

## Rio Tinto releases first quarter production results

16 April 2019

Rio Tinto chief executive J-S Jacques said “Our iron ore business faced several challenges at the start of this year, particularly from tropical cyclones. As a result, and following the continuing assessment of damage at the port resulting from the cyclones and other minor disruptions, 2019 guidance for Pilbara shipments is reduced to between 333 and 343 million tonnes. The quarterly operational performance in our other products was solid, generally higher than last year. Our focus remains on safety, delivering our ‘value over volume’ strategy and allocating capital with discipline, to continue delivering superior returns to our shareholders in the short, medium and long term.”

|  |    | Q1 2019 | vs Q1 2018 | vs Q4 2018 |
|--|----|---------|------------|------------|
| Pilbara iron ore shipments (100% basis)  | Mt | 69.1    | -14%       | -21%       |
| Pilbara iron ore production (100% basis) | Mt | 76.0    | -9%        | -12%       |
| Bauxite                                  | kt | 12,763  | +1%        | +8%        |
| Aluminium                                | kt | 796     | +0%        | -3%        |
| Mined copper                             | kt | 143.9   | +3%        | -5%        |
| Titanium dioxide slag                    | kt | 296     | +1%        | +1%        |
| IOC iron ore pellets and concentrate     | Mt | 2.5     | +5%        | -13%       |

### Operational update

- Pilbara iron ore shipments of 69.1 million tonnes (100 per cent basis) in the first quarter were 14 per cent lower than the first quarter of 2018. Production was significantly impacted by the weather disruptions in March and a fire at Cape Lambert A in January. These events will have an impact on second quarter performance.
- 2019 guidance for Pilbara shipments has been revised to between 333 and 343 million tonnes (previously between 338 and 350 million tonnes, 100 per cent basis). The reduction reflects a slower ramp up and ongoing disruption to shipments caused by weather and other disruptions.
- Commissioning of the Amrun bauxite mine was completed in March 2019, with the project delivered under budget and ahead of schedule. Bauxite production of 12.8 million tonnes in the quarter was one per cent higher than the same period of 2018, despite several weather events throughout the quarter significantly impacting production at the Amrun, Weipa and Gove mines.
- Aluminium production of 0.8 million tonnes was in line with the first quarter of 2018. Excluding the non-managed Becancour smelter, which was impacted by a lock-out, production was one per cent higher, reflecting continued productivity creep.
- First quarter mined copper production of 144 thousand tonnes was three per cent higher than the first quarter of 2018, with strong contributions from Oyu Tolgoi and Rio Tinto Kennecott.
- Titanium dioxide slag production of 296 thousand tonnes was one per cent higher than the first quarter of 2018.
- First quarter production at Iron Ore Company of Canada was five per cent higher than the corresponding quarter of 2018, despite adverse weather conditions impacting production in February.
- At the Oyu Tolgoi Underground Project the review of the mine design and the development schedule is continuing. The commissioning of the main production shaft (Shaft 2) is now expected to complete in October 2019.
- On 27 February 2019, Rio Tinto announced it had discovered copper-gold mineralisation in the Paterson Province in the far east Pilbara region of Western Australia.

- On 8 April 2019, Rio Tinto announced the approval of the construction of the Zulti South project at Richards Bay Minerals (RBM) in South Africa for \$463 million (Rio Tinto share \$343 million).
- On 15 April 2019, Rio Tinto announced it had committed \$302 million (\$166 million Rio Tinto share) of additional expenditure to advance its Resolution Copper project in the US state of Arizona

*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 2018 is excluded from Rio Tinto share of production data but assets sold in 2019 remain in comparisons.*

## IRON ORE

### Rio Tinto share of production (million tonnes)

|  | Q1 2019     | vs Q1 2018  | vs Q4 2018  |
|--|-------------|-------------|-------------|
| Pilbara Blend Lump                           | 20.0        | -4%         | -8%         |
| Pilbara Blend Fines (a)                      | 28.8        | -3%         | -9%         |
| Robe Valley Lump                             | 0.6         | -60%        | -55%        |
| Robe Valley Fines                            | 1.2         | -60%        | -52%        |
| Yandicoogina Fines (HIY)                     | 13.5        | -3%         | -9%         |
| <b>Total Pilbara production</b>              | <b>64.1</b> | <b>-7%</b>  | <b>-11%</b> |
| <b>Total Pilbara production (100% basis)</b> | <b>76.0</b> | <b>-9%</b>  | <b>-12%</b> |
| <b>Total Pilbara shipments (100% basis)</b>  | <b>69.1</b> | <b>-14%</b> | <b>-21%</b> |

(a) Pilbara Blend Fines sales include 1.5 million tonnes of other lower grade materials in Q1 2019

### **Pilbara operations**

Pilbara operations produced 76.0 million tonnes (Rio Tinto share 64.1 million tonnes) in the first quarter, nine per cent lower than the same period in 2018. Production was impacted by a fire at Cape Lambert A in January, which affected Robe Valley Lump and Fines production, and significant disruptions caused primarily by Tropical Cyclone Veronica in March.

First quarter sales of 69.1 million tonnes (Rio Tinto share 58.2 million tonnes) were 14 per cent lower than the same period of last year due to the lower production and damage to the port facilities caused by the cyclone.

Approximately 16 per cent 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 per cent of sales in the quarter were made free on board (FOB), with the remainder sold including freight.

### **Pilbara projects**

Following approval of the \$2.6 billion investment in the Koodaideri replacement mine in November 2018, the project is now progressing to plan with engineering and procurement activities on schedule and site construction works commenced.

The two Robe River Joint Venture projects (West Angelas and Robe Valley), which will sustain production capacity, are progressing. The projects are currently in the process of seeking environmental approvals. Engineering and procurement activities are on schedule and establishment activities at both locations have commenced.

### **2019 guidance**

On 1 April 2019, Rio Tinto announced that the impact of the disruption caused by Tropical Cyclone Veronica in March, combined with the impact of the fire at Cape Lambert A in January, was expected to result in a loss of approximately 14 million tonnes of production in 2019.

Following further assessment, the damage to the port from Tropical Cyclone Veronica is expected to result in ongoing disruption to shipments, with recovery work further hindered by Tropical Cyclone Wallace. As a result, Rio Tinto's Pilbara shipments in 2019 are now expected to be between 333 and 343 million tonnes (previously at the lower end of the guidance range of between 338 and 350 million tonnes, 100 per cent basis). The recovery in the second quarter will remain subject to weather.

On 6 April 2019, a minor fire occurred in a screen house at the East Intercourse Island port. Operations at the facility have restarted.

Rio Tinto's Pilbara unit cost guidance in 2019 remains at \$13 - \$14 per tonne.

## ALUMINIUM

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

|                               | Q1 2019 | vs Q1 2018 | vs Q4 2018 |
|-------------------------------|---------|------------|------------|
| <b>Rio Tinto Aluminium</b>    |         |            |            |
| Bauxite                       | 12,763  | +1%        | +8%        |
| Bauxite third party shipments | 8,842   | +7%        | +20%       |
| Alumina                       | 2,008   | +1%        | -1%        |
| Aluminium                     | 796     | +0%        | -3%        |

#### ***Bauxite***

First quarter bauxite production of 12.8 million tonnes was one per cent higher than the same period of 2018. Increased production capacity following the expansion of Amrun in Queensland was partly offset by weather events throughout the quarter at Weipa, Amrun and Gove, which significantly impacted production. Amrun ramp-up is progressing well, with production rates as per plan. The expansion project at CBG, a non-managed JV, is progressing, with full ramp up expected in 2019.

8.8 million tonnes of bauxite were shipped to third parties in the first quarter, seven per cent higher than same period of 2018.

#### ***Amrun***

The Amrun project was officially opened on 8 March 2019 and commissioning is complete. The project and construction workforce has been demobilised.

#### ***Alumina***

Alumina production in the first quarter of 2019 was one per cent higher than the same period in 2018.

#### ***Aluminium***

Aluminium production of 0.8 million tonnes in the first quarter was in line with the corresponding period of 2018. Excluding production from the non-managed Becancour smelter, which continues to be impacted by a lock-out, production was one per cent higher, reflecting continued productivity creep.

#### ***Kemano***

At the Kemano hydro-power facility at Kitimat, British Columbia, boring of the tunnel commenced on 9 March 2019. The \$0.5 billion project is due to be completed by late-2020.

#### ***2019 guidance***

2019 guidance is unchanged. Rio Tinto's expected share of bauxite production in 2019 is between 56 and 59 million tonnes. Aluminium production guidance is between 3.2 and 3.4 million tonnes and alumina production guidance is 8.1 to 8.4 million tonnes.

## COPPER & DIAMONDS

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

|                               | Q1 2019 | vs Q1 2018 | vs Q4 2018 |
|-------------------------------|---------|------------|------------|
| <b>Mined copper</b>           |         |            |            |
| Rio Tinto Kennecott           | 52.5    | +48%       | -10%       |
| Escondida                     | 76.0    | -16%       | -5%        |
| Oyu Tolgoi                    | 15.4    | +18%       | +11%       |
| <b>Refined copper</b>         |         |            |            |
| Rio Tinto Kennecott           | 29.6    | -16%       | -54%       |
| Escondida                     | 18.7    | -10%       | -13%       |
| <b>Diamonds ('000 carats)</b> |         |            |            |
| Argyle                        | 2,786   | -22%       | -13%       |
| Diavik                        | 1,010   | -5%        | -6%        |

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

First quarter mined copper production was 48 per cent higher than the same period of 2018 as mining activity continued in a higher grade area of the pit, coupled with productivity improvements and increased plant throughput.

Refined copper was 16 per cent lower than the first quarter of 2018 and significantly lower than the previous quarter due to a planned anode furnace shutdown at the smelter in February.

Rio Tinto Kennecott continues to toll and purchase third party concentrate to optimise smelter utilisation, with 5.6 thousand tonnes of concentrate received for processing in the first quarter of 2019, compared with 51.8 thousand tonnes in the first quarter of 2018. Purchased and tolled copper concentrate are excluded from reported production figures.

As previously guided, the production profile will see increased variability in grade in 2019 as operations mine in lower levels of the pit, together with waste stripping related to the south wall pushback expansion. Anticipated south wall pushback grades begin to increase in late-2020 and are expected to offset this variability over the longer term.

Grades were also higher in the first quarter for molybdenum, with concentrate production 29 per cent higher than the same quarter in 2018. Molybdenum concentrate production is expected to increase in the second quarter of 2019.

#### ***Escondida***

Mined copper production at Escondida in the first quarter of 2019 was 16 per cent lower than the same period of 2018 due to lower grades.

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

Mined copper production from the open pit in the first quarter of 2019 was 18 per cent higher than the same period in 2018, with higher copper grades and recovery partly offset by lower plant throughput due to the processing of harder ore.

#### ***Oyu Tolgoi Underground Project***

Work is underway at the Oyu Tolgoi Underground Project to understand the overall cost and schedule impacts resulting from the review of the mine design and delays with the fit-out and commissioning work on Shaft 2, as announced in February 2019.

Work continues on critical Shaft 2 equipping activities, central heating plant, mine infrastructure, underground materials handling systems and on priority underground development. Pre sinking works for Shaft 3 and Shaft 4 have commenced.

The mine design work, announced in February, to adjust to more detailed geotechnical information and difficult ground conditions continues. Also as announced in February, there have been further delays in the technically complex fit-out and commissioning work on the main production and services shaft (Shaft 2). It is now anticipated that the commissioning of Shaft 2 will be completed by the end of October 2019. This further delay in Shaft 2 will impact on the timeline for other activities in the underground development, and the impact of this and of the mine design work referred to above on the overall project schedule and costs will be announced once the necessary work has been completed.

The total project workforce was around 9,000 at the end of the first quarter, with a continued high (89 per cent) participation rate of Mongolian nationals.

### ***Resolution Copper***

On 15 April 2019, Rio Tinto announced it had committed \$302 million (\$166 million Rio Tinto share) of additional expenditure to advance its Resolution Copper project in the US state of Arizona. The investment will fund additional drilling, ore-body studies, infrastructure improvements and permitting activities as Rio Tinto looks to progress the project to the final stage of the project's permitting phase.

### ***Diamonds***

At Argyle, carat production in the first quarter of 2019 was 22 per cent lower than the same period in 2018 due to lower recovered grade.

At Diavik, carats recovered in the first quarter were five per cent lower than the first quarter of 2018, as lower recovered grades were partially offset by higher ore processing.

### ***2019 guidance***

2019 guidance is unchanged. Rio Tinto's share of mined copper production for 2019 is expected to be between 550 and 600 thousand tonnes, subject to grade availability. Refined copper production is expected to be between 220 and 250 thousand tonnes.

Diamond production guidance for 2019 is between 15 and 17 million carats.

## ENERGY & MINERALS

### Rio Tinto share of production

|  | Q1 2019 | vs Q1 2018 | vs Q4 2018 |
|--|---------|------------|------------|
| <b>Iron ore pellets and concentrate (million tonnes)</b> |         |            |            |
| IOC  | 2.5     | +5%        | -13%       |
| <b>Minerals ('000 tonnes)</b>                            |         |            |            |
| Borates – B <sub>2</sub> O <sub>3</sub> content          | 115     | -7%        | -3%        |
| Salt   | 1,310   | -13%       | -12%       |
| Titanium dioxide slag                                    | 296     | +1%        | +1%        |
| <b>Uranium ('000 lbs)</b>                                |         |            |            |
| Energy Resources of Australia                            | 793     | +19%       | -14%       |
| Rössing  | 802     | -6%        | -18%       |

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

First quarter production at IOC was five per cent higher than the corresponding period of 2018, despite adverse weather disruptions experienced in February.

Pellet production of 2.7 million tonnes (Rio Tinto share 1.6 million tonnes) was two per cent higher than the first quarter of 2018. Concentrate production for sale of 1.5 million tonnes (Rio Tinto share 0.9 million tonnes) was 11 per cent higher than the first quarter of 2018.

#### **Borates**

First quarter borates production was seven per cent lower than the first quarter of 2018, due to the impact of higher than average rainfall and the temporary curtailment of production at the evaporator. Normal production levels resumed in March, and production will continue to be aligned to customer demand.

#### **Iron and Titanium**

Titanium dioxide feedstock production in the first quarter was one per cent higher than the same period of 2018.

Three of nine furnaces at Rio Tinto Fer et Titane were idle for most of the first quarter, however two of these furnaces are restarting and currently ramping up. Three of four furnaces at RBM are currently in operation. A decision to re-start idle furnaces will be based on maximising value over volume.

On 8 April 2019, Rio Tinto approved the next stage in the development of RBM through the construction of the Zulti South project. The \$463 million (Rio Tinto share \$343 million) investment will sustain RBM's current capacity and extend the mine life.

#### **Salt**

Salt production in the first quarter of 2019 was 13 per cent lower than the first quarter of 2018 due to the impact of Tropical Cyclone Veronica. Production will continue to be aligned to customer demand.

#### **Uranium**

Energy Resources of Australia continues to process existing stockpiles. First quarter production was 19 per cent higher than the first quarter of 2018 due to higher mill throughput, grade and recoveries.

First quarter production at Rössing Uranium was six per cent lower than the same quarter of 2018, with lower mill throughput partially offset by higher grade.

On 26 November 2018, Rio Tinto announced it had entered into a binding agreement with China National Uranium Corporation for the sale of its entire 68.62 per cent stake in Rössing Uranium. The transaction is subject to certain conditions precedent including merger approval from the Namibian Competition

Commission. Subject to these conditions precedent being met, the transaction is expected to complete in the first half of 2019.

**2019 guidance**

2019 guidance is unchanged. At IOC, guidance for Rio Tinto's expected share of iron ore pellets and concentrates production in 2019 is between 11.3 and 12.3 million tonnes. Titanium dioxide slag production guidance is between 1.2 and 1.4 million tonnes, and boric oxide equivalent production guidance is 0.5 million tonnes.



## 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 2019 was \$124 million, compared with \$101 million in the first quarter of 2018. Approximately 51 per cent of this expenditure was incurred by central exploration, 38 per cent by Copper & Diamonds, seven per cent by Energy & Minerals and the remainder by Iron Ore and Aluminium.

There were no significant divestments of central exploration properties in the first quarter of 2019.

### **Exploration highlights**

Rio Tinto has a strong portfolio of projects with activity in 16 countries across seven commodities. The bulk of the exploration expenditure in this quarter was focused on copper targets in Australia, Canada, Chile, Kazakhstan, Mongolia, Papua New Guinea, Peru, Serbia, United States, Zambia and diamond projects in Canada. Mine-lease exploration continued at a number of Rio Tinto managed businesses including Pilbara Iron in Australia, Oyu Tolgoi in Mongolia, Weipa in Australia, Diavik in Canada, as well as Bingham, Resolution and Boron in the US.

A summary of activity for the quarter is as follows:

| <b>Product Groups</b> | <b>Studies stage</b>  | <b>Advanced exploration projects</b>   | <b>Greenfield/ Brownfield programmes</b>  |
|-----------------------|---|--|---|
| Aluminium             | Cape York, Australia  | Amargosa, Brazil<br>Sanxai, Laos   | Cape York, Australia  |
| Copper & Diamonds     | Copper/molybdenum:<br>Resolution, US  | Copper: La Granja, Peru<br>Nickel: Tamarack, US<br>Diamonds: FalCon,<br>Canada | Copper Greenfield:<br>Australia, Chile, China,<br>Kazakhstan, Mongolia,<br>Papua New Guinea, Peru,<br>Serbia, US, Zambia<br>Copper Brownfield:<br>Bingham, Resolution, US<br>Oyu Tolgoi, Mongolia<br>Nickel Greenfield:<br>Canada, Uganda<br>Diamonds Greenfield:<br>Canada<br>Diamonds Brownfield:<br>Diavik, Canada |
| Energy & Minerals     | Lithium borates: Jadar,<br>Serbia<br>Potash: KP405, Canada<br>Heavy mineral sands:<br>Mutamba, Mozambique<br>and Zulti South, South<br>Africa | Uranium: Roughrider,<br>Canada   | Heavy mineral sands:<br>Tanzania<br>Industrial Minerals: Serbia   |
| Iron Ore              | Pilbara, Australia  | Pilbara, Australia   | Pilbara, Australia  |

## **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.

Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual production, performance or results of Rio Tinto to be materially different from any future production, performance or results expressed or implied by such forward-looking statements. Such forward-looking statements could be influenced by such risk factors as identified in Rio Tinto's most recent Annual Report and Accounts in Australia and the United Kingdom and the most recent Annual Report on Form 20-F filed with the United States Securities and Exchange Commission (the "SEC") or Form 6-Ks furnished to, or filed with, the SEC. Forward-looking statements should, therefore, be construed in light of such risk factors and undue reliance should not be placed on forward-looking statements. These forward-looking statements speak only as of the date of this announcement. Rio Tinto expressly disclaims any obligation or undertaking (except as required by applicable law, the UK Listing Rules, the Disclosure and Transparency Rules of the Financial Conduct Authority and the Listing Rules of the Australian Securities Exchange) to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in Rio Tinto's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

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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# Rio Tinto production summary

## Rio Tinto share of production

|                                    |            | Quarter    |            |               | Full Year | % Change             |                      |
|------------------------------------|------------|------------|------------|---------------|-----------|----------------------|----------------------|
|                                    |            | 2018<br>Q1 | 2018<br>Q4 | 2019<br>Q1    | 2018      | Q1 19<br>vs<br>Q1 18 | Q1 19<br>vs<br>Q4 18 |
| <b>Principal Commodities</b>       |            |            |            |               |           |                      |                      |
| Alumina                            | ('000 t)   | 1,990      | 2,020      | <b>2,008</b>  | 7,980     | 1%                   | -1%                  |
| Aluminium                          | ('000 t)   | 795        | 817        | <b>796</b>    | 3,231     | 0%                   | -3%                  |
| Bauxite                            | ('000 t)   | 12,653     | 11,790     | <b>12,763</b> | 50,421    | 1%                   | 8%                   |
| Borates                            | ('000 t)   | 124        | 118        | <b>115</b>    | 512       | -7%                  | -3%                  |
| Copper - mined                     | ('000 t)   | 139.3      | 151.9      | <b>143.9</b>  | 607.6     | 3%                   | -5%                  |
| Copper - refined                   | ('000 t)   | 56.1       | 86.1       | <b>48.3</b>   | 274.8     | -14%                 | -44%                 |
| Diamonds                           | ('000 cts) | 4,616      | 4,290      | <b>3,796</b>  | 18,427    | -18%                 | -12%                 |
| Iron Ore                           | ('000 t)   | 71,436     | 75,018     | <b>66,581</b> | 290,800   | -7%                  | -11%                 |
| Titanium dioxide slag              | ('000 t)   | 294        | 294        | <b>296</b>    | 1,116     | 1%                   | 1%                   |
| Uranium                            | ('000 lbs) | 1,515      | 1,904      | <b>1,595</b>  | 6,764     | 5%                   | -16%                 |
| <b>Other Metals &amp; Minerals</b> |            |            |            |               |           |                      |                      |
| Gold - mined                       | ('000 oz)  | 69.4       | 118.4      | <b>115.4</b>  | 372.1     | 66%                  | -2%                  |
| Gold - refined                     | ('000 oz)  | 40.8       | 58.6       | <b>41.7</b>   | 198.0     | 2%                   | -29%                 |
| Molybdenum                         | ('000 t)   | 1.5        | 2.2        | <b>1.9</b>    | 5.8       | 29%                  | -15%                 |
| Salt                               | ('000 t)   | 1,514      | 1,496      | <b>1,310</b>  | 6,153     | -13%                 | -12%                 |
| Silver - mined                     | ('000 oz)  | 1,237      | 1,586      | <b>1,481</b>  | 5,656     | 20%                  | -7%                  |
| Silver - refined                   | ('000 oz)  | 867        | 807        | <b>617</b>    | 2,865     | -29%                 | -24%                 |

Throughout this report, figures in italics indicate adjustments made since the figure was previously quoted on the equivalent page. 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 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|---|--------------------|---------|---------|---------|---------|---------|----------------|
| <b>ALUMINA</b>                                |                    |         |         |         |         |         |                |
| <b>Production ('000 tonnes)</b>               |                    |         |         |         |         |         |                |
| Jonqui re (Vaudreuil)                         | 100%               | 362     | 365     | 363     | 354     | 373     | 1,444          |
| Jonqui re (Vaudreuil) specialty Alumina plant | 100%               | 31      | 32      | 31      | 29      | 25      | 124            |
| Queensland Alumina                            | 80%                | 717     | 752     | 748     | 742     | 711     | 2,958          |
| S o Luis (Alumar)                             | 10%                | 87      | 87      | 85      | 92      | 86      | 351            |
| Yarwun  | 100%               | 793     | 763     | 744     | 803     | 813     | 3,103          |
| Rio Tinto total alumina production            |                    | 1,990   | 1,999   | 1,972   | 2,020   | 2,008   | 7,980          |
| <b>ALUMINIUM</b>                              |                    |         |         |         |         |         |                |
| <b>Production ('000 tonnes)</b>               |                    |         |         |         |         |         |                |
| Australia - Bell Bay                          | 100%               | 47      | 47      | 48      | 48      | 45      | 189            |
| Australia - Boyne Island                      | 59%                | 72      | 74      | 75      | 74      | 73      | 295            |
| Australia - Tomago                            | 52%                | 75      | 76      | 78      | 77      | 74      | 305            |
| Canada - six wholly owned                     | 100%               | 398     | 402     | 407     | 408     | 400     | 1,616          |
| Canada - Alouette (Sept- les)                 | 40%                | 58      | 58      | 59      | 58      | 58      | 234            |
| Canada - B cancour                            | 25%                | 10      | 9       | 8       | 8       | 4       | 34             |
| Iceland - ISAL (Reykjavik)                    | 100%               | 52      | 53      | 53      | 54      | 52      | 212            |
| New Zealand - Tiwai Point                     | 79%                | 66      | 67      | 68      | 70      | 71      | 270            |
| Oman - Sohar                                  | 20%                | 17      | 19      | 20      | 20      | 19      | 76             |
| Rio Tinto total aluminium production          |                    | 795     | 805     | 814     | 817     | 796     | 3,231          |
| <b>BAUXITE</b>                                |                    |         |         |         |         |         |                |
| <b>Production ('000 tonnes) (a)</b>           |                    |         |         |         |         |         |                |
| Gove  | 100%               | 3,124   | 3,274   | 2,893   | 3,250   | 3,004   | 12,540         |
| Porto Trombetas                               | 12%                | 353     | 393     | 342     | 489     | 285     | 1,576          |
| Sangaredi                                     | (b)                | 1,745   | 1,657   | 1,261   | 1,204   | 1,558   | 5,868          |
| Weipa   | 100%               | 7,431   | 7,955   | 8,204   | 6,847   | 7,917   | 30,437         |
| Rio Tinto total bauxite production            |                    | 12,653  | 13,279  | 12,700  | 11,790  | 12,763  | 50,421         |

(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or dor  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<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019 | Full Year<br>2018 |
|--|-----------------------|------------|------------|------------|------------|------------|-------------------|
| <b>BORATES</b>   |                       |            |            |            |            |            |                   |
| <b>Production ('000 tonnes B<sub>2</sub>O<sub>3</sub> content)</b>   |                       |            |            |            |            |            |                   |
| Rio Tinto Borates - borates  | 100%                  | 124        | 132        | 137        | 118        | 115        | 512               |
| <b>COPPER</b>  |                       |            |            |            |            |            |                   |
| <b>Mine production ('000 tonnes) (a)</b>   |                       |            |            |            |            |            |                   |
| Bingham Canyon   | 100%                  | 35.4       | 51.2       | 59.1       | 58.3       | 52.5       | 203.9             |
| Escondida  | 30%                   | 90.9       | 92.4       | 87.4       | 79.7       | 76.0       | 350.4             |
| Oyu Tolgoi (b)   | 34%                   | 13.0       | 13.2       | 13.2       | 13.9       | 15.4       | 53.3              |
| Rio Tinto total mine production  |                       | 139.3      | 156.8      | 159.7      | 151.9      | 143.9      | 607.6             |
| <b>Refined production ('000 tonnes)</b>  |                       |            |            |            |            |            |                   |
| Escondida  | 30%                   | 20.8       | 21.0       | 16.6       | 21.6       | 18.7       | 80.0              |
| Rio Tinto Kennecott  | 100%                  | 35.3       | 40.7       | 54.2       | 64.6       | 29.6       | 194.7             |
| Rio Tinto total refined production   |                       | 56.1       | 61.7       | 70.8       | 86.1       | 48.3       | 274.8             |
| <i>(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.</i> |                       |            |            |            |            |            |                   |
| <i>(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.</i>  |                       |            |            |            |            |            |                   |
| <b>DIAMONDS</b>  |                       |            |            |            |            |            |                   |
| <b>Production ('000 carats)</b>  |                       |            |            |            |            |            |                   |
| Argyle   | 100%                  | 3,551      | 3,476      | 3,830      | 3,211      | 2,786      | 14,069            |
| Diavik   | 60%                   | 1,065      | 1,150      | 1,066      | 1,078      | 1,010      | 4,358             |
| Rio Tinto total diamond production   |                       | 4,616      | 4,626      | 4,896      | 4,290      | 3,796      | 18,427            |
| <b>GOLD</b>  |                       |            |            |            |            |            |                   |
| <b>Mine production ('000 ounces) (a)</b>   |                       |            |            |            |            |            |                   |
| Bingham Canyon   | 100%                  | 37.4       | 45.6       | 56.6       | 57.1       | 53.0       | 196.7             |
| Escondida  | 30%                   | 18.0       | 20.5       | 19.1       | 22.1       | 22.2       | 79.7              |
| Oyu Tolgoi (b)   | 34%                   | 14.0       | 16.8       | 25.8       | 39.1       | 40.2       | 95.7              |
| Rio Tinto total mine production  |                       | 69.4       | 82.8       | 101.4      | 118.4      | 115.4      | 372.1             |
| <b>Refined production ('000 ounces)</b>  |                       |            |            |            |            |            |                   |
| Rio Tinto Kennecott  | 100%                  | 40.8       | 48.4       | 50.3       | 58.6       | 41.7       | 198.0             |
| <i>(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.</i> |                       |            |            |            |            |            |                   |
| <i>(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.</i>  |                       |            |            |            |            |            |                   |

## Rio Tinto share of production

|   | Rio Tinto<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019 | Full Year<br>2018 |
|---|-----------------------|------------|------------|------------|------------|------------|-------------------|
| <b>IRON ORE</b>                             |                       |            |            |            |            |            |                   |
| <b>Production ('000 tonnes) (a)</b>         |                       |            |            |            |            |            |                   |
| Hamersley mines                             | (b)                   | 53,631     | 56,034     | 54,583     | 56,364     | 51,218     | 220,612           |
| Hamersley - Channar                         | 60%                   | 1,136      | 1,227      | 604        | 1,337      | 931        | 4,304             |
| Hope Downs                                  | 50%                   | 5,342      | 5,783      | 5,713      | 5,845      | 5,957      | 22,684            |
| Iron Ore Company of Canada                  | 59%                   | 2,364      | 871        | 2,880      | 2,836      | 2,481      | 8,952             |
| Robe River - Pannawonica (Mesas J and A)    | 53%                   | 4,672      | 4,048      | 4,208      | 4,004      | 1,870      | 16,932            |
| Robe River - West Angelas                   | 53%                   | 4,290      | 4,373      | 4,021      | 4,631      | 4,125      | 17,316            |
| Rio Tinto iron ore production ('000 tonnes) |                       | 71,436     | 72,336     | 72,010     | 75,018     | 66,581     | 290,800           |
| Breakdown of Production:                    |                       |            |            |            |            |            |                   |
| Pilbara Blend Lump                          |                       | 20,714     | 21,901     | 20,554     | 21,674     | 19,978     | 84,843            |
| Pilbara Blend Fines                         |                       | 29,769     | 31,239     | 29,921     | 31,652     | 28,779     | 122,582           |
| Robe Valley Lump                            |                       | 1,587      | 1,431      | 1,470      | 1,409      | 635        | 5,897             |
| Robe Valley Fines                           |                       | 3,086      | 2,617      | 2,738      | 2,595      | 1,235      | 11,035            |
| Yandicoogina Fines (HIY)                    |                       | 13,916     | 14,277     | 14,446     | 14,852     | 13,473     | 57,491            |
| Pilbara iron ore production ('000 tonnes)   |                       | 69,072     | 71,465     | 69,129     | 72,182     | 64,101     | 281,848           |
| IOC Concentrate                             |                       | 799        | 572        | 1,131      | 1,433      | 890        | 3,934             |
| IOC Pellets                                 |                       | 1,566      | 299        | 1,750      | 1,403      | 1,590      | 5,018             |
| IOC iron ore production ('000 tonnes)       |                       | 2,364      | 871        | 2,880      | 2,836      | 2,481      | 8,952             |
| Breakdown of Sales:                         |                       |            |            |            |            |            |                   |
| Pilbara Blend Lump                          |                       | 18,062     | 19,424     | 17,967     | 18,439     | 15,772     | 73,892            |
| Pilbara Blend Fines (c)                     |                       | 30,746     | 35,158     | 31,432     | 35,205     | 28,406     | 132,541           |
| Robe Valley Lump                            |                       | 1,223      | 1,264      | 1,174      | 1,219      | 457        | 4,881             |
| Robe Valley Fines                           |                       | 2,996      | 3,255      | 2,839      | 2,996      | 1,308      | 12,085            |
| Yandicoogina Fines (HIY)                    |                       | 13,578     | 14,388     | 14,583     | 14,831     | 12,294     | 57,380            |
| Pilbara iron ore sales ('000 tonnes)        |                       | 66,604     | 73,489     | 67,995     | 72,690     | 58,236     | 280,778           |
| IOC Concentrate                             |                       | 746        | 62         | 1,521      | 1,558      | 516        | 3,887             |
| IOC Pellets                                 |                       | 1,574      | 202        | 1,659      | 1,516      | 1,576      | 4,950             |
| IOC Iron ore sales ('000 tonnes)            |                       | 2,320      | 263        | 3,180      | 3,073      | 2,092      | 8,837             |
| Rio Tinto iron ore sales ('000 tonnes)      |                       | 68,925     | 73,752     | 71,175     | 75,763     | 60,328     | 289,614           |

(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) Pilbara Blend Fines sales include 1.5m tonnes of other lower grade products in Q1 2019.

## Rio Tinto share of production

|  | Rio Tinto<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019 | Full Year<br>2018 |
|--|-----------------------|------------|------------|------------|------------|------------|-------------------|
| <b>MOLYBDENUM</b>  |                       |            |            |            |            |            |                   |
| <b>Mine production ('000 tonnes) (a)</b>   |                       |            |            |            |            |            |                   |
| Bingham Canyon   | 100%                  | 1.5        | 0.7        | 1.4        | 2.2        | 1.9        | 5.8               |
| <i>(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.</i> |                       |            |            |            |            |            |                   |
| <b>SALT</b>  |                       |            |            |            |            |            |                   |
| <b>Production ('000 tonnes)</b>  |                       |            |            |            |            |            |                   |
| Dampier Salt   | 68%                   | 1,514      | 1,662      | 1,481      | 1,496      | 1,310      | 6,153             |
| <b>SILVER</b>  |                       |            |            |            |            |            |                   |
| <b>Mine production ('000 ounces) (a)</b>   |                       |            |            |            |            |            |                   |
| Bingham Canyon   | 100%                  | 461        | 615        | 708        | 736        | 741        | 2,520             |
| Escondida  | 30%                   | 702        | 758        | 599        | 771        | 657        | 2,830             |
| Oyu Tolgoi (b)   | 34%                   | 74         | 75         | 77         | 80         | 83         | 306               |
| Rio Tinto total mine production  |                       | 1,237      | 1,448      | 1,384      | 1,586      | 1,481      | 5,656             |
| <b>Refined production ('000 ounces)</b>  |                       |            |            |            |            |            |                   |
| Rio Tinto Kennecott  | 100%                  | 867        | 461        | 730        | 807        | 617        | 2,865             |
| <i>(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.</i> |                       |            |            |            |            |            |                   |
| <i>(b) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.</i>  |                       |            |            |            |            |            |                   |
| <b>TITANIUM DIOXIDE SLAG</b>   |                       |            |            |            |            |            |                   |
| <b>Production ('000 tonnes)</b>  |                       |            |            |            |            |            |                   |
| Rio Tinto Iron & Titanium (a)  | 100%                  | 294        | 232        | 297        | 294        | 296        | 1,116             |
| <i>(a) Quantities comprise 100% of Rio Tinto Fer et Titane and Rio Tinto's 74% interest in Richards Bay Minerals (RBM).</i>  |                       |            |            |            |            |            |                   |
| <b>URANIUM</b>   |                       |            |            |            |            |            |                   |
| <b>Production ('000 lbs U<sub>3</sub>O<sub>8</sub>) (a)</b>  |                       |            |            |            |            |            |                   |
| Energy Resources of Australia  | 68%                   | 667        | 603        | 820        | 924        | 793        | 3,014             |
| Rössing (b)  | 69%                   | 848        | 928        | 994        | 979        | 802        | 3,750             |
| Rio Tinto total uranium production   |                       | 1,515      | 1,531      | 1,814      | 1,904      | 1,595      | 6,764             |
| <i>(a) ERA and Rössing production reported are drummed U<sub>3</sub>O<sub>8</sub>.</i>   |                       |            |            |            |            |            |                   |
| <i>(b) On 26 November 2018, Rio Tinto signed a binding agreement to sell its 68.62% interest in the Rössing mine in Namibia to China National Uranium Corporation Limited.</i>   |                       |            |            |            |            |            |                   |

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 2019.**

Rio Tinto's interest in the Kestrel, Hail Creek, Dunkerque and Grasberg operations were sold in 2018. No data for these operations are included in the Share of production table.



## Rio Tinto operational data

|  | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|--|--------------------|---------|---------|---------|---------|---------|----------------|
| <b>ALUMINA</b>   |                    |         |         |         |         |         |                |
| <b>Smelter Grade Alumina - Aluminium Group</b>   |                    |         |         |         |         |         |                |
| Alumina production ('000 tonnes)   |                    |         |         |         |         |         |                |
| <i>Australia</i>   |                    |         |         |         |         |         |                |
| Queensland Alumina Refinery - Queensland   | 80.0%              | 896     | 940     | 935     | 927     | 888     | 3,697          |
| Yarwun refinery - Queensland   | 100.0%             | 793     | 763     | 744     | 803     | 813     | 3,103          |
| <i>Brazil</i>  |                    |         |         |         |         |         |                |
| São Luis (Alumar) refinery   | 10.0%              | 871     | 869     | 851     | 918     | 859     | 3,509          |
| <i>Canada</i>  |                    |         |         |         |         |         |                |
| Jonquière (Vaudreuil) refinery - Quebec (a)  | 100.0%             | 362     | 365     | 363     | 354     | 373     | 1,444          |
| <i>(a) Jonquière's (Vaudreuil's) production shows smelter grade alumina only and excludes hydrate produced and used for specialty alumina.</i> |                    |         |         |         |         |         |                |
| <b>Specialty Alumina - Aluminium Group</b>   |                    |         |         |         |         |         |                |
| Specialty alumina production ('000 tonnes)   |                    |         |         |         |         |         |                |
| <i>Canada</i>  |                    |         |         |         |         |         |                |
| Jonquière (Vaudreuil) plant – Quebec   | 100.0%             | 31      | 32      | 31      | 29      | 25      | 124            |

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|  | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|--|--------------------|---------|---------|---------|---------|---------|----------------|
| <b>ALUMINIUM</b>                           |                    |         |         |         |         |         |                |
| <b>Primary Aluminium</b>                   |                    |         |         |         |         |         |                |
| Primary aluminium production ('000 tonnes) |                    |         |         |         |         |         |                |
| <i>Australia</i>                           |                    |         |         |         |         |         |                |
| Bell Bay smelter - Tasmania                | 100.0%             | 47      | 47      | 48      | 48      | 45      | 189            |
| Boyne Island smelter - Queensland          | 59.4%              | 122     | 124     | 126     | 125     | 122     | 497            |
| Tomago smelter - New South Wales           | 51.6%              | 145     | 148     | 151     | 149     | 144     | 592            |
| <i>Canada</i>                              |                    |         |         |         |         |         |                |
| Alma smelter - Quebec                      | 100.0%             | 115     | 116     | 117     | 118     | 115     | 465            |
| Alouette (Sept-Îles) smelter - Quebec      | 40.0%              | 144     | 146     | 148     | 146     | 144     | 584            |
| Arvida smelter - Quebec                    | 100.0%             | 43      | 43      | 43      | 44      | 43      | 173            |
| Arvida AP60 smelter - Quebec               | 100.0%             | 13      | 13      | 13      | 13      | 14      | 52             |
| Bécancour smelter - Quebec                 | 25.1%              | 39      | 35      | 32      | 30      | 17      | 136            |
| Grande-Baie smelter - Quebec               | 100.0%             | 57      | 58      | 59      | 59      | 58      | 233            |
| Kitimat smelter - British Columbia         | 100.0%             | 108     | 109     | 110     | 109     | 106     | 436            |
| Laterrière smelter - Quebec                | 100.0%             | 63      | 64      | 65      | 65      | 64      | 257            |
| <i>France</i>                              |                    |         |         |         |         |         |                |
| Dunkerque smelter (a)                      | 0%                 | 51      | 52      | 66      | 57      | -       | 227            |
| <i>Iceland</i>                             |                    |         |         |         |         |         |                |
| ISAL (Reykjavik) smelter                   | 100.0%             | 52      | 53      | 53      | 54      | 52      | 212            |
| <i>New Zealand</i>                         |                    |         |         |         |         |         |                |
| Tiwai Point smelter                        | 79.4%              | 83      | 84      | 85      | 88      | 89      | 341            |
| <i>Oman</i>                                |                    |         |         |         |         |         |                |
| Sohar smelter                              | 20.0%              | 87      | 97      | 98      | 99      | 97      | 380            |

(a) On 14 December 2018, Rio Tinto completed the sale of its 100% interest in the Dunkerque smelter. Production is reported up to the date of completion.

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|  | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|--|--------------------|---------|---------|---------|---------|---------|----------------|
| <b>BAUXITE</b>                                       |                    |         |         |         |         |         |                |
| Bauxite production ('000 tonnes)                     |                    |         |         |         |         |         |                |
| <i>Australia</i>                                     |                    |         |         |         |         |         |                |
| Gove mine - Northern Territory                       | 100.0%             | 3,124   | 3,274   | 2,893   | 3,250   | 3,004   | 12,540         |
| Weipa mine - Queensland                              | 100.0%             | 7,431   | 7,955   | 8,204   | 6,847   | 7,917   | 30,437         |
| <i>Brazil</i>  |                    |         |         |         |         |         |                |
| Porto Trombetas (MRN) mine                           | 12.0%              | 2,939   | 3,273   | 2,848   | 4,073   | 2,372   | 13,134         |
| <i>Guinea</i>  |                    |         |         |         |         |         |                |
| Sangaredi mine (a)                                   | 23.0%              | 3,878   | 3,683   | 2,803   | 2,675   | 3,463   | 13,039         |
| <b>Rio Tinto share of bauxite shipments</b>          |                    |         |         |         |         |         |                |
| Share of total bauxite shipments ('000 tonnes)       |                    | 12,551  | 12,936  | 12,427  | 11,622  | 12,725  | 49,536         |
| Share of third party bauxite shipments ('000 tonnes) |                    | 8,248   | 8,738   | 8,441   | 7,387   | 8,842   | 32,813         |

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

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|   | Rio Tinto<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019 | Full Year<br>2018 |
|---|-----------------------|------------|------------|------------|------------|------------|-------------------|
| <b>BORATES</b>  |                       |            |            |            |            |            |                   |
| <b>Rio Tinto Borates - borates</b>  | 100.0%                |            |            |            |            |            |                   |
| <i>US</i>   |                       |            |            |            |            |            |                   |
| Borates ('000 tonnes) (a)   |                       | 124        | 132        | 137        | 118        | 115        | 512               |
| <i>(a) Production is expressed as B<sub>2</sub>O<sub>3</sub> content.</i> |                       |            |            |            |            |            |                   |
| <b>COAL</b>   |                       |            |            |            |            |            |                   |
| <b>Rio Tinto Coal Australia</b>   |                       |            |            |            |            |            |                   |
| <b>Hail Creek Coal mine (a)</b>   | 0.0%                  |            |            |            |            |            |                   |
| <i>Queensland</i>   |                       |            |            |            |            |            |                   |
| Hard coking coal ('000 tonnes)  |                       | 924        | 1,380      | 396        | -          | -          | 2,700             |
| Thermal coal ('000 tonnes)  |                       | 1,293      | 1,018      | 449        | -          | -          | 2,760             |
| <b>Kestrel Coal mine (b)</b>  | 0.0%                  |            |            |            |            |            |                   |
| <i>Queensland</i>   |                       |            |            |            |            |            |                   |
| Hard coking coal ('000 tonnes)  |                       | 430        | 1,303      | 484        | -          | -          | 2,217             |
| Thermal coal ('000 tonnes)  |                       | 74         | 220        | 35         | -          | -          | 329               |
| Total hard coking coal production ('000 tonnes)                           |                       | 1,354      | 2,683      | 880        | -          | -          | 4,917             |
| Total thermal coal production ('000 tonnes)                               |                       | 1,367      | 1,238      | 485        | -          | -          | 3,089             |
| Total coal production ('000 tonnes)                                       |                       | 2,721      | 3,921      | 1,365      | -          | -          | 8,007             |
| Total coal sales ('000 tonnes)  |                       | 3,050      | 3,717      | 1,725      | -          | -          | 8,492             |
| <b>Rio Tinto Coal Australia share (c)</b>                                 |                       |            |            |            |            |            |                   |
| Share of hard coking coal sales ('000 tonnes)                             |                       | 1,368      | 2,228      | 650        | -          | -          | 4,246             |
| Share of thermal coal sales ('000 tonnes) (d)                             |                       | 1,119      | 791        | 754        | -          | -          | 2,664             |

(a) On 1 August 2018, Rio Tinto completed the sale of its 82% interest in the Hail Creek mine. Production is reported up to the date of completion.

(b) On 1 August 2018, Rio Tinto completed the sale of its 80% interest in the Kestrel mine. Production is reported up to the date of completion.

(c) Kestrel and Hail Creek produce hard coking coal and thermal coal through their mining operations. Both mines may blend coal types at ports.

(d) Sales relate only to coal mined by the operations and exclude traded coal.

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|   | Rio Tinto<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019    | Full Year<br>2018 |
|---|-----------------------|------------|------------|------------|------------|---------------|-------------------|
| <b>COPPER &amp; GOLD</b>  |                       |            |            |            |            |               |                   |
| <b>Escondida</b>  | 30.0%                 |            |            |            |            |               |                   |
| <i>Chile</i>  |                       |            |            |            |            |               |                   |
| Sulphide ore to concentrator ('000 tonnes)  |                       | 32,203     | 31,732     | 30,513     | 30,507     | <b>32,027</b> | 124,956           |
| Average copper grade (%)  |                       | 0.96       | 0.96       | 0.94       | 0.87       | <b>0.82</b>   | 0.93              |
| Mill production (metals in concentrates):   |                       |            |            |            |            |               |                   |
| Contained copper ('000 tonnes)  |                       | 252.6      | 253.6      | 241.9      | 219.9      | <b>216.9</b>  | 968.0             |
| Contained gold ('000 ounces)  |                       | 60         | 68         | 64         | 74         | <b>74</b>     | 266               |
| Contained silver ('000 ounces)  |                       | 2,339      | 2,527      | 1,997      | 2,570      | <b>2,189</b>  | 9,433             |
| Recoverable copper in ore stacked for leaching ('000 tonnes) (a)  |                       | 50.4       | 54.4       | 49.4       | 45.7       | <b>36.5</b>   | 199.9             |
| Refined production from leach plants:   |                       |            |            |            |            |               |                   |
| Copper cathode production ('000 tonnes)   |                       | 69.4       | 70.1       | 55.4       | 71.9       | <b>62.4</b>   | 266.8             |
| <i>(a) The calculation of copper in material mined for leaching is based on ore stacked at the leach pad.</i> |                       |            |            |            |            |               |                   |
| <b>Freeport-McMoRan</b>   |                       |            |            |            |            |               |                   |
| <b>Grasberg mine (a)</b>  | 0.0% (b)              |            |            |            |            |               |                   |
| <i>Papua, Indonesia</i>   |                       |            |            |            |            |               |                   |
| Ore treated ('000 tonnes)   |                       | 15,625     | 17,101     | 17,535     | 14,049     | -             | 64,310            |
| Average mill head grades:   |                       |            |            |            |            |               |                   |
| Copper (%)  |                       | 1.12       | 1.06       | 1.00       | 0.73       | -             | 0.99              |
| Gold (g/t)  |                       | 1.63       | 1.77       | 1.77       | 1.08       | -             | 1.59              |
| Silver (g/t)  |                       | 4.68       | 5.09       | 4.49       | 2.09       | -             | 4.17              |
| Production of metals in concentrates:   |                       |            |            |            |            |               |                   |
| Copper in concentrates ('000 tonnes)  |                       | 159.9      | 165.7      | 158.7      | 85.4       | -             | 569.7             |
| Gold in concentrates ('000 ounces)  |                       | 693        | 842        | 842        | 402        | -             | 2,779             |
| Silver in concentrates ('000 ounces)  |                       | 1,513      | 1,548      | 1,439      | 545        | -             | 5,045             |
| Sales of payable metals in concentrates: (c)  |                       |            |            |            |            |               |                   |
| Copper in concentrates ('000 tonnes)  |                       | 157.4      | 145.3      | 170.6      | 82.7       | -             | 556.0             |
| Gold in concentrates ('000 ounces)  |                       | 676        | 740        | 903        | 399        | -             | 2,719             |
| Silver in concentrates ('000 ounces)  |                       | 1,184      | 1,098      | 1,221      | 426        | -             | 3,928             |

(a) Through a joint venture agreement with Freeport-McMoRan (FCX), Rio Tinto is entitled to 40% of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998. The Q4 2018 results show the forecast from FCX's most recent five-year plan. On 21 December 2018, Rio Tinto completed the sale of its entire interest in the Grasberg mine in Indonesia to PT Indonesia Asahan Aluminium (Persero) (Inalum). Production is reported up to the date of completion.

(b) Rio Tinto share of Grasberg production is 40% of the expansion.

(c) Net of smelter deduction

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|   | Rio Tinto<br>interest | Q1<br>2018 | Q2<br>2018 | Q3<br>2018 | Q4<br>2018 | Q1<br>2019    | Full Year<br>2018 |
|---|-----------------------|------------|------------|------------|------------|---------------|-------------------|
| <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)                       |                       | 9,260      | 8,974      | 11,173     | 10,853     | <b>10,685</b> | 40,260            |
| Average ore grade:                              |                       |            |            |            |            |               |                   |
| Copper (%)                                      |                       | 0.43       | 0.63       | 0.58       | 0.59       | <b>0.55</b>   | 0.56              |
| Gold (g/t)                                      |                       | 0.23       | 0.26       | 0.26       | 0.26       | <b>0.25</b>   | 0.25              |
| Silver (g/t)                                    |                       | 2.25       | 2.73       | 2.62       | 2.76       | <b>2.76</b>   | 2.60              |
| Molybdenum (%)                                  |                       | 0.025      | 0.025      | 0.030      | 0.032      | <b>0.032</b>  | 0.028             |
| Copper concentrates produced ('000 tonnes)      |                       | 171        | 194        | 233        | 222        | <b>207</b>    | 820               |
| Average concentrate grade (% Cu)                |                       | 20.7       | 26.4       | 25.3       | 26.0       | <b>25.3</b>   | 24.8              |
| Production of metals in copper concentrates:    |                       |            |            |            |            |               |                   |
| Copper ('000 tonnes) (a)                        |                       | 35.4       | 51.2       | 59.1       | 58.3       | <b>52.5</b>   | 203.9             |
| Gold ('000 ounces)                              |                       | 37         | 46         | 57         | 57         | <b>53</b>     | 197               |
| Silver ('000 ounces)                            |                       | 461        | 615        | 708        | 736        | <b>741</b>    | 2,520             |
| Molybdenum concentrates produced ('000 tonnes): |                       | 2.8        | 1.5        | 2.8        | 4.5        | <b>3.8</b>    | 11.6              |
| Molybdenum in concentrates ('000 tonnes)        |                       | 1.5        | 0.7        | 1.4        | 2.2        | <b>1.9</b>    | 5.8               |
| <b>Kennecott smelter &amp; refinery</b>         |                       |            |            |            |            |               |                   |
|   | 100.0%                |            |            |            |            |               |                   |
| Copper concentrates smelted ('000 tonnes)       |                       | 200        | 224        | 246        | 262        | <b>204</b>    | 932               |
| Copper anodes produced ('000 tonnes) (b)        |                       | 42.4       | 44.4       | 58.1       | 62.4       | <b>33.3</b>   | 207.3             |
| Production of refined metal:                    |                       |            |            |            |            |               |                   |
| Copper ('000 tonnes)                            |                       | 35.3       | 40.7       | 54.2       | 64.6       | <b>29.6</b>   | 194.7             |
| Gold ('000 ounces) (c)                          |                       | 40.8       | 48.4       | 50.3       | 58.6       | <b>41.7</b>   | 198.0             |
| Silver ('000 ounces) (c)                        |                       | 867        | 461        | 730        | 807        | <b>617</b>    | 2,865             |

(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 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

|   | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019      | Full Year 2018 |
|---|--------------------|---------|---------|---------|---------|--------------|----------------|
| <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)   |                    | 9,561   | 10,164  | 9,652   | 9,361   | <b>9,255</b> | 38,738         |
| Average mill head grades:   |                    |         |         |         |         |              |                |
| Copper (%)  |                    | 0.51    | 0.48    | 0.51    | 0.55    | <b>0.57</b>  | 0.51           |
| Gold (g/t)  |                    | 0.25    | 0.26    | 0.38    | 0.56    | <b>0.58</b>  | 0.36           |
| Silver (g/t)  |                    | 1.32    | 1.17    | 1.19    | 1.22    | <b>1.25</b>  | 1.22           |
| Copper concentrates produced ('000 tonnes)  |                    | 177.3   | 178.8   | 179.8   | 189.0   | <b>210.1</b> | 724.9          |
| Average concentrate grade (% Cu)  |                    | 21.9    | 22.0    | 21.9    | 21.9    | <b>21.8</b>  | 21.9           |
| Production of metals in concentrates:   |                    |         |         |         |         |              |                |
| Copper in concentrates ('000 tonnes)  |                    | 38.8    | 39.4    | 39.4    | 41.5    | <b>45.8</b>  | 159.1          |
| Gold in concentrates ('000 ounces)  |                    | 41.8    | 50.0    | 77.0    | 116.7   | <b>120.1</b> | 285.4          |
| Silver in concentrates ('000 ounces)  |                    | 221     | 225     | 230     | 238     | <b>247</b>   | 914            |
| Sales of metals in concentrates:  |                    |         |         |         |         |              |                |
| Copper in concentrates ('000 tonnes)  |                    | 34.3    | 46.1    | 36.0    | 40.2    | <b>38.5</b>  | 156.7          |
| Gold in concentrates ('000 ounces)  |                    | 31      | 51      | 55      | 111     | <b>98</b>    | 248            |
| Silver in concentrates ('000 ounces)  |                    | 206     | 250     | 201     | 216     | <b>200</b>   | 873            |
| <i>(a) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources.</i> |                    |         |         |         |         |              |                |
| <b>DIAMONDS</b>   |                    |         |         |         |         |              |                |
| <b>Argyle Diamonds</b>  | 100.0%             |         |         |         |         |              |                |
| <i>Western Australia</i>  |                    |         |         |         |         |              |                |
| AK1 ore processed ('000 tonnes)   |                    | 1,260   | 1,428   | 1,465   | 1,292   | <b>1,248</b> | 5,444          |
| AK1 diamonds produced ('000 carats)   |                    | 3,551   | 3,476   | 3,830   | 3,211   | <b>2,786</b> | 14,069         |
| <b>Diavik Diamonds</b>  | 60.0%              |         |         |         |         |              |                |
| <i>Northwest Territories, Canada</i>  |                    |         |         |         |         |              |                |
| Ore processed ('000 tonnes)   |                    | 556     | 652     | 670     | 651     | <b>620</b>   | 2,530          |
| Diamonds recovered ('000 carats)  |                    | 1,774   | 1,916   | 1,776   | 1,797   | <b>1,683</b> | 7,264          |

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**

# Rio Tinto operational data

|   | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|---|--------------------|---------|---------|---------|---------|---------|----------------|
| <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)                | 53,631  | 56,034  | 54,583  | 56,364  | 51,218  | 220,612        |
| Hamersley - Channar   | 60.0%              | 1,893   | 2,045   | 1,007   | 2,228   | 1,552   | 7,173          |
| Hope Downs  | 50.0%              | 10,685  | 11,567  | 11,426  | 11,691  | 11,913  | 45,368         |
| Robe River - Pannawonica (Mesas J and A)  | 53.0%              | 8,816   | 7,637   | 7,940   | 7,555   | 3,529   | 31,947         |
| Robe River - West Angelas   | 53.0%              | 8,094   | 8,252   | 7,587   | 8,738   | 7,783   | 32,672         |
| Total production ('000 tonnes)  |                    | 83,120  | 85,534  | 82,542  | 86,576  | 75,995  | 337,772        |
| Breakdown of total production:  |                    |         |         |         |         |         |                |
| Pilbara Blend Lump  |                    | 24,831  | 26,253  | 24,461  | 26,084  | 24,068  | 101,629        |
| Pilbara Blend Fines   |                    | 35,556  | 37,368  | 35,696  | 38,085  | 34,924  | 146,705        |
| Robe Valley Lump  |                    | 2,993   | 2,699   | 2,774   | 2,659   | 1,198   | 11,126         |
| Robe Valley Fines   |                    | 5,823   | 4,937   | 5,166   | 4,896   | 2,331   | 20,821         |
| Yandicoogina Fines (HIY)  |                    | 13,916  | 14,277  | 14,446  | 14,852  | 13,473  | 57,491         |
| Breakdown of total sales:   |                    |         |         |         |         |         |                |
| Pilbara Blend Lump  |                    | 21,457  | 22,954  | 21,644  | 22,161  | 18,968  | 88,215         |
| Pilbara Blend Fines (c)   |                    | 37,320  | 42,638  | 38,100  | 42,497  | 34,558  | 160,555        |
| Robe Valley Lump  |                    | 2,307   | 2,386   | 2,215   | 2,301   | 863     | 9,209          |
| Robe Valley Fines   |                    | 5,652   | 6,141   | 5,356   | 5,652   | 2,468   | 22,801         |
| Yandicoogina Fines (HIY)  |                    | 13,578  | 14,388  | 14,583  | 14,831  | 12,294  | 57,380         |
| Total sales ('000 tonnes) (b)   |                    | 80,314  | 88,506  | 81,898  | 87,442  | 69,150  | 338,160        |
| <p>(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.</p> <p>(b) Sales represent iron ore exported from Western Australian ports.</p> <p>(c) Pilbara Blend Fines sales include 1.5m tonnes of other lower grade products in Q1 2019.</p> |                    |         |         |         |         |         |                |
| <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)  |                    | 1,360   | 974     | 1,926   | 2,441   | 1,516   | 6,700          |
| Pellets ('000 tonnes)   |                    | 2,667   | 510     | 2,979   | 2,389   | 2,709   | 8,545          |
| IOC Total production ('000 tonnes)  |                    | 4,027   | 1,484   | 4,905   | 4,830   | 4,225   | 15,245         |
| Sales:  |                    |         |         |         |         |         |                |
| Concentrates ('000 tonnes)  |                    | 1,271   | 105     | 2,590   | 2,653   | 878     | 6,619          |
| Pellets ('000 tonnes)   |                    | 2,681   | 343     | 2,825   | 2,581   | 2,684   | 8,430          |
| IOC Total Sales ('000 tonnes)   |                    | 3,951   | 449     | 5,415   | 5,234   | 3,562   | 15,049         |
| <b>Global Iron Ore Totals</b>   |                    |         |         |         |         |         |                |
| Iron Ore Production ('000 tonnes)   |                    | 87,146  | 87,018  | 87,448  | 91,406  | 80,219  | 353,017        |
| Iron Ore Sales ('000 tonnes)  |                    | 84,265  | 88,954  | 87,314  | 92,676  | 72,712  | 353,209        |

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**



## Rio Tinto operational data

|                                      | Rio Tinto interest | Q1 2018 | Q2 2018 | Q3 2018 | Q4 2018 | Q1 2019 | Full Year 2018 |
|--------------------------------------|--------------------|---------|---------|---------|---------|---------|----------------|
| <b>SALT</b>                          |                    |         |         |         |         |         |                |
| <b>Dampier Salt</b>                  | 68.4%              |         |         |         |         |         |                |
| <i>Western Australia</i>             |                    |         |         |         |         |         |                |
| Salt production ('000 tonnes)        |                    | 2,215   | 2,431   | 2,167   | 2,188   | 1,917   | 9,001          |
| <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)  |                    | 294     | 232     | 297     | 294     | 296     | 1,116          |

(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.

|  |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|
| <b>URANIUM</b>   |       |       |       |       |       |       |       |
| <b>Energy Resources of Australia Ltd</b>                               |       |       |       |       |       |       |       |
| <b>Ranger mine (a)</b>   | 68.4% |       |       |       |       |       |       |
| <i>Northern Territory, Australia</i>                                   |       |       |       |       |       |       |       |
| U <sub>3</sub> O <sub>8</sub> Production ('000 lbs)                    |       | 975   | 881   | 1,199 | 1,351 | 1,160 | 4,407 |
| <i>(a) ERA production data are drummed U<sub>3</sub>O<sub>8</sub>.</i> |       |       |       |       |       |       |       |
| <b>Rössing Uranium Ltd (a) (b)</b>                                     | 68.6% |       |       |       |       |       |       |
| <i>Namibia</i>   |       |       |       |       |       |       |       |
| U <sub>3</sub> O <sub>8</sub> Production ('000 lbs)                    |       | 1,236 | 1,352 | 1,449 | 1,427 | 1,168 | 5,465 |

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

(b) On 26 November 2018, Rio Tinto signed a binding agreement to sell its 68.62% interest in the Rössing mine in Namibia to China National Uranium Corporation Limited.

**Rio Tinto percentage interest shown above is at 31 March 2019. The data represent full production and sales on a 100% basis unless otherwise stated.**