonne of ore sold.
- Bauxite production of 13.8 million tonnes was 8% higher than the first quarter of 2019, following the successful ramp-up of Amrun in 2019. Third party shipments of 9.5 million tonnes in the quarter were 7% higher than the same period of 2019.
- Aluminium production of 0.8 million tonnes in the first quarter was 2% lower than the first quarter of 2019 with ISAL operating at 85% capacity in line with our value over volume strategy.
- Mined copper production of 133 thousand tonnes was 8% lower than the same period in 2019, reflecting anticipated lower copper grades, partially offset by higher throughput.
- At Kennecott in the US, we are working to resume normal operations following a 5.7 magnitude earthquake on 18 March. The mine, concentrator, tailings storage facility and refinery have all resumed safe and stable operations. There was some damage to the furnace, which impacts full year copper guidance (see below).
- Titanium dioxide slag production of 293 thousand tonnes was 1% lower than the first quarter in 2019 partly due to Covid-19 restrictions in Quebec and South Africa.
- Production of pellets and concentrate at the Iron Ore Company of Canada (IOC) was 3% higher than the same period of 2019.

- All major projects progressed well in the first quarter, but are now being affected by Covid-19 including government imposed restrictions on the movement of goods and people. Recovery rates may differ across regions - we will update the market once the situation stabilises.
- Capital expenditure is now expected to be \$5 to 6 billion in 2020 (down from the previous guidance of \$7 billion) partly due to Covid-19 constraints, and partly due to the favourable currency impact from the strong US dollar. Capital expenditure originally planned for 2020 may subsequently flow into 2021 and 2022, and we will provide a further update on capital re-phasing in due course.
- We are continuing to work with our customers to fulfil orders and meet their requirements while complying with government directives. Our customer order books remain healthy, with our commercial teams focusing on business continuity and customer support.

## **Covid-19**

### **Our markets**

Demand in China continues to recover. In the rest of the world, the outlook is more uncertain. Commodity supply is being disrupted as Covid-19 restrictions impact supply chains and people movement globally.

- Demand for the high-quality iron ores we produce remained strong in the first quarter of 2020, mainly driven by a combination of seaborne supply disruptions and solid demand from China's steel mills despite Covid-19 impacts.
- The market for primary aluminium contracted further in the first quarter of 2020 primarily due to lower automotive production.
- China's demand for imported bauxite continued to grow in the first quarter, as domestic reserves continue to decline in quality and quantity, and mine production was disrupted by Covid-19 restrictions.
- Although copper demand remained reasonable in the quarter, the decline in the price reflects deteriorating industrial growth expectations globally.
- To some extent, weaker commodity prices also reflect decreasing industry supply costs, which are falling due to a strong US dollar and tailwinds from lower energy and freight costs, partly offset by Covid-19 related expenditure.

### **Our assets**

We have introduced measures to combat the spread and impacts of Covid-19, to ensure we keep our employees and communities safe, and our operations running. We are working closely with governments around the world to ensure our operations continue to contribute to society during this challenging time. Our assets are operating with some Covid-19 restrictions in place to comply with government directives. Full details of initiatives taken to date can be found on our website: [www.riotinto.com/news/releases](http://www.riotinto.com/news/releases). Specifically, we have implemented the following actions:

#### *Workforce*

- We have changed rosters at our Iron Ore operations, construction and exploration projects meaning fewer crew changeovers at our sites and in our operations centre to reduce the risk of transmission.
- The majority of employees and critical contractors on national fly-in-fly-out (FIFO) arrangements have been relocated to Western Australia.

#### *Operations*

- We have reduced mining operations at Richards Bay Minerals (RBM) in South Africa in compliance with a government directive to effect a lockdown on 26 March for 21 days. The rail and port remain open for product shipments.
- We are working with the government of Quebec to comply with the directive to slow down non-critical projects and activities for our Quebec operations.

- We have shut down the fourth pot-line at the Tiwai Point smelter in New Zealand (NZAS) with production continuing on the other three lines to comply with government lockdown requirements for containing the spread of Covid-19 and to support the health and safety of our people at the site.

#### Products

- We have changed our product mix at IOC to focus on the production of concentrates in order to match market demand.
- In aluminium, in response to market conditions we have reduced the proportion of primary metal being produced as value added products.

## Guidance

<b>Production guidance</b> Rio Tinto share, unless otherwise stated	2020 (current)	2020 (previous)
Pilbara iron ore (shipments, 100% basis)	324 to 334 Mt	324 to 334 Mt
Bauxite	55 to 58 Mt	55 to 58 Mt
Alumina	7.8 to 8.2 Mt	7.8 to 8.2 Mt
Aluminium	3.1 to 3.3 Mt	3.1 to 3.3 Mt
Mined copper	475 to 520 kt	530 to 570 kt
Refined copper	165 to 205 kt	205 to 235 kt
Diamonds	12 to 14 M carats	12 to 14 M carats
Titanium dioxide slag	At lower end of 1.2 to 1.4 Mt	1.2 to 1.4 Mt
Iron Ore Company of Canada pellets and concentrate	10.5 to 12.0 Mt	10.5 to 12.0 Mt
Boric oxide equivalent	~0.5 Mt	~0.5 Mt

- We will continue to monitor and adjust production levels and product mix to meet customer requirements in 2020, in line with our value over volume strategy, government imposed restrictions related to Covid-19, and any other potential Covid-19 related disruptions.
- Mined and refined copper guidance is lowered due to a potential reduction in second half output at Escondida from Covid-19 measures and the earthquake repairs at Kennecott.
- Titanium dioxide slag guidance is expected to be at the lower end of the prior guidance range due to Covid-19 restrictions instructed by the governments in Quebec and South Africa.

## Operating costs

- Pilbara iron ore 2020 unit cost guidance of \$14-\$15 per tonne remains unchanged.
- Copper C1 unit cost guidance in 2020 is unchanged at 120-135 US cents/lb.

## Investments, growth and development projects

- All major projects progressed well in the first quarter, but are now being affected by the Covid-19 restrictions. The team is investigating ways to mitigate Covid-19 impacts including those associated with roster changes, travel restrictions and the design and fabrication of long lead items in China and Europe. Whilst it is too early to estimate, the restrictions are likely to have some impact on our progress. Recovery rates may differ across regions - we will update the market once the situation stabilises.
- Capital expenditure is now expected to be \$5 to 6 billion in 2020 (down from the previous guidance of \$7 billion) partly due to Covid-19 constraints, and partly due to the favourable currency impact from the strong US dollar. Capital expenditure originally planned for 2020 may subsequently flow into 2021 and 2022, and we will provide a further update on capital re-phasing in due course.

- Exploration and evaluation spend in the first quarter was \$144 million, 16% higher than the first quarter of 2019, reflecting an increase in central exploration including the Winu copper/gold project in Western Australia, and higher spend associated with our Jadar borates/lithium project in Serbia.

#### *Pilbara replacement projects*

- Overall construction is progressing with key personnel retained in Western Australia following the implementation of border controls to limit the transmission of Covid-19. The ramp-up of Koodaideri is still expected to occur in early 2022.
- The other Pilbara projects remain largely on track including Western Turner Syncline Phase 2 and Robe River Joint Venture sustaining projects (West Angelas C&D and Mesas B, C and H at Robe Valley). Environmental approval of Mesa H is progressing.
- We are working closely with the authorities to prevent any delay in the permitting process from Covid-19.

#### *Oyu Tolgoi underground project*

- As announced on 16 March 2020, work on the Oyu Tolgoi underground project continues, and we are achieving strong productivity in underground development (1,939 equivalent metres in March, average monthly 1,815 equivalent metres).
- Despite these gains, progress has slowed as a result of restrictions placed on the movement of people to contain the spread of Covid-19, including specialist commissioning personnel as well as goods.
- Work continues on the mine design and we still expect this to be completed in the first half of 2020 with the Definitive Estimate<sup>1</sup> of cost and schedule in the second half of 2020. This will include the estimate of development capital costs and schedule for the underground project based on the updated design of Panel 0.
- Based on current information, the underground project remains within the range announced in July 2019 of a 16 to 30 month delay in schedule and an increase of \$1.2 to \$1.9 billion in development capital costs. Depending on how long they are in place, Covid-19 restrictions may impact the schedule range.

#### *Other key projects and exploration and evaluation*

- Phase one of the south wall pushback project at Kennecott remains on track with access to higher grades expected from 2021.
- The Zulti South project in South Africa continues to be on hold. A restart will not occur until Covid-19 restrictions have been fully lifted and security and community issues have been resolved.
- Construction of the second tunnel at the Kemano hydropower facility at Kitimat, British Columbia has been put on care and maintenance due to contractor availability. We are evaluating the impact and next steps to resume progress on the project.
- The Resolution Copper project in Arizona is progressing, with shaft 9 on schedule reaching 1.8 kilometres of the targeted 2.1 kilometres at the end of March.
- Construction of the ELYSIS research and development centre in the Saguenay has been temporarily suspended, aligned with the Covid-19 measures introduced by the Quebec government.
- On the Winu preliminary study for the copper/gold deposit in Western Australia, Covid-19 precautionary measures are in place. Drilling and fieldwork activities continue as planned at present. Future activities are likely to be affected by Covid-19 restrictions including the ability to move people and gain access to sites.
- Activities at the Falcon diamond study in Saskatchewan have been scaled back in response to Covid-19 constraints, with the 2019 bulk samples now being processed by the recently commissioned bulk diamond sampling plant.

**EBITDA Sensitivities: previously published for 2019, next update on 29 July 2020**

	2019 average price / rate	(\$m) impact on FY 2019 underlying EBITDA of 10% price/rate change
Copper	273c/lb	350
Aluminium	\$1,791/t	482
Gold	\$1,393/oz	54
Iron ore (62% Fe FOB)	\$85.9/dmt	2,061
A\$	0.70	529
C\$	0.75	199
Oil (Brent)	\$64/bbl	72

<sup>1</sup> As described above, the level of accuracy of these estimates is preliminary in nature and subject to a range of variables, in line with previous guidance. The confidence level of these estimates is at a level associated with a Conceptual or Order of Magnitude Study, and further work is required between now and the second half of 2020 to refine the mine design options and study them to a level of confidence and accuracy associated with Feasibility Study quality estimates.

All figures in this report are unaudited. All currency figures in this report are US dollars, and comments refer to Rio Tinto's share of production, unless otherwise stated. To allow production numbers to be compared on a like-for-like basis, production from asset divestments completed in 2019 is excluded from Rio Tinto share of production data.

## IRON ORE

Million tonnes	Q1 2020	vs Q1 2019	vs Q4 2019
<b>Rio Tinto share of production</b>			
Pilbara Blend and SP10 Lump <sup>1</sup>	18.5	-7%	-7%
Pilbara Blend and SP10 Fines <sup>1</sup>	27.7	-4%	-8%
Robe Valley Lump	1.5	+132%	-6%
Robe Valley Fines	2.4	+95%	-14%
Yandicoogina Fines (HIY)	14.1	+5%	-1%
<b>Total Pilbara production</b>	<b>64.2</b>	<b>0%</b>	<b>-7%</b>
<b>Total Pilbara production</b> (100% basis)	<b>77.8</b>	<b>+2%</b>	<b>-7%</b>

Million tonnes	Q1 2020	vs Q1 2019	vs Q4 2019
<b>Rio Tinto share of shipments</b>			
Pilbara Blend Lump	14.4	-9%	-11%
Pilbara Blend Fines	26.7	-1%	-14%
Robe Valley Lump	1.1	+147%	-9%
Robe Valley Fines	2.7	+106%	-18%
Yandicoogina Fines (HIY)	12.9	+5%	-15%
SP10 Lump <sup>1</sup>	1.0	N/A	-51%
SP10 Fines <sup>1</sup>	1.1	-29%	-48%
<b>Total Pilbara shipments</b>	<b>59.9</b>	<b>+3%</b>	<b>-16%</b>
<b>Total Pilbara shipments</b> (100% basis)	<b>72.9</b>	<b>+5%</b>	<b>-16%</b>
<b>Total Pilbara sales</b> (Rio Tinto share) <sup>2</sup>	<b>59.8</b>	<b>+3%</b>	<b>-15%</b>
<b>Total Pilbara sales</b> (100% basis) <sup>2</sup>	<b>72.8</b>	<b>+5%</b>	<b>-15%</b>
<b>Total Pilbara sales</b> (consolidated basis) <sup>2, 3</sup>	<b>61.6</b>	<b>+4%</b>	<b>-15%</b>

<sup>1</sup> SP10 includes some lower grade products.

<sup>2</sup> Differences between shipments and sales reflect tonnes held for portside trading and material purchased from IOC and sold.

<sup>3</sup> While Rio Tinto has a 53% net beneficial interest in Robe River Iron Associates, it recognises 65% of the assets, liabilities, sales revenues and expenses in its accounts (as 30% is held through a 60% owned subsidiary and 35% is held through a 100% owned subsidiary). The consolidated basis sales reported here include Robe River Iron Associates on a 65% basis to enable comparison with revenue reported in the financial statements.

### Pilbara operations

Pilbara operations produced 77.8 million tonnes (Rio Tinto share 64.2 million tonnes) in the first quarter, 2% higher than the first quarter of 2019. Production in the quarter was impacted by Tropical Cyclone Damien in February which caused infrastructure damage and interrupted operations due to flooding across the Pilbara network. There was a strong recovery in March across mines, rail and port.

First quarter sales of 72.8 million tonnes (Rio Tinto share 59.8 million tonnes) were 5% above the first quarter of 2019, despite significant disruptions experienced at our ports and infrastructure damage as a result of Tropical Cyclone Damien.

Approximately 16% of sales in the first quarter were priced by reference to the prior quarter's average index lagged by one month. The remainder was sold either on current quarter average, current month average or on the spot market.

Approximately 33% of sales in the quarter were made free on board (FOB), with the remainder sold including freight.

## ALUMINIUM

### Rio Tinto share of production ('000 tonnes)

	Q1 2020	vs Q1 2019	vs Q4 2019
Bauxite	13,813	+8%	-9%
Bauxite third party shipments	9,469	+7%	-14%
Alumina	2,010	0%	-1%
Aluminium	783	-2%	0%

#### **Bauxite**

First quarter bauxite production of 13.8 million tonnes was 8% higher than the first quarter of 2019. Production was lower than the fourth quarter of 2019, reflecting normal wet season conditions and maintenance activity at Gove.

Production from CBG in Guinea was 21% higher than the first quarter of 2019 reflecting good progress on the ramp-up of the expansion. On 27 March, CBG successfully passed its 90-day completion test for the expansion to 18.5 million tonnes per year.

We shipped 9.5 million tonnes of bauxite to third parties in the first quarter, 7% higher than same period of 2019.

#### **Alumina**

Alumina production in the first quarter of 2020 was in line with the corresponding period of 2019.

#### **Aluminium**

First quarter aluminium production of 0.8 million tonnes was 2% lower than the first quarter of 2019, primarily due to lower production at the ISAL and Kitimat smelters, partly offset by the ramp-up of the non-managed Becancour smelter back to 84% of capacity following a lock-out in 2019. Further ramp-up is currently on hold due to Covid-19.

We continue to operate the ISAL smelter at 85% capacity in line with our value over volume strategy, and Kitimat production was lower as it progresses through its first pot relining cycle which has been impacted by earlier than planned pot-lining replacement. Our Quebec managed smelters performed well, with aluminium production for the first quarter 2% higher than the same period in 2019, reflecting ongoing productivity improvement.

The aluminium industry continues to face challenging conditions in global markets and policy uncertainty, exacerbated by the impact of Covid-19, with global inventory levels rising from 2.2 million tonnes to 3 million tonnes. We continue to actively work on enhancing the competitiveness of our smelters, including discussing energy pricing with stakeholders, to ensure the sustainability of our smelters in Australasia and in Iceland.

We announced strategic reviews of our interests in the Tiwai Point smelter in New Zealand in October 2019 and in the ISAL smelter in Iceland in February 2020. Work on these reviews is ongoing. This will determine the viability and competitive position of these operations and will consider all options, including curtailment and closure.



## COPPER & DIAMONDS

### Rio Tinto share of production ('000 tonnes)

	Q1 2020	vs Q1 2019	vs Q4 2019
<b>Mined copper</b>			
Rio Tinto Kennecott	35.0	-33%	-1%
Escondida	86.2	+13%	-7%
Oyu Tolgoi	11.8	-23%	+7%
<b>Refined copper</b>			
Rio Tinto Kennecott	26.4	-11%	-49%
Escondida	20.9	+12%	+2%
<b>Diamonds ('000 carats)</b>			
Argyle	2,578	-7%	-23%
Diavik	857	-15%	+2%

#### ***Rio Tinto Kennecott***

Mined copper production was 33% lower than the same quarter in 2019, primarily due to pit sequencing, which contained lower copper ore grade material, partially offset by higher recovery rates. Copper grades were 33% lower in the first quarter of 2020 compared with the same quarter of 2019. Grades will continue to be lower through 2020 before increasing from the first quarter of 2021, with the transition from east wall to south wall mining.

Refined copper was 11% lower than the same quarter in 2019, due to lower anode production driven by reduced concentrate delivery, rate limitation from supply chain impacts, and reduced online time for inspection and repair following the earthquake on 18 March.

Following the earthquake, damage to the flash converting furnace in the Kennecott smelter has been identified, resulting in a full furnace rebuild being required in 2020.

The smelter is scheduled for a 45-day planned maintenance shutdown due to commence in May.

Grades were higher in the first quarter for molybdenum, with concentrate production 171% higher than the same quarter in 2019.

#### ***Escondida***

Mined copper production at Escondida was 13% higher than the same quarter of 2019 due to higher concentrator throughput, and a higher amount of material stacked at the sulphide leach pads.

#### ***Oyu Tolgoi***

Mined copper production from the open pit was 23% lower than the same quarter of 2019 due to decreased head grade. Grades were 26% lower than the same quarter in 2019 due to sequencing and blending of low-grade stockpiles. First quarter sales have been affected by slower collections of product from the warehouse by customers due to curtailed operations in China during peak Covid-19 restrictions.

#### ***Diamonds***

At Argyle, carat production was 23% lower than last quarter. Full year production guidance remains unaffected.

At Diavik, carats recovered in first quarter 2020 were 2% higher than last quarter due to higher processed tonnes, largely offset by lower recovered grade from the mine.

The diamond industry continues to face challenging conditions across key markets exacerbated by the impact of Covid-19. In particular, there has been a demand slump due to a retail shutdown during peak season, as well as lower rough diamond demand from people movement restrictions in India.



## ENERGY & MINERALS

### Rio Tinto share of production

	Q1 2020	vs Q1 2019	vs Q4 2019
<b>Iron ore pellets and concentrate (million tonnes)</b>			
IOC	2.6	+3%	0%
<b>Minerals ('000 tonnes)</b>			
Borates – B <sub>2</sub> O <sub>3</sub> content	126	+10%	-2%
Titanium dioxide slag	293	-1%	+3%
<b>Uranium ('000 lbs)</b>			
Energy Resources of Australia	676	-15%	+5%

#### ***Iron Ore Company of Canada (IOC)***

Iron ore pellets and concentrate production was in line with the last quarter and 3% higher than the first quarter of 2019, due to improved concentrator feed. IOC achieved first quarter records including total material moved and total shipments as a result of increased focus on asset optimisation.

We have changed our product mix at IOC to focus on the production of concentrates in order to match market demand.

The Ministry of Natural Resources of the government of Newfoundland and Labrador has granted renewals of all mining leases and tailing licenses needed for IOC to operate for an additional 30 years.

#### ***Borates***

Borates production was slightly below the previous quarter and aligned with market conditions. We will continue to base any decision to adjust refinery utilisation rates to match market demand.

#### ***Iron and Titanium***

Titanium dioxide feedstock production was 3% higher than last quarter, due to community disruptions that resulted in a site wide shutdown at RBM in December 2019. Furnaces at RBM are currently operating at reduced power levels as a result of Covid-19 government restrictions.

We have temporarily suspended production at the Rio Tinto Fer et Titane (RTFT) metal powder plant in Sorel-Tracy, Quebec due to the slowdown in demand from the automotive industry.

#### ***Uranium***

In late 2019, we announced our support for Energy Resources of Australia's (ERA) plans for a renounceable entitlement offer to raise \$324 million for the rehabilitation of the Ranger Project Area in the Northern Territory, Australia. Following completion of the rights issue, we now hold 86% in ERA, up from 68%.

ERA continues to process existing stockpiles. Production was 5% higher than last quarter due to Rio Tinto's increased ownership from 1 March 2020.

## EXPLORATION AND EVALUATION

Pre-tax and pre-divestment expenditure on exploration and evaluation charged to the profit and loss account in the first quarter of 2020 was \$144 million, compared with \$124 million in the first quarter of 2019. Approximately 54% of this expenditure was incurred by central exploration, 32% by Copper & Diamonds, 11% by Energy & Minerals and 3% by Iron Ore and Aluminium.

Exploration activities are likely to be affected by Covid-19 restrictions including the ability to move people and gain access to sites. A further update will be provided in July.

There were no significant divestments of central exploration properties in the first quarter of 2020.

### **Exploration highlights**

Rio Tinto has a strong portfolio of projects with activity in 17 countries across seven commodities. A summary of activity for the quarter is as follows:

Commodities	Studies Stage	Advanced projects	Greenfield/ Brownfield programmes
Bauxite	Cape York, Australia	Amargosa, Brazil*; Sanxai, Laos*	Cape York, Australia
Base Metals	Copper/molybdenum: Resolution, US; Winu, Australia	La Granja, Peru Nickel: Tamarack, US (3 <sup>rd</sup> party operated)	Copper Greenfield: Australia, Chile, China, Kazakhstan, Nicaragua, Peru, Serbia, US, Zambia, Brazil, Canada, Colombia Copper Brownfield, Oyu Tolgoi, Mongolia Nickel Greenfield: Canada, Uganda, Finland
Diamonds	Falcon, Canada		Greenfield: Canada Brownfield: Diavik, Canada
Minerals	Lithium borates: Jadar, Serbia Heavy mineral sands: Mutamba, Mozambique (3 <sup>rd</sup> party operated)		Heavy mineral sands: Tanzania Industrial Minerals: Serbia Industrial minerals brownfield: Boron, US
Iron Ore	Pilbara, Australia	Pilbara, Australia	Brownfield: Pilbara, Australia

\* limited activity during the quarter

## Forward-looking statements

This announcement may include "forward-looking statements" within the meaning of the US Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this announcement, including, without limitation, those regarding Rio Tinto's production forecast or guidance, financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to Rio Tinto's products and reserve and resource positions), are forward-looking statements. The words "intend", "aim", "project", "anticipate", "estimate", "plan", "believes", "expects", "may", "should", "will", "target", "set to", "assumes" or similar expressions, commonly identify such forward looking statements.

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Nothing in this announcement should be interpreted to mean that future earnings per share of Rio Tinto plc or Rio Tinto Limited will necessarily match or exceed its historical published earnings per share.

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This announcement is authorised for release to the market by Rio Tinto's Group Company Secretary.

LEI: 213800YOE05OQ72G2R82

Classification: 3.1 Additional regulated information required to be disclosed under the laws of a Member State

# Rio Tinto production summary

## Rio Tinto share of production

		Quarter			Full Year	% Change	
		2019 Q1	2019 Q4	2020 Q1	2019	Q1 20 vs Q1 19	Q1 20 vs Q4 19
<b>Principal Commodities</b>							
Alumina	('000 t)	2,008	2,032	<b>2,010</b>	7,744	0%	-1%
Aluminium	('000 t)	796	783	<b>783</b>	3,171	-2%	0%
Bauxite	('000 t)	12,763	15,137	<b>13,813</b>	55,105	8%	-9%
Borates	('000 t)	115	128	<b>126</b>	520	10%	-2%
Copper - mined	('000 t)	143.9	138.7	<b>133.0</b>	577.4	-8%	-4%
Copper - refined	('000 t)	48.3	71.9	<b>47.2</b>	259.6	-2%	-34%
Diamonds	('000 cts)	3,796	4,203	<b>3,434</b>	17,030	-10%	-18%
Iron Ore	('000 t)	66,581	71,352	<b>66,787</b>	281,192	0%	-6%
Titanium dioxide slag	('000 t)	296	286	<b>293</b>	1,206	-1%	3%
Uranium	('000 lbs)	793	642	<b>676</b>	2,640	-15%	5%
<b>Other Metals &amp; Minerals</b>							
Gold - mined	('000 oz)	115.4	75.0	<b>61.5</b>	389.7	-47%	-18%
Gold - refined	('000 oz)	41.7	63.3	<b>44.8</b>	218.7	7%	-29%
Molybdenum	('000 t)	1.9	4.7	<b>5.1</b>	11.2	171%	9%
Salt	('000 t)	1,310	1,450	<b>1,044</b>	5,422	-20%	-28%
Silver - mined	('000 oz)	1,481	1,209	<b>1,027</b>	5,412	-31%	-15%
Silver - refined	('000 oz)	617	839	<b>462</b>	2,853	-25%	-45%

Throughout this report, figures in italics indicate adjustments made since the figure was previously quoted on the equivalent page or reported for the first time. Production figures are sometimes more precise than the rounded numbers shown, hence small differences may result between the total of the quarter figures and the year to date figures.

## Rio Tinto share of production

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>ALUMINA</b>							
<b>Production ('000 tonnes)</b>							
Jonquière (Vaudreuil)	100%	373	336	360	345	373	1,413
Jonquière (Vaudreuil) specialty Alumina plant	100%	25	31	28	24	24	109
Queensland Alumina	80%	711	668	669	716	713	2,763
São Luis (Alumar)	10%	86	86	99	97	94	368
Yarwun	100%	813	757	671	850	806	3,091
Rio Tinto total alumina production		2,008	1,878	1,826	2,032	2,010	7,744
<b>ALUMINIUM</b>							
<b>Production ('000 tonnes)</b>							
Australia - Bell Bay	100%	45	47	48	48	47	189
Australia - Boyne Island	59%	73	75	75	74	75	296
Australia - Tomago	52%	74	76	77	76	75	303
Canada - six wholly owned	100%	400	400	399	383	375	1,582
Canada - Alouette (Sept-Îles)	40%	58	60	61	62	61	241
Canada - Bécancour	25%	4	4	4	7	18	19
Iceland - ISAL (Reykjavik)	100%	52	52	36	43	45	184
New Zealand - Tiwai Point	79%	71	69	70	69	67	279
Oman - Sohar	20%	19	19	20	20	20	78
Rio Tinto total aluminium production		796	803	789	783	783	3,171
<b>BAUXITE</b>							
<b>Production ('000 tonnes) (a)</b>							
Gove	100%	3,004	2,957	2,968	3,273	2,876	12,201
Porto Trombetas	12%	285	287	385	371	338	1,327
Sangaredi	(b)	1,558	1,630	1,749	1,227	1,879	6,165
Weipa	100%	7,917	8,533	8,695	10,267	8,720	35,411
Rio Tinto total bauxite production		12,763	13,407	13,796	15,137	13,813	55,105

(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.

(b) Rio Tinto has a 22.95% shareholding in the Sangaredi mine but benefits from 45.0% of production.

## Rio Tinto share of production

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>BORATES</b>							
<b>Production ('000 tonnes B<sub>2</sub>O<sub>3</sub> content)</b>							
Rio Tinto Borates - borates	100%	115	138	138	128	126	520
<b>COPPER</b>							
<b>Mine production ('000 tonnes) (a)</b>							
Bingham Canyon	100%	52.5	41.1	57.8	35.4	35.0	186.8
Escondida	30%	76.0	82.7	90.5	92.3	86.2	341.6
Oyu Tolgoi (b)	34%	15.4	13.1	9.5	11.0	11.8	49.1
Rio Tinto total mine production		143.9	136.9	157.9	138.7	133.0	577.4
<b>Refined production ('000 tonnes)</b>							
Escondida	30%	18.7	19.0	16.8	20.5	20.9	75.0
Rio Tinto Kennecott	100%	29.6	63.3	40.3	51.4	26.4	184.6
Rio Tinto total refined production		48.3	82.3	57.1	71.9	47.2	259.6
(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.							
(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.							
<b>DIAMONDS</b>							
<b>Production ('000 carats)</b>							
Argyle	100%	2,786	3,292	3,558	3,363	2,578	12,999
Diavik	60%	1,010	1,188	994	840	857	4,031
Rio Tinto total diamond production		3,796	4,481	4,551	4,203	3,434	17,030
<b>GOLD</b>							
<b>Mine production ('000 ounces) (a)</b>							
Bingham Canyon	100%	53.0	65.1	64.6	52.0	41.9	234.7
Escondida	30%	22.2	22.4	14.6	14.8	10.8	74.0
Oyu Tolgoi (b)	34%	40.2	24.1	8.6	8.2	8.8	81.1
Rio Tinto total mine production		115.4	111.6	87.8	75.0	61.5	389.7
<b>Refined production ('000 ounces)</b>							
Rio Tinto Kennecott	100%	41.7	52.9	60.8	63.3	44.8	218.7
(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.							
(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.							



## Rio Tinto share of production

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>IRON ORE</b>							
<b>Production ('000 tonnes) (a)</b>							
Hamersley mines	(b)	51,218	50,087	55,567	52,521	<b>49,327</b>	209,392
Hamersley - Channar	60%	931	1,451	947	1,452	<b>1,160</b>	4,782
Hope Downs	50%	5,957	6,051	6,077	6,047	<b>5,667</b>	24,132
Iron Ore Company of Canada	59%	2,481	2,532	2,960	2,564	<b>2,560</b>	10,536
Robe River - Pannawonica (Mesas J and A)	53%	1,870	3,329	4,725	4,360	<b>3,880</b>	14,284
Robe River - West Angelas	53%	4,125	4,692	4,840	4,409	<b>4,193</b>	18,066
Rio Tinto iron ore production ('000 tonnes)		66,581	68,141	75,117	71,352	<b>66,787</b>	281,192
Breakdown of Production:							
Pilbara Blend and SP10 Lump (c)		19,978	19,842	21,015	19,930	<b>18,504</b>	80,766
Pilbara Blend and SP10 Fines (c)		28,779	28,463	31,713	30,304	<b>27,734</b>	119,260
Robe Valley Lump		635	1,201	1,650	1,574	<b>1,472</b>	5,060
Robe Valley Fines		1,235	2,128	3,075	2,786	<b>2,407</b>	9,224
Yandicoogina Fines (HIY)		13,473	13,975	14,704	14,194	<b>14,110</b>	56,346
Pilbara iron ore production ('000 tonnes)		64,101	65,610	72,156	68,788	<b>64,227</b>	270,655
IOC Concentrate		890	1,193	1,400	1,146	<b>923</b>	4,629
IOC Pellets		1,590	1,339	1,560	1,418	<b>1,637</b>	5,908
IOC iron ore production ('000 tonnes)		2,481	2,532	2,960	2,564	<b>2,560</b>	10,536
Breakdown of Shipments:							
Pilbara Blend Lump (d)		15,772	18,009	15,948	16,176	<b>14,385</b>	65,906
Pilbara Blend Fines (d)		26,864	32,165	30,032	31,182	<b>26,692</b>	120,243
Robe Valley Lump		457	1,037	1,290	1,246	<b>1,132</b>	4,030
Robe Valley Fines		1,308	2,577	3,349	3,259	<b>2,688</b>	10,493
Yandicoogina Fines (HIY)		12,294	15,212	14,286	15,260	<b>12,913</b>	57,052
SP10 Lump (c)		0	635	2,685	2,072	<b>1,006</b>	5,391
SP10 Fines (c)		1,542	1,747	4,057	2,081	<b>1,089</b>	9,427
Pilbara iron ore shipments ('000 tonnes)		58,236	71,382	71,646	71,277	<b>59,903</b>	272,540
IOC Iron ore shipments ('000 tonnes)		2,092	2,738	2,654	2,636	<b>2,775</b>	10,120
Rio Tinto iron ore shipments ('000 tonnes)		60,328	74,119	74,300	73,913	<b>62,678</b>	282,660
Breakdown of Sales:							
Pilbara Blend Lump (d)		15,772	18,009	15,948	16,176	<b>14,385</b>	65,906
Pilbara Blend Fines (d)		26,864	32,165	30,032	31,182	<b>26,692</b>	120,243
Robe Valley Lump		457	1,037	1,290	1,246	<b>1,132</b>	4,030
Robe Valley Fines		1,308	2,577	3,349	3,259	<b>2,688</b>	10,493
Yandicoogina Fines (HIY)		12,294	15,212	14,286	15,260	<b>12,913</b>	57,052
SP10 Lump (c)		0	635	2,611	1,733	<b>907</b>	4,979
SP10 Fines (c)		1,542	1,747	3,962	1,185	<b>1,104</b>	8,437
Pilbara iron ore sales ('000 tonnes) (e)		58,236	71,382	71,478	70,043	<b>59,820</b>	271,139
Pilbara iron ore sales - consolidated basis ('000 tonnes) (e) (f)		59,541	73,230	73,619	72,166	<b>61,645</b>	278,557
IOC Concentrate		516	1,315	1,425	1,223	<b>1,006</b>	4,479
IOC Pellets		1,576	1,423	1,229	1,413	<b>1,769</b>	5,641
IOC Iron ore sales ('000 tonnes)		2,092	2,738	2,654	2,636	<b>2,775</b>	10,120

- (a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.
- (b) Includes 100% of production from Paraburdoo, Mt Tom Price, Marandoo, Yandicoogina, Brockman, Nammuldi, Silvergrass and the Eastern Range mines. Whilst Rio Tinto owns 54% of the Eastern Range mine, under the terms of the joint venture agreement, Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture and therefore all of the production is included in Rio Tinto's share of production.
- (c) SP10 include other lower grade products. SP10 fines sales also include IOC product that is further blended and sold at port in China.
- (d) Restatement due to separately reporting SP10 lump and SP10 fines products that include other lower grade products.
- (e) Differences between shipments and sales reflect tonnes held for portside trading and material purchased from IOC then further blended and sold at port in China.
- (f) While Rio Tinto has a 53% net beneficial interest in Robe River Iron Associates, it recognises 65% of the assets, liabilities, sales revenues and expenses in its accounts (as 30% is held through a 60% owned subsidiary and 35% is held through a 100% owned subsidiary). The consolidated basis sales reported here include Robe River Iron Associates on a 65% basis to enable comparison with revenue reported in the financial statements.
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## Rio Tinto share of production

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>MOLYBDENUM</b>							
<b>Mine production ('000 tonnes) (a)</b>							
Bingham Canyon	100%	1.9	2.6	2.1	4.7	5.1	11.2
(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.							
<b>SALT</b>							
<b>Production ('000 tonnes)</b>							
Dampier Salt	68%	1,310	1,269	1,392	1,450	1,044	5,422
<b>SILVER</b>							
<b>Mine production ('000 ounces) (a)</b>							
Bingham Canyon	100%	741	700	768	605	538	2,815
Escondida	30%	657	622	488	539	417	2,306
Oyu Tolgoi (b)	34%	83	80	64	64	72	290
Rio Tinto total mine production		1,481	1,403	1,320	1,209	1,027	5,412
<b>Refined production ('000 ounces)</b>							
Rio Tinto Kennecott	100%	617	734	664	839	462	2,853
(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.							
(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.							
<b>TITANIUM DIOXIDE SLAG</b>							
<b>Production ('000 tonnes)</b>							
Rio Tinto Iron & Titanium (a)	100%	296	303	321	286	293	1,206
(a) Quantities comprise 100% of Rio Tinto Fer et Titane and Rio Tinto's 74% interest in Richards Bay Minerals (RBM).							
<b>URANIUM</b>							
<b>Production ('000 lbs U<sub>3</sub>O<sub>8</sub>) (a)</b>							
Energy Resources of Australia	86%	793	620	585	642	676	2,640
(a) ERA production data are drummed U <sub>3</sub> O <sub>8</sub> . On 25 February 2020, Rio Tinto increased its ownership interest in ERA from 68.39% to 86.33%, following completion of its offer to ensure ERA has the funds it needs to meet its current rehabilitation obligations. Production is reported including this change from 1 March 2020.							

Production figures are sometimes more precise than the rounded numbers shown, hence small differences may result between the total of the quarter figures and the year to date figures.

The Rio Tinto percentage shown above is at 31 March 2020.

Rio Tinto's interest in the Rössing operations were sold in 2019. No data for these operations are included in the Share of production table.

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>ALUMINA</b>							
<b>Smelter Grade Alumina - Aluminium Group</b>							
Alumina production ('000 tonnes)							
<i>Australia</i>							
Queensland Alumina Refinery - Queensland	80.0%	888	834	836	895	891	3,454
Yarwun refinery - Queensland	100.0%	813	757	671	850	806	3,091
<i>Brazil</i>							
São Luis (Alumar) refinery	10.0%	859	864	989	966	936	3,679
<i>Canada</i>							
Jonquière (Vaudreuil) refinery - Quebec (a)	100.0%	373	336	360	345	373	1,413
<i>(a) Jonquière's (Vaudreuil's) production shows smelter grade alumina only and excludes hydrate produced and used for specialty alumina.</i>							
<b>Speciality Alumina - Aluminium Group</b>							
Speciality alumina production ('000 tonnes)							
<i>Canada</i>							
Jonquière (Vaudreuil) plant – Quebec	100.0%	25	31	28	24	24	109
<b>Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.</b>							

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>ALUMINIUM</b>							
<b>Primary Aluminium</b>							
Primary aluminium production ('000 tonnes)							
<i>Australia</i>							
Bell Bay smelter - Tasmania	100.0%	45	47	48	48	47	189
Boyne Island smelter - Queensland	59.4%	122	126	125	125	126	499
Tomago smelter - New South Wales	51.6%	144	147	149	148	145	588
<i>Canada</i>							
Alma smelter - Quebec	100.0%	115	118	119	119	118	472
Alouette (Sept-Îles) smelter - Quebec	40.0%	144	150	153	155	153	602
Arvida smelter - Quebec	100.0%	43	44	45	44	44	175
Arvida AP60 smelter - Quebec	100.0%	14	15	15	15	15	60
Bécancour smelter - Quebec	25.1%	17	16	16	28	72	77
Grande-Baie smelter - Quebec	100.0%	58	58	59	59	58	233
Kitimat smelter - British Columbia	100.0%	106	102	96	81	76	385
Laterrière smelter - Quebec	100.0%	64	64	65	65	64	257
<i>Iceland</i>							
ISAL (Reykjavik) smelter	100.0%	52	52	36	43	45	184
<i>New Zealand</i>							
Tiwai Point smelter	79.4%	89	87	88	87	84	351
<i>Oman</i>							
Sohar smelter	20.0%	97	97	98	98	99	391

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>BAUXITE</b>							
Bauxite production ('000 tonnes)							
<i>Australia</i>							
Gove mine - Northern Territory	100.0%	3,004	2,957	2,968	3,273	2,876	12,201
Weipa mine - Queensland	100.0%	7,917	8,533	8,695	10,267	8,720	35,411
<i>Brazil</i>							
Porto Trombetas (MRN) mine	12.0%	2,372	2,393	3,205	3,090	2,814	11,060
<i>Guinea</i>							
Sangaredi mine (a)	23.0%	3,463	3,623	3,887	2,727	4,175	13,701
<b>Rio Tinto share of bauxite shipments</b>							
Share of total bauxite shipments ('000 tonnes)		12,725	13,122	13,912	14,849	13,567	54,607
Share of third party bauxite shipments ('000 tonnes)		8,842	9,477	10,361	10,968	9,469	39,648

(a) Rio Tinto has a 22.95% shareholding in the Sangaredi mine but benefits from 45.0% of production.

## BORATES

Rio Tinto Borates - borates	100.0%						
<i>US</i>							
Borates ('000 tonnes) (a)		115	138	138	128	126	520

(a) Production is expressed as B<sub>2</sub>O<sub>3</sub> content.

Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>COPPER &amp; GOLD</b>							
<b>Escondida</b>	30.0%						
<i>Chile</i>							
Sulphide ore to concentrator ('000 tonnes)		32,027	32,519	33,956	33,659	<b>33,440</b>	132,161
Average copper grade (%)		0.82	0.86	0.86	0.87	<b>0.82</b>	0.85
Mill production (metals in concentrates):							
Contained copper ('000 tonnes)		216.9	230.9	245.0	246.1	<b>230.0</b>	938.9
Contained gold ('000 ounces)		74	75	49	49	<b>36</b>	247
Contained silver ('000 ounces)		2,189	2,074	1,626	1,798	<b>1,390</b>	7,687
Recoverable copper in ore stacked for leaching ('000 tonnes) (a)		36.5	44.7	56.8	61.7	<b>57.2</b>	199.7
Refined production from leach plants:							
Copper cathode production ('000 tonnes)		62.4	63.5	55.9	68.4	<b>69.6</b>	250.2

(a) The calculation of copper in material mined for leaching is based on ore stacked at the leach pad.

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**



## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>COPPER &amp; GOLD (continued)</b>							
<b>Rio Tinto Kennecott</b>							
<b>Bingham Canyon mine</b>	100.0%						
<i>Utah, US</i>							
Ore treated ('000 tonnes)		10,685	10,123	10,084	11,141	10,315	42,033
Average ore grade:							
Copper (%)		0.55	0.46	0.64	0.36	0.37	0.50
Gold (g/t)		0.25	0.33	0.30	0.23	0.22	0.28
Silver (g/t)		2.76	2.84	2.74	2.09	2.16	2.60
Molybdenum (%)		0.032	0.039	0.039	0.061	0.058	0.043
Copper concentrates produced ('000 tonnes)		207	161	207	156	148	731
Average concentrate grade (% Cu)		25.3	25.5	27.8	22.6	23.7	25.5
Production of metals in copper concentrates:							
Copper ('000 tonnes) (a)		52.5	41.1	57.8	35.4	35.0	186.8
Gold ('000 ounces)		53	65	65	52	42	235
Silver ('000 ounces)		741	700	768	605	538	2,815
Molybdenum concentrates produced ('000 tonnes):		3.8	5.0	4.3	9.4	10.4	22.4
Molybdenum in concentrates ('000 tonnes)		1.9	2.6	2.1	4.7	5.1	11.2
<b>Kennecott smelter &amp; refinery</b>							
	100.0%						
Copper concentrates smelted ('000 tonnes)		204	207	160	216	161	787
Copper anodes produced ('000 tonnes) (b)		33.3	60.3	39.3	53.7	24.0	186.6
Production of refined metal:							
Copper ('000 tonnes)		29.6	63.3	40.3	51.4	26.4	184.6
Gold ('000 ounces) (c)		41.7	52.9	60.8	63.3	44.8	218.7
Silver ('000 ounces) (c)		617	734	664	839	462	2,853

(a) Includes a small amount of copper in precipitates.

(b) New metal excluding recycled material.

(c) Includes gold and silver in intermediate products.

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>COPPER &amp; GOLD (continued)</b>							
<b>Turquoise Hill Resources</b>							
<b>Oyu Tolgoi mine (a)</b>	33.5%						
<i>Mongolia</i>							
Ore Treated ('000 tonnes)		9,255	10,394	10,040	11,088	<b>10,889</b>	40,777
Average mill head grades:							
Copper (%)		0.57	0.46	0.37	0.42	<b>0.42</b>	0.45
Gold (g/t)		0.58	0.31	0.14	0.15	<b>0.15</b>	0.29
Silver (g/t)		1.25	1.20	1.03	1.06	<b>1.14</b>	1.13
Copper concentrates produced ('000 tonnes)		210.1	180.6	131.3	152.6	<b>164.5</b>	674.6
Average concentrate grade (% Cu)		21.8	21.7	21.7	21.6	<b>21.4</b>	21.7
Production of metals in concentrates:							
Copper in concentrates ('000 tonnes)		45.8	39.2	28.4	32.9	<b>35.2</b>	146.3
Gold in concentrates ('000 ounces)		120.1	71.8	25.6	24.3	<b>26.2</b>	241.8
Silver in concentrates ('000 ounces)		247	239	191	190	<b>214</b>	867
Sales of metals in concentrates:							
Copper in concentrates ('000 tonnes)		38.5	46.6	32.5	32.3	<b>25.8</b>	149.9
Gold in concentrates ('000 ounces)		98	116	35	25	<b>20</b>	274
Silver in concentrates ('000 ounces)		200	245	207	244	<b>146</b>	896
(a) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources.							
<b>DIAMONDS</b>							
<b>Argyle Diamonds</b>	100.0%						
<i>Western Australia</i>							
AK1 ore processed ('000 tonnes)		1,248	1,427	1,716	1,977	<b>1,322</b>	6,367
AK1 diamonds produced ('000 carats)		2,786	3,292	3,558	3,363	<b>2,578</b>	12,999
<b>Diavik Diamonds</b>	60.0%						
<i>Northwest Territories, Canada</i>							
Ore processed ('000 tonnes)		620	671	628	516	<b>571</b>	2,435
Diamonds recovered ('000 carats)		1,683	1,980	1,656	1,400	<b>1,428</b>	6,719

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>IRON ORE</b>							
<b>Rio Tinto Iron Ore</b>							
<i>Western Australia</i>							
<b>Pilbara Operations</b>							
Saleable iron ore production ('000 tonnes)							
Hamersley mines	(a)	51,218	50,087	55,567	52,521	<b>49,327</b>	209,392
Hamersley - Channar	60.0%	1,552	2,419	1,579	2,420	<b>1,934</b>	7,970
Hope Downs	50.0%	11,913	12,101	12,155	12,095	<b>11,334</b>	48,264
Robe River - Pannawonica (Mesas J and A)	53.0%	3,529	6,282	8,914	8,225	<b>7,320</b>	26,951
Robe River - West Angelas	53.0%	7,783	8,853	9,133	8,318	<b>7,912</b>	34,086
Total production ('000 tonnes)		75,995	79,741	87,347	83,579	<b>77,827</b>	326,663
Breakdown of total production:							
Pilbara Blend and SP10 Lump (b)		24,068	24,291	25,434	24,326	<b>22,592</b>	98,119
Pilbara Blend and SP10 Fines (b)		34,924	35,194	38,296	36,833	<b>33,806</b>	145,247
Robe Valley Lump		1,198	2,266	3,113	2,969	<b>2,778</b>	9,547
Robe Valley Fines		2,331	4,015	5,802	5,256	<b>4,542</b>	17,404
Yandicoogina Fines (HIY)		13,473	13,975	14,704	14,194	<b>14,110</b>	56,346
Breakdown of total shipments:							
Pilbara Blend Lump (c)		18,968	21,653	19,329	19,680	<b>17,506</b>	79,630
Pilbara Blend Fines (c)		33,016	39,358	36,947	39,186	<b>33,197</b>	148,508
Robe Valley Lump		863	1,957	2,433	2,350	<b>2,135</b>	7,603
Robe Valley Fines		2,468	4,862	6,318	6,149	<b>5,071</b>	19,797
Yandicoogina Fines (HIY)		12,294	15,212	14,286	15,260	<b>12,913</b>	57,052
SP10 Lump (b)		0	635	2,685	2,072	<b>1,006</b>	5,391
SP10 Fines (b)		1,542	1,747	4,057	2,081	<b>1,089</b>	9,427
Total shipments ('000 tonnes) (d)		69,150	85,423	86,055	86,779	<b>72,916</b>	327,408
Breakdown of total sales:							
Pilbara Blend Lump (c)		18,968	21,653	19,329	19,680	<b>17,506</b>	79,630
Pilbara Blend Fines (c)		33,016	39,358	36,947	39,186	<b>33,197</b>	148,508
Robe Valley Lump		863	1,957	2,433	2,350	<b>2,135</b>	7,603
Robe Valley Fines		2,468	4,862	6,318	6,149	<b>5,071</b>	19,797
Yandicoogina Fines (HIY)		12,294	15,212	14,286	15,260	<b>12,913</b>	57,052
SP10 Lump (b)		0	635	2,611	1,733	<b>907</b>	4,979
SP10 Fines (b)		1,542	1,747	3,962	1,185	<b>1,104</b>	8,437
Total sales ('000 tonnes)		69,150	85,423	85,888	85,545	<b>72,833</b>	326,006

(a) Includes 100% of production from Paraburdoo, Mt Tom Price, Marandoo, Yandicoogina, Brockman, Nammuldi, Silvergrass and the Eastern Range mines. Whilst Rio Tinto owns 54% of the Eastern Range mine, under the terms of the joint venture agreement, Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture and therefore all of the production is included in Rio Tinto's share of production.

(b) SP10 include other lower grade products. SP10 fines sales also include IOC product that is further blended and sold at port in China.

(c) Restatement due to separately reporting SP10 lump and SP10 fines products that include other lower grade products.

(d) Shipments represent iron ore exported from Western Australian ports: a portion of this material is shipped for portside trading to be further blended and subsequently sold.

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Full Year 2019
<b>IRON ORE (continued)</b>							
<b>Iron Ore Company of Canada</b>	58.7%						
<i>Newfoundland &amp; Labrador and Quebec in Canada</i>							
Saleable iron ore production:							
Concentrates ('000 tonnes)		1,516	2,031	2,384	1,951	1,572	7,883
Pellets ('000 tonnes)		2,709	2,280	2,657	2,415	2,788	10,061
IOC Total production ('000 tonnes)		4,225	4,311	5,041	4,366	4,360	17,943
Shipments:							
Concentrates ('000 tonnes)		878	2,239	2,427	2,083	1,713	7,628
Pellets ('000 tonnes)		2,684	2,424	2,093	2,406	3,013	9,607
IOC Total Shipments ('000 tonnes)		3,562	4,663	4,520	4,490	4,726	17,235
IOC Total Sales ('000 tonnes)		3,562	4,663	4,520	4,490	4,726	17,235
<b>Global Iron Ore Totals</b>							
Iron Ore Production ('000 tonnes)		80,219	84,052	92,389	87,945	82,187	344,606
Iron Ore Shipments ('000 tonnes)		72,712	90,085	90,576	91,269	77,642	344,642
<b>SALT</b>							
<b>Dampier Salt</b>	68.4%						
<i>Western Australia</i>							
Salt production ('000 tonnes)		1,917	1,856	2,036	2,121	1,527	7,931
<b>TITANIUM DIOXIDE SLAG</b>							
<b>Rio Tinto Iron &amp; Titanium</b>	100.0%						
<i>Canada and South Africa</i>							
<i>(Rio Tinto share) (a)</i>							
Titanium dioxide slag ('000 tonnes)		296	303	321	286	293	1,206
<i>(a) Quantities comprise 100% of Rio Tinto Fer et Titane and Rio Tinto's 74% interest in Richards Bay Minerals' production. Ilmenite mined in Madagascar is being processed in Canada.</i>							
<b>URANIUM</b>							
<b>Energy Resources of Australia Ltd</b>							
<b>Ranger mine (a)</b>	86.3%						
<i>Northern Territory, Australia</i>							
U <sub>3</sub> O <sub>8</sub> Production ('000 lbs)		1,160	906	855	939	928	3,860
<i>(a) ERA production data are drummed U<sub>3</sub>O<sub>8</sub>. On 25 February 2020, Rio Tinto increased its ownership interest in ERA from 68.39% to 86.33%, following completion of its offer to ensure ERA has the funds it needs to meet its current rehabilitation obligations. Production is reported including this change from 1 March 2020.</i>							
<b>Rössing Uranium Ltd (a) (b)</b>	0.0%						
<i>Namibia</i>							
U <sub>3</sub> O <sub>8</sub> Production ('000 lbs)		1,168	1,665	247			3,080

*(a) Rössing production data are drummed U<sub>3</sub>O<sub>8</sub>.*

*(b) On 16 July 2019, Rio Tinto completed the sale of its entire 68.62% interest in the Rossing mine in Namibia to China National Uranium Corporation Limited. Production is reported up to the date of completion.*

**Rio Tinto percentage interest shown above is at 31 March 2020. The data represent full production and sales on a 100% basis unless otherwise stated.**