

Proposed Joint Venture with China Baowu Steel Group Co., Ltd and

Notice of Rio Tinto Limited extraordinary general meeting

This document should be read as a whole. Your attention is drawn to the letter from the Chair which is set out on pages 4 to 5 of this document and which contains the recommendation of Rio Tinto's Directors that you vote in favour of the Transaction, and the resolutions to be proposed at the Rio Tinto Limited extraordinary general meeting convened by the Notice set out in this document.

The Rio Tinto Limited extraordinary general meeting will be held at 4.00 p.m. (AWST) on 25 October 2022 at the River View Rooms, Level 2, the Perth Convention and Exhibition Centre, 21 Mounts Bay Road, Perth, Western Australia. Notice of the extraordinary general meeting is set out at page 106 of this document.

In the lead up to the extraordinary general meeting, Rio Tinto will be closely monitoring the COVID-19 situation in Australia. If it becomes necessary or appropriate to make alternate arrangements to hold the meeting, shareholders will be given as much notice as possible. Updates will be made available at riotinto.com/gm2022.

If you are unable to participate in the meeting please complete and submit your proxy form by no later than 4.00 p.m. (AWST) on 23 October 2022 in line with the instructions on page 107. Submitting a proxy form will ensure your vote is recorded but does not prevent you from attending and voting at the meeting itself or any adjournment thereof if you so wish and are so entitled.

The Independent Expert has concluded that the Transaction is fair and reasonable to Rio Tinto Shareholders whose votes are not to be disregarded.

Rio Tinto Limited

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THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt as to the action you should take, you are recommended to seek your own financial advice immediately from your stockbroker, bank manager, solicitor, accountant or other independent professional adviser.

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This document does not constitute or form part of any offer or invitation to purchase, otherwise acquire, subscribe for, sell, otherwise dispose of or issue, or any solicitation of any offer to sell, otherwise dispose of, issue, purchase, otherwise acquire or subscribe for, any security.

Important Information

Rio Tinto Limited Shareholders should rely only on the information contained in this document. No person has been authorised to give any information or to make any representations other than those contained in this document in connection with the Transaction and, if given or made, such information or representations must not be relied upon as having been authorised by or on behalf of Rio Tinto or the Directors.

The contents of this document are not to be construed as legal, business, financial or tax advice. Each Rio Tinto Shareholder should consult their own lawyer, financial adviser or tax adviser for legal, financial or tax advice in relation to the Transaction.

Definitions

Some words and expressions used in this document have defined meanings, which are set out in the Section entitled “Definitions” of this document. A reference to time in this document is to Australian Western Standard Time (unless otherwise stated) for events occurring in Australia or to British Summer Time (unless otherwise stated) for events occurring in the UK.

Cautionary Note Regarding Forward-Looking Statements

This document contains statements which constitute “forward-looking statements” about Rio Tinto. The words “intend”, “aim”, “project”, “anticipate”, “estimate”, “plan”, “believes”, “expects”, “may”, “should”, “will”, or similar expressions, commonly identify such forward-looking statements.

Examples of forward-looking statements in this document include, among others, statements regarding the proposed Transaction; the financial condition, results of operations or economic conditions affecting the business of Rio Tinto; future implications of the Transaction; and management plans and objectives. Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors set forth in this document that are beyond Rio Tinto’s control.

In light of these risks, uncertainties and assumptions, actual results could be materially different from projected future results expressed or implied by these forward-looking statements which speak only as at the date of this document. Except as required by applicable regulations or by law, Rio Tinto does not undertake

any obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events. Rio Tinto cannot guarantee that its forward-looking statements will not differ materially from actual results.

Ore Reserves, Mineral Resources and Production Targets

Capitalised terms used in this Section have the meaning given to them in the JORC Code, unless defined in the Definitions Section of this document or otherwise specified.

The Ore Reserve and Mineral Resource estimates for Western Range referred to in this document were reported in the Western Range Table 1 Release to the ASX dated 14 September 2022 titled “Western Range Mineral Resources and Ore Reserves” and available at riotinto.com/resources-and-reserves (**Western Range Table 1 Release**). The Competent Person responsible for reporting the Ore Reserves was Mr Ryan Bleakley, who is a Member of The Australasian Institute of Mining and Metallurgy. The Competent Person responsible for reporting the Mineral Resources was Mr Philip Savory, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Rio Tinto is not aware of any new information or data that materially affects these Ore Reserve or Mineral Resource estimates and confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The form and context in which the Competent Persons’ findings are presented have not been materially modified from the Western Range Table 1 Release.

Western Range production targets referred to in this document are underpinned as to 39% by Proven Ore Reserves, as to 19% by Probable Ore Reserves, as to 1% by Measured Mineral Resources, as to 17% by Indicated Mineral Resources and as to 24% by Inferred Mineral Resources. These estimates of Ore Reserves and Mineral Resources are as set out in the Western Range Table 1 Release and have been prepared by Competent Persons in accordance with the requirements of the JORC Code. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

Eastern Range production targets referred to in this document are underpinned as to 40% by Proven Ore Reserves, as to 9% by Probable Ore Reserves, as to 44% by Measured Mineral Resources and as to 7% by Indicated Mineral Resources. These estimates of Ore Reserves and Mineral Resources form part of the estimates of Ore Reserves and Mineral Resources for Iron Ore Australia (Brockman Ore Reserves and Brockman and Brockman Process Ore Mineral Resources) set out at pages 356 to 357 and 368 to 369 of Rio Tinto’s 2021 Annual Report released to the ASX on 24 February 2022 and available at riotinto.com/annual-report, and were prepared by Competent Persons in accordance with the requirements of the JORC Code.

The date of this document is 15 September 2022.

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Letter from the Chair

Dear Shareholder

Proposed joint venture and iron ore sales agreement with China Baowu Steel Group Co., Ltd

1. Introduction

I am pleased to enclose an Explanatory Memorandum containing information regarding an unincorporated joint venture (**Joint Venture**) and associated iron ore sales arrangement proposed to be entered into between Rio Tinto Limited and China Baowu Steel Group Co., Ltd (**Baowu**) (**Transaction**).

Rio Tinto and Baowu have agreed to invest approximately US\$2 billion jointly to develop the Western Range deposit in the Hamersley Ranges region of the Pilbara, Western Australia, (**Western Range**) to produce a total of 275 Mt of iron ore over approximately 13 years, as further described in the Explanatory Memorandum. Rio Tinto and Baowu have also agreed to enter into a long term iron ore sales agreement (**Offtake Agreement**) at market prices for up to a total of 126.5 Mt (approximately 11.5 Mt/a over 13 years).

Rio Tinto has a long history of successfully partnering and investing with customers to develop new mines in the Pilbara. Rio Tinto and Baowu's partnership in the Pilbara dates back to 2002 when they entered into a joint venture to develop the Eastern Range deposits in the Hamersley Ranges (**Eastern Range**) and Western Range, subject to a production cap of 200 Mt (**Original Joint Venture**). It is now expected the production cap will be sourced entirely from Eastern Range, and this Transaction will continue our relationship through development of Western Range.

As the largest global steel producer, and Rio Tinto's largest customer, Baowu is an important strategic partner for Rio Tinto. This partnership has been built on a strong and mutually beneficial joint venture relationship and has extended to include collaboration on research and development projects to reduce carbon emissions and improve environmental performance across the steel value chain. This Transaction will extend that relationship through the development of Western Range.

This Transaction underpins Rio Tinto's commitment to investing in new mines in Australia, supporting employment and economic development in the region. The construction phase will support approximately 1,600 jobs, with the mine requiring about 800 ongoing operational roles which are expected to be filled by existing workers transitioning from other sites in the Paraburdoo mining hub.

Rio Tinto has worked closely with the Traditional Owners on whose country Western Range is situated, the Yinhawangka People, to develop a Social and Cultural Heritage Management Plan for the project. The co-designed management plan ensures the protection of significant social and cultural heritage values at Western Range.

Developing Western Range secures further sources of Brockman type iron ore for inclusion in Rio Tinto's flagship 'Pilbara Blend' iron ore products and supports Rio Tinto's existing Pilbara iron ore production capacity. Further details of the advantages, disadvantages and risks of the Transaction are set out in Section 7 of the Explanatory Memorandum. I encourage you to read these in detail.

Subject to receipt of all necessary approvals and other conditions precedent being satisfied, the Transaction would be expected to complete in Q4 2022. Following approval, construction of the Western Range mine is expected to begin in 2023.

Under the ASX Listing Rules, the acquisition or disposal of a "substantial asset" by an ASX listed company from, or to, a person in a position of influence requires the approval of the shareholders of the listed company. For the purposes of the ASX Listing Rules, various arrangements comprising the Transaction as summarised in the Section entitled "Assets and consideration" are considered to be either an acquisition or disposal of a substantial asset by Rio Tinto Limited from or to Baowu, including in particular the anticipated aggregate market price payments under the Offtake Agreement.

Additionally, Baowu may be considered to be a person in a position of influence in relation to Rio Tinto Limited because it could be considered to be an Associate of a Rio Tinto substantial shareholder, Aluminum Corporation of China (**Chinalco**), by virtue of both entities being Chinese state-owned entities. Accordingly, the Transaction requires Rio Tinto Limited Shareholder approval under the ASX Listing Rules.

In accordance with the DLC merger sharing agreement which regulates the relationship between Rio Tinto Limited and Rio Tinto plc under the dual listed companies structure (**DLC Sharing Agreement**), the Transaction will require the approval of the public shareholders of Rio Tinto plc as well as Rio Tinto Limited, voting as a joint electorate. As such Rio Tinto plc Shareholders will be required to vote on the Transaction at a general meeting, which will be held contemporaneously with the Rio Tinto Limited extraordinary general meeting, notwithstanding that there is no requirement in the UK for shareholder approval.

There are two separate Resolutions for which Rio Tinto Shareholder approval is sought. Resolution 1 seeks Rio Tinto Shareholder approval to enter into the Transaction for ASX Listing Rule 10.1 and all other purposes. Resolution 2 seeks Rio Tinto Shareholder approval for the purposes of ASX Listing 10.1 purposes only, specifically in respect of any acquisition or disposal of a substantial asset to or from Baowu or its Associates which may take place only upon the occurrence of certain future events (**Future Transactions**), and for which approval by Rio Tinto Shareholders may be required under the ASX Listing Rules.

If Resolution 1 is not passed, the Transaction will not proceed and Resolution 2 will not have any effect. If Resolution 1 is passed but Resolution 2 is not passed, the Transaction will proceed, however Rio Tinto may later be required to seek shareholder approval to enter into a Future Transaction at the relevant time for the purposes of ASX Listing Rule 10.1, depending on the circumstances of that Future Transaction.

The Board unanimously recommends that you vote in favour of both Resolutions and each Director who beneficially holds Rio Tinto Shares intends to vote in favour of both Resolutions in respect of his or her beneficial holdings.

An Independent Expert has also concluded that the Transaction is fair and reasonable to Rio Tinto Shareholders whose votes are not to be disregarded. Further details of the Independent Expert engagement and the Independent Expert's report are set out below and further details of the votes to be disregarded are set out in the Notice accompanying this Explanatory Memorandum.

The Rio Tinto Limited extraordinary general meeting will be held at 4.00 p.m. (AWST) on 25 October 2022 at the River View Rooms, Level 2, the Perth Convention and Exhibition Centre, 21 Mounts Bay Road, Perth, Western Australia. The Rio Tinto plc general meeting has also been convened for the same date and time, being at 9.00 a.m. (BST) in London, United Kingdom. The two meetings will be held contemporaneously and linked by video. As a Rio Tinto Limited Shareholder, you will be asked to approve the Transaction at the Rio Tinto Limited extraordinary general meeting.

The result of the vote to approve the Transaction under the joint electorate procedure will be determined when the relevant polls have closed at the end of both the Rio Tinto Limited extraordinary general meeting and the Rio Tinto plc general meeting. The overall results will be announced to the relevant stock exchanges and posted on Rio Tinto's website shortly after the end of the meetings.

2. Action to be taken

You are receiving this document and a proxy form in your capacity as Rio Tinto Limited Shareholder. Whether or not you intend to be present at the Rio Tinto Limited extraordinary general meeting, you are encouraged to complete the proxy form and return it as soon as possible and in any case so as to be received by Rio Tinto Limited's share registry at Computershare Investor Services Pty Ltd by 4.00 p.m. (AWST) on 23 October 2022.

The completion and return of your proxy form will not prevent you from attending and voting in person at the Rio Tinto Limited extraordinary general meeting, or any adjournment thereof, if you so wish and are so entitled.

3. Further information

Your attention is drawn to the further information contained in this document. You are advised to read the whole document and not merely rely on the key or summarised information in this letter.

4. Independent Expert

The ASX Listing Rules require the provision of an Independent Expert's Report to accompany any notice of meeting seeking shareholder approval for the purpose of ASX Listing Rule 10.1, stating the Independent Experts' opinion as to whether the Transaction is fair and reasonable so far as shareholders whose votes are not to be disregarded are concerned. The Independent Expert is required to be independent from Rio Tinto in accordance with Regulatory Guide 112 issued by the Australian Securities and Investments Commission.

Rio Tinto has engaged Deloitte as the Independent Expert to prepare a report opining on the fairness and reasonableness of the Transaction so far as shareholders whose votes are not to be disregarded are concerned.

The Independent Expert has examined the Transaction in detail and concluded that the terms of the Transaction are fair and reasonable for Rio Tinto Shareholders whose votes are not to be disregarded. The Independent Expert's Report is set out at pages 17 to 101 of this document.

The Independent Expert, in its Independent Expert's Report, states that:

'In our opinion, the Proposed Transaction is fair and reasonable to Non-Associated Shareholders. An individual shareholder's decision in relation to the Proposed Transaction may be influenced by their particular circumstances. If in doubt the shareholder should consult an independent adviser, who should have regard to their individual circumstances.'

This opinion should be read in conjunction with our detailed report which sets out our scope and findings.'

5. Recommendation

The Board of Rio Tinto considers that the Transaction is in the best interest of Rio Tinto Shareholders as a whole. Accordingly, the Board unanimously recommends that you vote in favour of both Resolutions proposed in this Notice, and each member of the Board who beneficially holds Rio Tinto Shares intends to do so in respect of their beneficial holdings.

Yours faithfully



Dominic Barton
Chair

15 September 2022

Expected timetable of principal events

Each of the times and dates in the table below is indicative only and may be subject to change.

Latest time and date for receipt of proxy forms for the Rio Tinto Limited extraordinary general meeting	4.00 p.m. (AWST) on 23 October 2022
Rio Tinto Limited extraordinary general meeting	4.00 p.m. (AWST) on 25 October 2022
Rio Tinto plc general meeting	9.00 a.m. (BST) on 25 October 2022
Completion of the Transaction	Expected to be December 2022, subject to satisfaction of the relevant conditions precedent

Notes:

- (1) The times and dates set out in the expected timetable of principal events above and mentioned throughout this document may be adjusted by Rio Tinto Limited in which event details of the new times and dates will be notified to the ASX.
- (2) References to times in this timetable are to Australian Western Standard Time unless otherwise stated.

Explanatory memorandum

The Independent Expert has concluded that the Transaction is fair and reasonable to Rio Tinto Shareholders whose votes are not to be disregarded.

1. Background to and reasons for the Transaction

The proposed Western Range development and Joint Venture is an important part of Rio Tinto's Pilbara iron ore portfolio, which includes an integrated network of 17 mines, four independent port terminals, a rail network spanning nearly 2,000 kilometres and related infrastructure. The proposed development replenishes the Greater Paraburdoo mining hub located near the town of Paraburdoo, an area where Rio Tinto has operated for 50 years.

Rio Tinto has a long history of partnering across its Pilbara portfolio, and in particular the Greater Paraburdoo region. In 1987 Rio Tinto and Sinosteel entered into a landmark joint venture to develop the Channar mine, China's first ever overseas mining joint venture. In 2002, Rio Tinto and Baowu entered the Original Joint Venture which enabled the development of the Eastern Range mine.

These partnerships have strengthened mutually beneficial supplier-customer relationships and contributed to successful growth and further collaboration, including research and development on new methods to reduce carbon emissions and improve environmental and safety performance across the steel value chain. This includes a US\$10 million investment with Baowu into low-carbon steelmaking projects and research.

The Original Joint Venture between Rio Tinto (54% participating interest) and Baowu (46% participating interest) was established to develop and mine 200 Mt of iron ore from two deposits (known as Eastern Range and Western Range), which was then sold to Hamersley Iron (a Rio Tinto subsidiary) at the mine gate. The Original Joint Venture included a long-term offtake arrangement under which Baowu purchased 200 Mt of iron ore from Rio Tinto.

The Original Joint Venture mine production limit of 200 Mt is now expected to be met from the Eastern Range deposit alone and this has left the Western Range deposit undeveloped, up until now.

In early 2019, Rio Tinto announced it had entered into a Heads of Agreement with Baowu to discuss a potential joint venture with respect to the Western Range deposit and associated offtake arrangements. The parties have now agreed to enter into the Joint Venture for Western Range and the Offtake Agreement. This Transaction continues Rio Tinto's longstanding and mutually beneficial relationship with Baowu.

2. Key terms of the Transaction

Rio Tinto and Baowu have reached a binding agreement to collectively invest approximately US\$2 billion (Rio Tinto's share being approximately US\$1.3 billion¹) in developing the Western

Range deposit. This will include pit development, access roads, primary crusher and a conveyor system to connect to the existing 100% Rio Tinto-owned Paraburdoo secondary crusher, stockyard and train loading infrastructure. The Joint Venture is intended to produce a total of 275 Mt of iron ore from Western Range over approximately 13 years. Subject to approvals and construction, first production of iron ore is planned for 2025, ramping up to approximately 25 Mtpa capacity by 2027. As with the 2002 arrangements, Hamersley Iron will purchase all iron ore production from the Joint Venture at the mine gate.

Rio Tinto and Baowu have also reached a binding agreement for an Offtake Agreement at market prices covering a total of up to 126.5 Mt of the primary Australian ore product sold by Rio Tinto (currently, Pilbara Blend Lump and Pilbara Blend Fines) over approximately 13 years. This volume represents Baowu's 46% Participating Interest of the anticipated 275 Mt production of ore from Western Range through the Joint Venture. The present value of the estimated sales revenue to be received under the Offtake Agreement is likely to be US\$5 billion, as further described in Section 8 below of this Explanatory Memorandum.

To give effect to the development of Western Range, the Joint Venture Participants have entered into a Joint Venture Agreement, a long term Offtake Agreement and other associated transaction documents, including the documents described in further detail in Section 3 below of this Explanatory Memorandum (collectively, the **Transaction Documents**). The Transaction Documents substantially reflect the terms and structure of the Original Joint Venture but have been updated to reflect current market standards for resources joint ventures. More detailed terms of the Transaction Documents are described in Section 3 and Section 8 below of this Explanatory Memorandum.

For the reasons further described in the Chair's Letter and Section 5 below, various arrangements comprising the Transaction are considered to be either an acquisition or disposal of a substantial asset by Rio Tinto Limited and Baowu is considered to be a person in a position of influence in relation to Rio Tinto Limited for the purposes of the ASX Listing Rules. As a result, the Transaction requires the approval of Rio Tinto Shareholders.

The terms of the Transaction have been negotiated on an arm's length basis and have been approved unanimously by the Board.

The Independent Expert has determined that the Transaction is fair and reasonable to Rio Tinto Shareholders whose votes are not to be disregarded. The Board considers that the Transaction is in the best interests of Rio Tinto Shareholders as a whole. Accordingly, the Board unanimously recommends that Rio Tinto Shareholders vote in favour of the Transaction and each Director who beneficially holds Rio Tinto Shares intends to do so in respect of their beneficial holdings.

1. Rio Tinto's share of the US\$2 billion capital investment includes capital upgrades to 100% owned Rio Tinto assets at the Greater Paraburdoo hub which are required to facilitate the development of Western Range.

3. What are the key terms of the Transaction Documents?

The relationship between Ranges Mining Pty Ltd (a wholly-owned Rio Tinto subsidiary) (**Rio Sub**) and Baosteel Resources Australia Pty Ltd (a wholly-owned Baowu subsidiary) (**Baowu Sub**), which are the participants to the Joint Venture (the **Joint Venture Participants** or **Participants**), will be governed principally by the Western Range Joint Venture Agreement (**Joint Venture Agreement**) and other ancillary agreements. Rio Tinto will sell iron ore to a Baowu group company under the Offtake Agreement at market prices.

The Transaction includes the key arrangements and documents, as described below and in Section 8:

- **Offtake Agreement:** Rio Tinto Commercial Pte. Ltd (a wholly-owned Rio Tinto subsidiary) (**RTC**), as marketer and distribution agent for Hamersley Iron, will sell iron ore products to Baowu Raw Material Supply Co., Ltd (a related party of Baowu Sub) under a long term Offtake Agreement. The material terms of the Offtake Agreement are as follows:
 - **Quantity and term:** The Offtake Agreement is for up to a total of 126.5 Mt of the primary Australian ore product sold by Rio Tinto (currently, Pilbara Blend Lump and Pilbara Blend Fines). The annual volume will be approximately 11.5 Mt over 13 years, with a ramp up period which aligns with anticipated Western Range production. The offtake volume is equivalent to Baowu's effective equity production interest in Western Range.
 - **Price:** The price of iron ore product will be calculated monthly by reference to published market indices, adjusted for iron, moisture content and freight. The price is currently determined by reference to the average of the Platts Index prices (for fines and lump) and the Baltic Exchange Capesize Index Rates for each day of the relevant month.
- **Joint Venture Agreement and ancillary documents:** Rio Tinto (through Rio Sub) will hold a 54% participating share in the Joint Venture and Baowu (through Baowu Sub) will hold a 46% participating share (each the **Participating Interest** of that Participant). In addition to establishing the Joint Venture, the Joint Venture Agreement:
 - establishes a management committee, sets out guidelines for the preparation of annual programmes and budgets and establishes a regime for maintaining and repairing Joint Venture assets and distributing Joint Venture assets at the end of the Joint Venture; and
 - contains other regimes typical of joint venture agreements of this nature which are engaged by certain trigger events, and which are further described in the table in Section 8 below under the heading 'Future Transactions'. These include:
 - pre-emptive rights;
 - a right for certain Rio Tinto entities to purchase the Joint Venture Assets on termination of the Joint Venture;

- buy-out rights if either Joint Venture Participant is subject to a change in control or an unrelated entity acquires a direct or indirect equity interest in that Joint Venture Participant;
- buy-out rights in the event of a default by any unrelated third party which has acquired part or all of Rio Sub's or Baowu Sub's Participating Interest in the Joint Venture;
- dilution in the event of default by a Joint Venture Participant; and
- cross security arrangements.

Further details of these regimes are set out in Section 8.

- **Management Agreement:** Ranges Management Company Pty Ltd (a wholly-owned Rio Tinto subsidiary) (**Manager**), will be the Manager of the Joint Venture on behalf of the Joint Venture Participants. The Manager will be responsible for matters which are typical in unincorporated joint ventures of this nature, including:
 - procuring the design, procurement, construction, development, and commissioning of the Western Range Mine;
 - procuring the conduct of mining and processing operations, maintenance and related activities; and
 - the financial administration of the Joint Venture.
- **Production Sales Agreement:** Under a production sales agreement, the Joint Venture Participants will each sell their share of ore to Hamersley Iron at the mine gate. At this point, title to the ore will transfer from each of the Joint Venture Participants to Hamersley Iron. Hamersley Iron will then transport the ore through its integrated Pilbara infrastructure system and blend to create iron ore products.
- **Mine Operation and Infrastructure Contract:** Under the Mine Operation and Infrastructure Contract (**MOIC**), Hamersley Iron will provide mine operation and mine infrastructure services to the Joint Venture, for which it will charge the Manager on a cost-recovery basis. The Manager will in turn, under the Management Agreement, call for payment of these costs from the Joint Venture Participants according to their Participating Interests. Each Joint Venture Participant must also progressively fund its share of rehabilitation costs, as estimated and confirmed in closure studies to be undertaken during the term of the Joint Venture.
- **Amended Western Range Sublease:** Both the Eastern Range tenure and the Western Range tenure are currently subleased to the Joint Venture Participants under the Original Joint Venture, with the underlying tenure held by Hamersley Iron pursuant to the Hamersley Range State Agreement. As part of the Joint Venture, Hamersley Iron will, with the consent of the State, amend the deed of sublease granted to the Joint Venture Participants relating to the Western Range tenure.

This will become the **Amended Western Range Sublease** and will give the Joint Venture Participants a right to enter the Western Range area for the purposes of constructing, developing, commissioning, operating and rehabilitating

a mine on the Western Range area as contemplated in the Joint Venture Agreement (**Western Range Mine**). The Joint Venture Participants will pay a nominal resource contribution and rental fee to Hamersley Iron. The resource contribution will be payable under a Resource Contribution Deed and will be calculated monthly by reference to the amount of iron ore produced for sale by the Joint Venture (**Saleable ROM Production**). Once the 275 Mt of iron ore output Joint Venture target is reached, the Amended Western Range Sublease will end.

4. What are the conditions precedent to the Transaction?

The Joint Venture Agreement, which is the principal document governing the Transaction, is subject to (and does not become binding until) the satisfaction or waiver of the following conditions:

- (a) obtaining the consent of the State to the Amended Western Range Sublease and various security arrangements between the Joint Venture Participants and Hamersley Iron (described in further detail in Section 8), pursuant to the Hamersley Range State Agreement;
- (b) obtaining the approval of, or indication of no objection from, the Treasurer of the Commonwealth of Australia in relation to the establishment of the Joint Venture under the provisions of the *Foreign Acquisitions and Takeovers Act 1975* (Cth) or the Foreign Investment Guidelines;
- (c) the Rio Tinto Shareholders approving the Transaction to the extent required by the ASX Listing Rules, the *Corporations Act 2001*, any applicable ASIC class orders, ASIC or ASX guidance or requirements and the DLC Sharing Agreement;²
- (d) the proper execution of all other Transaction Documents;
- (e) the grant of all necessary consents, approvals or authorities from the government of the People's Republic of China; and
- (f) the receipt of all applicable ant-trust approvals from the government of the People's Republic of China on conditions acceptable to the Joint Venture Participants.

As at the date of this document, it is expected that the approvals which will be required from the government of the People's Republic of China are the consent of the National Development and Reform Commission, Ministry of Commerce and the consent of the State Administration for Market Regulation pursuant to PRC Anti-Monopoly Law.

As at the date of this document the conditions precedent above remain outstanding. It is currently anticipated that the completion of the Transaction will occur on or about December 2022, subject to satisfaction of the conditions precedent. The longstop date for satisfaction of the conditions precedent is 3 months after execution of the Transaction Documents for the FIRB and shareholder approvals (as described in paragraphs (b) and (c) above) and 6 months for the remaining conditions, unless extended by the parties.

Further, the development of Western Range also requires Hamersley Iron to obtain a number of other State and Commonwealth Government approvals, which have either been received or are scheduled to be received before commencement of relevant on-ground operations. A number of these operational approvals are not specific to the Transaction but will support the Rio Tinto Group's Pilbara operations more broadly.

5. Why is shareholder approval required for the Transaction?

As noted in Section 4, it is a condition precedent of the Transaction that Rio Tinto Shareholders approve the Transaction, among other conditions. Rio Tinto Shareholder approval is required as a result of the application of ASX Listing Rule 10.1 to the Transaction.

5.1 ASX Listing Rule 10.1

ASX Listing Rule 10.1 provides that an entity or its subsidiary must not acquire or dispose of a "substantial asset" from or to certain persons in a position of influence without shareholder approval, including:

- (a) a substantial (10%+) holder, being a shareholder who, together with their associates, has a relevant interest (or had a relevant interest at any time in the six months before the transaction) in at least 10% of the total votes attached to voting securities in the entity;
- (b) an Associate of such a substantial shareholder; and
- (c) any other person whose relationship to the entity is such that, in ASX's opinion, the transaction should be approved by shareholders.

5.2 Is there an acquisition or disposal of a substantial asset?

ASX Listing Rule 10.2 defines 'substantial asset' for the purposes of ASX Listing Rule 10.1 as follows:

An asset is substantial if its value, or the value of the consideration being paid or received by the entity for it is, or in ASX's opinion is, 5% or more of the equity interests of the entity, as set out in the latest accounts given to ASX under the listing rules.

In determining whether the asset meets the 5% threshold, liabilities assumed by the entity as part of the acquisition or assumed by someone else as part of the disposal of the asset are not to be deducted from the value of the asset. Separate acquisitions or disposals will also be aggregated for the purpose of determining the 5% threshold if, in ASX's opinion, they form part of the same commercial transaction.

Based on its latest consolidated financial statements as at 30 June 2022, 5% of Rio Tinto's equity interests is US\$2.528 billion.

2. For the avoidance of doubt, this condition does not apply to Resolution 2, and to the extent Resolution 1 is passed but Resolution 2 is not passed, the Transaction will proceed subject to the satisfaction or waiver of the other conditions precedent to the Transaction.

The aggregate of the estimated value of the arrangements comprising the Transaction over the anticipated life of the Joint Venture as further described in Sections 3 and 8 of this Explanatory Memorandum, including in particular the estimated present value to be received by Rio Tinto under the Offtake Agreement (US\$5 billion), exceed the 5% threshold. The various arrangements therefore constitute acquisitions and disposals of substantial assets by Rio Tinto Limited for the purposes of ASX Listing Rule 10.1.

5.3 Why is Baowu an associate of a substantial holder?

Under the ASX Listing Rules, Chinalco is treated as a substantial (10%+) holder of Rio Tinto Limited because it is entitled to exercise or control the exercise of, 10% or more of the votes able to be cast on all or substantially all matters at general meetings. Chinalco holds no shares in Rio Tinto Limited directly. However, based on the most recent substantial holder notices lodged by Chinalco and Rio Tinto plc's total number of voting rights as at 31 August 2022, Chinalco's wholly owned subsidiary, Shining Prospect Pte. Ltd, holds a 14.61% interest in Rio Tinto plc.

As a consequence, Chinalco is deemed to have a relevant interest in 11.26% of the ordinary shares in Rio Tinto Limited. This is by virtue of the operation of ASIC Instrument 01/1040 which gives Chinalco a "relevant interest" in Rio Tinto Limited commensurate with the number of securities able to be exercised by Rio Tinto plc (via a special voting company) at a Rio Tinto Limited meeting on certain "Joint Decisions Matters" (as defined in the DLC Sharing Agreement), and the deeming rule in Section 608(3)(b) of the *Corporations Act 2001*.

Chinalco is owned by the State-owned Assets Supervision and Administration Commission of the State Council (**SASAC**) of the People's Republic of China. Baowu is a Chinese state owned enterprise that is also wholly owned by SASAC. Chinalco is not involved in the management of Rio Tinto plc or Rio Tinto Limited.

Baowu may be considered an associate of Chinalco because of their common ownership and as a result, notwithstanding that the Original Joint Venture pre-dates Chinalco acquiring a substantial holding in Rio Tinto Limited in 2008, Baowu falls within the definition of a person in a position of influence over Rio Tinto Limited for the purposes of the Transaction under ASX Listing Rule 10.1.4. The Transaction therefore requires Rio Tinto Limited Shareholder approval pursuant to ASX Listing Rule 10.1 (specifically Listing Rule 10.1.4).

Notwithstanding that the Transaction does not require shareholder approval under the UK Listing Rules, the approval under ASX Listing Rule 10.1.4 will require the approval of the public shareholders of Rio Tinto Limited and Rio Tinto plc voting as a joint electorate in accordance with the DLC Sharing Agreement which regulates the relationship between Rio Tinto Limited and Rio Tinto plc under the dual listed companies merger structure. The DLC Sharing Agreement provides for the public shareholders of Rio Tinto Limited and Rio Tinto plc to vote as a joint electorate on various matters that affect shareholders of both companies. Rio Tinto plc Shareholders will therefore be required to vote on the Transaction, and a general meeting of Rio Tinto plc Shareholders will be held contemporaneously for that purpose.

5.4 Voting exclusion

In accordance with ASX Listing Rule 10.1, Rio Tinto Limited is required to disregard any votes cast in favour of the Resolutions proposed at the Rio Tinto Limited extraordinary general meeting by or on behalf of: (a) Baowu and its Associates or (b) any other person who will obtain a material benefit as a result of the Transaction (except a benefit solely by reason of being a holder of ordinary securities in Rio Tinto) and their Associates.

However, Rio Tinto Limited need not disregard a vote that is cast in favour of the Resolutions by:

- (a) a person as proxy or attorney for a person who is entitled to vote on the Resolutions, in accordance with the directions given to the proxy or Attorney;
- (b) the Chair of the meeting as proxy for a person who is entitled to vote on the Resolutions, in accordance with the directions given to the Chair; or
- (c) a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met: (i) the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting on the Resolutions; and (ii) the holder votes on the Resolutions in accordance with directions given by the beneficiary.

Shining Prospect Pte. Ltd (a wholly-owned subsidiary of Chinalco and a holder of shares in Rio Tinto plc), Chinalco and any other entities that are Chinese state-owned enterprises may be considered Associates of Baowu for the purposes of ASX Listing Rule 10.1. Rio Tinto has not identified any other person who will obtain a material benefit as a result of the Transaction (except a benefit solely by reason of being a holder of ordinary securities in Rio Tinto).

Additionally, if any votes are cast by or on behalf of Shining Prospect Pte. Ltd in favour of Resolution 1 either at the Rio Tinto Limited extraordinary general meeting or the Rio Tinto plc general meeting, and Resolution 1 would not have been passed by the requisite majority if such votes were disregarded, the condition precedent in the Joint Venture Agreement requiring Rio Tinto Shareholders to approve the Transaction in accordance with ASX requirements will not have been satisfied and the Transaction will not proceed. If Resolution 1 is passed (disregarding Shining Prospect Pte. Ltd's votes), but Resolution 2 would not have been passed if Shining Prospect Pte. Ltd's votes in favour of Resolution 2 were disregarded, and the Transaction proceeds, then Rio Tinto will consult with ASX at the time of any Future Transaction which exceeds the relevant ASX Listing Rule 10.1 thresholds to determine if a further Rio Tinto Shareholder approval will be required for the purposes of ASX Listing Rule 10.1.

6. Independent Expert

ASX Listing Rules 10.5.10 and 10.6 provide that an independent expert's report opining on the fairness and reasonableness of the Transaction must be prepared in order to seek Rio Tinto Shareholder approval. The Independent Expert is required to be independent from Rio Tinto in accordance with Regulatory Guide 112 issued by the Australian Securities and Investments Commission.

Accordingly, Rio Tinto has engaged Deloitte for the purpose of preparing the Independent Expert Report, which is set out at pages 17 to 101 of this document.

The Independent Expert's Report has been prepared by the Independent Expert and not by Rio Tinto. The Circular including the Independent Expert's Report can be viewed on the Company's website at riotinto.com/gm2022. Shareholders may request a hard copy from the Company at no cost to them. If you wish to request a hard copy, please contact our share registry. The contact details are on page 110.

7. Advantages, disadvantages and risks of the Transaction

Resolutions 1 and 2 seek the required approval of Rio Tinto Shareholders of the Transaction and potential Future Transactions under and for the purposes of ASX Listing Rule 10.1.

Prior to making any decision to vote in favour of the Transaction, Rio Tinto Shareholders should carefully consider, together with all other information contained in this document, the specific advantages, disadvantages and risks described below. If Resolution 1 is passed, Rio Tinto will be able to enter into the Transaction. If the Transaction is completed, the Directors consider that the key advantages of the Transaction are:

- **Consolidates a key customer relationship:** Baowu is a major global steel manufacturer, being the largest steel manufacturer in the world by volume since 2020. Baowu and Rio Tinto have a long standing and mutually beneficial relationship (including the Original Joint Venture) and Baowu is a reliable and valuable customer.
- **Reinforces a key low carbon steelmaking partnership:** Rio Tinto is working in partnership with Baowu on research and development to find new pathways, including alternate steelmaking processes, to optimise Pilbara iron ore resources in a low carbon world and reduce carbon emissions. The continuation and extension of the Original Joint Venture offers the opportunity for Rio Tinto to continue and strengthen its relationship with Baowu while maintaining a commitment to the energy transition and safe and environmentally responsible operations.
- **Supports economic development:** The development of Western Range will support employment and economic development in Australia. It will sustain current iron ore production from Paraburdoo and is critical to sustain the town of Paraburdoo, a region in which Rio Tinto has operated for 50 years.

- **Long term certainty of sale:** The Offtake Agreement provides certainty of sale of up to 126.5 Mt (approximately 11.5 Mtpa) of the primary Australian ore product sold by Rio Tinto (currently, Pilbara Blend Lump and Pilbara Blend Fines).
- **Pricing by reference to published market indices:** The pricing methodology using published market indices will ensure that Rio Tinto receives a price commensurate with prevailing market prices over the life of the Joint Venture.
- **Supports Pilbara Blend product quality:** The Joint Venture and development of Western Range, a high quality Brockman ore deposit, is required to maintain Rio Tinto's Pilbara iron ore production capacity and Pilbara Blend product quality. Pilbara Blend accounts for approximately 70% of Rio Tinto's total iron ore sales.
- **Updated and optimised Joint Venture terms:** The Joint Venture has been updated from the Original Joint Venture and reflects current market standards for resource joint ventures, including shared risks between the Joint Venture Participants. For example, the Joint Venture Participants are responsible for their respective shares of construction and operational costs and will progressively fund their share of rehabilitation and closure costs during operations. The Offtake Agreement terms are also consistent with prevailing market terms for other long term contracts in the market.
- **Optimised development of Western Range deposits:** The Original Joint Venture provided for an annual production rate of 11.5 Mt, for a total of 200 Mt of Saleable ROM Production from Eastern Range first, and then Western Range. With the Original Joint Venture 200 Mt of production expected to be satisfied from Eastern Range, the Joint Venture now provides the opportunity to develop and realise the optimal value of the Western Range deposit as determined by recent feasibility studies, with a higher annual production rate of approximately 25 Mt, for a total of 275 Mt of Saleable ROM Production through the Joint Venture.

The Directors consider that the key disadvantage of Rio Tinto's entry into the Joint Venture is:

- **Limiting the potential to diversify customer base:** The commitment of a significant percentage of the production under the Joint Venture to Baowu limits the extent to which Rio Tinto can potentially diversify its customer base. However, as noted above, Baowu is the largest steel producer in the world and a reliable long term customer. This reduces the risk that the Offtake Agreement will be dishonoured or that the same quantity of the product produced by the Joint Venture will not be sold. Further, as set out above, the price methodology in the Offtake Agreement uses published market indices, so will reflect prevailing market prices over the life of the agreement. Additionally, the continuation and extension of the Original Joint Venture recognises the growth opportunities present for Rio Tinto in relation to its significant Chinese customer base.

If Resolution 1 is not passed, Rio Tinto will not be able to proceed with the Transaction. This will result in the following consequences:

- The approximately US\$2 billion investment to construct the Western Range project in the Pilbara region of WA, with

associated employment and contract opportunities, would be delayed. Such delay may reduce the demand for labour resources required to support the Greater Paraburdoo operations, which may impact sustainability of the Paraburdoo town, the local community and businesses;

- Rio Tinto may not be able to maintain Pilbara iron ore production capacity and Pilbara Blend product quality, as production from Western Range is required to replenish resources and mine production;
- Even if Western Range were ultimately developed, without the Offtake Agreement Rio Tinto may need to explore alternative offtake arrangements and Rio Tinto Shareholders may not receive the advantages of long term certainty of sales with a reliable purchaser at prevailing market prices; and
- The long standing and mutually beneficial strategic production partnership with Baowu may not be extended and this may reduce opportunities for Rio Tinto to continue to realise future strategic value.

Risks

There are also other considerations and risks which Rio Tinto Shareholders should consider in deciding whether or not to approve the Transaction:

- The development of Western Range is subject to general project risks including timely completion of heritage and environmental surveys, receiving necessary approvals on schedule, changes in law or regulation, interruptions to construction due to labour or material shortages or COVID-19 disruptions to global supply chain, inflation, declines in commodity prices, adverse exchange rate movements and the impacts of geopolitics on trade and investment. Such delays could impact the value of the interests which Rio Tinto is acquiring or disposing of under the Transaction, for example higher than estimated construction costs, and delayed production and sale of iron ore by Rio Tinto.
- Rio Tinto Shareholders might disagree with the assessment of the Board and the Independent Expert as to the value of the interests which Rio Tinto is acquiring or disposing of under the Transaction, and whether Rio Tinto is paying an appropriate price for the interests acquired or whether Baowu is paying a sufficient price for those interests disposed of.
- The Transaction is subject to a number of conditions precedent, including Rio Tinto Shareholder approval and the receipt of other regulatory consents, as set out in Section 4 of this Explanatory Memorandum. If Rio Tinto Shareholders do not approve the Transaction or the necessary regulatory consents are not received, the Transaction will not complete.

8. Assets and Consideration

As the Transaction is a joint venture, it involves the Joint Venture Participants undertaking certain activities in common venture with each other for mutual benefit over a term of approximately 13 years. As such, there is no single payment or stream of payments that may be properly described as the consideration payable under the Transaction. However, the Transaction comprises a number of transactions that could be characterised as the acquisition or disposal of an asset within the meaning provided by Listing Rule 10.1.

The Offtake Agreement, in particular, involves the sale of a product or disposal of an asset (currently, Pilbara Blend Lump and Pilbara Blend Fines) by Rio Tinto to Baowu over an expected 13 year period, the aggregate anticipated present value of which is US\$5 billion, which alone would trigger the requirement for Rio Tinto Shareholder approval under the ASX Listing Rules.

The key terms of the material acquisitions and disposals under the Transaction are described below. Detailed terms and a copy of the Western Range feasibility study have also been provided to the Independent Expert for the purposes of enabling the Independent Expert to prepare its Independent Expert's Report and to opine on the fairness and reasonableness of the Transaction.

Relevant Transaction	Consideration Payable
Offtake arrangements	
Baowu will purchase up to 126.5 Mt of the primary Australian ore product sold by Rio Tinto (currently, Pilbara Blend Lump and Pilbara Blend Fines) under the Offtake Agreement, which is linked to the market indices.	<p>Based on the Iron Ore Long Term Market Outlook – Statistical Review 2021 published by CRU International Limited, it is estimated the net present value of the future sales revenue to be received under the Offtake Agreement is likely to be US\$5 billion, which equates to an average price of US\$70 per dry metric tonne of iron ore supplied under the Offtake Agreement.</p> <p>This net present value is based on the following assumptions:</p> <ul style="list-style-type: none"> – total offtake of 126.5 million wet metric tonnes; – annual quantity based on agreed schedule in Offtake Agreement, being approximately 11.5 Mtpa with a ramp up period which aligns with anticipated Western Range production; – average product split of sales of 57% Pilbara Blend Fines and 43% Pilbara Blend Lump; and – real discount rate of 6.5% per annum. <p>Rio Tinto notes however that the overall sales revenue to be received under the Offtake Agreement is a function of a number of variables that are currently unable to be quantified, including:</p> <ul style="list-style-type: none"> – actual prevailing price of the above indices at the time of sale; and – price adjustments due to the actual specifications of the iron ore delivered, including moisture and iron content (grade). <p>The price payable under the Offtake Agreement is based on the following market indices and adjusted for iron content and moisture:</p> <ul style="list-style-type: none"> – the Platts Daily Iron Ore assessment for iron ore fines 62% Fe CFR North China (IODBZ00 IODEX 62% Fe CFR China) quoted in US\$/DMT as published in the Platts publication “Platts SBB Steel Markets Daily”; – the Platts Daily Iron Ore spot lump premium assessment for iron ore lump 62.5% Fe, CFR China (IOCLP00 IO Spot Lump Premium 62.5%) quoted in US\$/dmtu as published in the publication ‘Platts SBB Steel Markets Daily’; and – the cost of freighting, published as the Baltic Exchange Capesize Index Rate for Route C5 quoted in US\$/WMT on the Baltic Exchange Website. <p>Any change in the pricing index shall be subject to mutual agreement between the parties to the Offtake Agreement.</p>
Future Transactions	
Pre-emptive rights: Each Joint Venture Participant will have a right of first refusal to acquire the whole or part of the other Joint Venture Participant’s Participating Interest if the other Joint Venture Participant intends to dispose of some or all of its Participating Interest to a third party.	The price paid by the buying Joint Venture Participant will be determined on the basis of a bona fide third party offer to purchase the selling Joint Venture Participant’s Participating Interest.
Purchase of Joint Venture assets on termination of Joint Venture: Rio Sub and Hamersley Iron have the option to acquire assets of the Joint Venture upon termination of the Joint Venture.	The purchase price will be the fair value of the assets to be acquired, as determined through independent expert valuations, which can be referred to final and binding arbitration if the value is not agreed between the Joint Venture Participants. If Rio Sub or Hamersley Iron elects not to purchase the assets of the Joint Venture, then a consultation process will be undertaken between the Manager and Joint Venture Participants to determine how best to realise the assets, within two years of termination of the Joint Venture.

Relevant Transaction	Consideration Payable
Buy-out rights in the event of a change of control: Each Joint Venture Participant has the right to acquire the Participating Interest of the other Joint Venture Participant if the other Joint Venture Participant becomes subject to a change in control.	The purchase price will be the fair value as determined by an independent expert appointed by the Joint Venture Participants, which can be referred to final and binding arbitration if the value is not agreed between the Joint Venture Participants.
Buy-out rights in the event of a default by a third party: In the event of default under the Joint Venture Agreement by an unrelated third party Participant, the non-defaulting Joint Venture Participant(s) will have the option to purchase the Participating Interest of the defaulting unrelated third party Participant.	The purchase price will be the fair value as determined by an independent expert appointed by the Joint Venture Participants, which can be referred to final and binding arbitration if the value is not agreed between the Joint Venture Participants.
Dilution rights in the event of default: In the event of default under the Joint Venture Agreement by a Participant (Defaulting Participant), any non-Defaulting Participant may dilute the Defaulting Participant's Participating Interest. The Participating Interest of the non-Defaulting Participant will increase accordingly.	The Participating Interest of the Defaulting Participant will be diluted in proportion to the value of the outstanding sum owed by the Defaulting Participant relative to the fair market value of the entire Joint Venture, as determined by an independent expert.
Cross security: Subject to relevant approvals, each Joint Venture Participant will grant in favour of the other Joint Venture Participant a fixed and floating security over its interest in the Joint Venture.	No consideration is payable by either Joint Venture Party for the grant or exercise of any cross security. The security granted under the Deeds of Cross-Security will only be enforceable in the event of Default, in which case the non-Defaulting Participant will become the Enforcing Secured Party .
Hamersley Iron security: Subject to relevant approvals, Baowu Sub will grant in favour of Hamersley Iron a security over its interest in the Amended Western Range Sublease and Saleable ROM Production to secure payment of the sublease rental fee, resource contribution and other associated payments to Hamersley Iron.	No consideration is payable by Hamersley Iron for the granting or exercise of the security. The security will only be enforceable in the event of default by Baowu Sub in payment of amounts owing to Hamersley Iron.
Fees payable to Manager	
The Joint Venture Participants will pay a construction fee and an operating fee (together, the Management Fee) to the Manager.	The construction fee will be based on a percentage of all development costs incurred. The operating fee will be based on a percentage of Hamersley Iron's gross monthly sales revenue determined by reference to the 'free on board' price achieved for each tonne of Saleable ROM Production.
Mine gate sale arrangements	
Hamersley Iron will purchase from each Joint Venture Participant its share of the Saleable ROM Production delivered at mine gate.	<p>The methodology applied to determine the mine gate sale price is based on the methodology applied under the Original Joint Venture. Under this arrangement, the Joint Venture Participants receive a price that reflects the relative value of the contribution of the Western Range Mine production as a component part of the value of the relevant iron ore product sold to end customers at the port (including Baowu).</p> <p>The price paid will be calculated by reference to Hamersley Iron's monthly 'free on board' sales revenue for its primary Australian ore product (currently, Pilbara Blend Lump and Pilbara Blend Fines), adjusted to account for royalties, iron and moisture content. This is then further adjusted according to the relative value of the Joint Venture mine assets, against the relative value contributed by Rio Tinto in providing rail, port and blending.</p>

Relevant Transaction	Consideration Payable
Capital and operating costs	<p>The Joint Venture Participants will contribute capital costs and operating costs actually incurred by the Joint Venture to fund the costs of designing, constructing and operating the Western Range Mine in proportion to their Participating Interests. Pursuant to its obligations and responsibilities under the Joint Venture Agreement and MOIC (whether instructed by the Manager or otherwise), Hamersley Iron will receive three sets of reimbursements from the Participants (through the Manager) for the costs it incurs on their behalf, as follows:</p> <p>Early Works Costs: Hamersley Iron has sought approval to perform certain Early Works prior to the commencement of the Joint Venture in order to maintain development schedule. Once the Joint Venture has commenced, the Joint Venture Participants will reimburse Hamersley Iron, in proportion to their Participating Interests, for the costs it incurred in undertaking the conduct and management of the Early Works.</p> <p>Construction Costs: Hamersley Iron will perform any construction and development work it is instructed to perform from time to time. Hamersley Iron will invoice the Manager for any costs it incurs in constructing or developing the Western Range Mine and supporting infrastructure, and the Manager will call for these costs from the Joint Venture Participants under the Management Agreement. These will form part of the overall development costs that the Manager charges the Joint Venture Participants.</p> <p>Operating Costs: Hamersley Iron will invoice the Manager for any costs it incurs in operating the Western Range Mine. It will also call for payments from the Joint Venture Participants to progressively fund each Joint Venture Participant's share of rehabilitation and closure costs, as estimated and confirmed through closure studies. The Manager will call for those costs from the Joint Venture Participants under the Management Agreement. These will form part of the overall operational costs that the Manager charges the Joint Venture Participants.</p>
Sublease	<p>Hamersley Iron will sublease the Western Range tenure to the Joint Venture Participants</p> <p>The Joint Venture Participants will pay a nominal ongoing resource contribution fee to Hamersley Iron which is calculated by reference to the quantity of Saleable ROM Production produced from Western Range, as well as a quarterly rent of A\$5,000 which is broadly proportionate to the rent payable by Hamersley Iron to the State for that area.</p>

9. Future Transactions

The Transaction Documents contemplate a number of Future Transactions described in Sections 3 and 8 which may occur only upon the occurrence of certain events. These Future Transactions may involve the acquisition or disposal of a "substantial asset" for the purposes of the ASX Listing Rules to or from Baowu or its Associates, for which Rio Tinto Shareholder approval may be required under the ASX Listing Rules. Accordingly, Resolution 2 seeks Rio Tinto Shareholder approval in respect of these Future Transactions for ASX Listing Rule 10.1 purposes only, in advance of their occurrence.

If Resolution 1 is not passed, the Transaction will not proceed and Resolution 2 will not have any effect. If Resolution 1 is passed but Resolution 2 is not passed, the Transaction will proceed, however Rio Tinto may later be required to seek Rio Tinto Shareholder approval to enter into a Future Transaction at the relevant time for the purpose of ASX Listing Rule 10.1, depending on the circumstances of that Future Transaction.

Additionally, shareholder approval of these Future Transactions for ASX Listing Rule 10.1 purposes under Resolution 2 does not limit Rio Tinto's obligations to obtain all necessary consents, approvals or authorisations, to the extent they are required at the relevant time, to enter into and complete a Future Transaction. Depending on the identity of the party or parties entering into the relevant Future Transaction and the particular circumstances of the transaction, the entry into and completion of these Future Transactions may be subject to the receipt of other Australian and foreign regulatory and shareholder approvals (including under the *Foreign Acquisitions and Takeovers Act 1975* (Cth), the *UK Listing Rules* and the *Companies Act 2006*).

Specifically, if any Future Transaction requires the prior approval of Rio Tinto Shareholders under the UK Listing Rules or another legal or regulatory requirement in the UK, Australia (other than under ASX Listing Rule 10.1) or otherwise, such approval will be sought at the relevant time. Accordingly, approval of Resolution 2 will not remove the need to seek the prior approval of Rio Tinto Shareholders for a Future Transaction should that be required for a purpose other than ASX Listing Rule 10.1.

10. Intended source and use of funds

ASX Listing Rules 10.5.5 and 10.5.6 require disclosure, in the case of an acquisition of a substantial asset, of the intended source of funds to pay for the acquisition and, in the case of a disposal of a substantial asset, of the intended use of funds received for the disposal.

Sources of funds

Rio Tinto, through Hamersley Iron, will acquire the Saleable ROM Production from Baowu Sub as part of the Joint Venture. The funding for this acquisition will come from earnings from the sale of iron ore under the Offtake Agreement and general corporate sources, including retained earnings, if required.

Uses of funds

Rio Tinto will use the funds received from Baowu from the Joint Venture and the Offtake Agreement to fund the design, construction, operation and rehabilitation of the Western Range Mine, the acquisition of the Saleable ROM Production from Baowu Sub and for ongoing capital expenditure, capital investments and general corporate expenses for Rio Tinto's general corporate purposes.

Independent Expert's Report



Rio Tinto Limited

Proposed Western Range Joint Venture and Offtake Agreement
Independent expert's report and Financial Services Guide

14 September 2022

Financial Services Guide (FSG)

What is an FSG?

An FSG is designed to provide information about the supply of financial services to you.

Why are we providing this FSG to you?

Deloitte Corporate Finance Pty Limited (Deloitte Corporate Finance) (AFSL 241457) has been engaged by Rio Tinto Limited and Rio Tinto plc to prepare an independent expert's report (our **IER**) in connection with a proposed joint venture over an iron ore mining area called Western Range (Proposed JV) and a proposed iron ore offtake agreement (Proposed Offtake). The Proposed JV and the Proposed Offtake are collectively the Proposed Transaction. Rio Tinto Limited and Rio Tinto plc will provide our IER to you.

Our IER provides you with general financial product advice. This FSG informs you about the use of general financial product advice, the financial services we offer, our dispute resolution process and our remuneration. Our contact details are in the document that accompanies this FSG.

What financial services are we licensed to provide?

We are authorised to provide financial product advice to wholesale clients in relation to derivatives, government debentures, stocks or bonds, interests in managed investment schemes, securities, and regulated emissions units (i.e. Australian carbon credit units and eligible international emissions units). We can also provide general financial product advice to retail clients in relation to the above financial products except for regulated emissions units.

We are providing general financial product advice

In our IER, we provide general financial product advice as we have **not** taken into account your personal objectives, financial situation or needs, and you would not expect us to have done so. You should consider whether our general advice is appropriate for you, having regard to your own personal objectives, financial situation or needs.

If our advice is in connection with the acquisition of a financial product, you should read the relevant offer document carefully before making any decision about whether to acquire that product.

How are we remunerated?

Our fees are usually determined on a fixed fee or time cost basis plus reimbursement of any expenses incurred in providing the services. Our fees are agreed with, and paid by, those who engage us. You are not responsible for our fees.

We will receive a fee of approximately \$508,000 exclusive of GST in relation to the preparation of our IER. This fee is not contingent on the outcome of the Proposed Transaction.

Apart from these fees, Deloitte Corporate Finance, our directors and officers, and any related bodies corporate, affiliates or associates, and their directors and officers, do not receive any commissions or other benefits.

All employees receive a salary, and, while eligible for annual salary increases and bonuses based on overall performance, they do not receive any commissions or other benefits as a result of the services provided to you.

The remuneration paid to our directors reflects their individual contribution to the organisation and covers all aspects of performance.

We do not pay commissions or provide other benefits to anyone who refers prospective clients to us.

Associations and relationships

The Deloitte member firm in Australia (Deloitte Touche Tohmatsu) controls Deloitte Corporate Finance. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu.

We, and other entities related to Deloitte Touche Tohmatsu, do not have any formal associations or relationships with any entities that are issuers of financial products. However, we may provide professional services to issuers of financial products in the ordinary course of business.

Deloitte Touche Tohmatsu has professional relationships with Rio Tinto Limited and Rio Tinto plc and has previously provided unrelated advisory services to Rio Tinto Limited and Rio Tinto plc. None of these services have been connected with the Proposed Transaction.

What should you do if you have a complaint?

If you have a concern about our Report, please contact us:

The Complaints Officer
complaints@deloitte.com.au
Phone: +61 8 9365 7234

If an issue is not resolved to your satisfaction, you can lodge a dispute with the Australian Financial Complaints Authority (**AFCA**). AFCA provides fair and independent financial services dispute resolution free to consumers.

www.afca.org.au
1800 931 678 (free call)
Australian Financial Complaints Authority Limited
GPO Box 3 Melbourne VIC 3001

What compensation arrangements do we have?

Deloitte Australia holds professional indemnity insurance that covers the financial services we provide. This insurance satisfies the compensation requirements of the Corporations Act 2001 (Cth).

14 September 2022

Deloitte Corporate Finance Pty Limited, ABN 19 003 833 127, AFSL 241457 of Level 1 Grosvenor Place, 225 George Street, Sydney NSW 2000

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The Directors
Rio Tinto Limited and Rio Tinto plc
c/o Level 43, 120 Collins St
Melbourne VIC 3000

14 September 2022

Dear Directors

Re: Independent expert's report – Proposed Western Range Joint Venture and Offtake Agreement

Introduction

The Directors (**Directors**) of Rio Tinto Group, comprising Rio Tinto Limited and Rio Tinto plc (collectively **Rio Tinto**) have engaged Deloitte Corporate Finance Proprietary Limited (**Deloitte Corporate Finance** or **we** or **us** or **our** as appropriate) to prepare an Independent Expert's Report (**Report** or **IER**) in relation to a proposed transaction between Hamersley Iron Pty Ltd (**HI**) (or a subsidiary of HI) and entities in the China Baowu Steel Group Corporation Limited Group (**Baowu**).

The proposed transaction comprises of a proposed joint venture over an iron ore mining area called Western Range (**Proposed JV**) and a proposed iron ore offtake agreement (**Proposed Offtake**). The Proposed JV and the Proposed Offtake are collectively the **Proposed Transaction**.

HI is a subsidiary of Rio Tinto and Baowu is considered to be an associate of one of Rio Tinto's substantial shareholders, the Aluminum Corporation of China (**Chinalco**).

Purpose of the report

Chapter 10 of the Australian Securities Exchange Limited (**ASX**) Listing Rules (**the Listing Rules**) deals with transactions between a listed entity and persons in a position to influence the entity. Listing Rule 10.1 specifies that the acquisition of a substantial asset from, or disposal of a substantial asset to, a person in a position of influence requires shareholder approval. A person in a position of influence includes associates of a substantial shareholder. Baowu is therefore considered to be a person in a position of influence in the context of the Proposed Transaction.

The purpose of our Report is to express an opinion as to whether or not the Proposed Transaction is fair and reasonable to Rio Tinto shareholders whose votes are not to be disregarded, that is, Rio Tinto Shareholders other than Chinalco and its associates (**Non-Associated Shareholders**).

This report is to be included in the notices of the meetings and accompanying materials to approve the Proposed Transaction (**the Notices of Meeting**) which will be made available to Rio Tinto's shareholders (**Shareholders**). This report has been prepared for the exclusive purpose of assisting the Non-Associated Shareholders in their consideration of the Proposed Transaction. Neither Deloitte Corporate Finance, Deloitte Touche Tohmatsu, nor any member or employee thereof, undertakes responsibility to any person, other than the Non-Associated Shareholders and Rio Tinto, in respect of this report, including any errors or omissions however caused.



Basis of evaluation

Guidance

We have prepared this report having regard to Australian Securities and Investments Commission (ASIC) Regulatory Guide 111 (**RG 111**), ASIC Regulatory Guide 76 (**RG 76**) and ASIC Regulatory Guide 112 (**RG 112**).

ASIC Regulatory Guide 76

RG 76 relates primarily to related party transactions under the *Corporations Act 2001* (**Corporations Act**), and the arm's length exception referenced in the Corporations Act, although it does refer to Listing Rule 10 in the context of when an independent expert's report is required for related party transactions. RG 76 refers to RG 111 and RG 112 for guidance on how the independent expert should assess related party transactions.

ASIC Regulatory Guide 111

This regulatory guide provides guidance in relation to the content of independent expert's reports prepared for a range of transactions.

RG 111 notes that a related party transaction is:

- fair, when the value of the financial benefit to be provided by the entity to the related party is equal to or less than the value of the consideration being provided to the entity. In valuing the financial benefit given and the consideration received by the entity, an expert should take into account all material terms of the proposed transaction
- reasonable, if it is fair, or, despite not being fair, after considering other significant factors, shareholders should vote in favour of the transaction.

RG 111 suggests that, where an expert assesses whether a related party transaction is 'fair and reasonable' for the purposes of ASX Listing Rule 10.1, this should not be applied as a composite test. That is, there should be a separate assessment of whether the transaction is 'fair' and 'reasonable', and an expert should not assess whether the transaction is 'fair and reasonable' based simply on a consideration of the advantages and disadvantages of the proposal.

ASIC Regulatory Guide 112

RG 112 primarily focuses on the independence of experts and provides little guidance on evaluating transactions.

Fairness

The Proposed Transaction is not a standard asset sale agreement whereby an asset is sold in exchange for consideration. Fairness is therefore not a simple application of the traditional equation used to assess fairness, being a comparison of the value of the asset being sold to the consideration being received.

As contemplated by RG 111, we have considered both components of the Proposed Transaction, being the Proposed JV and the Proposed Offtake. However, as the Proposed Offtake is consistent with standard market terms for iron ore offtake contracts, we have concluded that there is no potential for value transfer embedded in this agreement, and we have therefore focused our fairness assessment on the Proposed JV.

We have considered the fairness of the Proposed JV by comparing the financial benefit that will be provided to Baowu, to the value of the financial benefit that Rio Tinto will receive from entering into the Proposed JV.



Reasonableness

ASIC RG 111 considers a proposed related party transaction to be reasonable if either:

- the related party transaction is fair
- despite not being fair, but considering other significant factors, shareholders should approve the related party transaction.

To assess the reasonableness of the Proposed Transaction we also considered the broader implications associated with Rio Tinto shareholders accepting or rejecting the Proposed Transaction.

Summary and conclusion

Fairness

We have considered the fairness of the Proposed Transaction by comparing the financial benefit being provided to Baowu to the value of the financial benefit being received by Rio Tinto.

Financial benefit being provided to Baowu

The Proposed JV effectively extends an existing joint venture arrangement between the same parties (**Original JV**), albeit on updated terms. Most of the terms of the Original JV are estimated to conclude in 2027 once the originally contemplated 200 million tonnes (**Mt**) of iron ore has been produced from an area known as Eastern Range. HI is now proposing to provide an additional 275Mt of iron ore from an area known as Western Range into the new Proposed JV. However, Baowu already has an effective interest in Western Range as a sublease over the area was part of the Original JV because it was expected that the original 200Mt tonnes would come from both areas.

We considered various ways to quantify the financial benefit being provided to Baowu and concluded it is most appropriate to value Baowu's share of the net cash flows arising from the development and production of the 275Mt of iron ore from Western Range. This includes all future payments to be made and received by Baowu. As part of this, we have engaged CSA Global Pty Ltd (**CSA**), an independent mining expert, to prepare a report providing an assessment of the production and operational inputs and associated cash flows related to the development of Western Range.

Financial benefit being received by Rio Tinto

Baowu is not paying traditional consideration to enter into the Proposed JV. As Baowu already effectively holds a sublease over the Western Range area estimated to be in place until 2027 under the Original JV terms, the financial benefit to Rio Tinto is complex to assess.

We considered various ways to quantify the financial benefit being received by Rio Tinto, and concluded that it is best quantified by considering the financial implications for Rio Tinto if it does not enter into the Proposed JV; in other words, what is the opportunity cost if Rio Tinto was deprived of the ability to develop Western Range immediately under the Proposed JV. We have therefore considered the next best alternative to the Proposed JV available to Rio Tinto, and quantified the opportunity cost of implementing this alternative instead of the Proposed JV.

There are no other shovel-ready projects available to Rio Tinto to immediately substitute for the Western Range production. The next best alternative would be to develop Western Range as a wholly owned asset once the obligations associated with the Original JV are completed and the Western Range sublease to the Original JV expires (**Next Best Alternative**). Under the Next Best Alternative, Rio Tinto would not meet its targeted production capacity over the medium term.

Conclusion on fairness

In our opinion the Proposed Transaction is fair and reasonable to Non-Associated Shareholders. The following table presents the outcome of our analysis.



Table 1: Comparison of value provided to Baowu and value received by Rio Tinto

(USD'm)	Section	Low	High
Value being provided to Baowu	4.3	135	283
Value being received by Rio Tinto	4.4	577	730

Source: Deloitte Corporate Finance analysis

The value being received by Rio Tinto represents the estimated net present value of the opportunity cost if the Proposed Transaction is not completed, and is substantially higher than the net present value being provided to Baowu. Accordingly, it is our opinion that the Proposed Transaction is fair.

We highlight that we have used consistent underlying economic assumptions to estimate the benefit being provided to Baowu and the benefit being received by Rio Tinto, and therefore any changes to these underlying economic assumptions will have the same directional effect on both analyses. If the iron ore price was at the high end of the range that underpins our analysis for the benefit being provided to Baowu, it would correspond to the high end of our range for the benefit being received by Rio Tinto.

CSA has commented that the recent inflationary increase in personnel, material, and fuel costs represents a risk to the capital and ongoing operating costs used in our analysis, and suggested we run sensitivity analyses to consider the impact on our valuation. The directional impact of these sensitivity analyses is a decrease in the value being received by Baowu, and a proportionately smaller decrease in the value being received by Rio Tinto. Due to the relationship between the two values, the analysis does not impact our conclusion on fairness.

Reasonableness

In accordance with ASIC RG 111 an offer is reasonable if it is fair. On this basis, in our opinion the Proposed Transaction is reasonable.

We also note the following qualitative factors relevant to the reasonableness of the Proposed Transaction. These factors support our conclusion that the Proposed Transaction is fair and reasonable to Non-Associated Shareholders.

The Proposed Transaction consolidates Rio Tinto's relationship with a major strategic customer

Baowu is the largest steel manufacturer in the world. It is also one of Rio Tinto's largest global customers, a joint venture (**JV**) partner since 2002 (including as part of the Original JV), and a partner in the 2019 Climate Change Strategic Partnership Memorandum of Understanding.

Baowu is expected to play an integral role in The People's Republic of China (**China**)'s steel industry consolidation efforts, an activity that is expected to increase its importance to Rio Tinto. An extended JV with Baowu is aligned with Rio Tinto's strategy, and offers the opportunity to consolidate the relationship between the two parties. China is expected to remain the single largest consumer of Rio Tinto's products, and therefore connectivity and collaboration with a customer such as Baowu will remain crucial.

Development of Western Range under the terms of the Proposed Transaction is a key component of Rio Tinto's medium-term production plans in the Pilbara

The Pilbara system has a capacity of between 345 million tonnes per annum (**Mtpa**) and 360 Mtpa over the medium term. Western Range will represent ~7% of this capacity once it has been developed. For Rio Tinto to achieve its targeted production capacity, and therefore to operate efficiently over the medium term, its current pipeline of mines needs to be brought into production under the planned timeline, which includes starting development of Western Range in 2023. Any delays in the Western Range timeline will reduce production and create inefficiencies in the network in the medium term. This will affect Rio Tinto's ability to meet its obligations to customers and its ability to produce the earnings expected by shareholders.

We understand that Western Range is the most advanced project in the Pilbara project pipeline and, given the long lead time on mine development driven by regulatory and heritage approvals, it would not be practical or possible to fast track another mine development to fill the medium-term production delay.



The Proposed Offtake is mutually beneficial

The Proposed Offtake has an estimated duration of 13 years from its commencement date. This is a significantly longer term than Rio Tinto's average sales contracts, albeit there are other contracts in the portfolio with other large steel mills of up to 8 years duration. The term is considered an advantage for both Rio Tinto and Baowu as it provides certainty of quantity to both parties at a market-linked sales price.

Opinion

In our opinion, the Proposed Transaction is fair and reasonable to Non-Associated Shareholders. An individual shareholder's decision in relation to the Proposed Transaction may be influenced by their particular circumstances. If in doubt the shareholder should consult an independent adviser, who should have regard to their individual circumstances.

This opinion should be read in conjunction with our detailed report which sets out our scope and findings.

Yours faithfully

A handwritten signature in black ink, appearing to be "NI", written in a cursive style.

Nicki Ivory

Authorised Representative (Number 461005)
Deloitte Corporate Finance Pty Limited (AFSL Number 241457)

Glossary

Reference	Definition
ASIC	The Australian Securities and Investments Commission
ASX	Australian Securities Exchange Limited
AUD	Australian dollars
Baowu	China Baowu Steel Group Corporation Limited
β	Beta
CAPM	Capital Asset Pricing Model
China	The People's Republic of China
Chinalco	Aluminum Corporation of China
Corporations Act	<i>Corporations Act 2001</i>
CSA	CSA Global Pty Ltd
CSA Report	Technical report prepared by CSA Global Pty Ltd
DCF	Discounted cash flow
Deloitte Corporate Finance	Deloitte Corporate Finance Pty Ltd
Directors	Common directors of Rio Tinto Limited and Rio Tinto plc
Eastern Range	Eastern Range mine
EBITDA	Earnings before interest, tax, depreciation and amortisation
EMRP	Equity Market Risk Premium
Fe	Iron
FY	Financial year
HI	Hamersley Iron Pty Limited
IER	Independent Expert Report
IODEX	Platts Iron Ore Index
JV	Joint Venture
JV Participants	Ranges Mining Pty Ltd and a subsidiary of Baowu
Kd	Cost of debt capital
Ke	Cost of equity capital
Km	Kilometre
Listing Rules, the	Chapter 10 of the ASX Listing Rules
m	Million
Management	Rio Tinto Management
Mine Gate Price	A fixed percentage of the relevant free on-board price HI receives for its primary Australian iron ore product

Reference	Definition
Model, the	Financial model prepared by the management of Rio Tinto
Mt	Million tonnes
Mtpa	Million tonnes per annum
Next Best Alternative	Development of Western Range as a wholly owned asset once the obligations associated with the Original JV are completed and the Western Range sublease to the Original JV expires
Non-Associated Shareholders	Rio Tinto shareholders who are not associated with Chinalco
Original JV	Bao-Hi Joint Venture formed in 2002
Proposed JV	Proposed joint venture between subsidiaries of HI and Baowu to develop the Western Range mine
Proposed Offtake	Long-term offtake agreement between HI and Baowu negotiated as part of the Proposed Transaction
Proposed Transaction	Proposed JV and Proposed Offtake agreement between subsidiaries of HI and Baowu
Report, the	This Independent Expert's Report
Rf	Risk free rate of return
RG	Australian Securities and Investments Commission Regulatory Guide
Rio Tinto	The economic entity comprising Rio Tinto Limited and Rio Tinto plc
Rm	Expected return on the market portfolio
Shareholders	Existing holders of Rio Tinto Limited and Rio Tinto plc shares
Sublease	The existing Sublease to the JV Participants over Eastern and Western Range
t	tonnes
USD	United States Dollars
VALMIN code	Technical Assessment and Valuation of Minerals and Petroleum Assets and Securities for Independent Expert Reports
WACC	Weighted average cost of capital
Western Range	An iron ore deposit located west of Paraburdoo
Western Range Prepayment	Up front prepayment paid by Baowu for its share of the capital required to develop Western Range
WRFS	Western Range Feasibility Study



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1 Overview of the Proposed Transaction

1.1 The existing Bao-Hi Joint Venture (the Original JV)

In June 2002, Ranges Mining Pty Ltd (a subsidiary of HI), and a subsidiary of Baowu (collectively the **JV Participants**) entered into the Original JV to produce iron ore from areas known as the Eastern and Western Ranges in the Greater Paraburdoo region of Western Australia. The JV Participants' interests were 54% HI, and 46% Baowu. The Original JV was structured to deliver 200Mt of iron ore production from the Eastern Range and Western Range deposits. It was expected that 100Mt would be delivered from each area.

The Eastern and Western Range tenures are held by HI under an agreement with the State. In anticipation of the production to come from both areas, HI granted the Original JV a sublease over the Eastern and Western Range areas (which was intended to expire once the obligations under the Joint Venture were delivered) and it was anticipated both areas would be developed. Baowu contributed an up-front prepayment (**Western Range Prepayment**) for its share of the required capital to develop the Western Range resource.

As part of an associated agreement, Baowu entered into a long-term offtake agreement for 200Mt of product which was linked to the Original JV production schedule.

The Original JV and linked offtake agreement with Baowu pre-date Chinalco's investment in Rio Tinto.

1.2 Background to the Proposed Transaction

In 2018, in anticipation of the Original JV reaching the end of its life, the JV Participants commenced discussions regarding a new arrangement. These negotiations were driven by the potential extension of the Eastern Range ore body, promising resource definition at Western Range, and the evolving nature of the technology and cost structure associated with an optimised Western Range mine in the future. For example, the previous design and costings for the Western Range mine were based on a capacity of 11.5Mtpa. Since then, due to the expansion of Rio Tinto infrastructure capacity, global demand for iron ore and the exploration and orebody delineation success, studies have resulted in Western Range being designed for a production capacity of 25Mtpa.

History of negotiations

In September 2018, HI and Baowu entered into a non-binding term sheet to document their initial agreement on certain matters relating to the Proposed JV and Proposed Offtake at Western Range. In December 2018, the JV Participants signed a Heads of Agreement under which it was agreed that they would continue negotiations in good faith and use their best endeavours to finalise and execute an acceptable binding definitive JV extension and amendment, based on mutually agreed terms.

Following successful orebody exploration and studies, it became likely that the Original JV would meet the agreed ore commitment out of Eastern Range, leaving Western Range undeveloped at present. The arrangements that gave rise to the Western Range Prepayment and HI's commitment to develop Western Range under the terms of the Original JV were therefore mutually terminated. The Western Range Prepayment was repaid, and the JV Participants agreed to work towards developing Western Range under new terms in line with current market practice.

The new development will be based on a feasibility study (**WRFS**) completed in late 2021. The study contemplated the development of new infrastructure and the connection of Western Range into the existing Paraburdoo mine processing plant.

A Commercial Framework Agreement was also negotiated, paving the way to finalise the full suite of terms of the Proposed Transaction. Given that the offtake quota from the original offtake agreement has been fully delivered, the Commercial Framework Agreement, amongst other things, set out the broad terms for an interim offtake agreement, intended to bridge the time from the end of the previous offtake agreement to the finalisation of the Proposed Offtake.

We understand each of these agreements was negotiated robustly over a number of years, commencing prior to the Heads of Agreement in 2018.



1.3 Key terms of the Proposed Transaction

Similar to the previous arrangement, the Proposed Transaction incorporates both a JV agreement and an offtake agreement.

1.3.1 Proposed JV agreement

The following table sets out the key terms of the Proposed JV agreement.

Table 2: Key terms of the Proposed JV

Item	Proposed JV
General	
Participating parties and ownership interests	JV Participants are consistent with current participants of the existing Original JV, as follows: <ul style="list-style-type: none"> a subsidiary of Baowu – 46% Ranges Mining Pty Ltd, a subsidiary of HI – 54%
Production volume	275Mt produced from Western Range
Land area	Covers Western Range, with a slightly expanded footprint relative to the Original JV, to reflect increased knowledge of the orebody gained since 2002 (refer to map in Figure 1)
Mine development, operation and construction	
Mine construction	A Rio Tinto entity will procure the design and construction of the proposed Western Range mine on behalf of the JV participants, based on the 2021 WRFS
Capital costs and construction fee	JV Participants will pay their participating share of capital costs actually incurred Each party will pay their share of 0.5% of capital costs as a construction fee
Operating and sustaining capital costs	JV Participants will pay their participating share of operating and sustaining capital costs actually incurred JV Participants will make monthly contributions for rehabilitation costs on a \$/tonne basis Costs will be determined based on closure studies still to be undertaken
Management fee	Each JV Participant will pay a management fee which is their share of 0.5% of the gross sales price under the mine gate sale agreement
Resource contribution fee	The JV Participants will pay a nominal ongoing resource contribution fee to HI which is calculated by reference to the quantity of saleable run of mine production produced from Western Range
Rental fee	The JV Participants will pay their participating share of quarterly rent of A\$5,000 which is broadly proportionate to the rent payable by HI to the state government for that area
Mine gate sales arrangement	
Exclusivity	JV Participants sell to HI on an exclusive basis, all saleable product produced from Western Range at the mine gate, targeting production of 275Mt
Pricing	Mine gate price based on a fixed percentage of the free on-board price received by HI for the relevant month for its primary Australian iron ore product (currently, Pilbara Blend Lump and Pilbara Blend Fines), adjusted to account for royalties (Mine Gate Price). The price recognises the contribution HI provides through its downstream infrastructure processes, relative to the investment in the Western Range mine

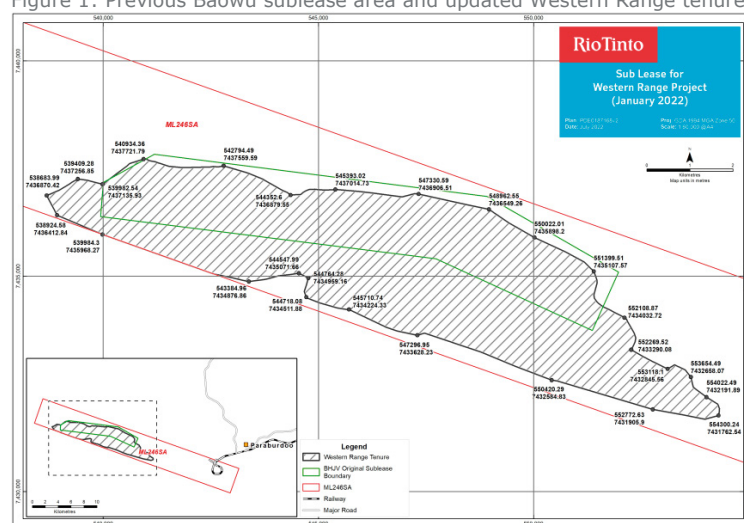


Item	Proposed JV
Other	
Buy-back right on termination	Rio Tinto has the option to acquire the Proposed JV's assets upon termination. The price will be the fair value determined by an independent expert, which can be referred to final and binding arbitration if the value is not agreed between the JV Participants. If Rio Tinto or HI elect not to purchase the assets, the manager and JV Participants will determine how best to realise the assets within two years of termination of the Proposed JV
Other clauses	<p>The Proposed JV agreement also contains other clauses that may be triggered if certain events occur during the term of the Proposed JV:</p> <p>Pre-emptive rights: Each participant will have a right of first refusal to acquire the other's interest if the other intends to dispose of it to a third party. The price will be determined based on a bona fide third party offer for the interest being sold</p> <p>Purchase of JV assets on termination: Rio Tinto has the option to acquire the Proposed JV's assets upon termination. The price will be the fair value determined by an independent expert, which can be referred to final and binding arbitration if the value is not agreed between the JV Participants. If Rio Tinto or HI elect not to purchase the assets, the manager and JV Participants will determine how best to realise the assets within two years of termination of the Proposed JV</p> <p>Change of control: Each participant has the right to acquire the other's interest if the other experiences a change in control. The price will be determined by an independent expert, which can be referred to final and binding arbitration if the value is not agreed between the JV Participants</p> <p>Buy-out in the event of default by a third party: In the event of default by an unrelated third-party participant, the JV Participants will have the option to purchase the defaulting party's interest. The price will be determined by an independent expert, which can be referred to final and binding arbitration if the value is not agreed between the JV Participants</p> <p>Dilution in the event of default: In the event of default by either of the JV Participants, the non-defaulting participant may dilute the other's interest, and the interest of the non-defaulting participant will increase accordingly. Dilution will be based on the value of the outstanding sum owed relative to the fair market value of the entire Proposed JV, as determined by an independent expert</p> <p>Cross security: Each participant has granted in favour of the other participant a fixed and floating security over its interest in the Proposed JV. No consideration is payable in relation to this. The security granted under the Deeds of Cross-security will only be enforceable in the event of default</p> <p>HI security: Subject to relevant approvals, Baowu will grant in favour of HI a security over its interest in the Western Range sublease and saleable run of mine production to secure payment of the sublease rental fee, resource contribution and other associated payments to HI. No consideration is payable by HI for this. The security will only be enforceable in the event of default by Baowu in payment of amounts owing to HI.</p> <p>The types of potential future transactions referred to in these clauses are typical of JV agreements of this nature.</p>

Source: Management

In anticipation of future mining at Western Range and as part of the Original JV terms, the Original JV holds a sublease over the Western Range area as shown by the green border in the map below. Subsequent resource definition activities have resulted in expansion of the Western Range footprint, as shown by the pinstriped area, which is the area expected to be developed under the Proposed JV. The tenement boundary is shown by the red border.

Figure 1: Previous Baowu sublease area and updated Western Range tenure



Source: Rio Tinto

1.3.2 Proposed Offtake agreement

In addition to the Proposed JV agreement, a long-term offtake agreement has been negotiated. The parties to the Proposed Offtake are Rio Tinto Commercial Pte Ltd as marketer and distribution agent for HI and Baowu Raw Material Supply Co., Ltd. The Proposed JV is not a party to the Proposed Offtake. The key terms of the Proposed Offtake are included in the following table.

The purpose of the discussion below is to compare the terms of the Proposed Offtake to standard industry terms to determine whether or not this agreement is at arms' length.

Table 3: Key terms of the Proposed Offtake

Item	Proposed Western Range offtake	Comment
Volume and term	Approximately 11.5Mtpa, with an aggregate cap of 126.5Mt of iron ore product, estimated to be delivered over 13 years. This approximates Baowu's 46% share of anticipated 275Mt saleable product from Western Range	Longer than a typical term. Most of Rio Tinto's agreements are renewed annually, and some are up to eight years in duration
Product	Pilbara Blend lump and fines	Consistent with industry terms
Pricing	Pricing linked to Platts IODEX 62% fines and 62.5% spot lump premium indices, adjusted for iron content, moisture and freight	Consistent with industry terms
Quality and penalties	Quality commitments are aligned with typical Pilbara Blend specifications	Consistent with industry terms
Demurrage	Market pricing	Consistent with industry terms

Source: Rio Tinto

The table shows that the terms of the agreement are typical of the industry and, from Rio Tinto's perspective, are consistent with terms that would be agreed with other large steel mills. However, the 13-year duration of the agreement is longer than the industry standard. This is of benefit to both parties as it provides certainty of supply for Baowu, and offtake certainty for Rio Tinto.



2 Profile of Rio Tinto’s iron ore operations

2.1 Rio Tinto company overview

Rio Tinto is a multinational mining company that engages in mining operations, processing, exploration and marketing activities. Rio Tinto is among the largest mining companies in the world with revenue in excess of USD 63.5 billion in 2021, operations in 35 countries, and 49,000 employees around the globe. Rio Tinto operates under a dual listing structure on the London Stock Exchange and the ASX.

The group structure is based on four principal product groups or segments as per the figure below.

Figure 2: Rio Tinto simplified product structure



Source: Rio Tinto

The product groups have the following principal activities:

- iron ore: iron ore mining as well as salt and gypsum production in Western Australia
- aluminium: bauxite mining, alumina refining, aluminium smelting
- copper: mining and refining of copper, gold, silver, molybdenum, and other by-products; exploration activities together with the Simandou iron ore project
- minerals: includes businesses with products such as borates, titanium dioxide feedstock together with the Iron Ore Company of Canada (iron ore mining and iron concentrate/pellet production). Also includes diamond mining, sorting and marketing.

The figure below summarises the product groups’ activities and locations around the world.

Figure 3: Rio Tinto operations by segments and locations



Source: Rio Tinto

2.2 Financial highlights

The table and chart below show recent financial performance for the years ended 31 December 2021, 31 December 2020 and 31 December 2019 by segment.

Table 4: Financial performance by segments

	Sales			EBITDA ¹			Underlying earnings ²		
USD'000	2019	2020	2021	2019	2020	2021	2019	2020	2021
Iron Ore	24,075	27,508	39,582	16,098	18,837	27,592	9,638	11,398	17,323
Aluminium	10,340	9,314	12,695	2,285	2,152	4,382	599	471	2,468
Copper	5,196	4,969	7,827	1,918	2,084	3,969	575	754	1,579
Minerals	5,394	5,170	6,481	1,862	1,710	2,603	565	580	888

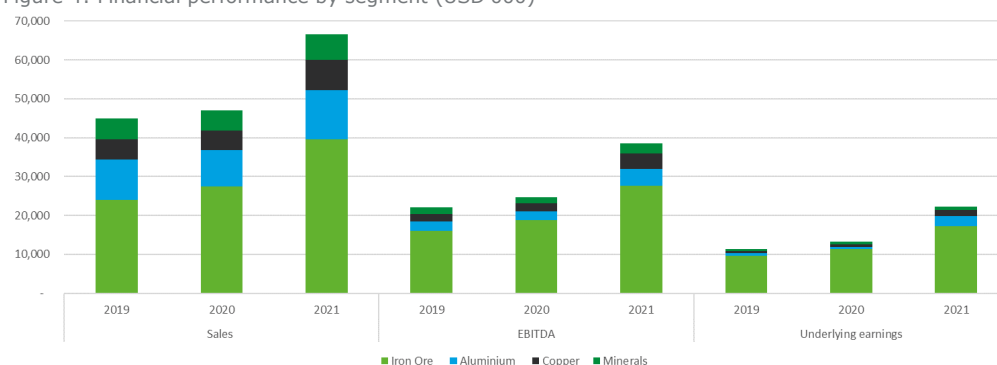
Notes:

1. Earnings before interest, tax, depreciation and amortisation

2. Underlying earnings represent net earnings attributable to the owners of Rio Tinto, adjusted to exclude items which do not reflect the underlying performance of the Rio Tinto Group operations

Source: Rio Tinto, 2020 Annual report and 2021 Annual report

Figure 4: Financial performance by segment (USD'000)



Note: Underlying earnings represent net earnings attributable to the owners of Rio Tinto, adjusted to exclude items which do not reflect the underlying performance of the Group operations.

Source: Rio Tinto, 2020 Annual report and 2021 Annual report

The increasingly strong performance in sales, EBITDA and underlying earnings over the past three years can be directly linked to high iron ore, aluminium and copper prices. As global economies recovered from the COVID-19 pandemic, demand for iron increased and more recently, the prices of commodities more generally have risen, causing inflation, as shown in Figure 18. In 2021, crude steel production in China exceeded one billion tonnes for the second time in history. Rio Tinto benefited from both the increase in demand and price, and underlying earnings increased in 2021.

The iron ore segment represented c. 65% of sales in 2021 and 2020 and 60% in 2019. It also contributed 78% of underlying earnings in 2021, making the iron ore business the most significant component of Rio Tinto's operations. The performance of the iron ore business in 2021 was achieved against a backdrop of challenging conditions including pandemic-related restrictions on mine sites, supply chain challenges and labour shortages. Iron ore shipment volumes were lower than 2020 as a result of high rainfall in the first half of the year and a slowdown in brownfield mine development due to a focus on cultural heritage management and delays in growth, brownfield replacement, and tie-in projects.

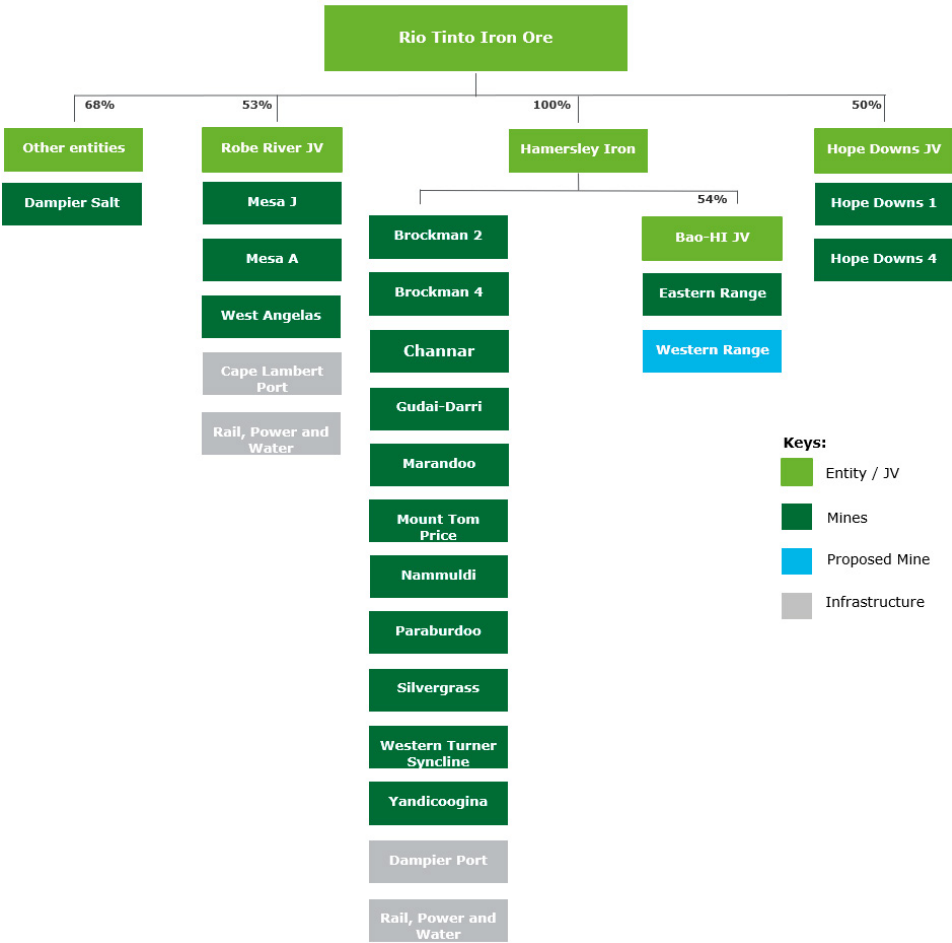
2.3 Rio Tinto's Pilbara iron ore operations

Rio Tinto has operations in the Pilbara region which consist of 17 mines, four port terminals at two locations, Cape Lambert and Dampier, and about 2,000 kilometres (km) of heavy freight rail networks. The company also operates three solar salt operations within the iron ore segment. The operations are either wholly owned by subsidiaries of Rio Tinto, or partially owned through various joint venture arrangements.

2.3.1 Operational structure

The figure below sets out the simplified operational structure of Rio Tinto’s iron ore operations.

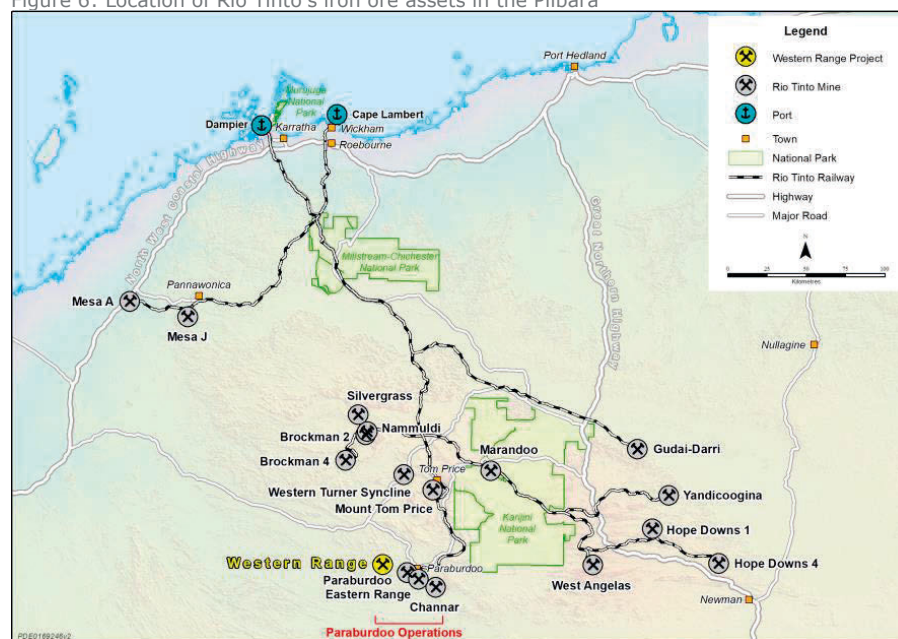
Figure 5: Simplified operational structure of Rio Tinto’s iron ore operations



Note: The figure above is a simplified operational structure and is not intended to represent the actual ownership structure
Source: Rio Tinto, Annual report 2021

The map below shows the location of Rio Tinto's current iron ore operating assets in the Pilbara.

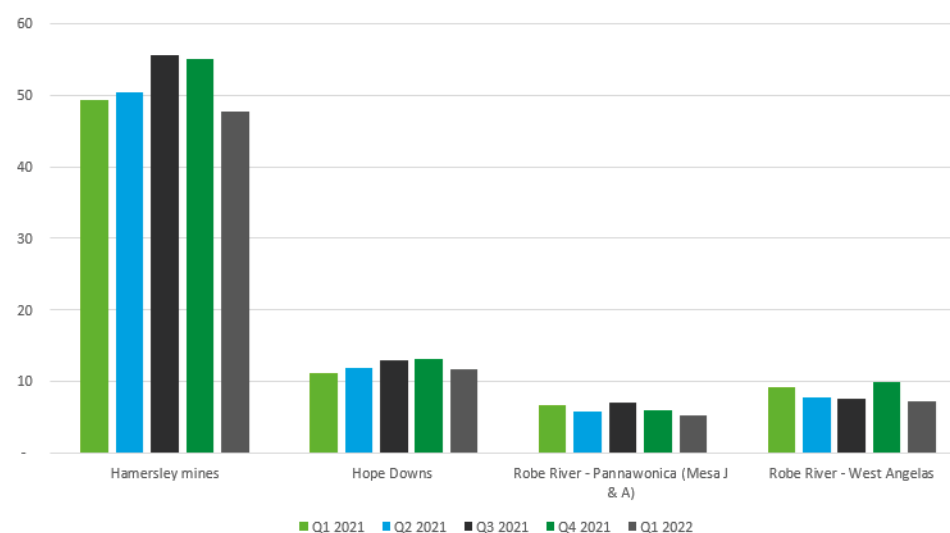
Figure 6: Location of Rio Tinto's iron ore assets in the Pilbara



Source: Rio Tinto

The production volume of iron ore from the Pilbara is presented below in Figure 7. The mines included within the HI mines, Hope Downs and Robe River are detailed in Table 6.

Figure 7: Rio Tinto iron ore production volume by mines (Mt)



Source: Rio Tinto, first quarter production results 2022

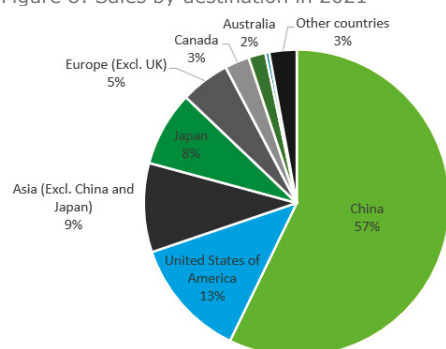
Overall, the average volume of iron ore produced in the Pilbara operations in the first quarter of 2022 were lower than in the previous four quarters due to the ongoing depletion of existing mines and delays

Deloitte.

in commissioning and ramp-up of Pilbara growth and brownfield replacement projects in 2021. The commissioning of a new mine, Gudai-Darri, was delayed, with first ore achieved in June 2022. Commissioning and ramp-up is expected to increase iron ore production volume to support shipments of Rio Tinto's flagship Pilbara Blend product, as described in section 2.3.4 below. The full year production guidance for 2022 is between 320 and 335Mt on a 100% basis, subject to weather, management of cultural heritage matters and ramp up of new mines.

The figure below shows the sales volume by destination in 2021.

Figure 8: Sales by destination in 2021



Source: Rio Tinto, Annual report 2021

Rio Tinto's iron ore operations are discussed in detail in the next section of this report.

2.3.2 Defined resources

Western Range consists of two deposits, 36W-50W and 55W-66W. The reserves relate primarily to the 36W-50W deposit. In aggregate, the deposits contain sufficient iron ore to satisfy the Proposed Offtake Agreement. The table below shows Rio Tinto's total measured, indicated and inferred iron ore resource estimates in the Pilbara, as at 31 December 2021. Approximately 85% of Rio Tinto's iron ore resources are located in the Pilbara. The proposed Western Range mine represents approximately 6.2% of the reserves and 0.9% of the resources in the Pilbara.

Table 5: Pilbara measured, indicated and inferred resource estimates (100% basis)

	Australia Pilbara ¹ Mt	Western Range		Total Western Range Mt	% of Total Pilbara
		36w50w Mt	55w66w Mt		
Reserves^{2,3,5}					
Proven Reserves	1,710	109	-	109	6.4%
Probable Reserves	965	56	-	56	5.8%
Total Reserves	2,675	165	-	165	6.2%
Resources^{4,5}					
Measured	1,935	16	6	22	1.1%
Indicated	4,672	15	87	102	2.2%
Inferred	18,264	44	64	108	0.6%
Total Resources	24,870	75	157	232	0.9%

Note:

1. The Pilbara reserves and resources includes Western Range
2. Reserves of iron ore are shown as recoverable reserves of marketable product after accounting for all mining and processing losses. Mill recoveries are therefore not shown
3. Iron ore reserves are stated on a dry weight basis
4. Iron ore resources are stated on a dry in situ weight basis
5. Resources and reserves are reported exclusively of each other

Source: Rio Tinto



2.3.3 Mining operations

Rio Tinto wholly owns and operates a number of mines through HI as listed in Figure 5. In addition, Rio Tinto has three iron ore JVs with third parties with operational mines. All of the mines are operated by subsidiaries of Rio Tinto, as follows:

- the HI mines (100% Rio Tinto)
- Robe River Iron Associates (53% Rio Tinto, 33% Mitsui Iron Ore Development and 14% Nippon Steel Corporation)
- Hope Downs (50% Rio Tinto, 50% Hancock Prospecting Pty Ltd)
- Original JV (54% Rio Tinto, 46% Baowu).

Each of the JVs mentioned above is equipped with all of the required crushing, blending, and other equipment required to operate the site. The processing plants within Rio Tinto's iron ore operations vary considerably in age, and many plants have been subject to brownfield developments since original commissioning. Table 6 provides an overview of the operations:

Table 6: Summary of the operations by mine

Mine	Rio Tinto's current economic interest (%)	Commenced operations	Current production (Mtpa) ¹	Ore type
Hamersley Iron				
Brockman 2	100%	1992		Brockman
Brockman 4	100%	2010		Brockman
Gudai-Darri	100%	2022		Brockman
Marandoo	100%	1994		Marra Mamba
Mount Tom Price	100%	1966		Brockman / Marra Mamba
Nammuldi	100%	2006		Marra Mamba
Paraburdoo	100%	1974		Brockman
Silvergrass	100%	2017		Marra Mamba
Western Turner Syncline	100%	2011		Brockman
Yandicoogina	100%	1998		Pisolite
Channar	100%	1990		Brockman
BHJV (Original JV)²				
Eastern Range	54%	2004		Brockman
Western Range	54%	2024 ³	n/a	Brockman
Total Hamersley Iron			210.3	
Robe River JV				
Mesa J	53%	1994		Pisolite
Mesa A	53%	2010		Pisolite
West Angelas	53%	2002		Marra Mamba
Total Robe River			62.1	
Hope Downs JV				
Hope Downs 1	50%	2007		Marra Mamba
Hope Downs 4	50%	2013		Brockman
Total Hope Downs			49.3	

Note:

1. The current production represents the production for the financial year (FY) ended 31 December 2021.

2. While Rio Tinto owns 54% of the Eastern Range mine, under the terms of the Original JV, HI is obliged to purchase all mine production from Eastern Range and therefore all the production from Eastern Range is included in Rio Tinto's share of production.

3. Expected commencement.

Source: Rio Tinto Annual Reports



2.3.4 Key products

Rio Tinto produces five key iron ore products in Western Australia as described below:

- Pilbara Blend (lump and fines): the 62% Fe Pilbara Blend products are known for their high-grade quality and stable iron, silica, alumina and phosphorus content. This product makes up approximately 70% of Rio Tinto's iron ore product portfolio. It is also the most traded iron ore product in the world¹. Rio Tinto began producing the Pilbara Blend in June 2007. It enables Rio Tinto to maximise the value of the different quality ores found in its mines by increasing system capacity through operating efficiencies and extending the resource base. The Pilbara Blend provides benefits to customers through its consistent and reliable quality. It is blended from ore from the Eastern Range, Brockman 2, Brockman 4, Mount Tom Price, Marandoo, Nammuldi, West Angelas and Hope Downs mines. The unblended ore is transported via rail to port to be blended, and loaded onto ships
- Yandicoogina fines: Yandicoogina fines are c. 57% iron content with low impurities and produce a high-iron sinter. This product is used by customers in East Asia and Southern China as the base load in their sinter blend. This fines product comes only from the Yandicoogina mine, and it is transported via rail to port for shipping
- Robe Valley (lump and fines): this product has c. 58% iron and a low phosphorus content, which is valued by specialty steel producers with more niche applications. The Robe Valley ore is sourced from the Mesa A and Mesa J mines and is transported via rail to port for shipping.

2.3.5 Processing and blending

Most of the ore from Rio Tinto's operating iron ore mines goes through a primary and secondary crush and screen before being stockpiled at each mine site. The ore is then reclaimed at the mine site before being loaded onto a train where it travels along the rail line to port. Once the ore reaches the port, it is unloaded onto a specified stockpile where it is blended with other ores from across the system. It is then reclaimed again before being loaded onto a ship.

2.3.6 Rail and port infrastructure

As shown in Figure 6, Rio Tinto's Pilbara iron ore mines are serviced by an integrated heavy haulage rail network owned by HI and the Robe River JV, and operated by Pilbara Iron Pty Ltd. This rail network comprises in excess of 1,890km of rail, c. 10,000 ore wagons and c. 200 locomotives.

Shipments are conducted through four shipping terminals located at Dampier and Cape Lambert and managed as a single port system.

2.3.7 Marketing

For Rio Tinto attributable ore, Rio Tinto Commercial Pte Ltd provides services for marketing, sales, logistics and treasury out of Singapore.

2.4 Paraburdoo region

2.4.1 Paraburdoo town

Paraburdoo is a mining town located at the southwestern end of the Hamersley Range, 1,528 km north of Perth. The town was established when the mining operations commenced in the early 1970's. Operations expanded to Channar (approximately 10Mtpa) in 1990, and to Eastern Range (approximately 11Mtpa) in 2004. The town population has remained around 2,000 since the 1970s and most of the residents are employed by Rio Tinto and the supporting services. Rio Tinto owns approximately 90% of the houses in Paraburdoo and supplies power and water. Paraburdoo airport is located 8km northeast of the town. The airport is owned by Rio Tinto but open to the public, and is serviced by Qantas and Virgin Australia flights, as well as general aviation light aircraft.

The development of Western Range will support the town for the next 20 years until the early 2040s, and is seen as important to the vitality and viability of the town, and the communities it supports.

¹ Rio Tinto Annual Report 2021, page 4



2.4.2 Paraburdoo central operating hub

Run of mine ore, post primary and secondary crushing is sourced from the Eastern Range, Channar, and Paraburdoo mines, and transported via conveyor to the HI owned central Paraburdoo processing plant which will have a rated capacity of approximately 25Mtpa. The ore undergoes two stages of crushing in the primary crusher. Once crushed the ore is transferred to the screening plant by a conveyor belt for further processing.

The screening plant separates the ore into lump and fines sizes. The second stage consists of a size and density separation system, which removes impurities from the ore to produce a railed product. The final product is stockpiled and blended to a maximum size of 31.5mm lump and 6.3mm sinter fines.

Non-processing infrastructure at Paraburdoo includes administration buildings, heavy and light vehicle workshops, laboratories, warehouse, laydown yards and emergency services facilities.

2.4.3 Eastern and Western Ranges

The Eastern and Western Range developments are part of the greater Paraburdoo region. When the Paraburdoo, Eastern Range and Channar operations ultimately wind down, Rio Tinto sees the development of Western Range as important to maintaining production from Paraburdoo and meeting wider forecast production targets from the Pilbara.

2.4.4 Western Range development plan and infrastructure

The Western Range development will benefit from the existing infrastructure in the Paraburdoo region. It will follow a conventional operating model, with the following features:

- forecast development from 2023 (first ore mined in 2024, to be processed in 2025), and is expected to maintain the Paraburdoo operations' production at approximately 25Mtpa of saleable product
- Western Range ore will be processed through a 26 Mtpa primary crusher, and an 18km conveyor to the existing Paraburdoo processing plant
- development will require upgrades to the Paraburdoo coarse ore stockpile and other plant components to enable 25Mtpa of saleable ore product from Western Range
- non-processing infrastructure at Western Range will include a production hub and refuelling facilities, leveraging the existing Paraburdoo facilities where practical
- construction of heavy and light vehicle access roads between Western Range and Paraburdoo to enable transport of heavy vehicles to Paraburdoo for maintenance in the existing heavy vehicle workshop.



3 Profile of China Baowu

3.1 Brief company history

Baowu is a Chinese state-owned iron and steel company, headquartered in Shanghai, China. In its current form, Baowu was established in 2016, via the consolidation and restructuring of the former Baosteel Group Corporation Limited and another state-owned steel maker, Wuhan Iron and Steel.

Since 2019, Baowu has taken over the operation of other entities (either jointly or wholly) including Maanshan Iron and Steel Group, Taiyuan Iron and Steel Group, Chongqing Iron and Steel, Sinosteel Group, Chongqing Iron and Steel Group and Kunming Iron and Steel Company, resulting in a substantial increase in the group's overall production capacity.

3.2 Operational and financial results

As a result of the various transactions mentioned above, in 2020 Baowu became the largest steel manufacturer in the world. The table below compares Baowu to the rest of the top five steel producers.

Table 7: Top five steel manufacturers in the world

Company	HQ	2020 (Mt)	2021 (Mt)
China Baowu	China	115.29	119.95
ArcelorMittal	Luxembourg	78.46	79.26
Ansteel Group	China	38.19	55.65
Nippon Steel Corporation	Japan	41.58	49.46
Shagang Group	China	44.71	44.23

Source: World Steel Association 2021

The table below shows Baowu's most recently published financial results for 2018, 2019 and 2020, further highlighting the growth achieved over that period of time.

Table 8: Baowu financial performance

USD'm	2018	2019	2020
Total assets	103,484	123,589	155,282
Total shareholders' equity	54,525	60,509	69,732
Revenue	66,275	79,911	97,615
Total profits	5,113	4,997	6,599
Net profits	4,148	4,283	5,611
Net assets/ Total assets (%)	49	52	53

Note: Results have been converted from CNY to USD using the average exchange rate for each year shown for the income statement and the spot rate on 31 December 2018, 31 December 2019 and 31 December 2020 for the statement of financial position, as available from the Reserve Bank of Australia.

Source: China Baowu website

3.3 Future forecast production

Steel demand is plateauing as Chinese urbanisation nears completion, and additionally China's steel production is effectively capped due to decarbonisation efforts. This means that small steel makers, facing environmental protection costs and shrinking market shares, are looking to partner with the larger steel makers to survive, while the larger steel makers are expected to expand through mergers and acquisitions to gain market share and maintain margins.

In April 2022, Baowu announced the acquisition of 51% of Xinyu Iron & Steel Group in the Jiangxi province. The takeover will enable Baowu to increase capacity by 11Mtpa. Following the acquisition, Baowu is expected to reach 131Mtpa rate of production of steel by the end of 2022, and further acquisitions are expected in the second half of 2022. Baowu is expecting to reach production of 200Mtpa of steel by 2025.

4 Analysis of the Proposed Transaction

4.1 Approach

ASX Listing Rule 10 contemplates the acquisition or disposal of a substantial asset from or to a related party. However, the Proposed Transaction is not a standard asset or disposal agreement and Baowu is not paying traditional consideration. As a consequence, in order to conclude whether or not the Proposed Transaction is fair, we consider it appropriate to estimate the net financial benefit being provided to Baowu and compare that with the financial benefit that Rio Tinto will receive from entering into the Proposed JV.

4.1.1 Approach to estimating the financial benefit being provided to Baowu

The Proposed JV effectively extends the existing Original JV arrangement, albeit with updated terms. Most of the terms of the Original JV are estimated to conclude in 2027 once the originally contemplated 200Mt of iron ore has been produced from Eastern Range. HI is now proposing to provide an additional 275Mt of iron ore from Western Range into the Proposed JV (see Figure 1 and Table 2, in section 1.3.1). Baowu already has an effective interest in Western Range as a sublease over the area was part of the Original JV when it was expected that the original 200Mt would come from both areas.

We considered various ways to estimate the financial benefits being provided to Baowu and concluded the most appropriate method is to value Baowu's share of the net cash flows arising from the development and production of the 275Mt of iron ore from Western Range. The value being provided to Baowu is calculated using a discounted cash flow (**DCF**) methodology focused on the future cash flows from and to Baowu associated with the Proposed JV. This approach is detailed in section 4.3.1.

The terms of the Proposed Offtake are typical of the industry and from Rio Tinto's perspective are consistent with terms that would be agreed with other large steel mills. We have therefore concluded that there is no potential for value transfer between Rio Tinto and Baowu embedded in the Proposed Offtake. We have therefore not considered the impact of any cash flows related to the Proposed Offtake, and our financial analysis only considers the Proposed JV.

Table 2 in section 1.3.1 includes reference to several 'other clauses' relating to possible future transactions. These are considered typical in a JV agreement of this nature. Each possible future transaction referred to in these other clauses requires an independent opinion on the value at which the transaction will occur (and that opinion would only be required in the event that the specific clause is triggered). We have therefore concluded that there is no potential for value transfer between the JV Participants in relation to these clauses and consequently our financial analysis does not consider these possible future transactions.

4.1.2 Approach to estimating the financial benefit being received by Rio Tinto

We have assessed the financial benefit being received by Rio Tinto by considering the implications for Rio Tinto if it does not enter into the Proposed JV. In this context we have considered the Next Best Alternative available to Rio Tinto, and the opportunity cost that Rio Tinto would face if it proceeded with the Next Best Alternative instead of the Proposed JV.

Rio Tinto's Pilbara network of mines, rail lines, ports and ancillary infrastructure is managed to deliver on Rio Tinto's planned iron ore exports. The planned production from Western Range is an integral part of that plan and there are no other projects that can immediately be substituted for Western Range in the production schedule over the next five years. Accordingly, the Next Best Alternative to the Proposed JV would be to develop Western Range as a wholly owned asset once the obligations associated with the Original JV are completed and the Western Range sublease to the Original JV expires. This is unlikely to be practically achievable until at least 2027 given the ongoing terms of the Original JV. In this situation, Rio Tinto would experience a significant delay in its production capability and lost customer revenue during the period from 2025 to at least 2028 (being the currently planned completion date under the Proposed JV and the earliest practical hypothetical completion date under the Next Best Alternative).

The Proposed JV effectively ensures there is no delay in Rio Tinto's Pilbara production during the period from 2025 to at least 2028. If the Proposed JV did not proceed and Rio Tinto implemented the Next Best Alternative instead, Rio Tinto would be deprived of a portion of its expected revenues and earnings



during that period. The financial benefit that Rio Tinto will receive from entering into the Proposed JV has therefore been determined by estimating and valuing Rio Tinto's hypothetical loss of profits if it does not enter into the Proposed JV but instead pursues the Next Best Alternative.

This can also be thought of as the opportunity cost of pursuing the Next Best Alternative; by pursuing the Proposed JV Rio Tinto avoids the lost production, and therefore receives a financial benefit.

4.2 Appointment and role of the technical expert

We have engaged CSA, an independent mining expert, to prepare a report providing an assessment of the production and operational inputs and associated cash flows related to the development of Western Range (**CSA Report**).

The purpose of the CSA Report is to provide technical inputs to support our valuation work. CSA's scope was to review volumes and cost inputs in the financial model (the **Model**) provided by Rio Tinto's management (**Management**) to assist us in our application of the DCF methodology.

CSA prepared its technical report having regard to the code for Technical Assessment and Valuation of Minerals and Petroleum Assets and Securities for Independent Expert Reports (**VALMIN code**). The scope of CSA's work was controlled by Deloitte Corporate Finance. A copy of the CSA Report is provided in Appendix 6.

The CSA Report concludes that the exploration work and technical studies completed by Rio Tinto are of a high standard, and there is no material risk to the Western Range ore reserve, schedule and production profile. In particular:

- the exploration, drill techniques, survey methods, sampling, assaying and other activities completed by Rio Tinto are in line with good industry practice and are appropriate for the style of mineralisation
- the classification of the resource estimate appropriately reflects the consideration of uncertainty, impact and materiality of this uncertainty and the confidence of the Competent Persons² who estimated the mineral resources in the data and interpretation
- the Western Range mineral resources have been prepared and reported in accordance with the JORC Code 2012
- while there is a proportion of inferred mineral resource which forms part of the production schedule in the early years of the proposed mine plan, this is acceptable and not a material issue, for reasons provided within the CSA Report
- the proposed exploration strategy is appropriate for the conversion of unclassified to inferred mineral resources to indicated / measured mineral resources
- the Western Range accuracy and confidence of modifying factors are generally consistent with the current level of study. The cost parameters, ore recovery, metallurgical and geotechnical assumptions are appropriate for the proposed mining method and fleet size. The current capital cost estimate is within the range expected (+/- 15%) but the recent inflationary increase in personnel, material, and fuel costs represents a risk to Management's capital and ongoing operating cost estimates. Accordingly, CSA suggested we run sensitivity analyses to consider the potential impact on our valuation. We discuss the outcome of these sensitivity analyses in sections 4.3.5 and 4.4.3.

4.3 Assessment of financial benefit being provided to Baowu

4.3.1 Methodology

We have selected the DCF methodology to value the benefit being provided to Baowu because this allows us to capture all cash flows being contributed by Baowu and all cash flows being paid to Baowu over the estimated period of approximately 13 years for the Proposed JV. In selecting this method, we also considered the following factors:

- The Model includes Management's long-term cash flow projections relating to the development of Western Range under the terms of the Proposed JV. These were prepared on a 100% JV basis, with the proportional share to Rio Tinto and Baowu specifically carved out to reflect their share of the Proposed JV. The model was prepared for the purposes of assisting both parties in their consideration of the Proposed Transaction

² As defined by the JORC Code 2012



- Rio Tinto has operated in the Pilbara since 1966, and has extensive expertise in iron ore mining, extensive knowledge of the region's geology and has accumulated a significant amount of production data, which has been applied in the preparation of the Model
- significant capital expenditure will be required to develop Western Range in the near future
- the cash flows in the Model are based on the recently completed WRFS and have been considered by CSA as part of their procedures

The Model allows the cash inflows from, and outflows to, Baowu to be identified and isolated. We have adapted the Model as required, adopted our own economic assumptions and adopted CSA's advice on the technical mining assumptions in the Model to calculate the net present value of Baowu's net cash flows.

The value being provided to Baowu is based on the cash flow assumptions detailed in section 4.3.2, the economic assumptions in Appendix 5, and our assessed discount rate range of 7.00% to 7.50% as set out in Appendix 3.

4.3.2 Assumptions

The Model

Management prepared the financial Model for their own benefit as well as to assist Baowu's management analyse the cash flows relating to the Proposed JV. The Model includes projections of Western Range cash flows in United States Dollars (**USD**), with costs initially forecast in Australian dollars (**AUD**) and translated to USD using the forecast exchange rate.

The Model has been prepared on a real basis and is based on the following:

- estimated costs and production profile of the Western Range operation consistent with the WRFS
- the latest reported reserves and resources and management views on the production potential associated with the Western Range reserves and resources
- preliminary mine plans for the operating project
- after-tax real cash flows in USD for a period of approximately 13 years
- tax rate of 30% based on the Australian corporate tax rate.

Deloitte Corporate Finance performed limited procedures regarding the mathematical accuracy of the Model (but have performed neither a review nor an audit of the Model), considered the underlying production-related assumptions such as production volumes and costs with assistance from CSA, and held discussions with Management concerning the preparation of the projections and their views regarding the assumptions on which they are based. As a result of these procedures some adjustments were made to the cash flow projections, including, but not limited to:

- reflecting our view of economic assumptions such as pricing, foreign exchange rates and inflation assumptions. Refer to Appendix 5 for further information about our assumptions
- reflecting our view of the discount rate applied to the forecast cash flows of the Proposed JV. Refer to Appendix 3 for a detailed explanation of our discount rate
- reflecting input from CSA regarding technical assumptions in the Model. Refer to Appendix 6 for CSA's Report.

The key assumptions adopted by Management in the preparation of the projections, and any adjustments we have made, are discussed below.

4.3.3 Cash flows to Baowu

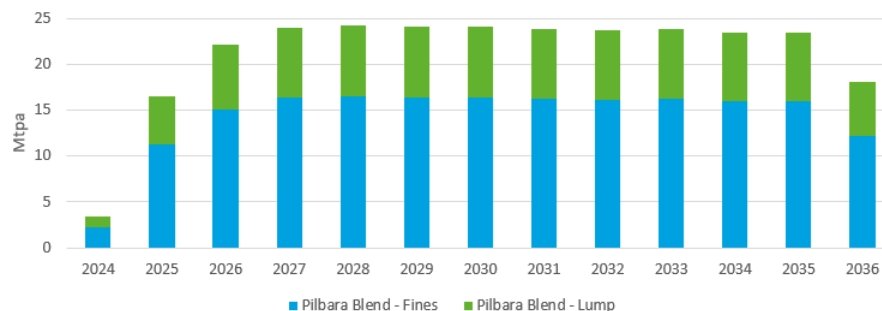
Saleable ore production

Production forecasts have been developed by Management, and are based on internal mining and technical assumptions which align with the WRFS. The Model includes total iron ore production of 275Mt over a period of approximately 13 years. The mineral reserves and resources for Western Range as at 31 December 2021 are summarised in Table 5 within section 2.3.2.

Deloitte.

The figure below sets out the production profile from Western Range on a 100% basis.

Figure 9: Total (100% basis) production forecast over the life of JV (Mtpa)



Source: the Model, Deloitte Corporate Finance analysis

The operations at Eastern Range have been producing at a run rate of 11Mtpa since 2002 and the Channar Joint Venture has (until recently) been producing 10Mtpa. Both operations feed into the Paraburdoo processing plant. Upgrades to the Paraburdoo processing plant will enable it to take 25 Mtpa of saleable ore product from Western Range, at maximum capacity. The Model contains a production profile of 23-24Mtpa over the period 2027 to 2035. The final 18Mtpa under the Proposed JV will be produced in 2036.

We have not contemplated any further volume upside in our valuation as the Proposed JV is for a fixed volume of 275Mt.

Mine gate sales by Baowu

Each JV Participant will sell their share of the Western Range production to HI at the mine gate. The Mine Gate Price paid to Baowu will be based on the free on-board price received by HI for the relevant month for its primary Australian iron ore product (currently, Pilbara Blend Lump and Pilbara Blend Fines), adjusted to account for royalties. The price will also be adjusted by a percentage that recognises the value of the assets contributed by the Proposed JV through the construction, development and operations of Western Range up to the mine gate relative to the value contributed by Rio Tinto in providing post-mine gate services.

The mine gate sales are driven by the level of production in each year, increasing as the production volume increases during the ramp-up period from 2024 to 2027 and then stabilising during the life of the Proposed JV.

Our pricing assumptions have been discussed in detail in Appendix 5.

4.3.4 Cash flows from Baowu

Baowu will pay to HI its share of the following costs, the most significant of which are discussed further in the sections below:

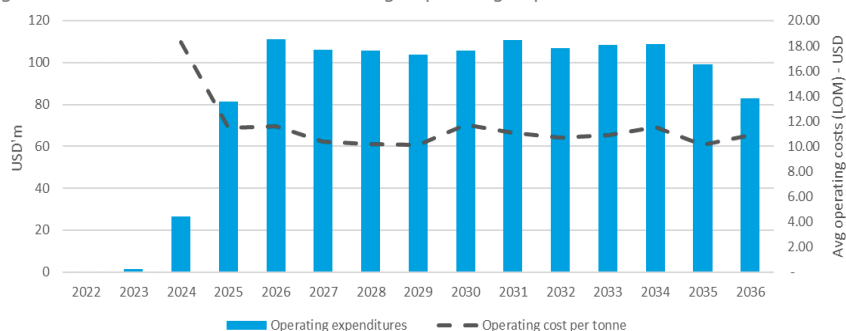
- operating costs – Baowu will contribute its participating share of the operating costs incurred by the Proposed JV up to the mine gate
- capital costs – Baowu will contribute its participating share of actual capital costs incurred by the Proposed JV
- resource contribution fee – Baowu will incur a fixed nominal dollar amount on its participating share of the Proposed JV ore production.



Operating costs

Each JV Participant will pay their participating share of the Proposed JV's operating costs. The operating cost forecasts consist of five distinct costs as shown in Figure 10 below, which sets out Baowu's share of forecast annual operating costs for the Western Range mine on a real basis.

Figure 10: Baowu's share of Western Range operating expenditures forecast in USD'm



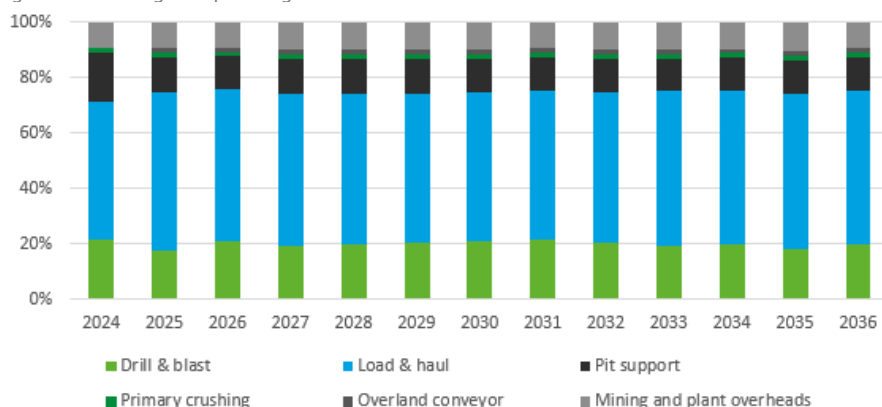
Source: the Model, Deloitte Corporate Finance analysis

The average operating costs per tonne (t) were obtained by dividing the operating costs in Figure 10 by the production forecasts in Figure 9, which resulted in an average USD 11.5/t over the life of the Proposed JV. This includes sustaining capital costs, which are discussed in the next section.

The operating cost per tonne metric is skewed higher in 2024 due to a low initial volume of saleable ore from Western Range. Operating costs are forecast based on total material moved, whereas the operating costs per tonne metric is calculated based on saleable ore. There is a substantial difference between material moved and saleable ore until construction of the overland crusher is completed in 2025. From 2025 onwards, fluctuations in the operating cost per tonne are primarily driven by the cyclical nature of sustaining capital expenditure as the plant ages.

Mine gate operating costs are variable in nature and generally estimated with reference to certain rates and metrics relevant to each type of cost. As shown in Figure 11, when normalised for changes in the level of production during ramp up and JV completion, the components of the overall variable operating costs are largely constant on a real basis throughout the life of the Proposed JV.

Figure 11: Mine gate operating costs



Source: the Model, Deloitte Corporate Finance analysis

Baowu will pay its proportion of the total management fees, which incorporate two components – a fixed percentage of the gross sales price under the mine gate sale agreement, and a fixed percentage of construction costs during the construction period. They are largely consistent over the forecast period, with the exception of the early years during construction.



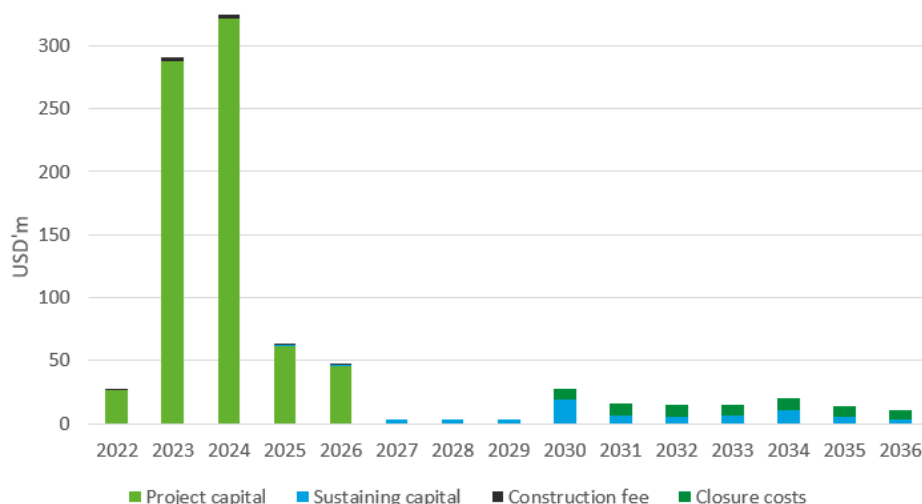
Other costs include, among other things, native title and carbon costs. Native title is based on the JV Participants' share of a fixed percentage of gross revenue, and carbon emission costs are based on an estimated cost per tonne of carbon dioxide equivalent emissions.

CSA has commented (as summarised in section 4.2), that the recent inflationary environment represents a risk to Management's ongoing operating cost estimates, and suggested that we run a sensitivity analysis to consider the potential impact on our valuation. We discuss the outcome of this sensitivity analysis in section 4.3.5, below.

Capital expenditure

Baowu will contribute its share of the actual capital costs incurred. Management have forecast the initial capital investment for the construction of Western Range between 2022 and 2026, followed by sustaining capital costs and then closure costs from 2030. Capital costs are summarised in the figure below.

Figure 12: Baowu's share of forecast capital expenditure



Source: the Model, Deloitte Corporate Finance analysis

Forecast capital expenditure has been estimated based on the WRFS and Management's experience from the construction of similar iron ore projects in the Pilbara. It includes the upgrade of the Paraburdoo central processing plant capacity to 25Mtpa and the construction of the overland conveyor between Western Range and the processing plant. It also reflects costs associated with heavy mining equipment and power and communication infrastructure. In June 2022, to reflect potential cost uncertainty, Management increased their contingency and escalation allowance, increasing the overall capital costs estimate by approximately 10%.

Sustaining capital is determined based on saleable ore production shipped per year, multiplied by a rate that reflects the age of the plant through the forecast period.

Management have forecast Baowu's contribution to closure costs to commence in 2030. Baowu's share of the closure costs have been estimated at USD 60m on a real basis for the rehabilitation and revegetation of the Western Range mine area.

CSA has commented (as summarised in section 4.2), that the recent inflationary environment represents a risk to Management's capital costs estimates, and suggested that we run a sensitivity analysis to consider the potential impact on our valuation. We discuss the outcome of this sensitivity analysis in section 4.3.5, below.



4.3.5 Sensitivity analysis and selection of valuation range

Our valuation is highly sensitive to both changes in the iron ore price forecasts and the discount rate applied. Iron ore prices are subject to volatility resulting from factors such as perceived shortages, changes in supply, economic growth and stability. We have therefore presented an analysis of the sensitivity of the value of the benefit being provided to Baowu to changes in the iron ore price assumptions and the discount rate.

Table 9 illustrates the possible value outcomes as a result of changing the discount rate and sensitising iron ore prices by +/- 5%, 10% and 20% over the life of the Proposed JV. We observed the annual price volatility to be c. 40% over the past 10 years.

Table 9: Sensitivity table – value provided to Baowu

(USD'm)		Discount Rate				
Price movement		8.00%	7.50%	7.25%	7.00%	6.50%
	(20%)	(60)	(42)	(33)	(23)	(2)
	(10%)	53	76	87	99	124
	(5%)	110	135	147	160	188
	Base	167	194	207	221	251
	5%	224	253	267	283	314
	10%	281	312	327	344	378
	20%	395	430	447	466	504

Source: Deloitte Corporate Finance analysis

Capital and operating expenditure

CSA has commented (as summarised in section 4.2) that the recent inflationary increase in personnel, material, and fuel costs, represents a risk to Management's capital and ongoing operating cost estimates, and suggested we run sensitivity analyses to consider the impact on our valuation. If capital costs increased by 10% in isolation, our estimate of the financial benefit being transferred to Baowu would decrease by approximately 23%, and similarly if ongoing operational costs increased by 10% in isolation, our estimate of the financial benefit would decrease by approximately 22%.

Valuation range

We have selected a valuation range for the estimated value of the benefit provided to Baowu of USD 135m to USD 283m. The selected range accounts for the high and low points of our selected discount rate range and a +/- 5% change in iron ore prices across the forecast period.

4.4 Financial benefit being received by Rio Tinto

4.4.1 Methodology

We have adopted a deprival value methodology to value the financial benefit being received by Rio Tinto. Our analysis seeks to estimate the earnings opportunity cost Rio Tinto would face if the Proposed JV did not proceed and the Next Best Alternative was pursued. We define the earnings opportunity cost as the net lost sales within the Pilbara network during the period from 2025 to at least 2028 (being the currently planned completion date under the Proposed JV and the earliest practical hypothetical completion date under the Next Best Alternative). We calculated the earnings opportunity cost as follows:

- Tonnage delay, multiplied by expected realised selling price
- Less: savings in variable costs
- Less: savings in tax.

These assumptions are detailed in the next section.

The estimated value received by Rio Tinto is based on the cash flow assumptions detailed in section 4.4.2, the economic assumptions in Appendix 5, and our assessed discount rate range of 6.50% to 7.00% as set out in Appendix 3.

4.4.2 Assumptions

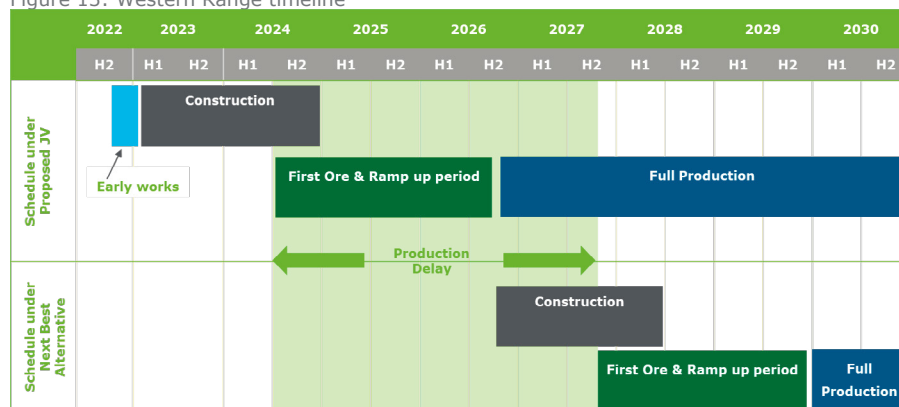
Production delay in Pilbara network

We understand that the terms of the Original JV, and in particular the sublease of Western Range, do not enable the Western Range mine to be developed as a wholly owned asset before expiry of the sublease. There is significant uncertainty over when a wholly owned development could start; however we have adopted the earliest practically possible date in our analysis, which we consider to be a conservative assumption (as further delays would increase the opportunity cost).

The production delay is based on the reduced sales that Rio Tinto's Pilbara iron ore network would experience between Western Range's expected first ore mined date under the Proposed JV, being H2 2024 (we understand this ore will be processed through the plant in 2025), and the earliest first ore mined date under the Next Best Alternative (as a 100% owned asset), being H2 2027.

Our production delay analysis captures both the expected production prior to sublease expiry, and a low level of operations following sublease expiry, during the ramp-up phase. Under the Next Best Alternative, we have assumed a best-case scenario where remaining production from Eastern Range under the Original JV could be accelerated to complete in 2026, rather than 2027. We highlight that there are additional qualitative factors that would need to be considered in this circumstance, and these are discussed in section 4.4.4. The Next Best Alternative reflects a delay in the existing production schedule of approximately 40 months, as indicated by Figure 13.

Figure 13: Western Range timeline

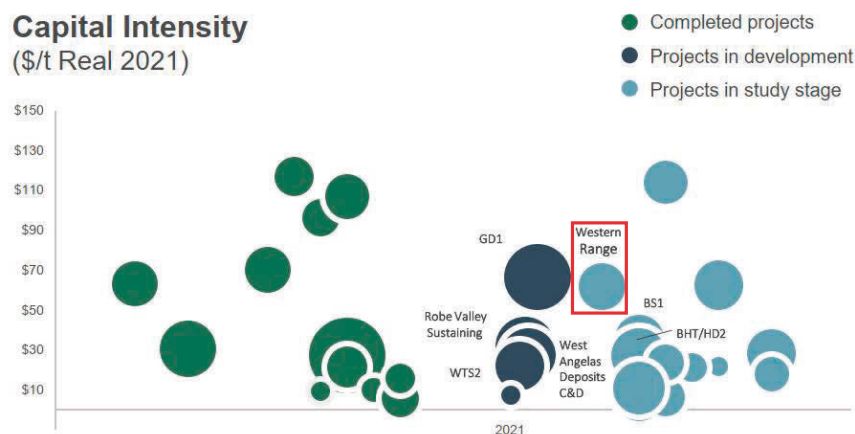


Source: Deloitte Corporate Finance analysis

The Pilbara system has a capacity of between 345Mtpa and 360Mtpa over the medium term. Western Range will represent ~7% of this production once it has been developed at the proposed 25Mtpa production rate. For Rio Tinto to achieve its targeted production capacity, and therefore to operate efficiently over the medium term, its current pipeline of mines needs to be brought into production under the currently planned timeline, which includes starting development of Western Range in 2023. Any delays in the Western Range timeline will reduce production volumes and create inefficiencies in the network in the medium term.

We held detailed discussions with Management regarding the Pilbara project pipeline and possible alternative mine developments across the Pilbara that could be brought into production to fill the production delay if the Proposed JV did not proceed. Based on these discussions and as per Figure 14 (as publicly disclosed in Rio Tinto's February 2022 investor presentation), we understand that Western Range is the most advanced project in the Pilbara pipeline, and the next in line for development. There is a long lead time on mine development driven by several factors, particularly including regulatory and heritage approvals. It would therefore not be practical or possible to fast track another mine development to fill the production delay.

Figure 14: Pilbara network pipeline of mine projects



Source: Rio Tinto 2021 full year results presentation, 23 February 2022

We also explored the possibility of filling the production delay from other existing operating assets within the Pilbara. While a small amount of additional tonnage may be optimised from other mines, the Pilbara network is geared toward achieving full capacity and the development schedule is already optimised over the medium term. Extracting meaningful additional volumes over an extended period of time would be unlikely, otherwise this would already be targeted. However, for the purpose of our analysis, and to be conservative, we have included up to 5Mtpa of alternative Pilbara production (hypothetically “squeezed” out of existing assets) to offset the delay.

Our production delay assumptions are shown in the following table.

Table 10: Production delay

Mt	2024	2025	2026	2027	2028	2029
Forecast Western Range production	3.4	16.5	22.1	24.0	24.2	24.1
Less: Western Range production following delay	-	-	-	(3.6)	(17.4)	(23.3)
Add: Production “squeezed” out of other mines	3.4	5.0	5.0	5.0	5.0	0.9
Network-wide production loss due to delay	-	11.5	17.1	15.5	1.8	-

Source: Deloitte Corporate Finance analysis

Revenue opportunity cost

The estimated realised selling price per tonne has been based on a starting point of 2022 and 2023 analyst consensus forecasts of revenue and tonnages published by Rio Tinto as part of its Pilbara network production guidance for 2022, adjusted to a real basis (i.e. revenue divided by tonnes equals consensus realised selling price per tonne). From 2024 onwards, when the production delay commences, the movement in price is based on the consensus prices as a base, adjusted for the annual movement in the lump and fines broker price averages over the same period. Our pricing assumptions are discussed in more detail in Appendix 5.

Table 11: Estimated realised selling price per tonne

Basis	Year	Estimated selling price	Movement
Analyst consensus forecast (adjusted to real)	2022	99.9	n/a
Analyst consensus forecast (adjusted to real)	2023	78.1	n/a
Movement in broker average (real)	2024	65.0	(16.8%) ¹
Movement in broker average (real)	2025	61.4	(5.6%)
Movement in broker average (real)	2026	57.9	(5.6%)
Movement in broker average (real)	2027 / Long term	55.7	(3.9%)

Note:

1. To illustrate, the decrease of 16.8% aligns to the simple average change in brokers’ lump and fines prices from 2023 to 2024

Source: Deloitte Corporate Finance analysis



We also considered the following additional data points:

- Rio Tinto's historical realised revenue per tonne for 2019, 2020 and 2021 – we did not place weight on these data points due to recent volatility in prices
- estimated Western Range realised per-unit selling price based on the Model – we did not place weight on these data points as our analysis is valuing the overall production delay in the Pilbara network, and therefore the average of the realised selling prices for all mines in the network is considered more appropriate. Given Western Range produces high quality ore, by using the average network selling price our calculation is inherently conservative (producing a smaller opportunity cost).

Variable and avoidable costs

Rio Tinto's iron ore operations incur both variable and fixed costs from running the mines and transport infrastructure in the Pilbara network. In a situation where ore is not produced during a period, it is therefore reasonable to expect that the relevant variable costs could also be avoided.

To estimate the appropriate level of variable costs per tonne we adopted brokers' forecasts for operating costs, using the same information as our approach for selling price discussed above. We note that these costs include certain costs that are not typically variable in nature, such as corporate costs and the costs of management, which would likely still be required during a period of reduced operations. Therefore, this is considered a conservative estimate of opportunity costs as it maximises the level of assumed variable costs that can be saved and minimises the value of lost production.

CSA has commented (as summarised in section 4.2) that the recent inflationary environment represents a risk to ongoing operating cost estimates. This risk may apply across the Pilbara network, and therefore we have run a sensitivity analysis to consider the potential impact on our valuation of the financial benefit to be received by Rio Tinto. We discuss the outcome of this sensitivity analysis in section 4.4.3, below.

Other inputs

- income tax is based on 30% of the lost earnings, in line with Australian corporate tax rates
- earnings opportunity cost was discounted to net present value using the discount rate range of 6.5% to 7.0% outlined in Appendix 3.

4.4.3 Sensitivity analysis and selection of valuation range

Table 12 below illustrates the possible range of the financial benefit that Rio Tinto will receive as a result of the Proposed Transaction. The value is sensitive to the discount rate and the iron ore price. We performed a sensitivity analysis by changing the discount rate and applying +/- 5%, 10% and 20% to the selected iron ore prices as per Appendix 5.

Table 12: Sensitivity table – value received by Rio Tinto

USD'm		Discount rate				
		7.50%	7.00%	6.75%	6.50%	6.00%
Price movement	(20%)	361	368	372	375	383
	(10%)	498	507	512	517	527
	(5%)	566	577	583	588	599
	Base	635	647	653	659	672
	5%	703	716	723	730	744
	10%	771	786	793	801	816
	20%	908	925	934	943	961

Source: the Model, Deloitte Corporate Finance analysis

Iron ore pricing sensitivity: The analysis outlines the sensitivity of the benefit received by Rio Tinto to the iron ore pricing assumed. A 5% change to this assumption results in a change of approximately 10.8% to the value of the benefit received.

Operating costs sensitivity: Given the judgement involved in selecting an appropriate level of variable costs associated with the production delay, and the recent inflationary environment posing a risk to consensus cost estimates, we performed a sensitivity analysis by varying the level of variable costs per



tonne. A 10% change in variable costs results in an approximately 12% change in the value of the financial benefit.

Top up sensitivity: As outlined in section 4.4.2, we included a hypothetical 5Mtpa top up that could potentially be produced from other mines over the short term to help fill the production delay. Given uncertainty over the quantity and timeframe over which such an increased level of production could be effectively maintained, we performed sensitivity analysis for different levels of top up between nil and 5Mtpa. The value increases to up to USD 1,007m as the top up volume decreases.

Valuation range

We have selected a valuation range for the estimated value of the benefit being received by Rio Tinto of USD 577m – 730m. Consistent with our analysis for the benefit being provided to Baowu, the selected range accounts for our selected discount rate range and a +/- 5% change in iron ore prices across the forecast period. Our analysis indicates that there is a significant financial benefit to Rio Tinto of entering into the Proposed Transaction instead of pursuing the Next Best Alternative. There are also other benefits that we have not been able to quantify which are discussed below.

4.4.4 Qualitative factors relating to the estimated production delay

There are a number of additional factors that are not explicitly considered in our analysis of the Next Best Alternative that could further increase the benefit to Rio Tinto of entering into the Proposed Transaction, however due to their nature they are not reliably quantifiable. These include but are not limited to:

Cost of renegotiating the existing transitional arrangements with Baowu

As outlined in section 1.2, HI and Baowu have agreed to continue negotiating in good faith a JV agreement on Western Range. If the Next Best Alternative was pursued, HI would need to agree with Baowu to unwind this agreement. This could be a costly and lengthy process, which is difficult to estimate with any degree of certainty.

Sublease expiry

Our analysis has assumed that the production delay arises only during the period of time between development under the Proposed JV and the hypothetical immediate development under the Next Best Alternative. In other words, our analysis assumes that HI will have unencumbered access to Western Range immediately following the delivery of its obligations under the Original JV. This is a simplifying assumption of what would likely be a complex process, including various notice periods, negotiations and regulatory processes, including with stakeholders such as the Western Australian Government and traditional owners.

Due to these complexities, the value calculated should be viewed as the minimum opportunity cost associated with the Next Best Alternative. The calculated earnings opportunity cost (and therefore the benefit to Rio Tinto of entering into the Proposed Transaction rather than pursuing the Next Best Alternative) is already significantly higher than the financial benefit being offered to Baowu, and therefore we did not consider it necessary to try to quantify any further opportunity costs in our fairness assessment.

4.5 Selected value ranges

We have considered the fairness of the Proposed Transaction by comparing the financial benefit being provided to Baowu, to the value of the financial benefit to be received by Rio Tinto. Our analysis is summarised as follows:

Table 13: Fairness assessment in USD'm

(USD'm)	Section	Low	High
Value being provided to Baowu	4.3	135	283
Value being received by Rio Tinto	4.4	577	730

Source: Deloitte Corporate Finance analysis

Based on our analysis, the value being received by Rio Tinto is substantially higher than the value being provided to Baowu. We highlight that we have used consistent underlying economic assumptions to

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estimate the benefit being provided to Baowu and the benefit being received by Rio Tinto, and therefore any changes to these underlying economic assumptions will have the same directional effect on both analyses. If the iron ore price was at the high end of the range that underpins our analysis for the benefit being provided to Baowu, it would correspond to the high end of our range for the benefit being received by Rio Tinto.

The directional impact of the sensitivity analyses we have run on potential inflationary increases in operating and capital costs is a decrease in the value being received by Baowu, and a proportionately smaller decrease in the value being received by Rio Tinto.



Appendix 1: Context to the report

The report has been prepared at the request of the Directors of Rio Tinto and is to be included in the Notices of Meeting to be provided to Rio Tinto Shareholders for approval of the Proposed Transaction in accordance with Rule 10.1 of the ASX Listing Rules. Accordingly, it has been prepared only for the benefit of the Directors and those persons entitled to receive the Notices of Meeting in their assessment of the Proposed Transaction and should not be used for any other purpose. Neither Deloitte Corporate Finance, Deloitte Touche Tohmatsu, nor any member or employee thereof, undertakes responsibility to any person, other than the Non-Associated Shareholders and the Directors, in respect of this report, including any errors or omissions however caused.

The report represents solely the expression by Deloitte Corporate Finance of its opinion as to whether the Proposed Transaction is fair and reasonable to Non-Associated Shareholders.

The report has been prepared having regard to professional standard APES 225 Valuation Services issued by the Accounting Professional and Ethical Standards Board Limited.

Individual circumstances

We have evaluated the Proposed Transaction for Non-Associated Shareholders as a whole and have not considered the effect of the Proposed Transaction on the particular circumstances of individual Non-Associated Shareholder. Due to their particular circumstances, individual Non-Associated Shareholders may place a different emphasis on various aspects of the Proposed Transaction from the one adopted in this report. Accordingly, individuals may reach different conclusions to ours on whether the Proposed Transaction is fair and reasonable to them. If in doubt Non-Associated Shareholders should consult an independent adviser, who should have regard to their individual circumstances.

Limitations

Statements and opinions contained in this report are given in good faith but, in the preparation of this report, Deloitte Corporate Finance has relied upon the completeness of the information provided by Rio Tinto and its officers, employees, agents or advisors (as set out below in 'Sources of Information'). Deloitte Corporate Finance does not imply, nor should it be construed, that it has carried out any form of audit or verification on the information and records supplied to us. Drafts of our report were issued to Rio Tinto management for confirmation of factual accuracy.

In recognition that Deloitte Corporate Finance may rely on information provided by Rio Tinto and its officers, employees, agents or advisors, Rio Tinto has agreed that it will not make any claim against Deloitte Corporate Finance to recover any loss or damage which Rio Tinto may suffer as a result of that reliance and that it will indemnify Deloitte Corporate Finance against any liability that arises out of either Deloitte Corporate Finance's reliance on the information provided by Rio Tinto and its officers, employees, agents or advisors or the failure by Rio Tinto and its officers, employees, agents or advisors to provide Deloitte Corporate Finance with any material information relating to the Proposed Transaction.

Deloitte Corporate Finance also relied on the CSA Report prepared by CSA. Deloitte Corporate Finance assessed the professional competence and objectivity of CSA's experts and believe the work performed is appropriate and reasonable. Deloitte Corporate Finance has received consent from CSA for our reliance on and inclusion of the CSA Report in the preparation of this report.

To the extent that this report refers to prospective financial information we have considered the prospective financial information and the basis of the underlying assumptions. The procedures involved in Deloitte Corporate Finance consideration of this information consisted of enquiries of Rio Tinto personnel and analytical procedures applied to the financial data. These procedures and enquiries did not include verification work nor constitute an audit or a review engagement in accordance with standards issued by the Auditing and Assurance Standards Board or equivalent body and therefore the information used in undertaking our work may not be entirely reliable.

Based on these procedures and enquiries, Deloitte Corporate Finance considers that there are reasonable grounds to believe that the prospective financial information for Rio Tinto included in this report has been prepared on a reasonable basis in accordance with ASIC RG 111. In relation to the prospective financial information, actual results may be different from the prospective financial information of Rio Tinto referred to in this report since anticipated events frequently do not occur as expected and the variation may be material. The achievement of the prospective financial information is



dependent on the outcome of the assumptions. Accordingly, we express no opinion as to whether the prospective financial information will be achieved.

Qualifications

Deloitte Corporate Finance holds the appropriate Australian Financial Services licence to issue this report and is owned by the Australian Partnership Deloitte Touche Tohmatsu.

The employee of Deloitte Corporate Finance principally involved in the preparation of this report was Nicki Ivory, B.Com, CA, CFA. Nicki has many years' experience in the provision of corporate financial advice, including specific advice on valuations, mergers and acquisitions, as well as the preparation of expert reports.

Consent to being named in disclosure document

Deloitte Corporate Finance Pty Limited (ACN 003 833 127) of Tower 2, Brookfield Place, 123 St Georges Terrace, Perth, WA 6000, acknowledges that:

- Rio Tinto proposes to issue Notices of Meeting in respect of the Proposed Transaction
- the Notices of Meeting will be issued electronically and in hard copy by request
- it has previously received a copy of the draft Notices of Meeting for review
- it is named in the Notices of Meeting as the 'independent expert' and the Notices of Meeting include its independent expert's report as an Annexure.

Deloitte Corporate Finance Pty Limited has not authorised or caused the issue of the Notices of Meeting and takes no responsibility for any part of the Notices of Meeting, other than any references to its name and the independent expert's report as included as an Annexure.

Sources of information

In preparing the IER we have had access to the following principal sources of information:

- Rio Tinto's Notices of Meeting
- Rio Tinto feasibility study and economic analysis
- long-term cash flow projections (the Model) prepared by the Management of Rio Tinto relating to the development of Western Range under the terms of the Proposed JV
- Western Range Heads of Agreement
- audited financial statements for Rio Tinto for the years ending 31 December 2020 and 31 December 2021
- Rio Tinto company website and ASX announcements
- publicly available information on comparable companies and market transactions published by ASIC, Refinitiv, Mergermarket, IBIS World company and industry reports
- other publicly available information, media releases and brokers reports on Rio Tinto and the industry
- the CSA Report prepared by CSA.

In addition, we have had discussions and correspondence with certain staff, management and executives of Rio Tinto, in relation to the above information and to current operations and prospects.



Appendix 2: Iron ore industry

Overview

Iron ores are rocks and minerals from which metallic iron can be extracted. Iron (chemical symbol **Fe**) is a highly abundant element that comprises close to 5% of the earth's crust and is used around 20 times more than all other metals combined. The main types of ore deposits mined in Australia include hematite (Fe_2O_3) and magnetite (Fe_3O_4), with hematite being favoured for steel production due to its higher iron content.

Iron content is the most important factor that determines the value of the ore. The majority of the world's high grade iron ore resources (greater than 60% Fe content and on average 62% to 63% Fe) are hematite deposits, which either require a small amount of beneficiation – treatment to improve the raw material's physical or chemical properties – or can be fed directly into blast furnaces (albeit after sintering fines ore, the process of converting loose particles into a solid mass using heat and/or pressure)³. The productivity of blast furnaces is affected by the chemical composition of the ore, such as iron content and levels of impurities hence the preference for the higher-grade ore. The majority of iron ore currently exported from Australia, including the Pilbara, is high grade hematite ore which only requires crushing and screening. There are also several large high-grade hematite mines in Brazil. Australia also has lower grade hematite deposits (Fe content of 40% to 60%).

Australian iron ore mining first began in the 1960s when the Australian government lifted its historical embargo on iron ore exports. The Mount Whaleback Mine was one of the first deposits to be developed with domestic ore production reaching 100Mtpa by the 1970s. In the 1990s, Rio Tinto's low alumina pisolite deposit, Yandicoogina, began production and quickly became popular with Japanese, Korean and Taiwanese steel makers. During the early 2000s more mine developments were undertaken by BHP and Rio Tinto, such as West Angelas and Mining Area C, which coincided with the rapid increase in demand from China associated with their western development strategy⁴. The mid 2000s iron ore boom gave rise to a significant expansion in Australian iron ore production and exports to c. 400Mtpa in 2010. Australian producers were able to capitalise on the growing demand from China with c. USD 93 billion being invested into Pilbara projects over the period from 2002 to 2018. This included the emergence of Fortescue Metals Group and the development of the Roy Hill Mine. Australian iron ore exports reached 800Mtpa by 2016⁵.

The iron ore industry has benefited from the strong economic growth and development of China's economy with industry revenue increasing at an annualised 14.8% over the five years from 2016-2021⁶. Over the past five years the industry has seen strong prices and increased production volumes as supply disruptions in Brazil, following the collapse of the tailings dam at Vale's Brumadinho mine, have placed Australia in a dominant position when it comes to iron ore supply. The initial effects of the COVID-19 pandemic on the Australian iron ore industry were minor with only a 0.6% decline in iron ore mining volumes for the 2019-2020 year. In the subsequent year 2020-2021, the industry recovered and mining volumes are anticipated to increase in 2022-2023.

Production and Reserves

The four largest iron ore producing countries in the world are Australia, Brazil, China, and India, collectively accounting for close to 74% of all usable iron ore produced in 2021, as shown in the table below⁷.

Australia produced the most iron ore in 2021, with production of c. 900Mt, which is more than double the second-largest producer, being Brazil with close to 380Mt mine production. Nearly all iron ore mined in Australia comes from Western Australia, which is expected to account for c. 98.8% of Australian iron ore industry revenue in 2022-2023⁸ and is a major driver of the Western Australian economy.

³ Mineral Processing and Extractive Metallurgy Review - Iron Ore Sintering: Process 2017

⁴ Best in Class - AUSTRALIAN IRON ORE: When Quality Meets Opportunity 2021

⁵ Ibid

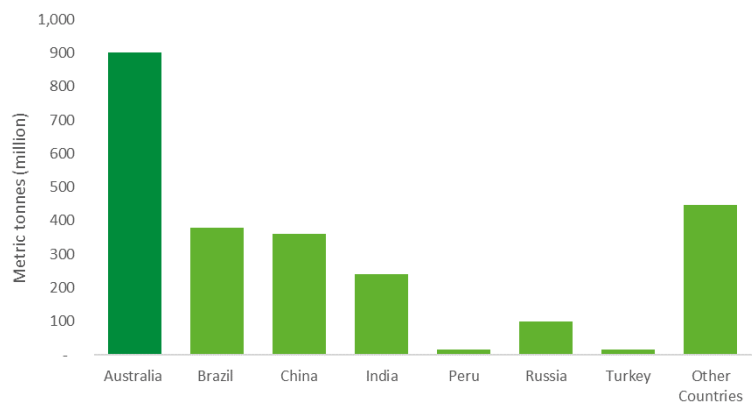
⁶ IBISWorld Industry Report B0801 – Iron Ore Mining in Australia issued in June 2022

⁷ United States Geological Survey- Mineral commodity summaries 2022 – Issued January 2022

⁸ IBISWorld Industry Report B0801 – Iron Ore Mining in Australia issued in June 2022



Figure 15: Global usable ore production – 2021



Source: United States Geological Survey, Mineral Commodity Summaries 2022 Annual Publication – Released January 2022.

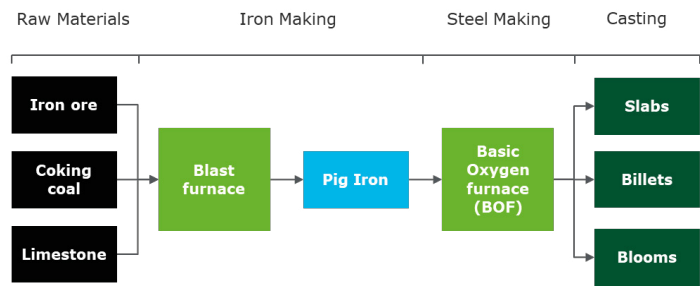
Drivers of demand

Demand from iron smelting and steel manufacturing

Iron ore is a primary input for iron and steel making, which is used in construction, machinery manufacturing, energy infrastructure, transportation, and household appliances, among other things.⁹

To produce steel, the raw inputs of iron ore – coking coal and limestone – are added to a blast furnace. The combustion of iron ore and the other materials in the blast furnace produces molten pig iron. Once the pig iron ore has been produced, it is sent into a basic oxygen furnace to turn it into steel. The figure below provides a high-level summary of the steel making process.

Figure 16: Steel making process



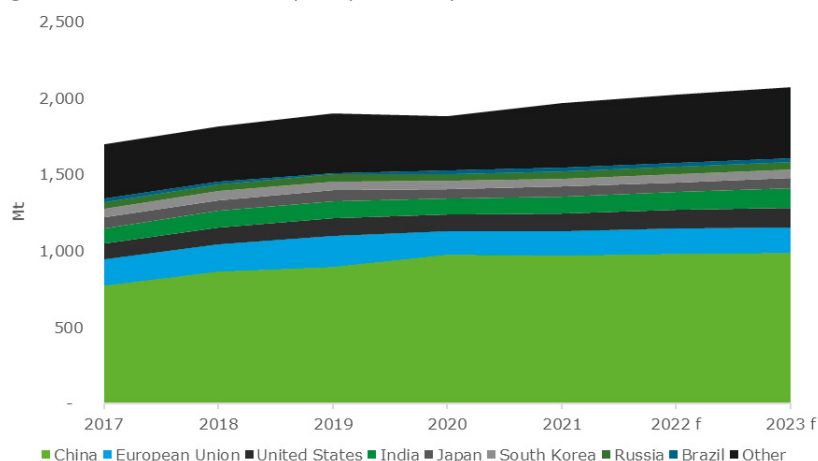
Source: NSC – An introduction to steelmaking 2017

China is the largest producer of crude steel in the world, accounting for c. 54% of total production in 2021, as shown in the historical consumption figures below.¹⁰

⁹ IBISWorld Industry Report B0611 –Global Iron Ore Mining issued in September 2021

¹⁰ Department of Industry, Science, Energy and Resources

Figure 17: Global steel consumption per country



Note: f = forecast

Source: Australian Department of Industry, Science, Energy and Resources

China's heavy influence on the global demand for steel plays a crucial role in the demand for iron ore, therefore it is important to consider the economic outlook for China and other Asian countries when commenting on the outlook for iron ore demand. China's overall economy has slowed in recent years due to the extended impact of COVID-19 lockdowns and a slowdown in the real estate sector. The Economic Intelligence Unit revised its China GDP forecast from 5% to 4% in 2022¹¹. The slow recovery from the COVID-19 pandemic is expected to cause a deceleration in steel-intensive manufacturing and construction activity for countries such as India and China over the next five years. Despite this, steel consumption in the rest of the world rose sharply, by 13%, in 2021 as economies recovered from the effects of the COVID-19 pandemic¹².

Iron ore prices and volatility

Revenue volatility has played a significant role in the performance of the iron ore industry over the past five years. Iron ore prices are determined on a global scale, and with iron ore being denominated in USD, exchange rate fluctuations affect the price of iron ore for domestic and international buyers.

The iron ore price has seen large cyclical changes over the past two decades. For many years during the 1990s the price of iron ore was below USD 20/t. The price of iron ore was c. USD 85/t in March 2020 and increased to c. USD 220/t in May 2021. Since then, the price has decreased to around USD 100/t. Over the same period, the AUD strengthened from a low of c. 0.57 USD per AUD in March 2020 to a peak of c. 0.79 per AUD in February 2021. Since then, the AUD has weakened and is currently trading around USD 0.70 per AUD.

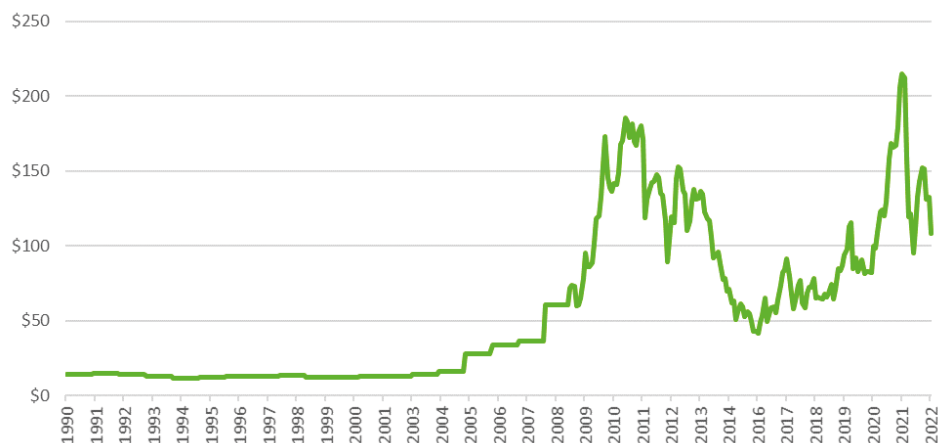
During the first half of 2021, the iron ore price increased significantly, primarily because of supply issues and record levels of steel production in China fuelled by government stimulus spending in response to the economic impacts of COVID-19. In the second half of 2021, the iron ore price fell more than 60% as China's steel production declined due to output restrictions enforced on environmental grounds, trade tensions with Australia and a decline in the property market as Evergrande faced collapse. A subsequent increase in the price at the start of 2022 was, at the time, attributed to the swift reopening of the Chinese economy from COVID-19 lockdowns and supply disruptions as a result of the crisis in Ukraine. However, worsening economic conditions in China driven by further lockdowns in 2022 have slowed China's imports, putting downward pressure on the spot price, causing it to decline since March 2022.

¹¹ EIU – China dated 1 June 2022

¹² EIU – Steel update dated 1 July 2022

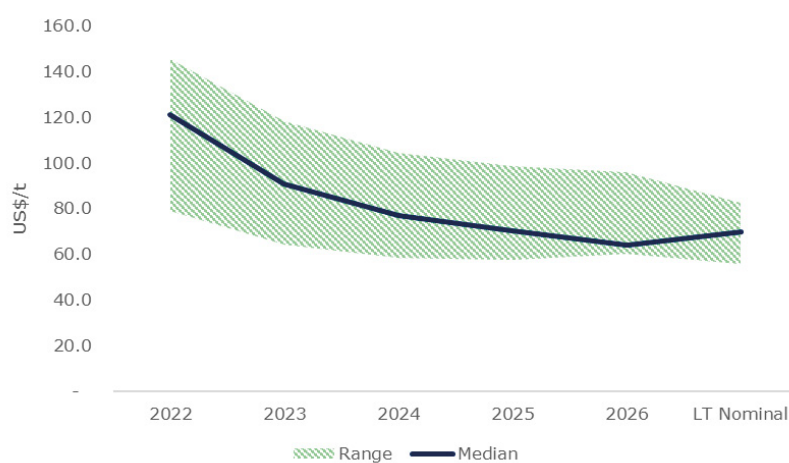


Figure 18: Historical Iron Ore price, Fines 62% Fe



Source: IMF, Bloomberg

Figure 19: Iron ore fines nominal consensus estimate pricing



Source: Consensus Economics dated May 2022

Note: LT nominal refers to long term average nominal forecast price

Iron ore was historically traded through annually negotiated prices and contracts, however since 2010, transactions between buyers and sellers are based on short term contracts referenced to the Platts Iron Ore Index (**IODEX**). Spot iron ore prices are quoted using a benchmark index and a futures market. The IODEX is the primary physical market pricing reference for seaborne iron ore fines delivered into China. The assessment is based on a standard specification of iron ore fines with 62% iron, 2.25% alumina, 4% silica and 0.09% phosphorus, among other gangue elements. The index has been extended to price iron ore forms of lump, pellets and concentrate via premiums and discounts to account for quality differences from the base fines specification¹³.

¹³ S&P Global - Iron Ore Index — IODEX

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Broker forecasts provide a guide on the pricing of iron ore as shown in the figure above. Nominal median iron ore prices are forecast to decrease from USD 120/t to USD 90/t from 2022 to 2023, and then settle at around USD 70/t over the longer term.

Demand Outlook

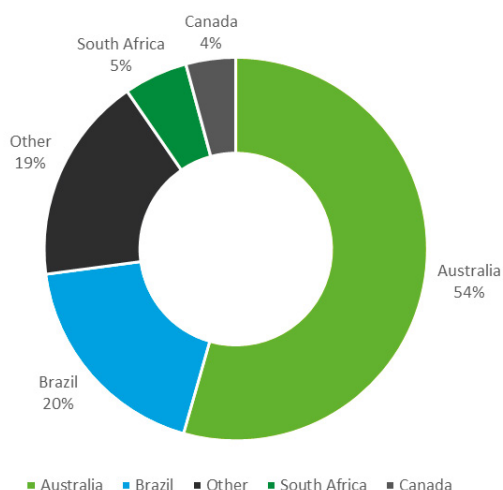
The Economic Intelligence Unit expects only moderate growth in steel demand of 0.5% and 3% in 2022 and 2023 respectively, comparatively lower than its 5% average historical growth. The decrease in demand can be attributed to the economic impact of continued COVID-19 restrictions in China, the direct and indirect impact of the Russia-Ukraine crisis causing widespread market volatility and increasing oil and other commodity prices and tighter fiscal and monetary policies especially in the US.¹⁴

Outside of China, demand from Japanese, Taiwanese and Korean steel makers is expected to increase through 2022-2023 albeit at slower rates as the pace of their economic recoveries moderates.

Supply

Iron ore supply is concentrated mainly between Australia and Brazil. As shown in the figure below, in 2021, Australia and Brazil had a combined global share of 74% of iron ore exports.

Figure 20: Global iron ore suppliers in 2021



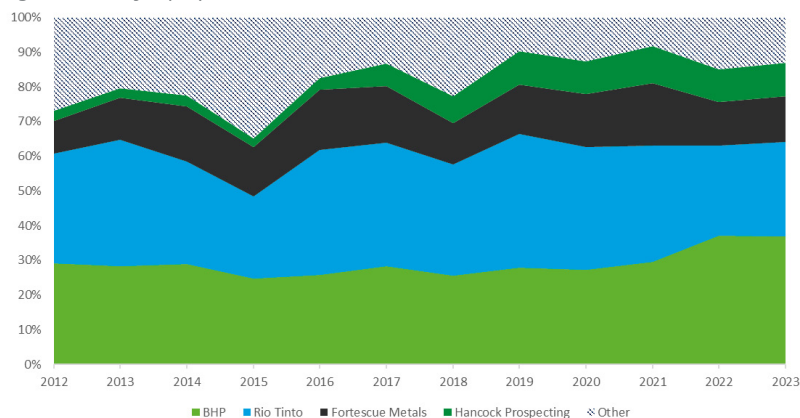
Source: IBISWorld Industry Report B0611 – Global Iron Ore Mining issued in September 2021

Major players in Australia

For the past ten years, supply of iron ore in Australia has been dominated by four major players, being Rio Tinto, BHP Group, Fortescue Metals Group, and Hancock Prospecting, as shown in the chart below. In 2021, the market share of these companies was 32%, 29%, 9% and 3% respectively.

¹⁴ EIU – Steel update dated 1 July 2022

Figure 21: Major players and their market shares from 2012 to 2023



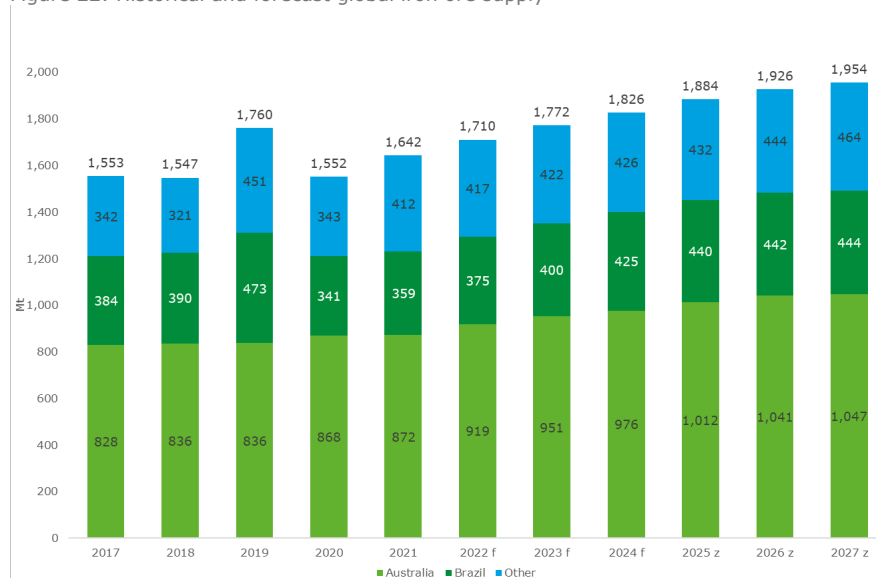
Source: IBISWorld Industry Report B0801 – Iron Ore Mining in Australia issued in June 2022

Note: IBISWorld have forecasted market share data for 2022 and 2023.

Global supply of iron ore

Global iron ore supply exceeded 1,600Mt in 2021. Output in 2020 and 2021 was lower than the previous high in 2019, driven by lower output from Brazil. This was primarily caused by the collapse of the Vale Brumadinho tailings dam in 2019, as well as economic impacts from COVID-19 such as construction and maintenance becoming unsafe at several sites. Both of these factors further delayed Brazil's recovery. This restriction on supply has provided support for the high iron ore prices discussed previously¹⁵.

Figure 22: Historical and forecast global iron ore supply



Notes: f forecast, z projection

Source: Department of Industry, Science, Energy and Resources 2022

¹⁵ Department of Industry, Science, Energy and Resources - Resources and Energy Quarterly March 2022



Supply Pipeline

The world has a significant pipeline of promising iron ore projects with production expected to increase steadily to c. 2,000Mt in 2027 as seen in Figure 22. One of the most significant undeveloped projects is Simandou, located in Guinea in West Africa. According to S&P Global, Simandou is classed as the world's largest untapped high-grade iron ore deposit, with grades which rival those of Vale's high-grade Carajas iron ore deposit in northern Brazil¹⁶. According to Fitch Solutions, Simandou's annual production capacity is estimated to reach around 200Mt by 2030 from the 4,000Mt reserve estimate¹⁷.

A report from The Center for Strategic and International Studies, concluded that the investment in Simandou made by various Chinese entities, is intended to diversify supply chains and reduce China's reliance on Australia, which currently provides about 60% of China's iron ore imports¹⁸. However the project carries significant political and geographic risks, as operations at Simandou have frequently been suspended by the Guinean government. Furthermore, Simandou could see major complexities in transporting the ore to the port, which requires a 650km railway, and as such production costs for Simandou could be significantly higher per tonne than for iron ore from Australia¹⁹.

Australian iron ore supply is also set to increase as BHP's South Flank delivered first ore in May 2021, and Rio Tinto's Gudai-Darri project started producing in June 2022, with capacity of 43Mtpa. Globally, Brazil's Vale has provided updated guidance of 320-335Mtpa in 2022 with the goal of 400 Mtpa within the next few years and Fortescue Metals Group is looking to explore and develop Gabon's Belinga iron ore project that is estimated to be capable of producing 30Mtpa²⁰.

Outlook

Australian iron ore supply is expected to increase steadily over the next five years with production of c. 1,050Mt forecast for 2027. All of the major producers intend to increase capacity and expand infrastructure to benefit from strong demand²¹.

However, as Australian iron ore output increases to meet demand, Australian export earnings are expected to decrease to AUD 105 billion in 2022-2023 from AUD 135 billion in 2021-2022, as a result of expected commodity price decreases flowing from the increasing supply. This is expected to be compounded by increased production in Brazil and Africa, placing further downward pressure on prices and in turn global industry revenue. China's slowing demand growth is also expected to contribute to declining prices²².

Australian iron ore producers are expected to remain relatively resilient against lower commodity prices due to the low-cost, high-quality nature of their operations.

¹⁶ S&P Global - Guinea opens tender for Simandou iron ore blocks July 2019

¹⁷ Fitch Solution - Upcoming Boom in Guinea's Iron Ore Production Remains Threatened by Long-Lasting Risks to Simandou Mine Opening December 2021

¹⁸ Center for Strategic and International Studies Report - CCP Inc. in West Africa June 2022

¹⁹ Ibid.

²⁰ Department of Industry, Science, Energy and Resources - Resources and Energy Quarterly March 2022

²¹ Ibid.

²² Ibid.



Appendix 3: Discount rate

The discount rate used to equate the future cash flows to their present value reflects the risk adjusted rate of return demanded by a hypothetical investor for the series of cash flows being valued.

Selecting an appropriate discount rate is a matter of judgement having regard to relevant available market pricing data and the risks and circumstances specific to the cash flows.

Whilst the discount rate is in practice normally estimated based on a fundamental ground-up analysis using one of the available models for estimating the cost of capital (such as the Capital Asset Pricing Model (CAPM)), market participants often use less precise methods for determining the cost of capital such as hurdle rates or target internal rates of return and often do not distinguish between investment type or region or vary over economic cycles.

Since our definition of fair market value is premised on the estimated value that a knowledgeable willing buyer would attribute to the cash flows, our selection of an appropriate discount rate also needs to consider that investors incorporate other alternatives to the typical CAPM approach in estimating the cost of capital.

For ungeared cash flows, discount rates are determined based on the cost of an entity's debt and equity weighted by the proportion of debt and equity used. This is commonly referred to as the weighted average cost of capital (WACC).

$$WACC = \left(\frac{E}{V} \times K_e \right) + \left(\frac{D}{V} \times K_d \times (1 - t_c) \right)$$

The WACC can be derived using the following formula:

The components of the formula are:

K_e	=	cost of equity capital
K_d	=	pre-tax cost of debt
t_c	=	corporate tax rate
E/V	=	proportion of enterprise funded by equity
D/V	=	proportion of enterprise funded by debt

The adjustment of K_d by $(1 - t_c)$ reflects the tax deductibility of interest payments on debt funding. The corporate tax rate has been assumed to be 30%, in line with the Australian corporate tax rate, as the cash flows will be received and paid within Australia, therefore triggering Australian tax.

The discount rate has been calculated using nominal inputs and adjusted for inflation to reflect the real discount rate in order to ensure consistency with the Model prepared for the Western Range cash flows, and the production delay analysis.

To estimate the appropriate discount rate for our valuation analysis we have used USD inputs (where applicable) for the following reasons:

- the price of iron ore is denominated in USD, and therefore decisions regarding Western Range production specifically and Rio Tinto's wider Pilbara iron ore production plan and project pipeline will be made in USD
- the Proposed JV and Rio Tinto's overall operating decisions and investments are fundamentally influenced by commodity prices which are set in a global environment
- most financing decisions, in particular raising capital through debt and equity markets, are considered on a global basis
- the value of Rio Tinto as a whole is analysed by the external market (i.e. equities analysts, potential purchasers, investors and competitors) largely on a global basis, in USD.



Cost of equity capital (K_e)

The cost of equity, K_e , is the rate of return that investors require to make an equity investment in a firm.

We have used the CAPM to estimate the K_e for the our valuation analysis. CAPM calculates the minimum rate of return that a company must earn on the equity-financed portion of its capital to leave the market price of its shares unchanged. The CAPM is the most widely accepted and used methodology for determining the cost of equity capital.

The cost of equity capital under CAPM is determined using the following formula:

$$K_e = R_f + \beta (R_m - R_f) + \alpha$$

The components of the formula are:

K_e	=	required return on equity
R_f	=	the risk-free rate of return
R_m	=	the expected return on the market portfolio
β	=	beta, the systematic risk of a stock
α	=	specific risk premium

Each of the components in the above equation is discussed below.

Risk free rate (R_f)

The risk-free rate compensates the investor for the time value of money and the expected inflation rate over the investment period. The frequently adopted proxy for the risk-free rate is the long-term Government bond rate.

In determining this risk-free rate we have calculated the five-day average zero coupon yield on the 20-year U.S. Treasury Securities, being 3.25% as at 31 July 2022. This rate represents a nominal rate and therefore includes inflation.

Equity market risk premium (EMRP)

The EMRP ($R_m - R_f$) represents the risk associated with holding a market portfolio of investments, that is, the excess returns a shareholder can expect to receive for the uncertainty of investing in equities as opposed to investing in a risk-free alternative. The size of the EMRP is dictated by the risk aversion of investors – the lower (higher) an investor's risk aversion, the smaller (larger) the equity risk premium.

The EMRP is not readily observable in the market and therefore represents an estimate based on available data. There are generally two main approaches used to estimate the EMRP, the historical approach and the prospective approach, neither of which is theoretically more correct or without limitations.

The former approach relies on historical share market returns relative to the returns on a risk-free security; the latter is a forward-looking approach which derives an estimated EMRP based on current share market values and assumptions regarding future dividends and growth.

In evaluating the EMRP, we have considered both the historically observed and prospective estimates of EMRP.

Historical approach

The historical approach is applied by comparing the historical share market returns relative to the returns on risk free assets such as Government bonds, or in some cases Treasury bills. The historical EMRP has the benefit of being capable of estimation from reliable data; however, it is possible that historical returns achieved on stocks were different from those that were expected by investors when



making investment decisions in the past and thus the use of historical market returns to estimate the EMRP would be inappropriate.

It is also likely that the EMRP is not constant over time as investors' perceptions of the relative riskiness of investing in equities change. Investor perceptions will be influenced by several factors such as current economic conditions, inflation, interest rates and market trends. The historical risk premium assumes the EMRP is unaffected by any variation in these factors in the short to medium term.

Historical estimates are sensitive to the following:

- the time period chosen for measuring the average
- the use of arithmetic or geometric averaging for historical data
- selection of an appropriate benchmark risk free rate
- exclusion or inclusion of extreme observations.

The EMRP is highly sensitive to the different choices associated with the measurement period, risk free rate and averaging approach used and as a result estimates of the EMRP can vary substantially.

Data provided by the Morningstar 'Stocks, Bonds, Bills and Inflation Yearbook' for 2021 was considered in estimating the EMRP. The SBBI calculates the market equity risk premium by reducing large-company stock returns by the risk-free rate of return over the period from 1926 to 2020. To match the EMRP with the risk-free rate included in the CAPM, we have considered the premium calculated over the return on the long-term US Treasury strips. Further adjustments were made to the SBBI equity risk premium in order to account for the inflation in the market price to earnings ratio as well as recent declines in the risk-free rate.

In addition to the data provided by the SBBI, consideration was also given to the equity risk premium implied by the dividend discount model for a broad market index such as the Standard & Poor's 500 Index.

Prospective approach

The prospective approach is a forward-looking approach that is current, market driven and does not rely on historical information. It attempts to estimate a forward looking premium based on either surveys or an implied premium approach.

The survey approach is based on investors, managers and academics providing their long-term expectations of equity returns. We note specifically Aswath Damodaran calculated an implied EMRP as at 1 July 2022 of 5.69%²³.

The implied approach is based on either expected future cash flows or observed bond default spreads and therefore changes over time as share prices, earnings, inflation and interest rates change. The implied premium may be calculated from the market's total capitalisation and the level of expected future earnings and growth.

Selected EMRP

We are of the view that since the global financial crisis in mid-2007 and the impact of the global pandemic in early 2020, and the subsequent periods of increased volatility in equity and debt markets (refer to Figure 23), the relevance of historical observations and long-term average measures has substantially weakened.

As a result, Deloitte has increasingly placed more weight on prospective approaches to assess the EMRP. However, this analysis involves the setting of several variables and can only be considered indicative. As a result, Deloitte also considers other market indicators when assessing the EMRP including spreads observed on domestic and foreign corporate bonds and volatility observed in the equity instruments.

²³ Damodaran Online – Implied ERP

Figure 23: VIX historical movements



Source: S&P Capital IQ

VIX is a measure of the implied volatility of S&P 500 index options, representing the market's expectation of stock market volatility over the next 30-day period. During period of high volatility in the VIX, it would be fair to assume the EMRP is high (and visa-versa).

Based on our analysis, we have selected a USD-denominated EMRP of 6.25%.

Beta estimate (β)

Description

The beta coefficient measures the systematic risk or non-diversifiable risk of a company in comparison to the market as a whole. Systematic risk, as separate from specific risk as discussed below, measures the extent to which the return on the business or investment is correlated to market returns. A beta of 1.0 indicates that an equity investor can expect to earn the market return (i.e., the risk-free rate plus the EMRP) from this investment, assuming no specific risks. A beta of greater than one indicates greater market related risk than average and therefore higher required returns, while a beta of less than one indicates less risk than average and therefore lower required returns.

Betas will primarily be affected by three factors which include:

- the degree of operating leverage employed by the firm, in that companies with a relatively high fixed cost base will be more exposed to economic cycles and therefore have higher systematic risk compared to those with a more variable cost base
- the degree of financial leverage employed by a firm, in that as additional debt is employed by a firm, equity investors will demand a higher return to compensate for the increased systematic risk associated with higher levels of debt
- correlation of revenues and cash flows to economic cycles, in that companies that are more exposed to economic cycles, such as retailers or energy and resources companies, will generally have higher levels of systematic risk (i.e., higher betas) relative to companies that are less exposed to economic cycles, such as regulated utilities.

They can also be influenced by the index against which they have been calculated, the time period over which they were calculated and the level of trading in the share of the relevant company. As such, in a market like Australia, immense care must be taken in the assessment of the appropriate beta.

The geared or equity beta can be estimated by regressing the returns of the business or investment against the returns of an index representing the market portfolio, over a reasonable time period. However, there are a number of issues that arise in measuring historical betas that can result in differences, sometimes significant, in the betas observed depending on the time period utilised, the benchmark index and the source of the beta estimate. For example, for unlisted companies it is often preferable to have regard to sector averages or a pool of comparable companies rather than any single company's beta estimate due to the above measurement difficulties.



Market evidence

In estimating an appropriate beta for our valuation analysis, we have considered the betas of listed companies that are comparable to Rio Tinto's iron ore operations. These betas, which are presented below, have been calculated based on weekly returns, over a two-year period, and monthly returns, over a four-year period, compared to the MSCI Inc World Index.

Table 14: Analysis of betas for listed companies with comparable operations

Company name	Market cap (USD'm)	Net Debt (USD'm)	Enterprise Value¹ (USD'm)	Net debt to EV (%)	2-year weekly beta		4-year monthly beta	
					Levered	Unlevered	Levered	Unlevered
Diversified Miners								
Rio Tinto Group²	100,121	(1,094)	105,568	-	n/m	n/m	0.64	0.64
BHP Group Limited	136,584	7,269	147,988	4.9%	n/m	n/m	0.82	0.79
Vale S.A.	61,812	8,859	72,155	12.3%	0.81	0.74	0.88	0.80
Anglo American plc	43,580	4,003	54,516	7.3%	1.06	1.00	1.05	0.99
NMDC Limited	3,982	(568)	3,416	-	0.82	0.82	1.04	1.04
Vedanta Limited	11,887	2,804	16,883	16.6%	n/m	n/m	1.56	1.37
ArcelorMittal S.A.	20,652	4,331	27,437	15.8%	1.23	1.06	1.59	1.38
Average	54,088	3,658	61,138	8.1%	0.98	0.90	1.08	1.00
Median	43,580	4,003	54,516	7.3%	0.94	0.91	1.04	0.99
Maximum	136,584	8,859	147,988	16.6%	1.23	1.06	1.59	1.38
Minimum	3,982	(1,094)	3,416	-	0.81	0.74	0.64	0.64

Notes:

1. Enterprise value as at 31 July 2022, takes into account minority interest

2. Market cap as per ASX

Source: S&P Capital IQ, Deloitte Corporate Finance analysis

These metrics along with those for other entities considered are provided in Appendix 4.

The observed beta is a function of the underlying risk of the cash flows of the comparable company, together with the capital structure and tax position of that company. This is described as the levered beta. The capital structure and tax position of the entities in the table above may not be the same as Rio Tinto's iron ore operations. Therefore the levered beta is often adjusted for the effect of the capital structure and tax position. This adjusted beta is referred to as the unlevered beta. The unlevered beta is a reflection of the underlying risk of the pre-financing cash flows of the entity.

Selected beta (β)

Most of the comparable companies are not directly comparable to the assets being considered.

In selecting an appropriate beta for our valuation analysis, we have used the lower end of our beta range for the benefit being received by Rio Tinto, and the higher end of our beta range for the benefit being provided to Baowu. The different beta ranges reflect the different risk profiles associated with each set of cash flows.

Lower end of range (0.9 – 1.0) used for valuing the benefit being received by Rio Tinto

- the benefit being received by Rio Tinto has been estimated based on the financial impact of the production delay in the Pilbara region. The Pilbara iron ore network is a sophisticated operation which has two key advantages over a single mine, namely improved ore consistency and longer mine life due to unsaleable ore becoming saleable when combined with high grade, low impurity ore. The blending operations are not unique to the assets being considered with BHP and Vale having similar operations, however relative to the average dedicated Pilbara miner, the blending of ore from multiple mines creates a competitive advantage for the assets being considered. This is likely to reduce the systematic risk of the assets being considered relative to the smaller, less integrated comparable companies
- the average unlevered beta for the diversified mining companies, calculated on a two-year (weekly) and four-year (monthly) basis with reference to the MSCI Inc World Index is 0.9 and 1.0 respectively. Due to the breadth of their operations, we expect there to be less risk associated with these companies than with a single iron ore project.
- we have also had regard to the qualitative characteristics of the assets being considered, in particular the fact that iron ore is a bulk commodity with a number of producers selling to a relatively small number of customers. The systematic risk associated with iron ore could therefore



be considered lower than other commodities due to the current disparity between demand and supply.

Higher end of range (1.0 – 1.1) used for valuing the benefit being provided to Baowu

- The cash flows associated with the benefit being provided to Baowu are linked to a single asset – Western Range – and therefore the beta has been selected with reference to smaller companies with more concentrated operations. A single asset such as Western Range is likely to be considered riskier in comparison to a network of mines across the Pilbara and would therefore attract a higher beta to accommodate the higher risk
- we have considered betas of the smaller end of the diversified miners and dedicated iron ore production companies. These entities have betas, also calculated on a two-year (weekly) and four-year (monthly) basis with reference to the MSCI Inc World Index, of up to and above 1.1.

Conclusion on cost of equity

Based on the above factors we arrive at a cost of equity, K_e , as follows:

Table 15: K_e applied in our valuation analysis

	Benefit to Rio Tinto		Benefit to Baowu	
	Low	High	Low	High
Risk free rate (R_f)	3.25%	3.25%	3.25%	3.25%
Equity market risk premium (EMRP)	6.25%	6.25%	6.25%	6.25%
Beta (ungeared β)	0.90	1.00	1.00	1.10
Beta (geared β)	1.11	1.23	1.23	1.36
Company specific risk premium	0.0%	0.0%	0.0%	0.0%
Calculated K_e	10.2%	11.0%	11.0%	11.7%

Source: Deloitte Corporate Finance analysis

Cost of debt capital (K_d)

The cost of debt is a reflection of the interest rate demanded by debt capital providers. Interest rates are typically determined with reference to a base rate. The bank bill swap rate (BBSW) is the standard base rate benchmark in Australia. A credit margin is added that is specific to the default risk of the company/asset being funded. This has been estimated after consideration of the following:

- the average market gearing of the comparable companies set out in Table 14
- our assessed target gearing level of 25% debt
- Rio Tinto's credit rating of A-1 for the short-term rating and a rating of A (stable) over the long-term rating outlook. The rating was determined by Standard & Poor's²⁴

Debt and equity mix

Selecting an appropriate gearing ratio is a subjective judgement having regard to the quality of the cash flows of the project and the nature of the industry. In selecting an appropriate net debt to enterprise ratio we have had regard to the companies operating in the iron ore sector as well as the long-term nature and quality of the future cash flows of the assets being considered.

In recent years a number of companies in the mining sector have had net cash positions at certain times reflecting the significant operating cash flows generated by high commodity prices. This net debt to enterprise value ratio has been cyclical in nature and not reflective of the ratio that could be achieved over the life of the assets being considered. We have therefore analysed the net debt to enterprise value ratios of the comparable companies which resulted in us selecting gearing of approximately 25%.

²⁴ Rio Tinto website - Debt investors, accessed 1 August 2022



Inflation

We have converted the nominal discount rate to a real discount rate using the Fisher Equation. The US long term inflation expectation is 2.14%, as outlined in Appendix 5.

Calculation of WACC

Based on the above, we have assessed the nominal and real post-tax WACC for our valuation analysis as follows:

Table 16: WACC applied in our valuation analysis

	Benefit to Rio Tinto		Benefit to Baowu	
	Low	High	Low	High
Selected K_e	10.2%	11.0%	11.0%	11.7%
Selected K_d	3.6%	4.3%	3.6%	4.3%
Debt to enterprise value ratio (%)	25%	25.0%	25.0%	25%
Tax rate	30%	30%	30%	30%
Nominal WACC (post-tax)	8.55%	9.21%	9.21%	9.88%
Nominal Selected WACC	8.5%	9.25%	9.25%	10.0%
Inflation (long term)	2.14%	2.14%	2.14%	2.14%
Real WACC (post-tax)	6.27%	6.92%	6.92%	7.58%
Real Selected WACC	6.50%	7.00%	7.00%	7.50%

Source: Deloitte Corporate Finance analysis



Appendix 4: Comparable entities

We identified the following companies whose securities are traded on various securities exchanges, to be similar to the assets being considered:

Table 17: Comparable entities

Company name	Market cap (USD'm)	Net Debt (USD'm)	Enterprise Value (USD'm)	Net debt to EV (%)	2-year weekly beta		4-year monthly beta	
					Levered	Unlevered	Levered	Unlevered
Diversified Miners								
Rio Tinto Group	100,121	(1,094)	105,568	-	n/m	n/m	0.64	0.64
BHP Group Limited	136,584	7,269	147,988	4.9%	n/m	n/m	0.82	0.79
Vale S.A.	61,812	8,859	72,155	12.3%	0.81	0.74	0.88	0.80
Anglo American plc	43,580	4,003	54,516	7.3%	1.06	1.00	1.05	0.99
NMDC Limited	3,982	(568)	3,416	-	0.82	0.82	1.04	1.04
Vedanta Limited	11,887	2,804	16,883	16.6%	n/m	n/m	1.56	1.37
ArcelorMittal S.A.	20,652	4,331	27,437	15.8%	1.23	1.06	1.59	1.38
Average	54,088	3,658	61,138	8.1%	0.98	0.90	1.08	1.00
Median	43,580	4,003	54,516	7.3%	0.94	0.91	1.04	0.99
Maximum	136,584	8,859	147,988	16.6%	1.23	1.06	1.59	1.38
Minimum	3,982	(1,094)	3,416	-	0.81	0.74	0.64	0.64
Iron ore production companies								
Fortescue Metals Group Limited	39,368	1,724	41,100	4.2%	n/m	n/m	0.9	0.9
Champion Iron Limited	1,732	181	1,913	9.5%	n/m	n/m	1.3	1.2
Mount Gibson Iron Limited	443	(89)	354	-	n/m	n/m	0.8	0.8
Grange Resources Limited	904	(324)	580	-	n/m	n/m	0.9	0.9
Fenix Resources Limited	104	(39)	66	-	n/m	n/m	2.1	2.1
Kumba Iron Ore Limited	9,512	(1,074)	9,322	-	0.9	0.9	1.0	1.0
Cleveland-Cliffs Inc.	9,161	4,621	14,047	32.9%	1.7	1.2	1.9	1.4
CSN Mineração S.A.	3,706	(448)	3,258	-	n/m	n/m	0.7	0.7
Hainan Mining Co., Ltd.	2,480	(314)	2,331	-	n/m	n/m	1.0	1.0
CAP S.A.	1,362	603	3,386	17.8%	0.9	n/m	1.2	n/a
Average	6,878	484	7,636	6.4%	1.14	1.04	1.20	1.12
Median	2,106	(64)	2,795	-	0.87	1.04	1.02	1.01
Maximum	39,368	4,621	41,100	32.9%	1.69	1.22	2.05	2.05
Minimum	105	(1,074)	66	-	0.87	0.87	0.74	0.74
Total Average	26,317	1,791	29,666	7.1%	1.05	0.95	1.15	1.07
Total Median	9,161	181	9,322	4.2%	0.87	0.93	1.02	1.00
Maximum	136,584	8,859	147,988	32.9%	1.69	1.22	2.05	2.05
Minimum	105	(1,094)	66	-	0.81	0.74	0.64	0.64

n/m = not meaningful

Note: Data as at 31 July 2022

Source: Deloitte Corporate Finance analysis



Appendix 5: Economic assumptions

Forecast iron ore prices

Rio Tinto’s saleable iron ore is primarily exported to China, the United States, Southeast Asia and Japan. The Proposed Offtake agreement has been negotiated at market terms, and is linked to the Platts IODEX 62% fines and 62.5% spot lump premium indices, adjusted for iron content, moisture and freight. As the Proposed Offtake is on market terms, our cash flow analysis does not directly consider cash flows from the Proposed Offtake, however it does incorporate cash flows from the mine gate sales agreement within the Proposed JV. The Mine Gate Price that HI will pay to Baowu is based on a fixed percentage of the free on-board price HI receives for the relevant month for its primary Australian iron ore product (currently, Pilbara Blend Lump and Pilbara Blend Fines), adjusted to account for royalties. Our production delay analysis also requires forecast iron ore prices as it considers the loss of revenues under our deprival value methodology.

In selecting appropriate pricing assumptions for iron ore, we had regard to the following:

- commodity price forecasts based on broker estimates
- forward and future prices
- other publicly available industry estimates and commentary.

Our approach to selecting commodity prices places the greatest weight on broker forecast prices. In selecting the commodity prices, we have adopted the broker average in the medium to long term. Forward contracts were also considered as data points however they tend to have low liquidity and provide more accurate estimates of future prices in the short term, whereas forecast Western Range production begins in 2024 (and there are no revenue cash flows prior to this).

The Model applies adjustments to the benchmark prices for specific ore grade and moisture to account for the specific characteristics of the ore produced, and therefore the inputs to the Model are based on the unadjusted index prices. Table 18 summarises the base pricing information we have used in our analysis.

Table 18: Selected iron ore prices summary

USD/t (real)	2024	2025	2026	Long Term
Iron ore Lump	99.4	89.9	80.5	72.0
Iron ore Fines	83.4	75.9	68.5	61.6

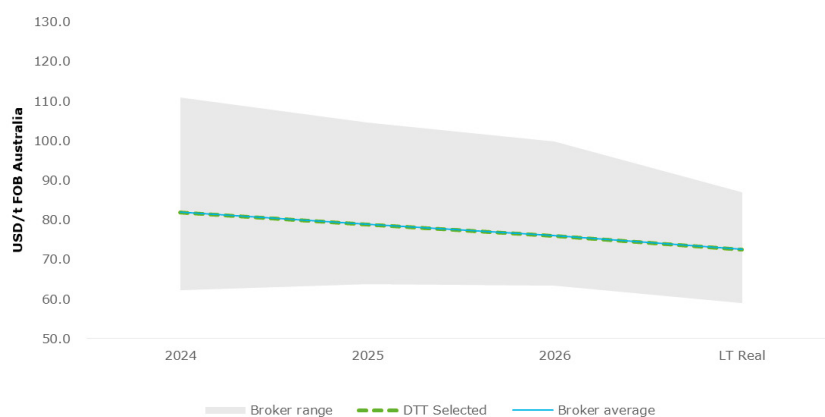
Source: Deloitte Corporate Finance analysis

The lump product is priced with reference to a market-based premium (known as the ‘lump premium’) over the fines price. The lump premium is primarily driven by the fact that the lump ore is a direct charge material and does not require a sintering process, enabling cost saving benefits for steelmakers. As the fines price and the lump premium can move independently, changes in this price structure can have significant effects on revenue and the lump premium is therefore an important consideration in our valuation.

The figure below sets out our selected price curve and broker pricing estimates for both the lump and fines products, on a real basis.

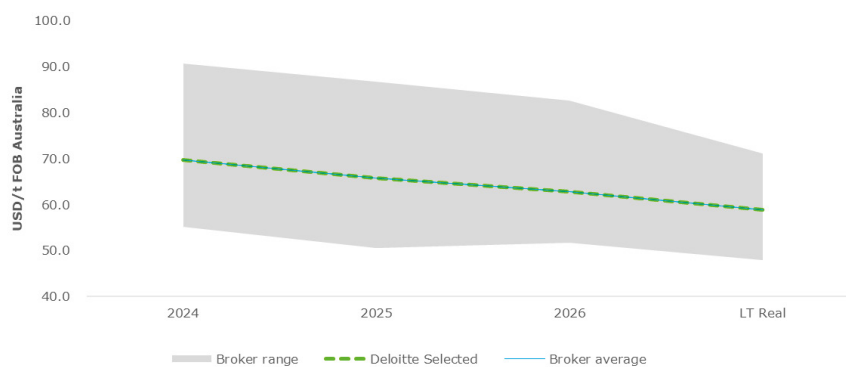


Figure 24: Iron Ore Lump USD/t (real)



Source: Deloitte Corporate Finance analysis

Figure 25: Iron Ore Fines USD/t (real)



Source: Deloitte Corporate Finance analysis

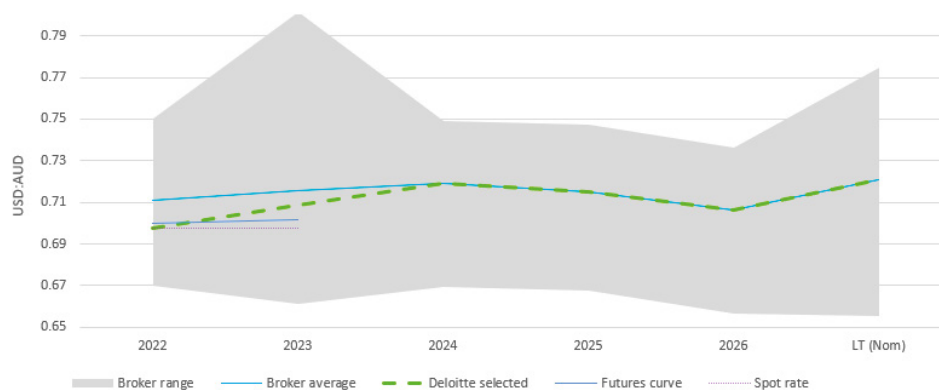
Forecast AUD:USD foreign exchange rate

In determining our foreign exchange rate assumptions, we have had regard to the following:

- historical and current AUD:USD exchange rates
- forward curves
- forecast prepared by economic analysts, market analysts, and other publicly available information.

We have set out in the figure below the various estimates and forecasts we considered.

Figure 26: USD:AUD (real) foreign exchange rate



Source: Deloitte Corporate Finance analysis

Our approach to selecting foreign exchange rates uses the spot rate in 2022. For 2023, we considered forward contracts and the brokers' average. Forward contracts were considered as data points as they tend to have liquidity and provide more accurate estimates of future rates in the short term. From 2024 onwards, we have adopted the broker average in the medium to long term forecast.

Based on our consideration of the foregoing, we have selected the following USD:AUD exchange rate assumptions:

Table 19: Foreign exchange rate summary (real)

	2022	2023	2024	2025	2026	Long term (Real)
USD:AUD	0.70	0.71	0.72	0.71	0.71	0.72

Source: Deloitte Corporate Finance analysis

Inflation

The future cash flows in the Model are presented in real terms, therefore inflation assumptions have been used in our valuation for the following purposes:

- converting USD-denominated revenue and AUD-denominated costs into nominal net cash flows for the purpose of calculating income tax expense in both the Model and the production delay analysis
- where required, to convert observed nominal iron ore price forecasts to real terms to be consistent with the Model
- to convert observed nominal USD:AUD exchange rates forecasts to real to be consistent with the Model
- to convert the discount rate from a nominal to real basis.

In selecting our inflation rate assumptions, we have considered the following:

- forecasts for the United States prepared by the Economic Intelligence Unit²⁵, the International Monetary Fund²⁶, and the Congressional Budget Office²⁷
- forecasts for Australia prepared by the Economic Intelligence Unit²⁸, the International Monetary Fund²⁹, Deloitte Access Economics and the Reserve Bank of Australia³⁰

²⁵ Economist Intelligence Unit - Country Report United States of America - Accessed 2 August 2022

²⁶ International Monetary Fund - United States of America April 2022 - Accessed 2 August 2022

²⁷ Congressional Budget Office - The Budget and Economic Outlook May 2022 - Accessed 2 August 2022

²⁸ Economist Intelligence Unit - Country Report Australia - Accessed 2 August 2022

²⁹ International Monetary Fund - Australia April 2022 - Accessed 2 August 2022

³⁰ Reserve Bank of Australia - Statement on Monetary Policy - May 2022 accessed 2 August 2022



- other publicly available information
- The U.S. Federal reserve's inflation target of 2.0%

We have selected the following inflation rate assumptions:

Table 20: Inflation assumptions

	2022	2023	2024	2025	2026	Long term
US inflation	7.54%	3.40%	2.13%	2.14%	2.14%	2.14%
Australian inflation	5.36%	3.19%	2.43%	2.36%	2.36%	2.33%

Source: Deloitte Corporate Finance analysis

Other assumptions

In addition to the above assumptions, the Model assumes an Australian corporate tax rate of 30.0% because the cash flows will be received and paid within Australia, therefore triggering Australian corporate tax.

Deloitte.

Appendix 6: Technical Expert's report



CSA Global
Mining Industry Consultants
an ERM Group company

REVIEW OF WESTERN RANGE IRON PROJECT

Independent Technical Specialist Report for Deloitte

REPORT Nº R314.2022
31 August 2022



DELOITTE CORPORATE FINANCE

Independent Technical Specialists Report on Western Range Iron Project

**Report prepared for**

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Independent Technical Specialists Report on Western Range Iron Project



Executive Summary

CSA Global Pty Ltd (CSA Global), an ERM Group company, was engaged by Deloitte Corporate Finance Pty Ltd (Deloitte) to prepare an Independent Technical Specialist Report (ITSR) on inputs to the Life of Mine (LOM) Discounted Cashflow (DCF) model to support the Deloitte Independent Expert's opinion on a proposed corporate transaction on the Western Range Iron Project, located near Paraburdoo in Western Australia.

Rio Tinto Services Limited has engaged Deloitte on behalf of Hamersley Iron Pty Ltd, a wholly owned subsidiary of Rio Tinto ("Hamersley", "HI", "Rio Tinto" or "the Company") to prepare an Independent Expert's Report ("IER") in respect of the proposed Western Range Joint Venture and Offtake Agreement (Agreement) with entities in the China Baowu Steel Group Corporation Limited group ("China Baowu").

Mineral Resources

The Western Range iron mineralisation is martite-goethite style hosted in the Brockman Iron Formation, predominantly Dales Gorge and Joffre Member, comprising a Mineral Resource of 232 Mt grading 61.2 % Fe, 4.8% SiO₂, 2.5% Al₂O₃, 0.12% P, and 4.4% LOI. The resource is distributed across a series of deposits named 36W–50W and 55W–66W, along an approximate 10 km strike length, adjacent west of the Rio Tinto Eastern Range operations.

The resource excludes an Ore Reserve of 165 Mt grading 62.0 % Fe, 4.0% SiO₂, 2.2% Al₂O₃, 0.12% P, 4.5% LOI for the 36W–50W Deposits. There is no Ore Reserve over the 55W–66W Deposit.

A summarised Mineral Resource is included in Table 1. A detailed breakdown of the Mineral Resources is included in Table 2.

Table 1: Summary Western Range Mineral Resources, exclusive of Ore Reserves, as of December 2021

Classification	Tonnage (Mt)	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	LOI %
Measured	22	59.1	6.2	3.1	0.14	5.4
Indicated	102	61.5	4.4	2.5	0.12	4.2
Inferred	108	61.4	4.9	2.4	0.11	4.2
Total	232	61.2	4.8	2.5	0.12	4.4

CSA Global is of the opinion that the exploration activities, drill techniques, survey methods, sampling, assaying, and Quality Assurance/Quality Control (QAQC) completed by Rio Tinto are in line with good industry practice and are appropriate for the style of mineralisation.

There is a low to moderate risk associated with the quality of some of the historical reverse circulation percussion (RCP) drilling that did not have present-day industry standard QAQC practices; however, in CSA Global's opinion, this risk has been reduced by the more recent infill drilling that has full QAQC applied, and the confidence in the data is appropriately reflected in the classification of the estimates. Additional ongoing drilling planned for the next five years prior to mining will further increase confidence in the supporting data for the resource model.

CSA Global considers that the complex geology and structural controls on mineralisation at Western Range (not uncommon throughout the Pilbara) were examined with due care, and the appropriate estimation approaches were selected. Further, CSA Global is of the opinion that the classification of the resource estimate appropriately reflects the consideration of uncertainty, impact and materiality of this uncertainty and the confidence in the data and interpretation by the Competent Persons who take responsibility for the Mineral Resources.

CSA Global is of the opinion that the Western Range Mineral Resources have been prepared and reported in accordance with the JORC Code using accepted industry practice, including appropriate reference to the guidelines in the JORC Code and have been signed off by an appropriate Competent Person as defined by the JORC Code.

CSA Global notes that a proportion of Inferred Mineral Resource over 36W–50W forms part of the production schedule in the early years of the proposed mine plan. CSA Global is of the opinion this is acceptable and not a material issue for the following reasons:

- Rio Tinto has a very long history of mining the same style of deposit in the region and has a strong and proven foundation and basis for reasonably forecasting the conversion of Inferred to Indicated or higher category during the production stage.

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- The large scale and long LOM of the deposits do not require that the entire Mineral Resource should be drilled out to be Measured and Indicated at the pre-production stage. This is a common practice throughout the Pilbara iron ore industry.
- Inferred Mineral Resources will be upgraded as an ongoing part of the grade control process in the early production stages. Typically, this material is located at the peripheral edges of the Ore Reserve pit designs.
- Heavy machinery/vehicle/drill rig access to some of the Inferred areas for resource upgrade purposes is not possible at this stage; however, Rio Tinto has established a robust understanding of the geological continuity and controls on mineralisation complemented by decades of solid geological practices. Rio Tinto has adopted a conservative view in assigning this material as Inferred; however, they have high confidence that this will convert to Indicated or higher once they can physically access the material. CSA Global agrees with this view.
- Given the rugged topography throughout the Pilbara, particularly the Brockman Iron Formation, ongoing resource definition and conversion as vehicle / heavy machinery access is opened is common practice.
- The surface hydrated zone or hard capped mineralisation has a higher inherent grade variability, common throughout the Pilbara. Rio Tinto has adopted a conservative approach in assigning an Inferred classification based on grade.

In conclusion, the quality of work completed by Rio Tinto is of a high standard, and there are no material risks to the Western Range Mineral Resources.

Exploration Potential

Key exploration opportunities for the Western Range deposits are upgraded confidence of unclassified and Inferred Mineral Resources to Indicated or Measured and strike or offset depth extension of the currently defined Mineral Resources with ongoing delineation drilling.

The proposed five-year drill plan (50,350 m) by Rio Tinto, commencing 2022, will focus on: upgrading Inferred Mineral Resources from 36W–50W as access becomes established through mine development, and infill drilling at 55W–66W to upgrade Mineral Resources before mining commences in 2027.

CSA Global believes that the proposed exploration strategy is appropriate for converting unclassified to Inferred Mineral Resources to Indicated / Measured Mineral Resources.

Mining Technical Assessment

The objective of the Joint Venture is to operate the mine to produce and sell the iron ore until the Production Target is achieved. The proposed Agreement is for a Production Target of 275 Mt of saleable Run of Mine (ROM) production. To meet the 275 Mt planned production, additional Mineral Resources, including Inferred material, are required to supplement the 165 Mt Ore Reserves.

The production schedule has a significant amount of Inferred Mineral Resources (13% to 19%) each year in the first 5-years of production. It amounts to approximately 25% of the ore feed until year 13 of the approximately 275 Mt ore feed and approximately 30% of the 363 Mt ore feed over the LOM. The 275 Mt targeted feed is not achievable without using, or without an upgrade in, some of the Inferred Mineral Resources.

CSA Global considers the 275 Mt will be achieved through conversion of the Inferred material to Indicated or Measured Resources and ultimately convert to Ore Reserves. This opinion is based on a review of the Paraburdoo Eastern Range mining history in converting Inferred material into a saleable product, demonstrating positive reconciliation following infill drilling. It is also supported by the fact that Rio Tinto has conservatively classified hydrated or near surface hard capped mineralisation as Inferred based primarily on grade variability and not volume continuity. This material will need to be mined to access the higher grade underlying Indicated and Measured resources.

CSA Global considers the Western Range accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

CSA Global considers the cost parameters, ore recovery, and metallurgical and geotechnical assumptions appropriate for the proposed mining method and fleet size.

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CSA Global considers the capital and operating cost estimates to be within the range expected for a Feasibility Study ($\pm 15\%$) but considers the recent inflationary cost increase in personnel, materials, and fuels could add to the cost estimate and should be tested in the financial model.

CSA Global considers the high margins of the Project will provide a continuous market for Western Range products for the expected life of the Project for a wide range of prices.

Conclusion

In conclusion, the quality of work completed by Rio Tinto is of a high standard, and there are no material risks to the Western Range Mineral Resources, Ore Reserves, schedules and production profile. CSA Global considers the Western Range Project will be able to deliver the required 275 Mt of iron ore product.

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1 Introduction

1.1 Context, Scope and Terms of Reference

CSA Global Pty Ltd (CSA Global), an ERM Group company, was engaged by Deloitte Corporate Finance Pty Ltd (Deloitte) to prepare an Independent Technical Specialist Report (ITSR) on inputs to the Life of Mine (LOM) Discounted Cashflow (DCF) model to support the Deloitte Independent Expert's opinion on a proposed corporate transaction on the Western Range Iron Project ("the Project"), located near Paraburdoo in Western Australia.

Rio Tinto Services Limited has engaged Deloitte on behalf of Hamersley Iron Pty Ltd, a wholly owned subsidiary of Rio Tinto ("Hamersley", "HI", "Rio Tinto" or "the Company") to prepare an Independent Expert's Report ("IER") in respect of the proposed Western Range Joint Venture and Offtake Agreement (Agreement) with entities in the China Baowu Steel Group Corporation Limited group ("China Baowu").

Deloitte requested CSA Global provide the following services ("the Services") to assist in the preparation of the IER by providing:

- Input and advice on the appropriateness of the technical assumptions comprising Mineral Resources, Ore Reserves and Mining costs adopted in the financial model for the Proposed Transaction.

The CSA Global ITSR will form part of the IER prepared by Deloitte and may be provided (in part or whole) to Rio Tinto and its shareholders.

The ITSR is subject to the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets ("VALMIN¹ Code"). In preparing this ITSR, CSA Global:

- Relied on Rio Tinto's representation that it has made CSA Global aware of all material information in relation to the Project.
- Relied on Rio Tinto's representation that it will hold adequate security of tenure for exploration.

1.2 Compliance with the VALMIN and JORC Codes

This ITSR has been prepared in accordance with the VALMIN Code, which is binding upon Members of the Australian Institute of Geoscientists (AIG) and the Australasian Institute of Mining and Metallurgy (AusIMM), the JORC Code² and the rules and guidelines issued by such bodies as the Australian Securities and Investments Commission (ASIC) and Australian Stock Exchange (ASX) that pertain to Independent Expert Reports.

1.3 Principal Sources of Information and Reliance on Other Experts

CSA Global has based its review of the Project on the information made available to the principal authors by Rio , along with technical reports prepared by consultants, government agencies, and other relevant published and unpublished data.

CSA Global has also relied upon discussions with Rio Tinto's management for the information contained within this assessment. This ITSR has been based upon information available up to and including 31st August 2022.

CSA Global has endeavoured, by making all reasonable enquiries, to confirm the authenticity, accuracy, and completeness of the technical data upon which this ITSR is based. Unless otherwise stated, information and data contained in this technical Report, or used in its preparation, have been provided by Rio Tinto in the form of documentation.

Rio Tinto was provided with a final draft of this ITSR and provided feedback on any material errors or omissions.

Descriptions of the mineral tenure were provided to CSA Global by Rio Tinto. CSA Global has independently verified the status of the tenure, but has not reviewed any of the underlying agreements. Rio Tinto has warranted to CSA

¹ The Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets (VALMIN Code) is to provide a set of fundamental principles, minimum requirements and supporting recommendations to assist in the preparation of relevant Public Reports on Mineral Assets. The VALMIN Code is based on international good practice as currently employed in the Mineral industry but allows for professional judgement in certain instances.

² The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia

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Global that the information provided for preparing this ITSR correctly represents all material information relevant to the Project.

CSA Global did not undertake a site visit to the Project for the purposes of this ITSR. CSA Global has sufficient experience in Pilbara iron ore and did not consider a site visit to be material or add to its understanding of the prospectivity of the tenements based on the quality of the information available.

1.4 Authors of the Report

The ITSR has been prepared by CSA Global, a privately-owned consulting company and part of the ERM Group that has been operating for over 35 years, with its headquarters in Perth, Western Australia.

CSA Global provides multidisciplinary services to a broad spectrum of clients across the global mining industry. Services are provided across all stages of the mining cycle, from project generation to exploration, resource estimation, project evaluation, development studies, operations assistance, and corporate advice, such as valuations and independent technical documentation.

This ITSR has been prepared by a team of consultants sourced principally from CSA Global's office in Perth, Western Australia. The consultants preparing this ITSR are specialists in the field of geology, exploration, resource estimation and mining relating to Pilbara iron ore. The individuals who have provided input to the ITSR have extensive experience in the mining industry and are members in good standing of the appropriate professional institutions.

For this ITSR, the following individuals, by virtue of their education, experience, and professional association, are considered Competent Persons, as defined in the JORC Code (2012), and Practitioners as defined in the VALMIN Code (2015). The individual areas of responsibility are presented below:

- Project manager and Partner in Charge – Mr Graham Jeffress (Partner of CSA Global in Perth, Western Australia) with support from Mr Mark Pudovskis (Technical Director with CSA Global in Perth, Western Australia) is managing the Report and is responsible for the entire Report.
- Contributing author – Ms Sonia Konopa (Principal Consultant, Geology with CSA Global in Brisbane, Queensland) is a contributing author of the Report and is responsible for all Mineral Resource information in the entire Report.
- Contributing author – Mr Mark Laing (Principal Mining Consultant with CSA Global in Perth, Western Australia) is a contributing author of the Report and is responsible for all Mining information in the entire Report.
- Peer reviewer – Ms Ivy Chen (Manager Corporate with CSA Global in Perth, Western Australia) has reviewed the entire Report.

The information in this ITSR that relates to the Technical Assessment of Rio Tinto's Western Range Mineral Resources, Exploration Targets, or Exploration Results was reviewed by Ms Sonia Konopa, MSc (Economic Geology), BSc (Applied Geology) Hons, FAusIMM, MAIG, who is a Principal Consultant Corporate with CSA Global. Ms Konopa is a resource geologist with over 30 years' international experience in the mining industry. She has previously worked in various operational and leadership roles and has extensive international expertise in consulting services, technical advice and guidance across various commodities and geological settings. Ms Konopa has sufficient experience that is relevant to the Technical Assessment of the Mineral Assets under consideration, the style of mineralisation and types of deposit under consideration and the activity being undertaken to qualify as a Practitioner as defined in the 2015 Edition of the "Australasian Code for the public reporting of technical assessments and Valuations of Mineral Assets", and as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

The information in this ITSR related to the Technical Assessment of Rio Tinto's Western Range Ore Reserves, schedules and production profiles was compiled, and conclusions were derived by CSA Global's Principal Mining Consultant, Mr Mark Laing BE(Mining) Hons, MAusIMM. Mr Laing is a mining engineer with more than 35 years' experience in both open pit and underground mining. He has specialised skills in open pit and underground mine design, pit, and waste dump optimisation, mine scheduling, Ore Reserve reporting, project evaluation, due diligence and Feasibility Studies. He has sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and the activity they are undertaking to qualify as a Practitioner as defined in the 2015 Edition of the "Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets". Mr Laing consents to the inclusion in the ITSR of the matters based on their information in the form and context in which it appears.

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The ITSR was reviewed by CSA Global Manager Corporate, Ms Ivy Chen BAppSc (Geology), FAusIMM. Ms Chen is a corporate governance specialist with over 30 years' experience in mining and resource estimation. She served as ASIC's national geology and mining adviser from 2009 to 2015. Ms Chen's experience in the mining industry in Australia and China as an operations and consulting geologist includes open pit and underground mines for gold, manganese and chromite, and as a consulting geologist, she has conducted mineral project evaluation, strategy development and implementation, through to senior corporate management roles. Recent projects completed include listings and other commercial transactions on the Australian, Singapore, Hong Kong and United Kingdom stock exchanges. Ms Chen is a company director and a member of the VALMIN Committee.

The ITSR was managed and authorised by Mr Graham Jeffress, Partner (Asia Pacific), BSc (Hons) (Applied Geology), RPGEO (Mineral Exploration), FAIG, FAusIMM, FSEG, MGSA. Mr Jeffress is a geologist with over 30 years' experience in exploration geology and management in Australia, Papua New Guinea, and Indonesia. He has worked in exploration (ranging from grassroots reconnaissance to brownfields, near-mine, and resource definition), project evaluation and mining in various geological terrains, commodities, and mineralisation styles within Australia and internationally. Mr Jeffress is competent in multidisciplinary exploration and proficient at undertaking prospect evaluation and all phases of exploration. He has completed numerous independent technical reports (IGR, CPR, QPR) and Valuations of Mineral Assets.

1.5 Independence

Neither CSA Global nor the authors of this ITSR have had any material interest in Rio Tinto or the mineral properties in which Rio Tinto has an interest. CSA Global's relationship with Rio Tinto is solely a professional association between the Client and independent consultant.

CSA Global is an independent geological and mining consultancy. Fees are being charged to Deloitte at a standard commercial rate for the preparation of this ITSR, the payment of which is not contingent upon the conclusions of the ITSR. The fee for the preparation of this ITSR is approximately A\$80,000.

No member or employee of CSA Global is intended to be a director, officer or other direct employee of Rio Tinto. No member or employee of CSA Global has or has had any shareholding in Rio Tinto.

There is no formal agreement between CSA Global and Rio Tinto as to Rio Tinto providing further work for CSA Global.

1.6 Declarations

1.6.1 Purpose of Document

CSA Global has prepared this ITSR at the request of, and for the sole benefit of Deloitte. Its purpose is to provide an independent technical specialists assessment of the Company's Western Australian iron ore assets.

The ITSR is to be included in an Independent Expert's Report. It is not intended to serve any purpose beyond that stated and should not be relied upon for any other purpose.

The statements and opinions contained in this ITSR are given in good faith and in the belief that they are not false or misleading. The conclusions are based on the reference date of 31st August 2022 and could alter over time depending on exploration results, mineral prices, and other relevant market factors.

1.6.2 Competent Person/Practitioner Statement

The Mineral Resources and Ore Reserves discussed in this ITSR have been prepared and reported in accordance with the JORC Code (2012) by the Company (see ASX release by Rio Tinto on 14th September 2022).

The information in this ITSR related to the Technical Assessment of the Mineral Assets or Exploration Results is based on, and fairly reflects, information compiled and conclusions derived by Ms Sonia Konopa, a Member of the AusIMM.

The information in this ITSR that relates to the Technical Assessment of the Ore Reserve, schedules and production profiles is based on, and fairly reflects, information compiled and conclusions derived by Mr Mark Laing, a Member of the AusIMM.

Ms Konopa and Mr Laing are employed by CSA Global, independent mining industry consultants, who were engaged to prepare the ITSR.

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Ms Konopa and Mr Laing have sufficient experience that is relevant to the Technical Assessment of the Mineral Assets under consideration namely iron ore, the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as Practitioners as defined in the 2015 edition of the 'Australasian Code for the public reporting of technical assessments and Valuations of Mineral Assets', and as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Ms Konopa and Mr Laing consent to the inclusion in the IER of the report of the matters based on their information in the form and context in which it appears.

1.7 About this Report

This ITSR describes the Western Range Deposits iron Mineral Resources and Ore Reserves, located in the Pilbara Iron Ore Province of Western Australia, and provides a technical description and opinions on the Company's project. The geology and mineralisation for the Project are discussed, as well as the resource estimation work done and its outcomes, leading to a discussion of the modifying factors informing the Ore Reserves. The amount of data pertains to the work done on the project, and an effort was made to summarise this to constrain the size and readability of the ITSR.

2 Project Overview

2.1 Location and Access

The Paraburdoo Operations are located in the Pilbara region of Western Australia, approximately 1,500 km north of Perth and 9 km from the established mining township of Paraburdoo. Paraburdoo has a local airstrip serviced by regular daily flights from Perth. Port and shipping facilities are well established at Dampier and Cape Lambert. A regional location plan is included in Figure 1.

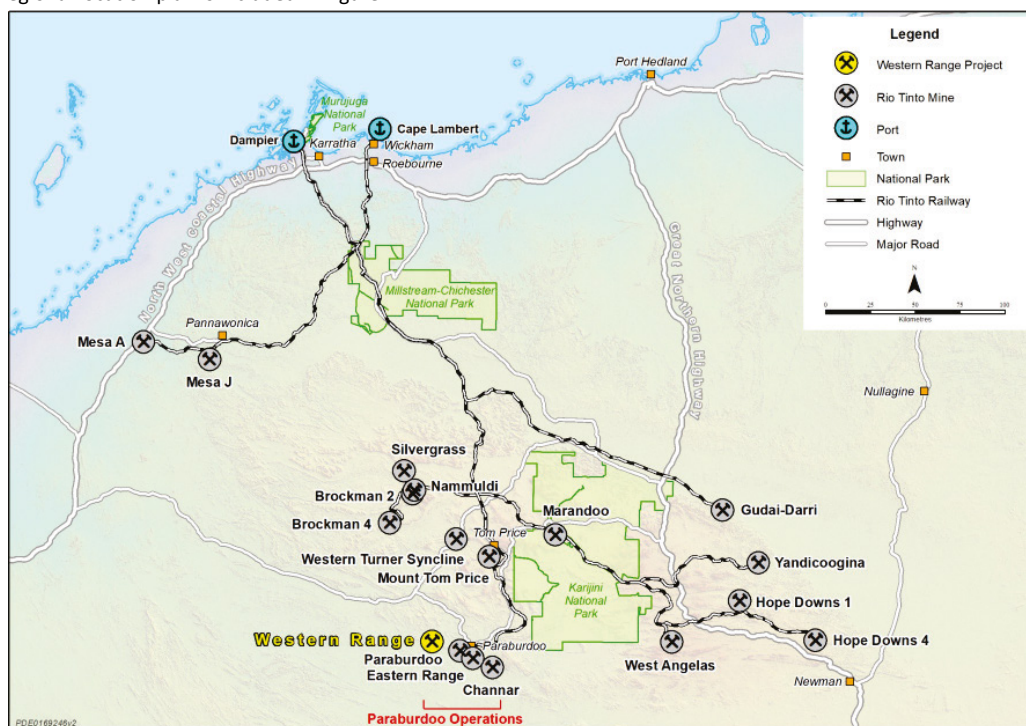


Figure 1: Regional location plan of the Paraburdoo Operations.
Source: Rio Tinto 2021

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Paraburdoo Operations comprises three operating iron ore mines, Paraburdoo, Eastern Range and Channar, with central processing facilities at Paraburdoo. The Channar and Eastern Range processing are linked to Paraburdoo through a crushing and conveying system.

Western Range comprises two deposit areas, 36W–50W and 55W–66W, located approximately 12–24 km west of Paraburdoo (Figure 2). It is proposed that Western Range be developed with a primary crusher system fed by an 18 km conveyor system that transports crusher feed to the Paraburdoo plant for processing.

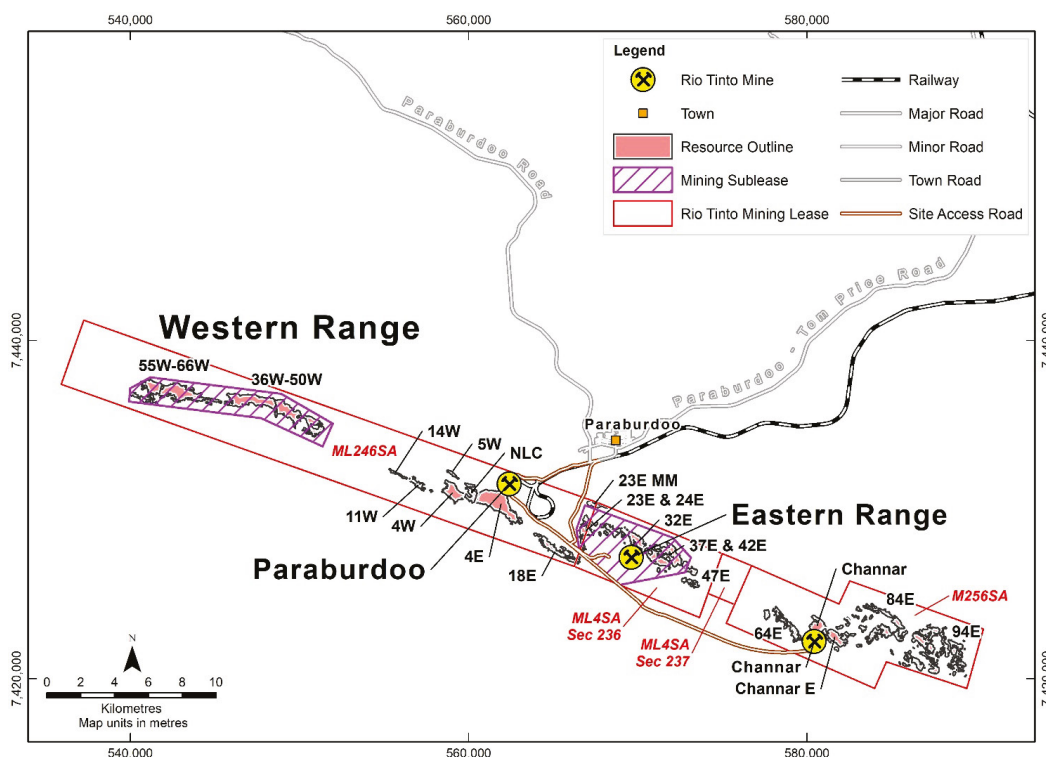


Figure 2: Location plan of Western Range relative to Paraburdoo Operation
Source: Rio Tinto 2022

2.2 Tenements

The VALMIN Code 2015 requires tenements to be disclosed and a determination of status based on recent information verified by an independent tenement specialist. In this case, CSA Global has verified the status of the tenure through the Western Australian Government's Department of Mines, Industry Regulation and Safety (DMIRS) Minerals Title Online (MTO).

CSA Global can confirm that the Western Range Iron Project, is located in the West Pilbara within ML246SA. The tenure covers 12,949.94060 ha, is held 100% by Hamersley Iron Pty Ltd and was approved in Executive Council on 12th August 1970; the term of ML246SA commenced on 3rd June 1970; with an expiry date of 2nd June 2033 (Source, DMIRS Mineral Titles Online website). The tenure is subject to the State Agreement Act "Iron Ore (Hamersley Range) Agreement Act 1963.

CSA Global did not identify any risks to the tenure and are not aware of any reason why it would not be renewed on its expiry date in 2033. However, CSA Global cautions that it is not a tenement or legal specialist and its opinions are based on a general working experience with WA mining tenements, and do not provide an independent legal opinion of the validity of or risks to the tenure.

3 Geology and Exploration

3.1 Geological Setting

3.1.1 Regional Geology

The Paraburdoo Operations deposits (Figure 3) are located within the Hamersley Group, a 2.5 km thick sequence of Late Archaean to Palaeoproterozoic marine sediments and volcanics within the southern Pilbara Craton known as the Hamersley Province. The Hamersley Group contains five major Banded Iron Formation (BIF) units, of which two, the Marra Mamba Iron Formation and the Brockman Iron Formation, host most of the high-grade (>60% Fe) iron ore deposits in the Hamersley Province. The Brockman Iron Formation comprises mainly BIF with lesser fine tuff, mud rock, dolomite and chert (Blake and Barley, 1992), and deposition is thought to have occurred in an extensional setting between 2,490 and 2,450 Ma (Barley et.al., 1997).

3.1.2 Deposit Geology and Mineralisation

The Western Range deposits are mainly hosted in the Brockman Iron Formation within the southern limb of the south-easterly plunging Bellary Anticline at the southern margin of the Hamersley Basin (Figure 3).

The deposits are structurally complex, with mineralisation typically present as high phosphorus martite-goethite Brockman style mineralisation within the Dales Gorge and Joffre Members.

Two small areas of Joffre Member host low to moderate phosphorus martite-goethite mineralisation within the 36W–50W deposit.

As well as the bedded mineralisation, there are small deposits of secondary detrital and scree ironstone located on the south side of the range. Examples of detailed geological modelling are included in Section 5.2.

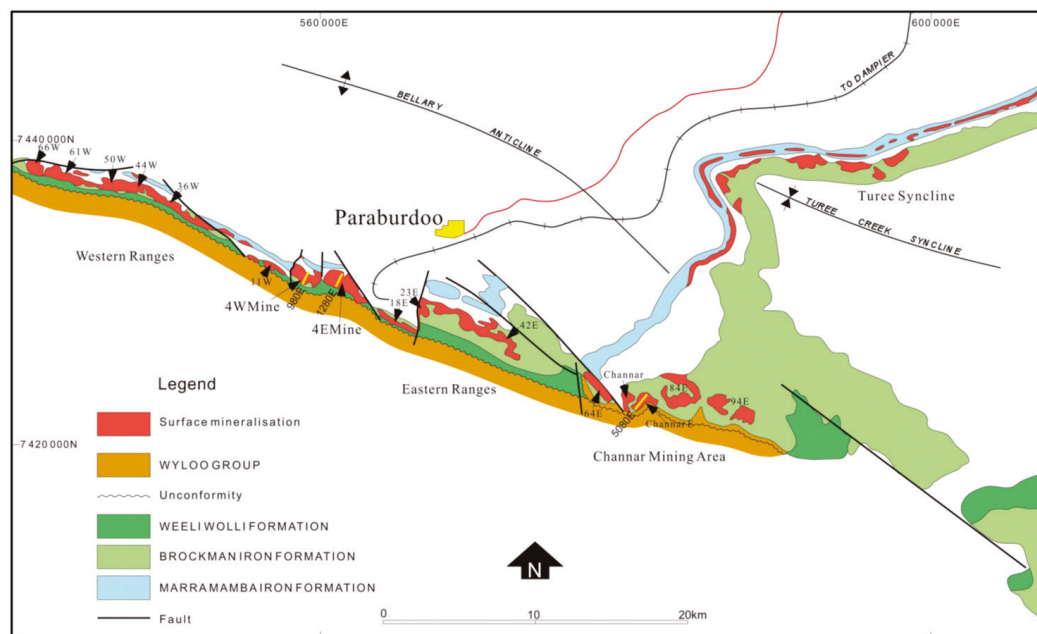


Figure 3: Deposit geology plan
Source: Rio Tinto 2021

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3.2 Previous Exploration

Exploration activities include regional and detailed deposit geological and structural mapping completed by Rio Tinto geologists in 1996, 1998 and 2011. The geological and structural mapping is integrated with the drill logging data to build detailed 3D geological and structural block models. The other key exploration activities included open hole percussion (OHP), RCP and core drilling, and downhole geophysical surveying. All information is utilised to develop the geological models used in the resource estimation process.

3.3 Prospectivity and Proposed Exploration Strategy

Key exploration opportunities for the Western Range deposits are upgraded confidence of unclassified and Inferred Mineral Resources to Indicated or higher and strike or offset depth extension of the currently defined resources with ongoing resource delineation drilling.

The proposed five-year drill plan by Rio Tinto will focus on upgrading Inferred material from 36W–50W as access becomes established through mine development, and infill drilling at 55W–66W to upgrade Mineral Resources before mining commences in 2027. A total of 50,350 m of drilling is planned from 2022 to 2026. Figure 4 shows the proposed development drill plan for the next five years.

In CSA Global's opinion, the proposed exploration work planned by Rio Tinto is comprehensive and appropriate for improving the confidence in the Mineral Resources.

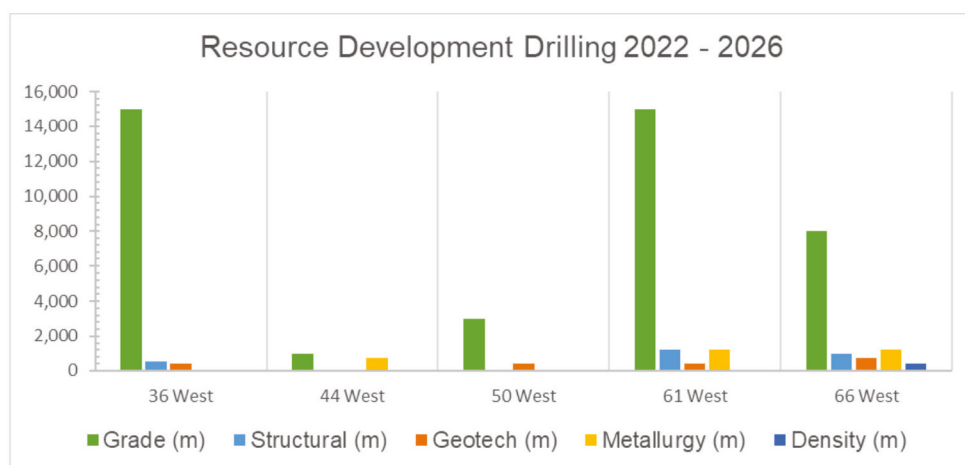


Figure 4: Rio Tinto proposed drill exploration strategy 2022-2026
Source: Rio Tinto

4 Geological Data

The following section summarises geological data supporting the Mineral Resource estimation. Detailed information can be found in Rio Tinto ASX release "Western Range Mineral Resources and Ore Reserves" dated 14th September 2022.

4.1 Database, Drilling and Surveying

OHP, RCP, and Diamond drill core (DD) drilling was carried out on the Western Range deposits between 1968 and 2019.

A total of 1,627 RCP and OHP holes were completed for 142,649 m, with a further 146 DD holes from various drilling campaigns from 2011 to 2019 used for geological interpretation, geotechnical and metallurgical assessments.

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Downhole geophysical logging was completed for the majority of the drill holes, employing a suite of downhole tools to obtain caliper, gamma, density and other data to assist in the interpretation of the stratigraphy and the modelling process.

A LiDAR survey was completed in 2017 and is used as topographic control for drill collar RL validation and block model surface constraint. All drill holes have accurate collar surveys derived from RTK-GPS surveying. All holes drilled since 1980 have downhole surveys, with older holes only surveyed if the depth was greater than 60 m. Early drill hole surveys are by Eastman single and multi-shot downhole cameras. Magnetic and gyroscope survey methods were used post-2002, and downhole logging by geophysical tools was used post-2006.

4.2 Sampling and Assaying

Since 2011, RCP holes have been sub-sampled using rotary splitters. An 'A' and 'B' sub-sample, each representing 8% of the mass, were collected at 2 m intervals from the rotary cone splitter. Before 2011, RCP samples were sub-sampled using a 3 or 4-tier riffle splitter, and sample intervals were typically 1.5 m for OHP and 2 m for RCP up to 2002, changing to 2 m after 2002. DD core was sampled as a whole core on 1 m intervals.

Samples were sent for analytical testing at Rio Tinto's internal laboratory at Dampier (2003 and earlier) or Bureau Veritas Laboratories (formerly Ultratrace Laboratories) for the 2011 to 2013 drilling programs, and Intertek Genalysis for the 2017 to 2019 drilling programmes. Most samples were oven dried at 105° C for a minimum of 24 hours. Samples were then crushed, split and pulverised to produce a 100 g to 150 g sample of -150 µm (2002 onwards).

Analytes included Fe, SiO₂, Al₂O₃, P, Mn, S, TiO₂, MgO, and CaO, which were assayed using lithium tetraborate and metaborate fusion and X-Ray Fluorescence (XRF) analysis. Loss on Ignition (LOI) is determined using a Thermo-Gravimetric Analyser (TGA).

4.3 Quality Assurance and Quality Control

Some QAQC procedures were implemented in 1998, with a complete QAQC process implemented from 2002 onwards that follows standard Rio Tinto Iron Ore (RTIO) QAQC procedures. Approximately 26% of the data (pre-1996) has no associated QAQC, a further 26% of the data (2002 to 2003) has partial QAQC applied, and the remaining 48% of the data (2011 to present) has full QAQC applied.

There may be some estimation risk associated with the pre-1996 data; however, CSA Global believes that the quantity and distribution of subsequent recent infill drilling with full QAQC applied reduces the risk associated with the historical data.

4.4 Density (Dry Bulk Density)

Density is determined through a combination of downhole geophysical data taken at 0.1 intervals, and DD core bulk density measurements are taken from representative samples (3,126) across both deposits. The density data from the drill core is used to calibrate the geophysical data using a conversion factor. There is sufficient sample coverage for the bedded mineralisation to support the density applied for tonnage calculations. Density data for the Below Water Table (BWT) material is underrepresented. However, this is not considered a material risk for the Mineral Resource as this material only represents 3% by volume of the total Mineral Resource.

5 Mineral Resources

5.1 2021 Western Range Mineral Resource

The Western Range iron mineralisation is martite-goethite style hosted in the Brockman Iron Formation, predominantly Dales Gorge and Joffre Member. The estimated Mineral Resources, exclusive of Ore Reserves comprises 232 Mt grading 61.2 % Fe, 4.8% SiO₂, 2.5% Al₂O₃, 0.12% P, 4.4% LOI. The resources are distributed across a series of deposits named 36W–50W and 55W–66W, along an approximate 10 km strike length, immediately to the west of Rio Tinto's Eastern Range operations.

The resource excludes an Ore Reserve of 165 Mt grading 62.0 % Fe, 4.0% SiO₂, 2.2% Al₂O₃, 0.12% P, 4.5% LOI for the 36W–50W Deposit. There is no Ore Reserve over the 55W–66W Deposit.

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The Mineral Resources are reported on a 100 percent Rio Tinto basis, are dry *in situ* tonnes and are shown in Table 2.

Rio Tinto reports a higher grade Brockman and lower grade colloquially named Brockman Process Ore.

Table 2: Western Range Mineral Resources (exclusive of Ore Reserves), as of December 2021

Resource Category	Deposit	Ore Type	Tonnage (Mt)	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	LOI %
Measured	36W-50W	Brockman	5	62.4	4.1	1.8	0.12	4.3
		Brockman Process Ore	11	56.5	7.8	4.1	0.14	6.4
	55W-66W							
		Brockman	4	63.0	3.7	1.6	0.12	4.0
		Brockman Process Ore	2	57.6	7.4	3.6	0.14	5.4
		Total Measured	22	59.1	6.2	3.1	0.14	5.4
Indicated	36W-50W	Brockman	9	62.1	4.3	2.5	0.11	3.8
		Brockman Process Ore	6	56.3	9.3	4.2	0.13	5.3
	55W-66W							
		Brockman	69	62.7	3.7	2.1	0.11	3.8
		Brockman Process Ore	18	58.1	5.9	3.9	0.15	5.8
		Total Indicated	102	61.5	4.4	2.5	0.12	4.2
Inferred	36W-50W	Brockman	38	61.9	4.8	2.4	0.1	3.6
		Brockman Process Ore	6	58.0	7.4	3.9	0.12	5.0
	55W-66W							
		Brockman	50	62.3	4.2	1.9	0.11	4.1
		Brockman Process Ore	14	58.1	6.2	3.7	0.15	6.1
		Total Inferred	108	61.4	4.9	2.4	0.11	4.2
Total MRE	36W-50W	Brockman	52	62	4.7	2.4	0.10	3.7
		Brockman Process Ore	23	56.8	8.0	4.0	0.13	5.8
	55W-66W							
		Brockman	123	62.5	3.9	2.0	0.11	3.9
		Brockman Process Ore	35	58.1	6.1	3.8	0.15	5.9
		Total Mineral Resource	232	61.2	4.8	2.5	0.12	4.4

Source: Rio Tinto ASX release date 14th September 2022

The previous 2020 Western Range Mineral Resource estimate was based on drilling completed to 2019 and comprised 257 Mt at 61.0% Fe (although this was based on a Feasibility Study pit design) which was exclusive of the Ore Reserve.

Rio Tinto changed the reporting of Mineral Resources between 2020 and 2021 based on additional drilling and revised geological interpretation. The unconstrained total Mineral Resources during this period are not known. Fundamental changes in the reported Mineral Resources between the 2020 and 2021 models are the result of:

- Infill and extensional drilling (an increase of 8%) during 2020 and 2021 resulted in a change in parts of the geology interpretation, including a change in orientation (steepening) of some lodes at depth and additional impact from interpreted faults and structures and dolerite dykes.
- Interpreted geology changes as above which led to reduced confidence in some areas, in turn resulting in a classification downgrade from Indicated to Inferred, and from Inferred to unclassified.
- A change (reduction) in the first pass search ellipse used for the mineralised domains, reducing the extent of mineralisation in some areas.
- The impact of revised heritage areas excised some parts of the resource model previously included in the 2020 model.

In CSA Global's opinion, these changes are reasonable and explained clearly, but potentially demonstrate a conservative approach.



5.2 Modelling, Estimation Parameters and Methodology

Geological modelling was performed by Rio Tinto geologists using in-house modelling and estimation standard processes. The method involves the interpretation of stratigraphy and mineralisation using surface geological mapping, lithological logging data, downhole gamma data, and assay data. Rio Tinto uses a standard process to build resource models using the flagged drill hole sample data using RTIO “strand tagging” guidelines. Geological wireframes for each strand are built using Leapfrog Geo™ computer software, validated visually in 3D and against the drill hole data. Final 3D block models are built in Maptek™ Vulcan™ software, where each block is coded with the correct stratigraphic “geozone” or domain to honour the stratigraphic sequence. Figure 5 and Figure 6 show examples of the geological domain models for the 36W–50W and 55W–66W Deposits, respectively.

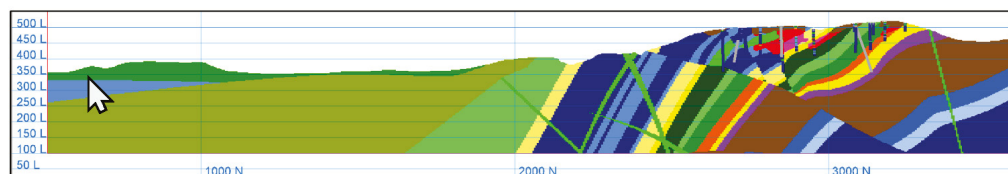


Figure 5: 36W–50W geology domain model, cross-section -14,300E (Paraburdoo local grid)
Source: Rio Tinto 2021

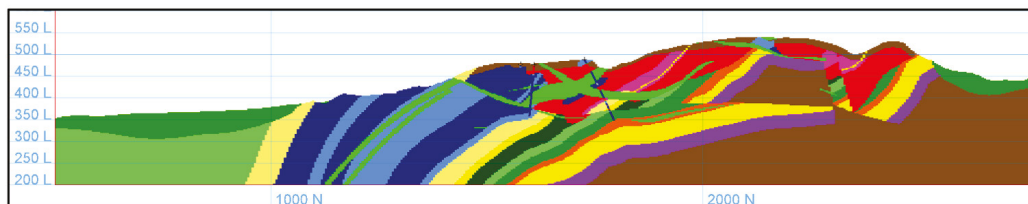


Figure 6: 55W–66W geology domain model, cross-section -18,300E (Paraburdoo local grid)
Source: Rio Tinto 2021

Statistical analysis, spatial continuity analysis and Kriging Neighbourhood Analysis (KNA) was carried out on the geozone flagged drill data using Isatis software. Parent cell size was 30 m by 30 m by 5 m (with subcelling of 5 m by 5 m by 2.5 m). The minimum and maximum number of samples were 8 and 27, respectively, with a discretisation of 5 by 5 by 2, no octant search, and hard boundaries applied for each geozone.

Inverse Distance Weighting (IDW) to the first and second power methods was used to estimate Hard, Medium and Soft (HMS) material type groupings and lesser informed geozones. Grade estimation was done by mainly Ordinary Kriging (OK) method to estimate Fe, SiO₂, Al₂O₃, P, Mn, LOI, LOI425, LOI650, S, TiO₂, MgO, and CaO grades and density into parent cells. Estimation was completed using Maptek™ Vulcan™ software.

5.3 Model Validation and Resource Classification

The resource estimate was validated visually and statistically by comparing block model and composite data in cross-section, long section, and plan views and using swathe plots in northing, easting, and elevation. Correlation between data and estimate was acceptable, with block estimates showing good support for informing drill data and no evidence of excessive smoothing. In geozones with lesser informing data, there is some evidence of smoothing. However, this is taken into consideration in the resource classification process, where lower confidence is assigned if deemed appropriate.

The Mineral Resource for the Western Range 36W–50W and 55W–66W Deposits has been classified in accordance with the JORC Code into Measured, Indicated, and Inferred categories. The criteria applied to assign a category have considered the relevant factors of geology complexity, mineralisation continuity, sample spacing, data quality, and other factors as appropriate, as follows:

- **Measured Resource** - bedded mineralisation with good or reasonable geological and grade continuity, drill spacing 60 m by 60 m or less.

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- **Indicated Resource** - bedded, hydrated or mature detrital mineralisation with reasonable geological and grade continuity, drill spacing 120 m by 60 m.
- **Inferred Resource** - bedded, hydrated or mature detrital mineralisation with drill spacing greater than 120 m by 60 m; or open mineralisation along domain margins and at depth with no drill support; or mineralisation with limited continuity or limited drill support across strike.

The cut-off grade criteria assigned to the Mineral Resource reporting are based on understanding from similar Pilbara deposits and are applied as follows:

- Brockman (High-Grade), $\geq 60\%$ Fe, geology domain must be Dales Gorge Member, Joffre Member or Footwall Zone.
- Brockman Process Ore (BPO), $50\% \leq \text{Fe} < 60\%$ and $3\% \leq \text{Al}_2\text{O}_3 < 6\%$, geology domain must be Dales Gorge Member, Joffre Member or Footwall Zone.

CSA Global notes that a proportion of Inferred Resource is included in the production schedule throughout the proposed mine plan. CSA Global is of the opinion this is acceptable and not a material issue for the following reasons:

- Rio Tinto has a very long history of mining the same style of deposit in the region and has a strong and proven foundation and basis for reasonably forecasting the conversion of Inferred to Indicated or higher category during the production stage.
- The large scale and long LOM of the deposits do not require that the entire Mineral Resource should be drilled out to Measured and Indicated at the pre-production stage. This is standard practice throughout the Pilbara iron ore industry.
- Heavy machinery/vehicle/drill rig access to some of the Inferred areas for resource upgrade purposes is not possible at this stage; however, Rio Tinto has established a robust understanding of the geological continuity and controls on mineralisation complemented by decades of solid geological practices. Rio Tinto has adopted a conservative view in assigning this material as Inferred; however, they have high confidence that this will convert to Indicated or higher once they can physically access the material. CSA Global agrees with this view.
- The surface hydrated zone or hard capped mineralisation has a higher inherent grade variability, common throughout the Pilbara. Rio Tinto has adopted a conservative approach in assigning an Inferred classification based on grade.
- Inferred Mineral Resources will be upgraded as an ongoing part of the grade control process in the early production stages. Typically, this material is located at the peripheral edges of the Ore Reserve pit designs.
- Given the generally rugged topography throughout the Pilbara, particularly the Brockman Iron Formation, ongoing resource definition and conversion to higher confidence as vehicle / heavy machinery access is opened is common practice.

5.4 CSA Global Opinion

CSA Global is of the opinion that the exploration activities, drill techniques, survey methods, sampling, assaying, and QAQC completed by Rio Tinto are in line with good industry practice and are appropriate for the style of mineralisation. They pose no material risk to the Mineral Resource.

There is a low to moderate risk associated with the quality of some of the very early RCP drilling that did not have QAQC applied; however, in CSA Global's opinion, this risk has been reduced by the more recent infill drilling that has full QAQC applied and the confidence in the data is appropriately reflected in the classification of the estimates. Additional ongoing drilling planned for the next five years prior to mining will further increase confidence in the supporting data for the resource model.

CSA Global considers that Rio Tinto has established a robust understanding of the complex geology and structural controls on mineralisation at the Western Range, and the estimation approaches selected were appropriate. Further, CSA Global is of the opinion that the classification of the estimate appropriately reflects the consideration of

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uncertainty, impact and materiality of this uncertainty and the confidence in the data and interpretation by the Competent Persons who take responsibility for the Mineral Resources.

CSA Global is of the opinion that the Western Range Mineral Resources have been prepared and reported in accordance with the JORC Code (2012) using accepted industry practice, including appropriate reference to the guidelines in the JORC Code and have been signed off by an appropriate Competent Person as defined by the JORC Code.

CSA Global considers that the complex geology and structural controls on mineralisation at Western Range were examined with due care, and the estimation approaches selected were appropriate. Further, they believe that the classification of the estimate appropriately reflects the uncertainty, impact and materiality of this uncertainty and the confidence of the Competent Persons who estimated the Mineral Resources in the data and interpretation.

6 Mining and Ore Reserves

The following section summarises the key material data used in generating and reporting the Ore Reserves, mine schedules, production profiles, capital costs and operating costs to underpin the proposed Western Range Joint Venture and Offtake Agreement with entities in the China Baowu Steel Group Corporation Limited group.

The Western Range deposits form an extension to the operating life of the Greater Paraburdoo operations. A Feasibility level study was completed in 2021 for the Western Range Project to support the business case of the proposed development of the Western Range.

The objective of the Joint Venture is to operate the mine to produce and sell the iron ore until the Production Target is achieved. The proposed Agreement is for a Production Target of 275 Mt of saleable ROM production. To meet the 275 Mt planned production, additional Mineral Resources, including Inferred material, are required to supplement the 165 Mt Ore Reserves.

The Inferred Mineral Resources within the Western Range mine plan are driven primarily by two factors:

- Drill spacing is driven by access limitations (topography/approvals), and
- Hydrated mineralisation covering the deposit

There is a planned 19,000 m of grade control infill drilling planned to occur once approvals and accesses are gained, with early development mining allowing access to drill areas previously inaccessible. Each of these two items represents different risk levels in the plan, with drill spacing representing the more significant risk. This reduces the risk as this information comes available, and ongoing mine planning work will continually re-optimize the plan as this updated information becomes available.

Given the generally rugged topography throughout the Pilbara, particularly the Brockman Iron Formation, ongoing resource definition and conversion as vehicle / heavy machinery access is opened is common.

The second driver of the Inferred material, the hydrated mineralisation or near surface hard capped mineralisation, has limited benefit from further drilling, with hydrated mineralisation assigned to Inferred category due to its highly variable nature. Whilst this material can be highly variable both in quality and tonnes reconciliation, the block model (BM) estimation takes these factors into account when assigning this classification and is generally conservative. The inclusion of the hydrated within the mine plan is supported by the conservative estimation approach, with historical reconciliation of Inferred tending to be positive over an annual period.

The classification of the Inferred Mineral Resource is further discussed in Section 5.3

Due to commercial sensitivities, the full Western Range Production Schedule is not presented in this Report. CSA Global has reviewed the production schedule as it is presented in the Western Range Feasibility Study (20 December 2021) and believes it has a reasonable basis for the LOM plan.

The production schedule has a significant amount of Inferred Mineral Resources (13% to 19%) each year in the first 5-years of production. It amounts to approximately 25% of the ore feed until year 13 of the approximately 275 Mt ore feed and approximately 30% of the 363 Mt ore feed over the LOM. The 275 Mt targeted feed is not achievable without using, or without an upgrade in, some of the Inferred Mineral Resources.

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CSA Global considers the 275 Mt will be achieved through conversion of the Inferred material to Indicated or Measured Resources and convert to Ore Reserves. This opinion is based on a review of the Paraburdoo Eastern Range's history in converting Inferred material into a saleable product, demonstrating a positive reconciliation following infill drilling. It is also supported by the fact that Rio Tinto has conservatively classified hydrated as Inferred based primarily on grade variability and not volume continuity. This material will need to be mined to access the higher grade underlying Indicated and Measured resources.

6.1 Ore Reserves

Mining studies to a Feasibility level have been completed for the Western Range Project. The Ore Reserve is the economically mineable part of a Mineral Resource. Ore Reserves include modifying factors such as, for example, mining and processing recoveries. For this deposit, economically mineable Measured Mineral Resources convert to Proved Ore Reserves and the economically mineable Indicated Mineral Resources convert to Probable Ore Reserve.

Table 3 shows the 36W–50W Deposit Ore Reserves.

Table 3: Western Range 36W–50W Ore Reserves, as at 31st December 2021

Iron Ore Reserves	Ore Type	Tonnage Mt	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	LOI %
Proven Ore Reserves	Brockman Ore	109	62.1	3.7	2.1	0.12	4.7
Probable Ore Reserves	Brockman Ore	56	61.7	4.6	2.3	0.10	4.2
Total Ore Reserves	Brockman Ore	165	62.0	4.0	2.2	0.12	4.5

- Ore Reserves are for open pit operations.
- Ore Reserve tonnes are reported on a dry product weight basis.
- Ore Reserves are shown as recoverable Reserves of marketable product after accounting for all mining and processing losses; whereas Mineral Resources are dry in situ tonnes. Mill recoveries are therefore not shown.
- The joint venture agreement with China Baowu Steel Group Co., Ltd for the development of Western Range is subject to shareholder and regulatory approval. At the time of reporting, negotiations were underway, as such, ownership is reported 100% Rio Tinto for consistency with those reported on 31 December 2021.
- Mineral Resources are reported in addition to Ore Reserves.

6.2 Summary of Information to Support Ore Reserve Estimation

Ore Reserves for Western Range are supported by the information in the Rio Tinto ASX release, and accompanying Table 1 appendix to the release, provided to the ASX in 14th September 2022, and also available at <https://riotinto.com/financial-news-performance/resources-and-reserves>.

The following summary information is provided in accordance with rule 5.9 of the ASX Listing Rules. Ore Reserves are only reported for the 36W–50W Deposit.

6.2.1 Economic assumptions and study outcomes

Rio Tinto applies a common process to generating commodity prices across the group. This involves the generation of long-term price curves based on current sales contracts, industry capacity analysis, global commodity consumption and economic growth trends. In this process, a price curve rather than a single price point is used to develop estimates of mine returns over the life of the Project.

CSA Global was advised that the detail of this process and price point curves are commercially sensitive and not publicly disclosed. CSA Global understands that the Pilbara Blend product is well regarded in the iron ore seaborne market and is the world's most traded brand of iron ore. CSA Global is very familiar with the product specification parameters of the Pilbara Blend Fines (PBF) iron ore exports by Rio Tinto which range between 60–63 % Fe, and deleterious elements of phosphorus (0.05–0.15%), silica (2–3%) and alumina ranging between and 1.8–2.5 %.

CSA Global can quantify the PBF specification ranges based on various iron ore conference papers³ and internet sources. These sources summarise the grade specifications as approximately:

³ A Brent "Optimising Value – unlocking potential on the revenue side of the value equation" paper AusIMM 2019
<https://www.ausimm.com/publications/conference-proceedings/iron-ore-2019/optimising-value--unlocking-potential-on-the-revenue-side-of-the-value-equation/>

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- 61.5% Fe, 3.8 % SiO₂, 2.3 % Al₂O₃, 0.1% P and 5.3 % LOI.

CSA Global considers the high margins of the Project will provide a continuous market for Western Range products for the expected life of the Project for a wide range of prices.

6.2.2 Criteria for Classification

The Ore Reserve is the economically mineable part of a Mineral Resource. Ore Reserves include modifying factors such as, for example, mining and processing recoveries. For this deposit, economically mineable Measured Mineral Resources convert to Proved Ore Reserves, and the economically mineable Indicated Mineral Resources convert to Probable Ore Reserve.

Generation of the modifying factors for this Ore Reserve estimate was based on a Mineral Resource estimate for Western Range 36W–50W, completed in February 2020. The declared Ore Reserves are for the Western Range 36W–50W deposit. Mineral Resources are reported in addition to Ore Reserves. The Ore Reserves for Western Range 36W–50W consist of 66% Proved Reserves and 34% Probable Reserves. The rationale for the classification is discussed in detail in Section 5.3 and Section 6.

CSA Global has reviewed the criteria used for classification and is satisfied that the stated Ore Reserve classification reflects the outcome of technical and economic studies. CSA Global considers the Western Range accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

6.2.3 Mining method and assumptions

The Mineral Resource model was regularised to a block size which was determined to be the selective mining unit (SMU) following an analysis of a range of selective mining units. Dilution and mining recovery were modelled by applying the regularisation process to the sub-block geological model. Reblocking of the original 5 m by 5 m by 2.5 m block to the SMU size of 15 m by 15m by 10 m resulted in 85% and 81% ore recovery for the 36W–50W and 66W deposits, respectively.

The geotechnical parameters have been applied based on geotechnical studies informed by technical assessments of DD holes drilled during the 2012 to 2020 drilling programmes, specifically drilled for geotechnical purposes on the surrounding host rock.

Pit optimisation utilising the Lerchs-Grossmann algorithm was undertaken by applying applicable cost, revenue and geotechnical inputs. These key assumptions are detailed in the JORC Table 1 disclosure (Section 4: Estimation and Reporting of Ore Reserves from the Rio Tinto ASX release dated 14th September 2022). The resultant pit shells were used to develop detailed pit designs with due consideration of geotechnical, geometric and access constraints. Figure 7 and Figure 8 show the optimised shells for Western Range.



Figure 7: Optimised pit shells for 36W–50W Deposit (Paraburdoo local grid)

A Brent "Back to the Future – resilience in historical context and implications for the future", <https://www.ausimm.com/publications/conference-proceedings/iron-ore-2017/back-to-the-future---resilience-in-historical-context-and-implications-for-the-future/>
Chinese internet article about IO quality changes in 2019 – <http://www.shengquanenergy.com/en/h-nd-1282.html>

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Source: Rio Tinto 2021

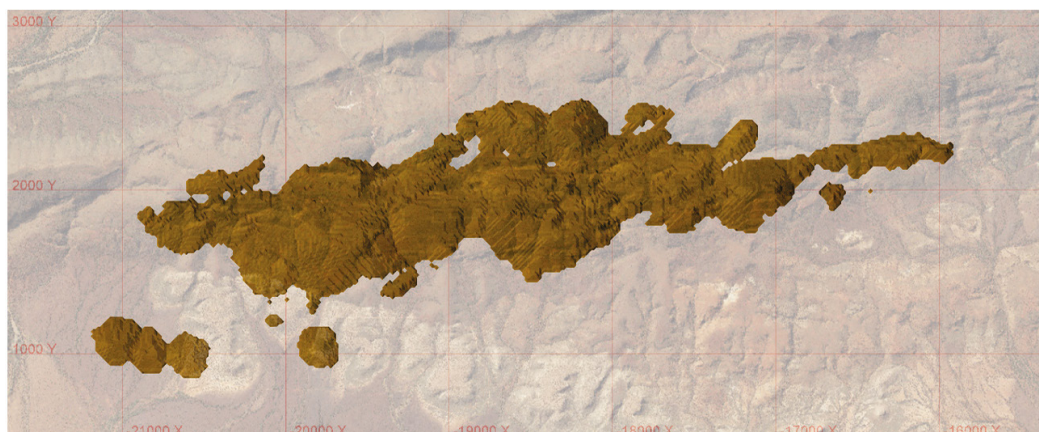


Figure 8: Optimised pit shells for 55W–66W Deposit (Paraburdoo local grid)

Source: Rio Tinto 2021

Pit designs incorporated currently known heritage and environmental constraints and 2021 geotechnical and mine design parameters. These key assumptions are detailed in the JORC Table 1 disclosure (Section 4: Estimation and Reporting of Ore Reserves from the Rio Tinto ASX release dated 14th September 2022). Figure 9 and Figure 10 show the separate completed pit designs. Figure 11 shows the full layout, including pit designs, waste dumps, access roads and infrastructure.

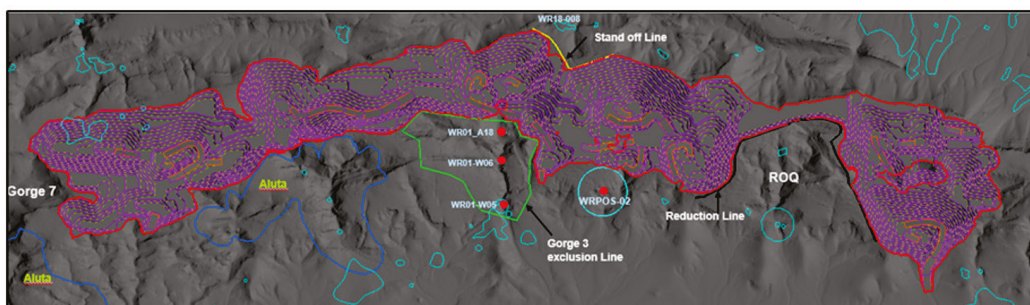


Figure 9: 36W–50W Pit Design

Source: Rio Tinto 2021

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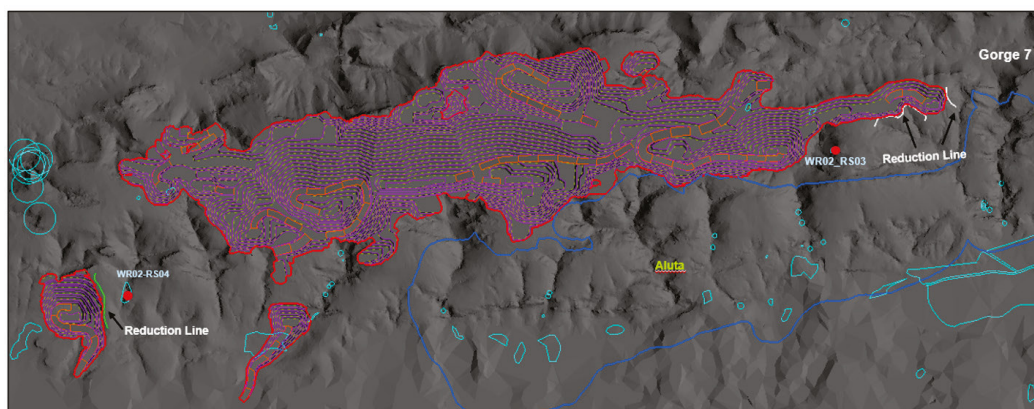


Figure 10: 55W-66W Pit Design
Source: Rio Tinto 2021

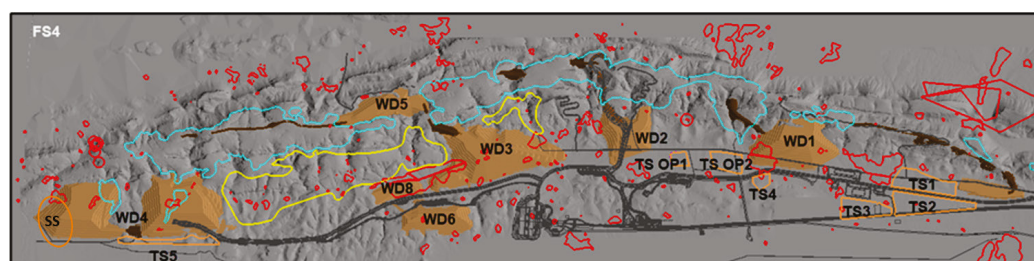


Figure 11: Western Range Pit, Waste Dump, Access and Infrastructure Design
Source: Rio Tinto 2021

These pit designs were used as the basis for production scheduling and economic evaluation. Conventional mining methods (truck and shovel) were selected, similar to Rio Tinto Pilbara Iron Ore mines. These key assumptions are detailed in the JORC Table 1 disclosure (Section 4: Estimation and Reporting of Ore Reserves from the Rio Tinto ASX release “Western Range Mineral Resources and Ore Reserves” dated 14th September 2022).

CSA Global has reviewed and considered the cost parameters, ore recovery, and metallurgical and geotechnical assumptions appropriate for the proposed mining method and fleet size. These have been applied using current inputs built up over the multi-decade operating history at the Greater Paraburdoo operations since the 1970s. CSA Global has reviewed the input parameters used, but has not disclosed them, since they are considered by Rio Tinto to be Commercial-in-Confidence. CSA Global concludes that they are reasonable and appropriate to support DCF modelling.

CSA Global considers the operating cost estimate dated December 2021 to be within the range expected for a Feasibility Study ($\pm 15\%$) but considers the recent inflationary increase in personnel, materials and fuels could add to the cost estimate and should be tested in the financial model.

6.2.4 Processing method and assumptions

In the drill campaigns from 2003 to 2018, 3,382 m of metallurgical PQ (core diameter size 83 mm) diamond holes were drilled in the Western Range 36W-50W Deposit. Data obtained formed the basis for metallurgical test work and was utilised to develop metallurgical models representing different metallurgical domains that were considered representative of the ore body. The metallurgical models predict product tonnage and grade parameters for lump and fines products.

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Metallurgical models were applied to the regularised model to model product tonnage, grades and yields.

The proposed metallurgical process is a well-tested and proven processing methodology, having been utilised at Rio Tinto Iron Ore mining operations for decades. Ore from Western Range is planned to be processed through the Paraburdoo processing facility, which comprises a dry crushing and screening facility with desliming. This style of processing is well suited to the Brockman ore at the Western Range deposits.

Rio Tinto plans to blend ore from Western Range with other Rio Tinto Iron Ore mine sites to make a saleable ore product. If developed, Western Range ore would not be marketed directly. This plan aligns with current Rio Tinto Iron Ore practices, where ore from multiple mines is combined to produce the Pilbara Blend product.

CSA Global has reviewed and considers the metallurgical assumptions for the Western Range Project appropriate.

6.2.5 *Cut-off grades, estimation methodology and Modifying factors*

For Ore Reserves, the Western Range 36W–50W Deposit is reported using variable cut-off grade (VCoG), in line with several other Pilbara deposits. Application of VCoG allows the varying of the head grade across the life of the deposit to achieve desired product grades. At Western Range 36W–50W, this approximates a cut-off of 58.5% Fe over the mine life.

The Western Range 36W–50W Deposit is located within the existing Mining Lease AM70/00246 (ML246SA), which was granted pursuant to the Paraburdoo State Agreement.

Access to the Western Range 36W–50W Deposit will be via an access road from the existing Paraburdoo mine. A crusher and conveyor will be built at the Greater Western Range operations (incorporating the 27W, 36W–50W and 55W–66W Deposits), linking to the existing Paraburdoo mine processing plant. The Paraburdoo mine product stockpiles, rail and train load-out system, will be utilised, and ore will be railed to Rio Tinto ports at Dampier and Cape Lambert. The existing port and railway networks will have sufficient capacity to accommodate ore supply from the Western Range 36W–50W Deposit.

Support facilities at the Greater Western Range operations will include a fixed plant workshop, bulk fuel storage and refuelling facilities, and bulk lube storage. Existing support facilities at the Paraburdoo mine will be utilised, including heavy and light vehicle workshops, an explosive facility, and the waste fines storage facility. Electric power will be supplied via a 33 kV connection to Paraburdoo's Rio Tinto transmission network. Water will be sourced from bores at Western Range, supplemented by a connection to Paraburdoo bore fields. Residential and Fly in, Fly out operations personnel will be accommodated in the Paraburdoo town and utilise the Paraburdoo airport.

The Western Range deposits fall within the Yinhawangka Native Title determination area. Archaeological and ethnographic surveys have been undertaken in the Greater Paraburdoo area and will continue into 2023. These have been undertaken with full participation and involvement of the Yinhawangka People. All known sites have been located, recorded and considered during mine planning and engineering activities.

The Western Range deposits are located within the Shire of Ashburton. Rio Tinto Iron Ore has established an ongoing engagement with the Shire of Ashburton, which includes scheduled meetings and project updates.

The Greater Paraburdoo Iron Ore Hub (Proposal) was formally referred to the Environmental Protection Authority (EPA) under section 38 of the Environmental Protection Act 1986 (EP Act) on 5th November 2018. The EPA determined that the Proposal warranted assessment at the level of Public Environmental Review with a two-week public review period (EPA Assessment No. 2189).

The Proposal progressed through the formal assessment steps throughout 2019 through to 2022, resulting in the EPA publishing its Assessment Report (Number 1723) on 10th June 2022. In its Assessment Report, the EPA recommended the Proposal may be implemented subject to the conditions recommended by the EPA. The EPA Assessment Report was subject to a 21-day public appeal period, which closed on 1st July 2022. No public appeals were received. Ministerial Statement 1195 was published on 5th August 2022.

The Proposal was also referred to the Commonwealth Department of the Environment and Energy (now Department of Climate Change, Energy, the Environment and Water; DOCCEEW) on 6th December 2018 (EPBC Act reference: EPBC 2018/8341). The delegate for the Commonwealth Minister for the Environment determined that the Proposal was a controlled action requiring further assessment and approval. The Proposal was assessed via an accredited assessment process, whereby the State EPA undertook the assessment on behalf of the Commonwealth. A Decision Notice has yet to be issued.

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The Ore Reserve is the economically mineable part of a Mineral Resource. Ore Reserves include modifying factors such as, for example, mining and processing recoveries. For this deposit, economically mineable Measured Mineral Resources convert to Proved Ore Reserves, and the economically mineable Indicated Mineral Resources convert to Probable Ore Reserve.

CSA Global considers the Western Range accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

6.2.6 Project Capital

The proposed capital expenditure for the development of the Western Range Project is estimated at A\$2.66 billion. Key capital elements are:

- 26 Mt/yr primary crusher and 18 km conveyor to link to the existing Paraburdoo processing plant;
- Non-processing infrastructure at Western Range (WR), including production hub and refuelling facilities;
- Heavy and light vehicle access roads between Western Range and Paraburdoo;
- WR water supply from new and existing water bores;
- Mining fleet based on Hitachi 3600 excavators and Komatsu 830E Autonomous Haulage trucking fleet;
- 1600 room Construction camp; and the
- Upgrade to Paraburdoo coarse ore stockpile (COS) and plant components to handle 25 Mt/yr Western Range material.

CSA Global considers the capital cost estimate dated June 2022 to be within the range expected for a Feasibility Study ($\pm 15\%$) but considers the recent inflationary increase in personnel, materials and fuels could add to the cost estimate and should be tested in the financial model.

Note the JV component of this capital expenditure is A\$2.28 billion which excludes the upgrade to the plant and COS.

7 Conclusions

7.1 Mineral Resources

CSA Global is of the opinion that the exploration activities, drill techniques, survey methods, sampling, assaying, and QAQC completed by Rio Tinto are in line with good industry practice and are appropriate for the style of mineralisation. There is a low to moderate risk associated with the quality of some of the very early RCP drilling that did not have QAQC applied; however, in CSA Global's opinion, this risk has been reduced by the more recent infill drilling that has full QAQC applied and the confidence in the data is appropriately reflected in the classification of the estimates. Additional ongoing drilling planned for the next five years prior to mining will further increase confidence in the supporting data for the resource model.

CSA Global considers that the Western Range Mineral Resources have been prepared and reported in accordance with the JORC Code (2012) using accepted industry practice, including appropriate reference to the guidelines in the JORC Code and have been signed off by an appropriate Competent Person as defined by the JORC Code.

CSA Global is of the opinion that the complex geology and structural controls on mineralisation at Western Range were examined with due care, and the estimation approaches selected were appropriate. Further, they believe that the classification of the estimate appropriately reflects the uncertainty, impact and materiality of this uncertainty and the confidence of the Competent Persons who estimated the Mineral Resources in the data and interpretation.

CSA Global considers that there is an opportunity to increase Mineral Resources through an upgrade in unclassified and Inferred to Indicated or higher in areas with lower confidence due to low drill support by additional drilling. The proposed five-year Rio Tinto drill plan aimed at progressing the upgrade of resources and increasing confidence in the resource models is appropriate for the Western Range deposits.

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In conclusion, the quality of work completed by Rio Tinto is of a high standard, and there are no material risks to the Western Range Mineral Resources.

7.2 Mining and Ore Reserves

The objective of the Joint Venture is to operate the mine to produce and sell the iron ore until the Production Target is achieved. The proposed Agreement is for a Production Target of 275 Mt of saleable ROM production. To meet the 275 Mt planned production, additional Mineral Resources, including Inferred material, are required to supplement the 165 Mt Ore Reserves.

The production schedule has a significant amount of Inferred Mineral Resource (13% to 19%) each year in the first 5-years of production. It amounts to approximately 25% of the ore feed until year 13 of the 285 Mt ore feed and approximately 30% of the 363 Mt feed over the LOM.

CSA Global considers the 275 Mt will be achieved through conversion of the Inferred material to Indicated or Measured Resources and ultimately convert to Ore Reserves. This opinion is based on a review of the Paraburdoo Eastern Range mining history in converting Inferred material into a saleable product, demonstrating positive reconciliation following infill drilling. It is also supported by the fact that Rio Tinto has conservatively classified hydrated or near surface hard capped mineralisation as Inferred based primarily on grade variability and not volume continuity. This material will need to be mined to access the higher grade underlying Indicated and Measured resources.

CSA Global considers the Western Range accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

CSA Global considers the cost parameters, ore recovery, and metallurgical and geotechnical assumptions appropriate for the proposed mining method and fleet size.

CSA Global considers the capital and operating cost estimates to be within the range expected for a Feasibility Study ($\pm 15\%$) but considers the recent inflationary increase in personnel, materials and fuels, and should be tested in the financial model.

CSA Global considers the high margins of the Project will provide a continuous market for Western Range products for the expected life of the Project for a wide range of prices.

In conclusion, the quality of work completed by Rio Tinto is of high standard there are no material risks to the Western Range Ore Reserve, schedules and production profiles.

8 References

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- Rio Tinto, 2020. Western Range 55w66w Modelling and Resource report 2020 GDSR 7093.pdf (internal technical Report), dated January 2020.
- Rio Tinto, 2019. RE Geology Model Progression to RG - WR 55w-66w 201219.pptx (internal technical presentation), dated December 2019.
- Rio Tinto, 2020. Western Range 36w50w Modelling and Resource Report 2020 GDSR 7066 (internal technical Report), dated March 2020.
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- Rio Tinto, 2021. Western Range Feasibility Study (interim version).pdf (internal Report), dated December 2021.
- Rio Tinto, 2022. 2022_WR_FS_OBK_GEOLOGY_Baowu DD.pdf (internal technical presentation), dated February 2022.
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Additional information

1. Rio Tinto corporate details

1.1 Rio Tinto Limited

- 1.1.1 Rio Tinto Limited was formed on 17 December 1959 as a limited liability company under the laws of the state of Victoria, Australia. Rio Tinto Limited's Australian Company Number is 004 458 404. It adopted the name "Rio Tinto Limited" on 2 June 1997.
- 1.1.2 Rio Tinto Limited's registered office and principal place of business is Level 43, 120 Collins Street, Melbourne, Victoria 3000, Australia. The telephone number of Rio Tinto Limited's registered office is (+61) 3 9283 3333.
- 1.1.3 The principal legislation under which Rio Tinto Limited operates, and pursuant to which the Rio Tinto Limited Shares have been created, is the *Corporations Act 2001* and regulations thereunder.

1.2 Rio Tinto plc

- 1.2.1 Rio Tinto plc was incorporated and registered in England and Wales on 30 March 1962 under the *Companies Act 1948* as a private company limited by shares with company number 719885. Rio Tinto plc was re-registered as a public limited company on 4 March 1982 and adopted the name "Rio Tinto plc" on 2 June 1997.
- 1.2.2 Rio Tinto plc's registered office and principal place of business is 6 St James's Square, London, SW1Y 4AD, United Kingdom. The telephone number of Rio Tinto plc's registered office is (+44) 20 7781 2000.
- 1.2.3 The principal legislation under which Rio Tinto plc operates, and pursuant to which the Rio Tinto plc Shares have been created, is the *Companies Act 2006* and regulations thereunder.

2. Consent

As at the date of this document, Deloitte, which has been appointed as the Independent Expert, has given and not withdrawn its written consent to the Independent Expert's Report being included in this document, and also to the issue of this document with references to its name, the Independent Expert and the Independent Expert's Report in this document in the form and context in which they appear.

Document dated 15 September 2022

Definitions

The following definitions apply throughout this document, unless stated otherwise:

Definition	Description
\$, US\$ or cents	the lawful currency of the United States of America.
A\$	the lawful currency of Australia.
Amended Western Range Sublease	is defined in Section 3 of the Explanatory Memorandum.
ASIC	Australian Securities & Investments Commission.
Associate	has the meaning given in the ASX Listing Rules.
ASX or Australian Securities Exchange	ASX Limited (ACN 008 624 691) or the financial market operated by that entity (as applicable).
ASX Listing Rules	the official listing rules of the ASX, as amended from time to time.
Australia	the Commonwealth of Australia.
AWST	Australian Western Standard Time.
Baowu	China Baowu Steel Group Co., Ltd, being a Chinese state-owned iron and steel company headquartered in the Baosteel Tower in Pudong, Shanghai, China established on 1 December 2016, and/or, where the context requires, Baowu Sub.
Baowu Sub	Baosteel Resources Australia Pty Ltd (ACN 154 815 362) of Level 21, Allendale Square, 77 St Georges Terrace, Perth, 6000, Western Australia, Australia, a wholly-owned subsidiary of China Baowu Steel Group Co., Ltd.
Board or Directors	the common board of directors of Rio Tinto, or, as the context requires, the board of directors of Rio Tinto plc and Rio Tinto Limited.
BST	British Summer Time.
Chinalco	Aluminum Corporation of China, being a Chinese state-owned enterprise established on 23 February 2001.
Circular	this document.
Companies Act 2006	the <i>Companies Act 2006</i> of England and Wales, as amended.
Corporations Act 2001	the <i>Corporations Act 2001</i> (Cth) of Australia, as amended.
Defaulting Participant	is defined in Section 8 of the Explanatory Memorandum.
DLC Sharing Agreement	is defined on page 4 in the Letter from the Chair.
Early Works	the planning, design, engineering, procurement, supply and construction of any preparatory site works, infrastructure, assets, plant, facilities and other early works developments.
Eastern Range	is defined on page 4 in the Letter from the Chair.
Enforcing Secured Party	is defined in Section 8 of the Explanatory Memorandum.
Explanatory Memorandum	the explanatory memorandum set out on pages 7 to 16 of this document.
Financial Conduct Authority or FCA	the UK Financial Conduct Authority.
Foreign Investment Guidelines	the foreign investment review guidelines and policies published by the Foreign Investment Review Board of the Commonwealth of Australia.
FIRB	the Foreign Investment Review Board of the Commonwealth of Australia.
FSMA	the <i>UK Financial Services and Markets Act 2000</i> , as amended.
Future Transactions	is defined on page 4 of the Letter from the Chair and which includes the components of the Transaction described in the table in Section 8 of the Explanatory Memorandum under the heading 'Future Transactions'.
Hamersley Iron	Hamersley Iron Pty. Limited (ABN 49 004 558 276) of Level 18, Central Park, 152-158 St Georges Terrace, Perth, Western Australia.

Definition	Description
Hamersley Range State Agreement	means the agreements scheduled to and ratified by the <i>Iron Ore (Hamersley Range) Agreement Act 1963</i> (WA).
Independent Expert	Deloitte Corporate Finance Pty Ltd (ACN 003 833 127), being the independent expert appointed by the directors of Rio Tinto Limited to prepare the Independent Expert's Report.
Independent Expert's Report	the report from the Independent Expert opining on the fairness and reasonableness of the Transaction dated 14 September 2022, as set out in this document. The report has been prepared solely for the purpose of complying with the ASX Listing Rules.
Joint Decisions	is defined in note 3 in the notes to the Notice convening the Rio Tinto Limited extraordinary general meeting set out at the end of this document.
Joint Venture	is defined on page 4 in the Letter from the Chair.
Joint Venture Agreement	is defined in Section 3 of the Explanatory Memorandum.
Joint Venture Participants or Participants	is defined in Section 3 of the Explanatory Memorandum.
JORC Code	the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, 2012 Edition.
Manager	Ranges Management Company Pty Ltd (ACN 100 334 272) of Level 18, Central Park, 152-158 St Georges Terrace, Perth, Western Australia.
Management Agreement	is defined in Section 3 of the Explanatory Memorandum.
Management Fee	is defined in Section 8 of the Explanatory Memorandum.
Mine Operation and Infrastructure Contract or MOIC	is defined in Section 3 of the Explanatory Memorandum.
Notice	the notice convening the Rio Tinto Limited extraordinary general meeting at the end of this document.
Offtake Agreement	is defined on page 4 in the Letter from the Chair.
Original Joint Venture	is defined on page 4 in the Letter from the Chair.
Participating Interest	is defined in Section 3 of the Explanatory Memorandum.
Production Sales Agreement	is defined in Section 3 of the Explanatory Memorandum.
Resolutions	Resolution 1 and Resolution 2, being the resolutions to be proposed at the Rio Tinto Limited extraordinary general meeting and the resolutions to be proposed at the Rio Tinto plc general meeting.
Rio Sub	Ranges Mining Pty Ltd (ACN 100 334 263) of Level 18, Central Park, 152-158 St Georges Terrace, Perth, 6000, Western Australia, Australia.
Rio Tinto	Rio Tinto Limited, Rio Tinto plc and their respective subsidiaries and subsidiary undertakings and, where the context requires, their respective associated undertakings.
Rio Tinto Limited or Company	Rio Tinto Limited (ABN 96 004 458 404), a company incorporated in Victoria, Australia whose registered office is at Level 43, 120 Collins Street, Melbourne, 3000, Victoria, Australia.
Rio Tinto Limited extraordinary general meeting	the general meeting of Rio Tinto Limited to be held at 4.00 p.m. (AWST) on 25 October 2022 at the River View Rooms, Level 2, the Perth Convention and Exhibition Centre, 21 Mounts Bay Road, Perth, Western Australia, notice of which is set out at the end of this document.
Rio Tinto Limited Shareholders	holders of Rio Tinto Limited Shares.
Rio Tinto Limited Shares	the ordinary shares in the capital of Rio Tinto Limited.
Rio Tinto Limited Special Voting Share	is defined in note 3 in the notes to the Notice convening the Rio Tinto Limited extraordinary general meeting set out at the end of this document.

Definition	Description
Rio Tinto plc	Rio Tinto plc, a company incorporated in England and Wales with company number 719885 whose registered office is at 6 St James's Square, London, SW1Y 4AD, United Kingdom.
Rio Tinto plc general meeting	the general meeting of Rio Tinto plc to be held at 9.00 am (BST) on 25 October 2022 at The Queen Elizabeth II Conference Centre, Broad Sanctuary, Westminster, London SW1P 3EE, notice of which is set out at the end of this document.
Rio Tinto plc Shareholders	holders of Rio Tinto plc Shares.
Rio Tinto plc Shares	the ordinary shares of 10 pence each in the capital of Rio Tinto plc.
Rio Tinto plc Special Voting Share	is defined in note 3 in the notes to the Notice convening the Rio Tinto Limited extraordinary general meeting set out at the end of this document.
Rio Tinto Shares	Rio Tinto plc Shares and Rio Tinto Limited Shares.
Rio Tinto Shareholders	Rio Tinto plc Shareholders and Rio Tinto Limited Shareholders.
RTC	Rio Tinto Commercial Pte. Ltd, a company registered in Singapore with company number 200711921E whose registered office is at 12 Marina Boulevard, #20-01 MBFC Tower 3, 018982, Singapore, a wholly-owned subsidiary of Rio Tinto plc.
Saleable ROM Production	is defined in Section 3 of the Explanatory Memorandum.
SASAC	is defined in Section 5.3 of the Explanatory Memorandum.
Sinosteel	Sinosteel Corporation, being a Chinese state-owned enterprise established in 1993.
State	the State of Western Australia.
Transaction	is defined on page 4 in the Letter from the Chair.
Transaction Documents	is defined in Section 2 of the Explanatory Memorandum.
UK Listing Rules	the listing rules made by the FCA under Part VI of the FSMA, as amended from time to time.
United Kingdom or UK	the United Kingdom of Great Britain and Northern Ireland.
Western Range	is defined on page 4 in the Letter from the Chair.
Western Range Mine	is defined in Section 3 of the Explanatory Memorandum.
Western Range Table 1 Release	has the meaning set out in the section of this document entitled 'Ore Reserves, Minerals Resources and Production Targets' on page 2 of this document.

Notice of extraordinary general meeting

Notice is hereby given that an extraordinary general meeting of Rio Tinto Limited (the **Company**) will be held at the 4.00 p.m. (AWST) on 25 October 2022 at the River View Rooms, Level 2, the Perth Convention and Exhibition Centre, 21 Mounts Bay Road, Perth, Western Australia. for the purpose of considering and, if thought fit, passing the following Resolutions which will be proposed as ordinary resolutions. Defined terms in this Notice of meeting and Resolutions have the meaning given to them in the circular to Rio Tinto Limited Shareholders dated 15 September 2022 containing this Notice, unless otherwise stated.

In accordance with Rio Tinto's dual listed companies structure, the Resolutions will be voted on by Rio Tinto Limited Shareholders and Rio Tinto plc Shareholders as a joint electorate. Resolutions 1 and 2 are proposed as ordinary resolutions. However, Resolution 2 will be a valid resolution only if Resolution 1 is approved by the required majority – that is, validity of Resolution 2 is conditional on Resolution 1 being passed.

Resolution 1

To consider and, if thought fit, pass the following resolution, with or without amendment, as an ordinary resolution:

“THAT:

- (a) for the purposes of ASX Listing Rule 10.1 and all other purposes, the Transaction and the entry into and performance of the Transaction Documents be and are hereby approved; and
- (b) the Directors (or a duly constituted committee thereof) be and are hereby authorised to take all necessary, expedient or desirable steps and to do all necessary, expedient or desirable things to implement, complete or to procure the implementation or completion of the Transaction and any matters incidental to the Transaction and to give effect thereto with such modifications, variations, revisions, waivers or amendments (not being modifications, variations, revisions, waivers or amendments of a material nature) as the Directors (or a duly constituted committee thereof) may deem necessary, expedient or desirable in connection with the Transaction and any matters incidental to the Transaction.”

Resolution 2

To consider and, if thought fit, pass the following resolution, with or without amendment, as an ordinary resolution:

“THAT:

subject to, and conditional upon, the passing of Resolution 1 and for the purposes of ASX Listing Rule 10.1 only, and without limiting the obligations of Rio Tinto to obtain all necessary consents, approvals or authorisations to the extent required at the relevant time by applicable laws and regulations (including those required by the listing rules made by the Financial Conduct Authority and the *Companies Act 2006*), any acquisition or disposal of a substantial asset from or to China Baowu Steel Group Co., Ltd or its Associates pursuant to a Future Transaction be and is hereby approved.”

Dated: 15 September 2022

By order of the Board



Tim Paine
Joint Company Secretary



Steve Allen
Joint Company Secretary

Registered office:
Level 43, 120 Collins Street,
Melbourne, Victoria 3000, Australia

Important notes

1. General information

For the purposes of the *Corporations Act 2001*, Rio Tinto Limited has determined that securities of Rio Tinto Limited that are quoted securities at 7.00 p.m. (AEST) on 23 October 2022 will be taken, for the purposes of the meeting, to be held by the persons who held them at that time.

A member entitled to attend and vote at the meeting is entitled to appoint up to two proxies. A proxy need not be a member of Rio Tinto Limited. Where a member wishes to appoint two proxies, an additional proxy form may be obtained by contacting Rio Tinto Limited's share registry.

A proxy other than the chair of the meeting is not required by law to vote on the resolutions. However, if the proxy's appointment directs the proxy how to vote on the resolutions and the proxy decides to vote as proxy on the resolutions, the proxy must vote the way specified (subject to the other provisions of this Notice, including the voting exclusions noted below).

If an appointed proxy does not attend the meeting, the chair of the meeting will be taken to have been appointed as the proxy. If a proxy appointment specifies the way to vote on the resolutions and the appointed proxy does not attend the meeting or attends the meeting, but does not vote on the resolutions, a directed proxy will default to the chair of the meeting who must vote the proxy as directed. If the chair of the meeting is appointed, or taken to be appointed, as a proxy, but the appointment does not specify the way to vote on the resolutions, the chair intends to exercise the relevant shareholder's votes in favour of the resolutions (subject to the other provisions of this Notice, including the voting exclusions noted below).

If a shareholder appoints two proxies they may specify the proportion or number of votes each proxy is appointed to exercise. If a shareholder appoints two proxies and does not specify each proxy's percentage of voting rights, each proxy may exercise half the shareholder's votes. Fractions of votes will be disregarded. The proxy form contains instructions for appointing two proxies.

2. Proxy lodgement

Shareholders can lodge their proxy forms online at www.investorvote.com.au and follow the prompts. To use this facility you will need your Shareholder Reference Number (SRN) or Holder Identification Number (HIN), postcode and control number as shown on the proxy form. You will be taken to have signed the proxy form if you complete the instructions on the website by 4.00 p.m. (AWST) on 23 October 2022.

If using the proxy form mailed to you, the proxy form, together with any power of attorney or authority under which it is signed, must be received by Rio Tinto Limited's share registry at Computershare Investor Services Pty Ltd, GPO Box 242, Melbourne, Victoria, 3001, or Yarra Falls, 452 Johnston Street, Abbotsford, Victoria, 3067 or at Rio Tinto Limited's registered office or by facsimile to 1800 783 447 (within Australia) or +61 3 9473 2555 (outside Australia), by 4.00 p.m. (AWST) on 23 October 2022.

For intermediary online subscribers only (custodians) please visit www.intermediaryonline.com to submit your proxy.

3. Voting arrangements under the dual listed companies structure

The voting arrangements for shareholders under Rio Tinto's dual listed companies structure are summarised below and a more detailed explanation of the voting arrangements is set out in the 'Shareholder Information' Section of the 2021 Annual report and financial statements.

The DLC Sharing Agreement (the agreement relating to the regulation of the relationship between Rio Tinto Limited and Rio Tinto plc under the dual listed companies structure) provides for the public shareholders of Rio Tinto Limited and Rio Tinto plc to vote as a joint electorate on all matters which affect shareholders of both companies in similar ways. These are referred to as "**Joint Decisions**". Joint Decisions are voted on a poll.

To facilitate the joint voting arrangements, each company has entered into shareholder voting agreements. Each company has issued a special voting share to a special purpose company held in trust by a common trustee.

Rio Tinto Limited has issued its special voting share (**Rio Tinto Limited Special Voting Share**) to RTP Shareholder SVC and Rio Tinto plc has issued its special voting share (**Rio Tinto plc Special Voting Share**) to RTL Shareholder SVC. The total number of votes cast on Joint Decisions by the public shareholders of one company are voted at the parallel meeting of the other company. The role of these special purpose companies in achieving this is described below.

Rio Tinto Limited

At a Rio Tinto Limited Shareholders' meeting at which a Joint Decision will be considered, each Rio Tinto Limited Share will carry one vote and the holder of the Rio Tinto Limited Special Voting Share will have one vote for each vote cast by the public shareholders of Rio Tinto plc. The holder of the Rio Tinto Limited Special Voting Share is required to vote strictly, and only, in accordance with the votes cast by public shareholders for and against the equivalent resolutions at the parallel Rio Tinto plc Shareholders' meeting.

Rio Tinto plc

At a Rio Tinto plc Shareholders' meeting at which a Joint Decision will be considered, each Rio Tinto plc Share will carry one vote and the holder of the Rio Tinto plc Special Voting Share will carry one vote for each vote cast by the public shareholders of Rio Tinto Limited in their parallel meeting. The holder of the Rio Tinto plc Special Voting Share is required to vote strictly, and only, in accordance with the votes cast for and against the equivalent resolutions at the parallel Rio Tinto Limited Shareholders' meeting.

Arrangements for contemporaneous meetings

In accordance with Rule 57B of the Rio Tinto Limited constitution, audio-visual communication facilities will be available to enable those Directors physically present at the contemporaneous Rio Tinto plc meeting to participate in the Rio Tinto Limited meeting. It is currently proposed that the chair of the Rio Tinto Limited meeting will be the Chair of the Board of Directors, and that he will be physically present at the Rio Tinto plc meeting, and present at the Rio Tinto Limited meeting by way of the audio-visual communication facilities.

Shareholders present at the Rio Tinto Limited meeting will be able to address questions to the chair of the meeting by way of the audio-visual communication facilities. The chair of the meeting will appoint a Director who is physically present at the Rio Tinto Limited meeting as a supplementary chair, and the supplementary chair will have all the powers necessary for the purpose of keeping good order at the Rio Tinto Limited meeting.

If the audio-visual communications facilities linking the contemporaneous meetings are, or become, not operational (in whole or in part) the chair of the meeting may determine what steps should be taken to facilitate the conduct of the Rio Tinto Limited meeting, including that the supplementary chair will be the chair of the Rio Tinto Limited meeting from that time onwards for all purposes.

To attend the Rio Tinto Limited meeting, a shareholder must be physically in attendance at the meeting. Attendance by a Rio Tinto Limited shareholder at the Rio Tinto plc meeting will not constitute attendance at the Rio Tinto Limited meeting.

Voting exclusion statement

In accordance with ASX Listing Rules 10.5.9 and 14.11, Rio Tinto Limited will disregard any votes cast on the Resolutions at the Rio Tinto Limited extraordinary general meeting by or on behalf of:

- (a) China Baowu Steel Group Co., Ltd;
- (b) any of China Baowu Steel Group Co., Ltd's Associates; and
- (c) any other person who will obtain a material benefit as a result of the Transaction (except a benefit solely by reason of being a holder of ordinary securities in Rio Tinto) and their Associates.

However, Rio Tinto Limited need not disregard a vote that is cast in favour of the Resolutions by:

- (a) a person as proxy or attorney for a person who is entitled to vote on the Resolutions, in accordance with the directions given to the proxy or Attorney;

- (b) by the chair of the meeting as proxy for a person who is entitled to vote on the Resolutions, in accordance with the directions given to the chair; or
- (c) a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met: (i) the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting on the Resolutions; and (ii) the holder votes on the resolutions in accordance with directions given by the beneficiary.

Shining Prospect Pte. Ltd (a wholly-owned subsidiary of Chinalco and a holder of shares in Rio Tinto plc), Chinalco and any other entities that are Chinese state-owned enterprises may be considered Associates of Baowu for the purposes of ASX Listing Rule 10.1. Rio Tinto has not identified any other person who will obtain a material benefit as a result of the Transaction (except a benefit solely by reason of being a holder of ordinary securities in Rio Tinto).

Additionally, if any votes are cast by or on behalf of Shining Prospect Pte. Ltd in favour of Resolution 1 either at the Rio Tinto Limited extraordinary general meeting or the Rio Tinto plc general meeting, and Resolution 1 would not have been passed by the requisite majority if such votes were disregarded, the condition precedent in the Joint Venture Agreement requiring Rio Tinto Shareholders to approve the Transaction in accordance with ASX requirements will not have been satisfied and the Transaction will not proceed. If Resolution 1 is passed (disregarding Shining Prospect Pte. Ltd's votes), but Resolution 2 would not have been passed if Shining Prospect Pte. Ltd's votes in favour of Resolution 2 were disregarded, and the Transaction proceeds, then Rio Tinto will consult with ASX at the time of any Future Transaction which exceeds the relevant ASX Listing Rule 10.1 thresholds to determine if a further Rio Tinto Shareholder approval will be required for the purposes of ASX Listing Rule 10.1.

Video and photography

The video footage of the meeting may include the question and answer sessions with shareholders as well as background footage of those in attendance. Photographs may also be taken at the meeting and published in the media or used in future Rio Tinto publications. If you attend the Rio Tinto Limited extraordinary general meeting in person you may be included in the video recording and photographs.

General information



Location

The address of the Perth Convention and Exhibition Centre (PCEC) is 21 Mounts Bay Road, Perth, Western Australia. The meeting will be held in the River View Rooms on Level 2.

PCEC is located in the heart of Perth, adjacent to the Swan River. The location provides quick and easy access to and from the PCEC by car, train, bus, taxi and on foot. For more information on PCEC please visit www.pcec.com.au.

Access to the PCEC via public transport is via the Elizabeth Quay Bus Station or from the Elizabeth Quay Train Station. For more information about public transport options to the PCEC, please visit www.transperth.wa.gov.au.

Security

Security measures will be in place to ensure your safety. Please note that bag searches will be in operation and any items deemed inappropriate will be removed and stored in the cloakroom until the end of the event.

Investor centre

At Rio Tinto we want shareholders to take advantage of electronic communications. By signing up to receive e-communications you will be helping to reduce print, paper and postage costs and the associated environmental impact.

To sign up for e-communications visit www.investorcentre.com/rio

Investor Centre is a free, secure, self-service website, where shareholders can manage their holdings online. The website enables shareholders to:

- View share balances;
- Change address details;
- View payment and tax information; and
- Update payment instructions.

Shareholders who register their email address on Investor Centre can be notified electronically of events such as annual general meetings, and can receive shareholder communications such as the Annual Report, Notice of Meeting and other shareholder communications electronically.

Share registry

Please contact our registrar if you have any queries about your shareholding:

Computershare Investor Services Pty Limited
GPO Box 242, Melbourne, Victoria 3001, Australia

www.investorcentre.com/rio

Telephone: +61 (0) 3 9415 4030
Fax: 1800 783 447 (within Australia)
or +61 (0) 3 9473 2555

Australian residents only, toll free: 1800 813 292
New Zealand residents only, toll free: 0800 450 740

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RioTinto