Rio Tinto

Notice to ASX

14 September 2022

Western Range Mineral Resources and Ore Reserves

Rio Tinto has today announced an agreement, subject to shareholder and regulatory approvals, with China Baowu Steel Group Co., Ltd to jointly develop the Western Range project and enter into an associated iron ore sales agreement.

In accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the ASX Listing Rules, supporting information relating to the latest estimate for the Western Range Mineral Resource and Ore Reserve estimate is set out in this release and its appendix. The Western Range iron ore project forms part of Rio Tinto's Pilbara iron ore operations, and the Mineral Resources and Ore Reserves reported in this release are part of the Iron Ore Australia Mineral Resources and Ore Reserves as reported in Rio Tinto's 2021 Annual Report, released to the ASX on 24 February 2022.

The Western Range contains two deposits, 36W–50W and 55W–66W, which are located within the Hamersley Basin of Western Australia, the host to some of the most significant iron ore deposits in the world. The deposits mineralisation is primarily hosted by the Brockman Iron Formation with additional detrital mineralisation present.

The 36W–50W and 55W-66W deposits contain a Measured Mineral Resource of 22 Mt at 59.1% Fe, Indicated Mineral Resource of 102 Mt at 61.5% Fe, and an Inferred Mineral Resource of 108 Mt at 61.4% Fe.

The 36W–50W deposit contains a Proven Ore Reserve of 109 Mt at 62.1% Fe and a Probable Ore Reserve of 56 Mt at 61.7% Fe.

Mineral Resources and Ore Reserves are quoted in this release on a 100 per cent basis. Furthermore, Ore Reserves are listed in dry product tonnes, whereas Mineral Resources are dry in-situ tonnes. Mineral Resources are reported in addition to Ore Reserves.

Supporting information has been provided on the following pages.

Table A Western Range Mineral Resources as at 31 December 2021

Mineral resources

Western Range Mineral Resource (ASX)

	Type of mine[a]	Measured resources as at 31 December 2021						Indicated resources as at 31 December 2021						Inferred resources as at 31 December 2021						**Total mineral resources as at 31 December 2021**						Rio Tinto Interest
		Tonnage	Grade					Tonnage	Grade					Tonnage	Grade					**Tonnage**	**Grade**					
Iron Ore[b]		Mt	% Fe	% SiO_2	% Al_2O_3	% P	% LOI	Mt	% Fe	% SiO_2	% Al_2O_3	% P	% LOI	Mt	% Fe	% SiO_2	% Al_2O_3	% P	% LOI	**Mt**	**% Fe**	**% SiO_2**	**% Al_2O_3**	**% P**	**% LOI**	%
Australia																										
36W-50W																										
Brockman[c]	O/P	5	62.4	4.1	1.8	0.12	4.3	9	62.1	4.3	2.5	0.11	3.8	38	61.9	4.8	2.4	0.10	3.6	**52**	**62.0**	**4.7**	**2.4**	**0.10**	**3.7**	100.0
Brockman Process Ore[c]	O/P	11	56.5	7.8	4.1	0.14	6.4	6	56.3	9.3	4.2	0.13	5.3	6	58.0	7.4	3.9	0.12	5.0	**23**	**56.8**	**8.0**	**4.0**	**0.13**	**5.8**	100.0
55W-66W																										
Brockman[c]	O/P	4	63.0	3.7	1.6	0.12	4.0	69	62.7	3.7	2.1	0.11	3.8	50	62.3	4.2	1.9	0.11	4.1	**123**	**62.5**	**3.9**	**2.0**	**0.11**	**3.9**	100.0
Brockman Process Ore[c]	O/P	2	57.6	7.4	3.6	0.14	5.4	18	58.1	5.9	3.9	0.15	5.8	14	58.1	6.2	3.7	0.15	6.1	**35**	**58.1**	**6.1**	**3.8**	**0.15**	**5.9**	100.0
Total (Australia)		**22**	**59.1**	**6.2**	**3.1**	**0.14**	**5.4**	**102**	**61.5**	**4.4**	**2.5**	**0.12**	**4.2**	**108**	**61.4**	**4.9**	**2.4**	**0.11**	**4.2**	**232**	**61.2**	**4.8**	**2.5**	**0.12**	**4.4**	**100.0**

(a) Likely mining method: O/P = open pit/surface; U/G = underground.
(b) Iron ore Resources are stated on a dry in situ weight basis.
(c) The joint venture agreement with China Baowu Steel Group Co., Ltd for the development of Western Range is subject to shareholder and regulatory approvals. At time of reporting, negotiations were underway, as such, ownership is reported at 100% Rio Tinto for consistency with those reported on 31st Dec 2021.

Table B Western Range Ore Reserves as at 31 December 2021

Ore reserves

Western Range 36W-50W Ore Reserve (ASX)

	Type of mine[a]	Proved ore reserves as at 31 December 2021						Probable ore reserves as at 31 December 2021						**Total ore reserves as at 31 December 2021**						Rio Tinto Interest
		Tonnage	Grade					Tonnage	Grade					**Tonnage**	**Grade**					
Iron Ore[b]		Mt	% Fe	% SiO_2	% Al_2O_3	% P	% LOI	Mt	% Fe	% SiO_2	% Al_2O_3	% P	% LOI	**Mt**	**% Fe**	**% SiO_2**	**% Al_2O_3**	**% P**	**% LOI**	%
Australia[c]																				
- Brockman Ore[d]	O/P	109	62.1	3.7	2.1	0.12	4.7	56	61.7	4.6	2.3	0.10	4.2	**165**	**62.0**	**4.0**	**2.2**	**0.12**	**4.5**	100.0
Total (Australia)		**109**	**62.1**	**3.7**	**2.1**	**0.12**	**4.7**	**56**	**61.7**	**4.6**	**2.3**	**0.10**	**4.2**	**165**	**62.0**	**4.0**	**2.2**	**0.12**	**4.5**	

(a) Type of mine: O/P = open pit/surface, U/G = underground.
(b) 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.
(c) Iron ore Reserve tonnes are reported on a dry weight basis.
(d) The joint venture agreement with China Baowu Steel Group Co., Ltd for the development of Western Range is subject to shareholder and regulatory approvals. At time of reporting, negotiations were underway, as such, ownership is reported at 100% Rio Tinto for consistency with those reported on 31st Dec 2021.

The location of the deposits involved is shown in Figure 1.

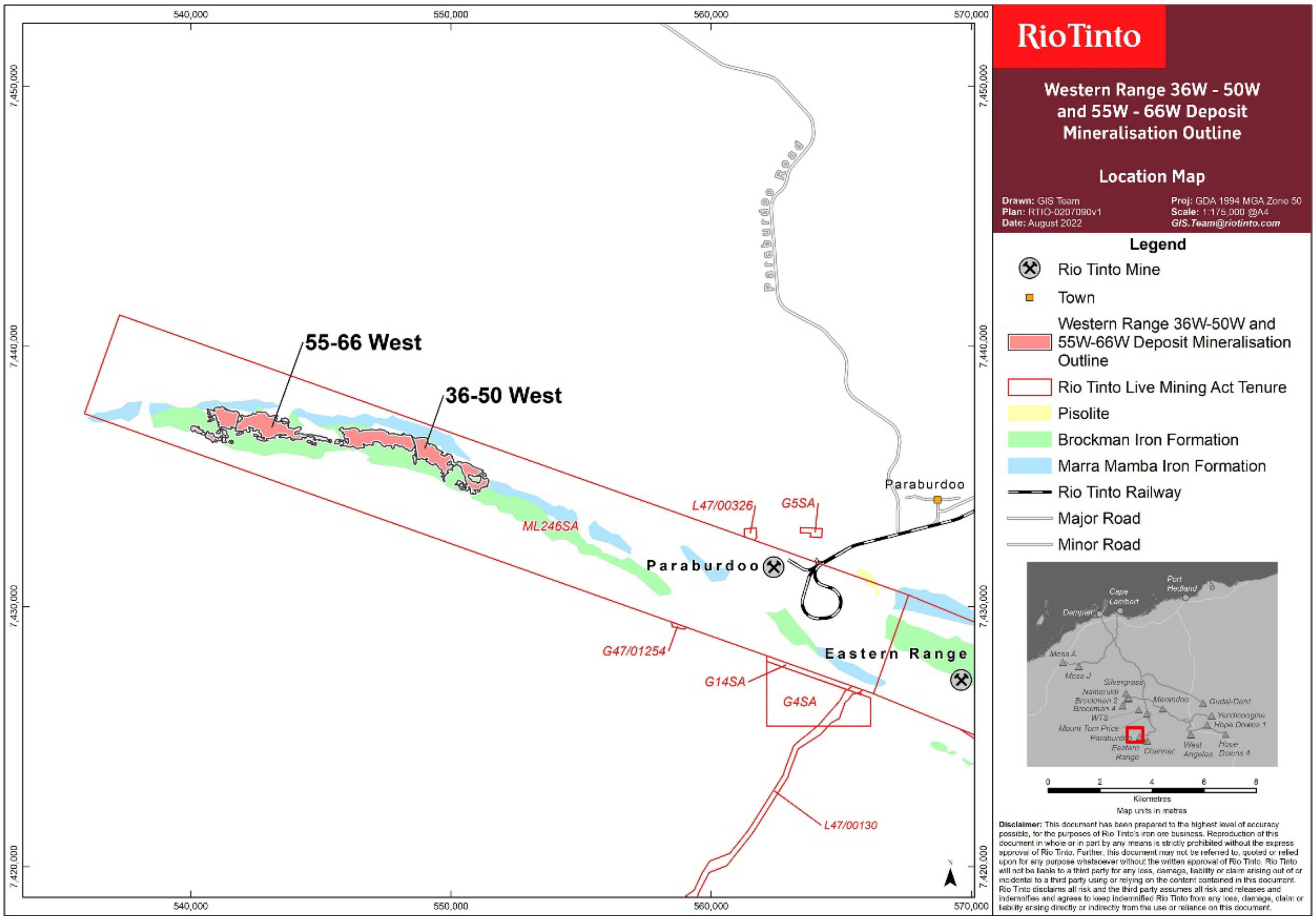

Figure 1 Deposit location map

Summary of information to support the Mineral Resource reporting

Mineral Resources for Western Range are supported by the information set out in the Appendix to this release and located at riotinto.com/financial-news-performance/resources-and-reserves in accordance with the Table 1 checklist in the JORC Code. The following summary information is provided in accordance with rule 5.8 of the ASX Listing Rules.

Geology and geological interpretation

The Western Range 36W–50W and 55W–66W deposits are located within the Hamersley Basin of Western Australia, the host to some of the most significant iron ore deposits in the world. The Western Range 36W–50W and 55W–66W deposits mineralisation is primarily hosted by the Brockman Iron Formation with additional detrital mineralisation present.

Geological modelling was performed by Rio Tinto Iron Ore geologists. The method involves interpretation of stratigraphy and mineralisation using surface geological mapping, lithological logging data, down-hole gamma data, and assay data.

Drilling techniques; sampling, sub-sampling method and sample analysis method

Percussion and reverse circulation (RC) drilling was carried out at the Western Range 36W–50W and 55W–66W deposits between 1968 and 2019. A total of 1,627 holes were completed for 142,649 m. In addition to this, 146 diamond drill holes from various drilling campaigns from 2011 to 2019 are available for geological interpretation, geotechnical and metallurgical assessments. Geophysical logging was completed for the majority of the drill holes, employing a suite of down-hole tools to obtain calliper, gamma, and other data to assist in the interpretation of the stratigraphy.

For sampling since 2011, reverse circulation 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. Prior to 2011, reverse circulation samples were sub-sampled using a 3 or 4 tier riffle splitter. Diamond core was sampled as whole core.

The sample was then sent for analytical testing at Rio Tinto's internal laboratory at Dampier (2002 and earlier) or Bureau Veritas Laboratories (formerly Ultratrace Laboratories) for the 2011 to 2013 drilling programs, and Intertek Genalysis from the 2017 to 2019 drill programs. The majority of the samples were oven dried at 105 degrees Celsius 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).

Fe, SiO_2, Al_2O_3, P, Mn, S, TiO_2, MgO, and CaO 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).

Greater detail of this process for each of the drilling generations is outlined in the appendix.

Estimation methodology

Modelling was completed using the Rio Tinto Iron Ore Pilbara geological modelling and estimation standards. Ordinary kriging and inverse distance weighting to the first and second power methods were used to estimate Fe, SiO_2, Al_2O_3, P, Mn, LOI, LOI425, LOI650, S, TiO_2, MgO, and CaO grades and density into parent cells. The grade estimation process was completed using Maptek™ Vulcan™ software.

Cut-off grades and modifying factors

The cut-off grade grade criteria assigned to the Mineral Resource is based on understanding from similar Pilbara deposits.

For Mineral Resource reporting:

- The cut-off for Brockman Mineral Resources is greater than or equal to 60% Fe*.
- The cut-off for Brockman Process Ore Mineral Resources is material 50% ≤ Fe < 60% and 3% ≤ Al_2O_3 < 6%*.

*geology domain must be Dales Gorge, Joffre or Footwall Zone for inclusion in the Mineral Resource.

The Competent Person is satisfied that the Mineral Resources meets the criteria of Reasonable Prospects of Eventual Economic Extraction.

Criteria used for Mineral Resource classification

The Mineral Resource for the Western Range 36W–50W and 55W–66W deposits has been classified into the categories of Measured, Indicated and Inferred. The determination of the applicable category has considered the relevant factors (geology complexity, mineralisation continuity, sample spacing, data quality, and other factors as appropriate):

- Measured Resource is bedded mineralisation that demonstrates good or reasonable geological and grade continuity and is drilled at 60 m x 60 m spacing or closer.
- Indicated Resource is bedded, hydrated or mature detrital mineralisation that has reasonable geological and grade continuity and is drilled at 120 m x 60 m spacing.
- Inferred Resource is bedded, hydrated or mature detrital mineralisation with drill spacing greater than 120 m x 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.

Summary of information to support Ore Reserve reporting

Ore Reserves for Western Range are supported by the information set out in the Appendix to this release and located at riotinto.com/financial-news-performance/resources-and-reserves in accordance with the Table 1 checklist in the JORC Code. 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.

Economic assumptions and study outcomes

Rio Tinto applies a common process to the generation of commodity prices across the group. This involves 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. The detail of this process and of the price point curves is commercially sensitive and is not disclosed.

The Western Range 36W–50W deposit forms an extension to the operating life of the Greater Paraburdoo operations. A Feasability level study was completed in 2021 for the Western Range Project.

Mining method and assumptions

The Mineral Resource model was regularised to a block size which was determined to be the selective mining unit 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.

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

Pit optimisation utilising the Lerchs-Grossmann algorithm was undertaken applying applicable cost, revenue and geotechnical inputs. The resultant pit shells were used to develop detailed pit designs with due consideration of geotechnical, geometric and access constraints.

These pit designs were used as the basis for production scheduling and economic evaluation. Conventional mining methods (truck and shovel) similar to other Rio Tinto Iron Ore mines were selected.

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

Processing method and assumptions

During drill campaigns from 2003 to 2018 a total of 3,382 m of metallurgical PQ diamond holes were drilled in the Western Range 36W–50W deposit. Data obtained from this core formed the basis for metallurgical test work which was utilised to develop metallurgical models representing different metallurgical domains which were considered representative of the ore body. The metallurgical models predict product tonnage and grade parameters for lump and fines products.

Ore from Western Range 36W–50W 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 36W–50W deposit. The proposed metallurgical process is a well-tested and proven processing methodology, having been utilised at Rio Tinto Iron Ore mining operations for decades.

Rio Tinto plans to blend ore from Western Range 36W–50W with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. If developed, Western Range 36W–50W ore, would not be marketed directly. This plan is in line with current Rio Tinto Iron Ore practices where ore from multiple mines is combined to produce the Pilbara Blend product.

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 a number of 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 to a cut-off of 58.5% Fe over the mine life.

The Western Range 36W–50W deposit is located within 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 located 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 33kV connection to the Rio Tinto transmission network at Paraburdoo. Water will be sourced from bores at Western Range, supplemented by a connection to Paraburdoo borefields. Residential and Fly in, Fly out operations personnel will be accommodated in the Paraburdoo town, and utilise the Paraburdoo airport.

The Western Range deposits falls within the area of the Yinhawangka Native Title determination. Extensive archaeological and ethnographic surveys have been undertaken over the majority of 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 5 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 10 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 1 July 2022. No public appeals were received. Ministerial Statement 1195 was published on 5 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 6 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.

Criteria used for Ore Reserve classification

For the Western Range 36W–50W, accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

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.

Competent Persons' statement

The information in this report that relates to Mineral Resources is based on information compiled under the supervision of Mr Philip Savory, who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM). Mr Savory has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Savory is a full-time employee of Rio Tinto and consents to the inclusion in this report of the matters based on the information that he has prepared in the form and context in which it appears.

The information in this report that relates to Ore Reserves is based on information compiled under the supervision of Mr Ryan Bleakley, who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Bleakley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Bleakley is a full-time employee of Rio Tinto and consents to the inclusion in this report of the matters based on the information that he has prepared in the form and context in which it appears.

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

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Western Range JORC Table 1

The following table provides a summary of important assessment and reporting criteria used at the Western Range 36W-50W and 55W-66W deposits for the reporting of Mineral Resources and Ore Reserves, in accordance with the Table 1 checklist in *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition)*. Criteria in each section apply to all preceding and succeeding sections.

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	General Statements: • Geological logging and assay samples were collected at 2 m intervals from reverse circulation (RC) drilling and from 1.5 m intervals for percussion drilling; all intervals were sampled. • Density and metallurgical samples were collected from PQ diamond (DD) core drilling. • Geotechnical samples were partly collected from HQ diamond core drilling. • Diamond core drilling uses double and triple-tube techniques and samples were taken at 1 m intervals. • Reverse circulation drilling utilised a rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention paid to samples collected being of comparable weights. The splitter produced two 8% samples ('A' and 'B') and one 84% reject sample. The primary 'A' sample was collected at 2 m intervals through 8% blades from the outer cone of the rotary cone splitter. • Percussion drilling utilised an extensive modified Schramm T64 rig with 900/350 air, which was supported by an auxiliary booster and high-volume air compressors. • The presence of mineralisation was determined by a combination of geological logging and geochemical assay results.
Drilling techniques	General Statements: • Reverse circulation drilling utilised a 140 mm diameter face sampling bit with a sample shroud, attached to a pneumatic piston hammer. This was used to penetrate the ground and deliver the sample up the 6 m drill rod inner tubes (4 m starter rod) through to the cyclone and the rotary cone splitter. • Dry drilling was implemented as standard procedure for all drill holes up to 2014. As of 2014 wet drilling was implemented in order to mitigate the risks associated with fibrous mineral intersections. • Diamond drilling was HQ and PQ core sizes using double and triple tube techniques. • Core orientation data was collected where possible, predominantly within banded iron formation (BIF), hydrated zones or intervals of consolidated core. • Percussion drilling utilised an extensive modified Schramm T64 rig with 900/350 air, which was supported by an auxiliary booster and high-volume air compressors. • The drilling programmes were mostly vertical with some angled holes drilled (-60 to -85 degrees north and south), where there was limited area for a drill pad or specific geotechnical requirements.
Drill sample recovery	General Statements: • For Reverse Circulation samples, a qualitative estimate of sample loss at the rig was made, and in most cases a good representative sample was collected. Sample weights were recorded at the laboratory, upon receipt and after oven drying during 2011to 2019 drilling programmes. • Diamond core recovery was maximised via the use of triple-tube sampling and additive drilling muds. • Diamond core recovery was recorded using rock quality designation (RQD) measurements with all cavities and core loss recorded in the Rio Tinto Iron Ore acQuire™ database (RTIODB). Only 2% of the total diamond drilled meters recorded intervals of core loss greater than or equal to 0.1 m. • Sample recovery in some friable mineralisation may be reduced however, thorough analysis of

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<tr><td></td><td>duplicate sample performance does not indicate any chemical bias as a result of inequalities in sample recovery.</td></tr>
<tr><td>Logging</td><td><u>General Statements</u>:

All drill holes were geologically logged utilising standard Rio Tinto Iron Ore Material Type Classification Scheme (RTIO MTCS) logging codes and entered into the Rio Tinto Iron Ore acQuire™ database (RTIODB) on field Toughbook laptops. Pre-2004, this was performed using pre-formatted paper logging sheets and transferred manually to the RTIODB.
Internal training and validation of logging included RTIO MTCS identification and calibration workshops, peer reviews and validation of logging versus assay results.
Geological logging was performed on 2 m intervals for all reverse circulation drilling and 1.5 m intervals for percussion drilling.
Magnetic susceptibility readings were taken using a Kappameter for each interval.
Open-hole acoustic and optical televiewer image data was collected in specific Reverse Circulation holes throughout the deposit for structural analyses.
All diamond drill core and reverse circulation chip piles were photographed digitally, and files stored on Rio Tinto network servers.

<u>Deposit Specific Statements:</u>
<u>Western Range 36W-50W:</u>

2011 to 2019: in-rod gamma trace and deviation with calliper, density, resistivity, and magnetic susceptibility was also captured for selected holes.
2002: drill holes were logged for downhole deviation using a gyroscope and magnetic susceptibility.
Pre-2002: gamma logging was conducted using a portable downhole unit.

<u>Western Range 55W-66W:</u>

2012 to 2019: in-rod gamma trace and deviation with calliper, density, resistivity, and magnetic susceptibility also captured for selected holes.
2003: drillholes were logged for downhole deviation using a gyroscope and magnetic susceptibility.
Pre-2003: gamma logging was conducted using a portable downhole unit.
</td></tr>
<tr><td>Sub-sampling techniques and sample preparation</td><td><u>General Statements:</u>
<u>Sub-sampling techniques</u>

Diamond core was sampled as whole core.
2011 to 2019:

Dry and wet reverse circulation drilling was sampled at 2 m intervals. Sub-sampling was carried out using a rotary cone splitter beneath a cyclone return system, producing approximate mass splits of:

'A' Split – Analytical sample – 8%
'B' Split – Retention sample – 8%; all retention samples were placed in green plastic bags and stored in labelled 220 L steel drums.
Bulk Reject – 84%.

2002 to 2003:

Dry reverse circulation drilling was sampled at 2 m intervals. Sub-sampling was carried out using a 4-way Jones riffle splitter attached beneath the cyclone, with the final splits being: 87.5% waste; 6.25% laboratory sample and 6.25% retention sample.
The laboratory sample was collected in a calico bag, and the retention sample was collected in a plastic 'honey-pot' (screw-top plastic jar).

Pre-2002:

Dry reverse circulation drilling was sampled at 2 m intervals (Reverse Circulation) and 1.5 m (Percussion) utilising a riffle splitter. If the samples were wet, a dual adjustable divider, which filled a 20 litre bucket lined with a large calico sample bag, was used. These sample bags were then placed in sample racks for drying.
One reference sample of approximately 1 kg was collected in a 'honey pot' with a

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	sample tag placed inside the container.
	
	<u>Sample preparation of the 'A' split sample:</u>
	
	• 2011 to 2019:
	  o Samples were dried at 105 °C.
	  o Samples were crushed to -3 mm using a Boyd Crusher and split using a rotary sample divider to capture 1 – 2.5 kg samples.
	  o Manual LM5 was used to pulverise the total sample (1 to 2.5 kg) to 90% of the weight passing through a 150 micron (µm) sieve.
	  o A 100 g sub-sample was collected for analysis.
	  o Diamond drill core samples were crushed to -6 mm particle size (whole core sample) and followed the reverse circulation sample preparation procedure.
	• 2002 to 2003:
	  o The samples were dried for over 16 hrs and then cooled before preparation. The samples barcode was read, and a vial label printed.
	  o The sample was either poured into the crusher splitter (samples < 7 kg) or a preliminary splitting stage was performed.
	  o A 100 g to 150 g portion was generated and placed in a labelled sample vial which travelled automatically to one of two automatic mills. The sample was pulverised for 90 seconds to 95% passing -150 µm.
	• Pre-2002:
	  o The 5 kg drill sample was crushed to <3 mm, then passed through a Jones Riffle splitter and reduced to a 200 g sample. The sample was then dried at 105 °C for three hours, then crushed in a Siebtechnik disc mill to a minus 150 µm sieve.
	  o A 0.4 g aliquot of the Siebtechnik milled sample was taken and made into a fused borate glass bead. The bead was analysed by using a Philips 1600 XRF machine.
	
	The Competent Person considers that the sampling is representative of the in-situ material and that the procedures and sample sizes are appropriate for the style of mineralisation. Quality control samples, including duplicate samples were taken to check representivity as outlined below.

Quality of assay data and laboratory tests	<u>General Statements:</u>
	
	Assay methods
	
	• All assaying of samples used in the Mineral Resource estimates have been performed by independent National Association of Testing Authorities (NATA) certified laboratories.
	• 2011 to 2019:
	  o Fe, SiO_2, Al_2O_3, TiO_2, Mn, CaO, P, S, MgO, K_2O, Zn, Pb, Cu, Ba, V, Cr, Cl, As, Ni, Co, Sn, Sr, Zr and Na were assayed using industry standard lithium tetraborate and lithium metaborate fusion and X-Ray Fluorescence (XRF) analytical techniques.
	  o Loss on Ignition (LOI) was determined using an industry standard Thermo-Gravimetric Analyser (TGA) and was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C.
	  o Samples were dispatched to Perth for preparation and analytical testing at Bureau Veritas Laboratories in Perth (formerly Ultratrace Laboratories for 2011 to 2013 programmes) and to Intertek/Genalysis in Perth for 2017 to 2019 programmes.
	• 2002 to 2003:
	  o Fe, SiO_2, Al_2O_3, TiO_2, Mn, CaO, P, S, and MgO were assayed using industry standard lithium tetraborate and lithium metaborate fusion and XRF analytical techniques.
	  o LOI was measured using a thermogravimetric analyser and measured at a single temperature (1000 °C).
	  o Samples were dispatched to Rio Tinto's internal laboratory at Dampier for preparation and analytical testing.
	• Pre-2002:
	  o Fe, SiO_2, Al_2O_3, TiO_2, MnO, CaO, P, S, and MgO, were assayed using a borate flux to make a fused glass bead. The bead was then analysed by XRF.
	  o LOI determination was performed on a 1 g sub-sample, split from the millings which were heated to 900° C for 35 minutes using a LECO TGA 500 analyser.
	  o Samples were dispatched to Rio Tinto's internal laboratory at Dampier for

	preparation and analytical testing.
	
	Quality assurance measures:
	• 2011 to 2019:
	  o Insertion of coarse reference standard by Rio Tinto geologists at a rate of one in every 30 samples in mineralised zones and one in every 60 samples in waste zones with a minimum of one standard per drill hole. Reference material was prepared and certified by Rio Tinto Iron Ore following ISO 3082:2009 (Iron Ores – Sampling and sample preparation procedures) and ISO 9516-1:2003 (Iron Ores – Determination of various elements by X-ray fluorescence spectrometry – Part 1: Comprehensive procedure).
	  o Coarse reference standards contain a trace of strontium carbonate that was added at the time of preparation for ease of identification.
	  o Reverse circulation field duplicates were collected by using a 'B' split retention sample, which was taken directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc was included in the duplicate sample for later identification.
	  o At a frequency of one in 40, -3 mm splits and pulps were collected as laboratory splits and repeats respectively. These sub-samples were analysed at the same time as the original sample to assess sampling precision.
	  o Internal laboratory quality assurance and quality control measures involved the use of internal laboratory standards using certified reference material in the form of pulps; blanks and pulp duplicates were also inserted in each batch.
	  o Random re-submission of pulps at an external laboratory was performed following initial analysis.
	  o Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to a third-party (Geostats Pty Ltd) to check analytical precision and accuracy as part of Rio Tinto Iron Ore's quality assurance and quality control (RTIO QA/QC) procedures.
	  o Analysis of the performance of certified standards, field duplicates, blanks and third-party check assaying has indicated an acceptable level of accuracy and precision with no significant bias or contamination.
	• 2002 to 2003:
	  o A duplicate sample was collected from the mineralised zone, at a frequency of approximately one per hole for the purpose of measuring sampling precision. The duplicate sample replaced one of the retention samples and was allocated a laboratory sample number in sequence within the mineralised zone.
	  o At an approximate rate of one every hole, a pre-prepared standard sample of known analysis was introduced into the samples, for the purpose of monitoring accuracy of the laboratory. These check standards were allocated a laboratory sample number in sequence within mineralised zone.
	• Pre 2002:
	  o Duplicate samples were taken from selected intervals at conclusion of drilling. Standards were also introduced into the system at a frequency of 1 per hole, or if the hole was <100 m in depth, at a frequency of approximately every 100 m of sampling.
	
	The Competent Person is Satisfied that the results of the QAQC indicate acceptable levels of precision and accuracy.

Verification of sampling and assaying	General Statements: • Field data was logged directly onto field Toughbook laptops using pre-formatted and validated logging templates, with details uploaded to the Rio Tinto Iron Ore database (RTIODB) on a daily basis. Pre-2004 this was performed using pre-formatted paper logging sheets and transferred manually to the RTIODB. • The assaying of post 2002 samples used in the Mineral Resource estimates were performed by independent National Association of Testing Authorities (NATA) certified laboratories. Samples from 2002 and earlier were assayed at Dampier which carried an ISO9001 accreditation. • Assay data was returned electronically from the laboratory and uploaded into the RTIODB.

	• Assay data was only accepted into the RTIODB once the quality control assessment was completed. • Written procedures outline the processes of geological logging and data importing, quality assurance and quality control validation and assay importing. A robust, restricted-access database was in place to ensure that any requests to modify existing data go through appropriate channels and approvals, and that changes are tracked by date, time, and user. • Assay data has not been adjusted. • Analysis of the twinned drill hole assay data distributions (except for one hole which was used for metallurgical testing) showed that the drilling methods displayed similar grade and geological distributions and verified the suitability for all samples to be used in the Mineral Resource estimate. <u>Deposit Specific Statements:</u> <u>Western Range 36W-50W:</u> • In 2011, twenty-six (26) PQ diamond holes were drilled as twins for Metallurgical purposes. <u>Western Range 55W–66W:</u> • In 2019, Twelve (12) PQ diamond holes were drilled as twins for Metallurgical purposes.
Location of data points	<u>General Statements</u>: • The drill holes were surveyed in Mine Grid of Australia 1994 (MGA94) Zone 50 coordinates using Differential Global Positioning System (DGPS) survey equipment, which was accurate to 10 cm in both horizontal and vertical directions. Upon receipt of the coordinate data it was validated against the planned drill hole coordinates, and then uploaded to the drill hole database. All holes were surveyed by qualified surveyors. • The topographic surface was created from Light Detecting and Ranging (LiDAR) data (points spaced 5 m apart) captured in 2017. • Drill hole collar reduced level (RL) data was validated against 5 m 2017 LiDAR topographic survey and showed that the collar survey data was accurate. • Down-hole surveys were conducted on every hole, with the exception of collapsed or otherwise hazardous holes. Significant, unexpected deviations were investigated and validated. Holes greater than 100 m depth were surveyed with an in-rod gyro tool. • The pre-1995 drill holes were re-surveyed using DGPS; however, not all holes could be located and therefore the survey method for these holes is unknown and presumed to be planned coordinates. This has been taken into consideration in the resource classification.
Data spacing and distribution	<u>Deposit Specific Statements:</u> <u>Western Range 36W-50W:</u> • The drill spacing across the deposit is mostly 60 m x 60 m with some parts of the deposit drilled out to 30 m x 30 m. • The data spacing and distribution is deemed sufficient by the Competent Person to establish geological and grade continuity appropriate for the Mineral Resource classification that has been applied. • Samples were composited to 2 m. <u>Western Range 55W-66W:</u> • The drill spacing across the deposit is 120 m x 60 m with some parts of the deposit drilled out to 60 m x 60 m. • The data spacing and distribution is deemed sufficient by the Competent Person to establish geological and grade continuity appropriate for the Mineral Resource classification that has been applied. • Sample compositing has not been performed.

Orientation of data in relation to geological structure	General Statements: • Drill lines were oriented predominantly in a northnortheast-southsouthwest direction, perpendicular to the strike of the deposit. • Drilling was predominantly vertical which is appropriate for the sub-horizontal to inclined stratigraphy of the majority of the deposit. • Angled holes were drilled where appropriate and also for geotechnical purposes. • While mineralisation was frequently intersected at an angle, the orientation of mineralisation relevant to drilling was not considered likely to have introduced any material bias.
Sample security	General Statements: • The sample chain of custody was managed by Rio Tinto Iron Ore. • Analytical samples ('A' splits) were collected by field assistants, placed into bulk bags and delivered to Perth by a recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage, the samples were kept in a locked yard. • Retention samples ('B' splits) were collected and stored in drums at on-site facilities up to end of 2018 drill programmes. In 2019 retention samples in a form of 'B' splits were not collected, with a 500 g coarse crushed split of 3 mm particle size stored at laboratory instead for 24 months. • 150 g of excess pulps from primary samples are retained indefinitely at laboratories and external storage facilities at CTI Logistics Ltd in Perth, Western Australia.
Audits or reviews	General Statements: • All stages of Mineral Resource estimation have undergone a documented internal peer review process, which has reviewed all phases of the process. No material issues were raised during the review. Deposit Specific Statements: Western Range 36W-50W: • Rio Tinto Group Internal Audit engaged SRK Consulting to complete an audit on 36W-50W deposit in 2020, including all aspects of data, interpretation, estimation, and mine planning with the result being satisfactory. No material findings were identified.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	General Statements: • The Western Range 36W-50W and 55W-66W deposits are located within Mining Lease AM70/00246 (ML246SA).
Exploration done by other parties	• In 1968 and from 1979 to 1996 exploration drilling was conducted by Hamersley Exploration (Task Force) and CRA Exploration; all data is currently available within Rio Tinto databases.
Geology	General Statements: • The Western Range 36W-50W and 55W–66W deposits are typical high-phosphorus, martite-goethite Brockman type deposits. • Mineralisation occurs within both the Dales Gorge and Joffre Members of the Brockman Iron Formation. Minor mineralisation also occurs in the Whaleback Shale, Yandicoogina Shale and Weeli Wolli Members. • There is minor detrital mineralisation, which occurs as shallow fan shaped deposits to the south of the range and small canga deposits close to the range front. • Western Range is bounded to the east by the 36W steep reverse fault and to the west by the 72W fault. • There are numerous smaller scale faults trending northwest and east-northeast. Numerous dolerite dyke intrusions crosscut and overprint faults. There are also numerous dolerite sills in the area within the Whaleback Shale, Joffre, Yandicoogina Shale and Weeli Wolli Members.

	• Several dolerite dykes bisect the area, and largely follow fault lines which tend to trend northwest to southeast. • The major Joffre sill runs east to west across the area and is offset by the northwest-southeast trending faults. • Approximately 90% of the Mineral Resource lies above the water table. <u>Deposit Specific Statements:</u> <u>Western Range 36W-50W:</u> • Eighteen (18) mapped faults lie within the Western Range 36W-50W deposit. The mapped faults have varying trend and throw. • A minor sill lies within the Whaleback Shale 2 layer, but this is only present in the Western Range 36W-50W deposit. <u>Western Range 55W-66W:</u> • Twenty-one (21) mapped faults lie within the Western Range 55W–66W deposit. The mapped faults have varying trend and throw.
Drillhole Information	<u>Deposit Specific Statements:</u> <u>Western Range 36W-50W:</u> • Summary of drilling data used for the Western Range 36W-50W Mineral Resource estimate.

Year	Diamond		Percussion		Reverse Circulation	
	# Holes	Metres	# Holes	Metres	# Holes	Metres
1968	-	-	6	352	-	-
1979	-	-	22	2219	-	-
1980	-	-	26	3030	-	-
1987	-	-	1	279	-	-
1989	-	-	17	1005	-	-
1990	-	-	11	1143	-	-
1992	-	-	-	-	12	1929
1993	-	-	-	-	18	2749
1996	-	-	-	-	30	3672
2002	-	-	-	-	347	26856
2011	26	1,803	-	-	260	22,108
2012	39	4,203	-	-	190	15,175
2017	-	-	-	-	1	130.1
2018	20	1,820	-	-	37	3,026
2019	6	681	-	-	92	10,404
Total	**91**	**8,507**	**83**	**8028**	**987**	**86,049**

• Only data from 1996 to 2019 was used for grade estimation. Pre-1996 data was used for geological interpretation only.

Western Range 55W-66W:

- Summary of drilling data used for the Western Range 55W-66W Mineral Resource estimate.

Year	Diamond		Percussion		Reverse Circulation	
	# Holes	Metres	# Holes	Metres	# Holes	Metres
1968	-	-	12	761	-	-
1979	-	-	29	2,046	-	-
1980	-	-	29	3,428	-	-
1986	-	-	3	80	-	-
1987	-	-	6	1,629	-	-
1989	-	-	61	3,864	-	-
1990	-	-	17	1,665	-	-
1991	-	-	75	8,055	-	-
1995	-	-	-	-	24	4,272
1998	-	-	-	-	6	1,374
2003	-	-	-	-	188	12,960
2012	-	-	-	-	84	6,216
2017	29	3,020	-	-	-	-
2018	9	1,110	-	-	23	2,222
2019	17	1,369	-	-	-	-
Total	**55**	**5,499**	**232**	**21,528**	**325**	**27,044**

Data aggregation methods	• Not relevant as exploration results are not being reported.
Relationship between mineralisation, widths and intercept lengths	General Statements: • Geometry of the mineralisation with respect to the drill hole angle was well-defined in most areas of the deposit. Drilling was predominantly vertical which is appropriate for the sub-horizontal to inclined stratigraphy of the majority of the deposit; and hence intercept lengths are approximately equivalent to true width of mineralisation.

Diagrams

General Statements:

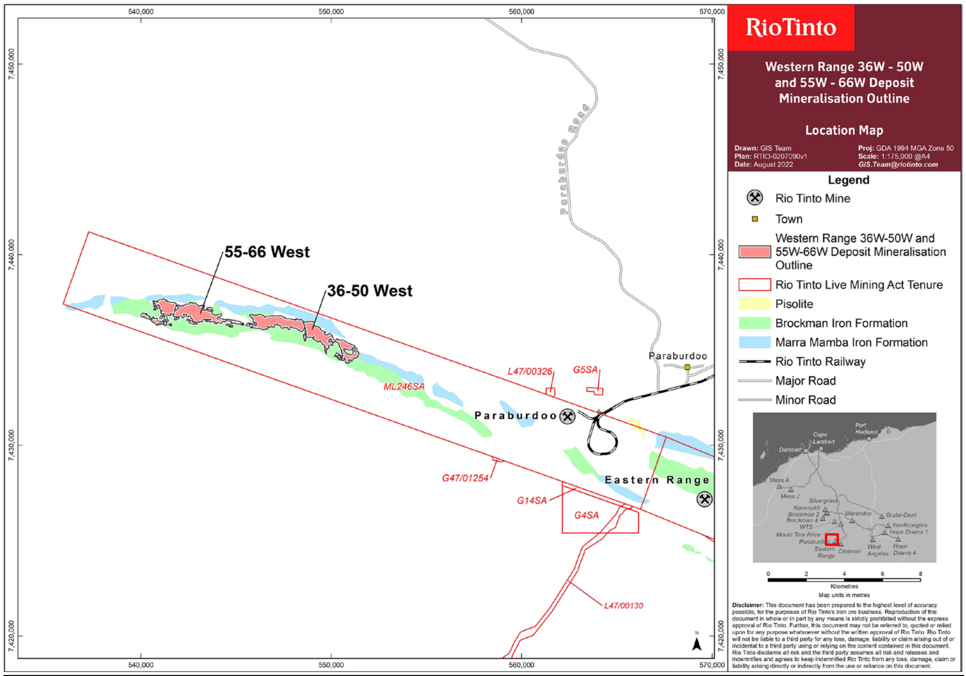

Figure 2 Western Range 36W-50W and 55W-66W deposits location map.

Deposit Specific Statements:

Western Range 36W-50W:

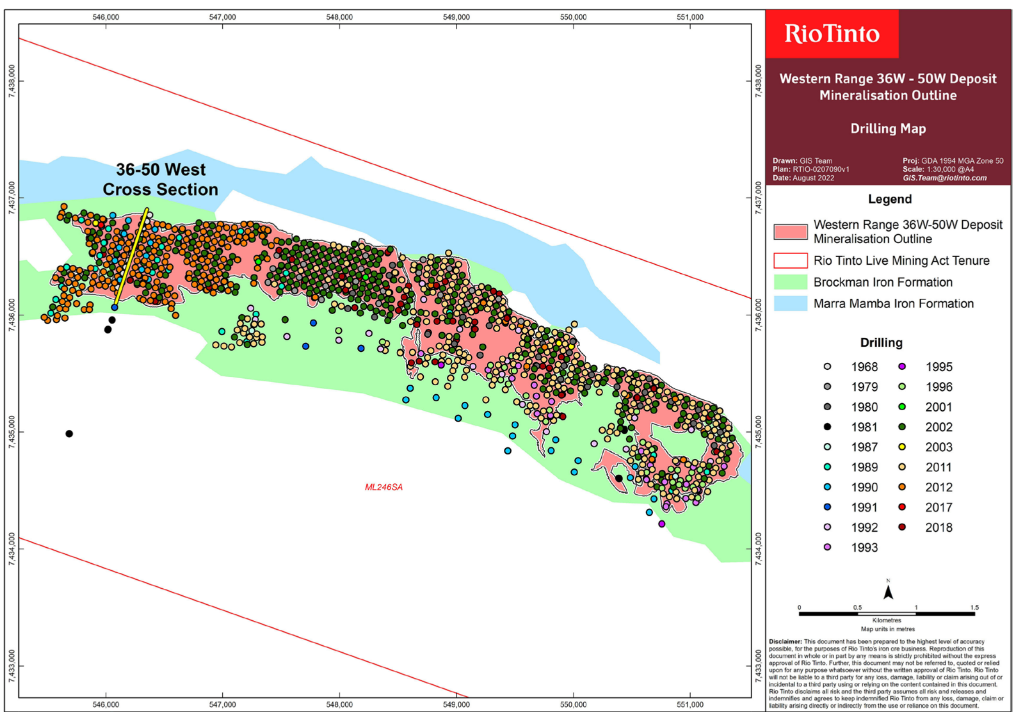

Figure 3 Western Range 36W-50W deposit drill hole location map.

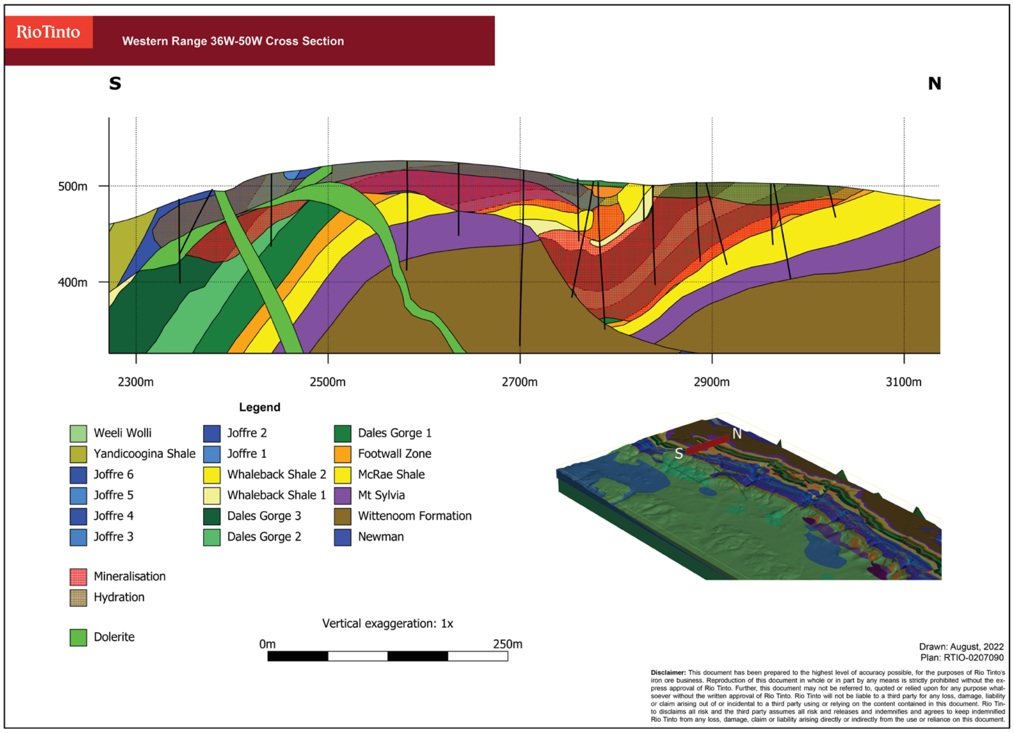

Figure 4 Western Range 36W-50W deposit cross section.

Western Range 55W-66W:

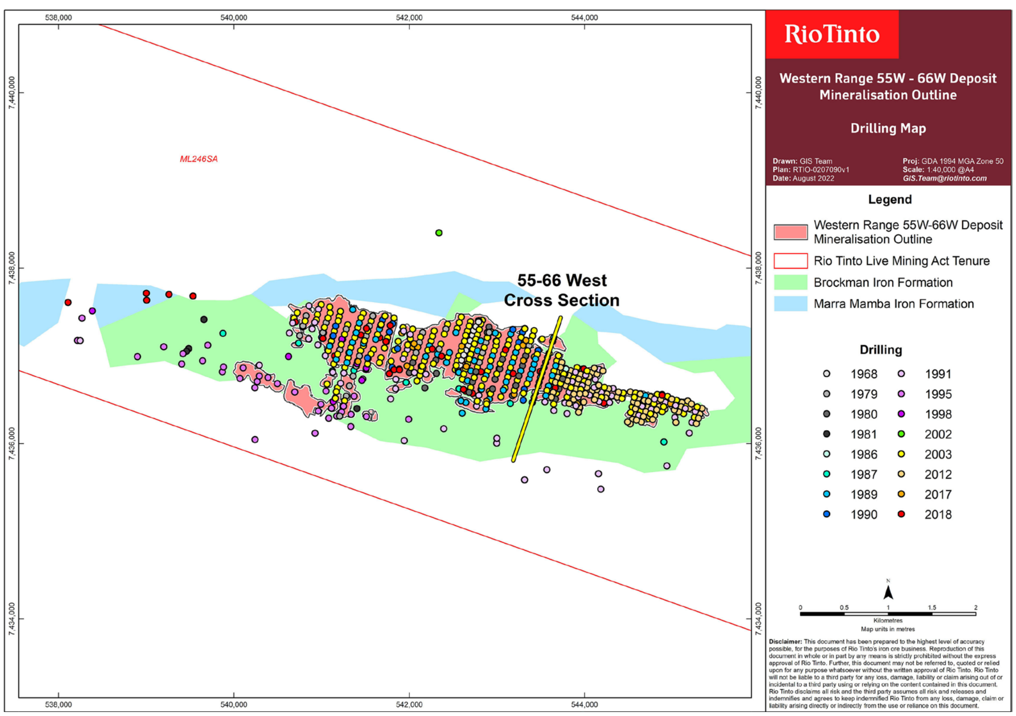

Figure 5 Western Range 55W-66W deposit drill hole location map.

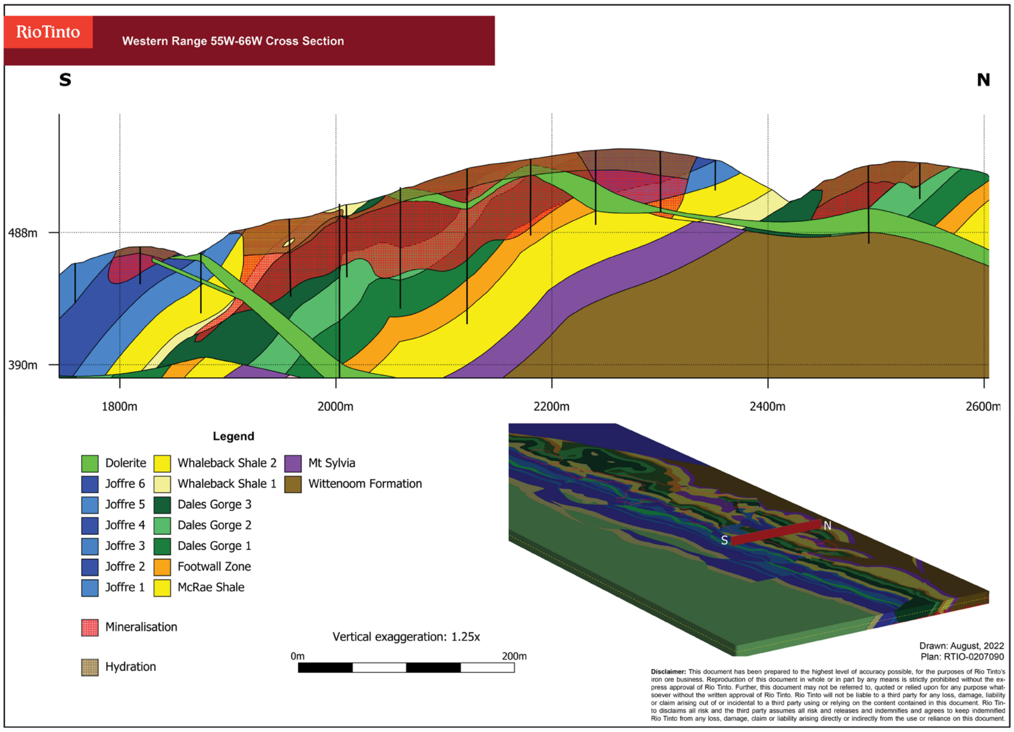

Figure 6 Western Range 55W-66W deposit cross section.

Balanced reporting

- Not applicable, as Rio Tinto has not specifically released Exploration Results for this deposit.

Other substantive exploration data

<u>Deposit Specific Statements:</u>

<u>Western Range 36W-50W:</u>

- Geological mapping data was collected across the Western Range 36W-50W deposit in 2013 at the 1:5,000 scale.

<u>Western Range 55W-66W:</u>

- Geological mapping data was collected across the Western Range 55W-66W deposit in 1998 at the 1:2,500 scale.

Further work

<u>General Statements</u>:

- Further work at the Western Range 36W-50W and 55W-66W deposits is planned to better define the orebody and improve structural understanding. Additional infill reverse circulation drilling will be completed across the deposit.

<u>Deposit Specific Statements:</u>

<u>Western Range 55W-66W:</u>

- Further diamond drilling for metallurgical, density, and geotechnical information is also required at the Western Range 55W-66W deposit, particularly in the western area.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary

Database integrity	General Statements:
	• All drilling data is securely stored in the Rio Tinto Iron Ore acQuire™ database (RTIODB), managed by dedicated personnel within Rio Tinto Iron Ore. The system is backed up nightly on servers located in Perth, Western Australia. The backup system was tested in August 2022, demonstrating that the system is effective.
	• The import/exporting process requires limited keyboard transcription and has multiple built in safeguards to ensure information is not overwritten or deleted. These include:
	  o Data is imported and exported through automated interfaces, with limited manual input;
	  o Inbuilt validation checks ensure errors are identified prior to import;
	  o Once within the RTIODB, editing is very limited and warning messages ensure accidental changes were not made;
	  o Audit trail records updates and deletions should an anomaly be identified;
	  o Export interface ensures the correct tables, fields and format are selected.
	• The drill hole database used for Mineral Resource estimation has been internally validated. Methods include checking:
	  o acQuire™ scripts for relational integrity, duplicates, total assay and missing / blank assay values;
	  o Grade ranges in each domain;
	  o Domain names;
	  o Survey data down-hole consistency;
	  o Null and negative grade values;
	  o Missing or overlapping intervals;
	  o Duplicate data.
	• Drill hole data was also validated visually by domain and compared to the geological model.

Site visits	• The Competent Person visited the Western Range deposits in 2018. No follow up was required as a result of this visit, and there has been no material changes at site since this time.
Geological interpretation	General Statements: • Overall, the Competent Person's confidence in the geological interpretation of the area is good, based on the quantity and quality of data available, and the continuity and nature of the mineralisation. • Geological modelling was performed by Rio Tinto Iron Ore geologists. The method involves interpretation of stratigraphy using surface geological mapping, lithological logging data, down-hole gamma data, and assay data. • Cross-sectional interpretation of each stratigraphic unit was performed followed by interpretation of mineralisation and hydration boundaries based on mapping, and drilling data. Three-dimensional wireframes of the sectional interpretations are created to produce the geological model. • The geological model was subdivided into domains defined by stratigraphy and mineralisation and both the composites and model blocks are coded with these domains. Blocks in domains are estimated using composites from the same domain. • Mineralisation is continuous. It is affected by stratigraphy, structure and weathering. The drill hole spacing is sufficient to capture density, grade and geology variation for Mineral Resource reporting.
Dimensions	Deposit Specific Statements: Western Range 36W-50W: • The Western Range 36W-50W deposit strikes approximately southeast – northwest with an along strike extent of approximately 6 km and a width of up to approximately 1 km. The mineralisation extends from surface to a depth of 200 m. Western Range 55W-66W: • The Western Range 55W-66W deposit strikes approximately east-west with an along strike

	extent of approximately 5 km and a width of up to approximately 1 km. The mineralisation extends from surface to a depth of 180 m.
Estimation and modelling techniques	General Statements: • Twelve grade attributes (Fe, SiO_2, Al_2O_3, P, Mn, LOI, LOI425, LOI650, S, TiO_2, MgO, and CaO), the material hardness attributes (Hard, Medium, Soft) and density were estimated into the block model. • Estimates were completed into parent blocks (block size of 30 m (X) × 30 m (Y) × 5 m (Z)). • Parent blocks are sub-celled to the geological boundaries to preserve volume. • The grade estimation process was completed using Maptek™ Vulcan™ software. • Mineralised domains were estimated by ordinary kriging or inverse distance to the power of two (ID2), with some blocks (generally less than 30%) assigned average grades in minor domains via scripting where sufficient data was not available. Non-mineralised domains were estimated by inverse distance weighting to the first power (ID1) or assigned average grades via scripting where sufficient data was not available. These methods are deemed appropriate by the Competent Person for estimating the tonnes and grade of the reported Mineral Resources. • 'High yield limits' or grade dependent restrictions on a sample's range of influence were not used for the mineralised domains, as deemed appropriate for the dataset. • Statistical analysis was carried out on data for all domains. • The estimated model was validated using a combination of visual and statistical methods that showed that the estimate was reasonable. • Production data is not available for reconciliation. Deposit Specific Statements: Western Range 36W-50W: • Grades were extrapolated to a maximum distance of approximately 400 m from data points. Western Range 55W-66W: • Grades were extrapolated to a maximum distance of approximately 500 m from data points.
Moisture	General Statements: • All Mineral Resource tonnages are estimated and reported on a dry basis.
Cut-off parameters	General Statements: • The cut-off grade grade criteria assigned to the Mineral Resource is based on understanding from similar Pilbara deposits. • The cut-off for reporting of Brockman Mineral Resources is greater than or equal to 60% Fe*. • The cut-off for reporting of Brockman Process Ore Mineral Resources is material 50% ≤ Fe < 60% and 3% ≤ Al_2O_3 < 6%*. *geology domain must be Dales Gorge, Joffre or Footwall Zone for inclusion in the Mineral Resource. The Competent Person is satisfied that the Mineral Resources meets the criteria of Reasonable Prospects of Eventual Economic Extraction.
Mining factors or assumptions	General Statements: • Development of this Mineral Resource assumes mining using standard Rio Tinto Iron Ore equipment and methods similar to other Rio Tinto Iron Ore operations. The assumed mining method is conventional truck and shovel, open pit mining at an appropriate bench height. Mining practices will include grade control utilising blast hole data. • Rio Tinto Iron Ore plans to blend ore from the Western Range 36W-50W and 55W-66W deposits with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. This plan is in line with current Rio Tinto Iron Ore practices where ore from multiple mines is combined to produce the Pilbara Blend product.

Metallurgical factors or assumptions	General Statements: • The technologies assumed applicable for the processing of the Western Range 36W-50W and 55W-66W deposits are standard crushing and screening processes followed by desliming of fines ore.
Environmental factors or assumptions	General Statements: • Rio Tinto Iron Ore has an extensive environmental approval process. A review of these requirements was undertaken as part of the Feasibility Study and based on this work the proposal was determined to require formal State and Commonwealth environmental assessment and approval. This is documented in greater detail in Section 4. • Mapping of oxidised shales, black carbonaceous shales, lignite, and the location of the water table, is used in prediction and planning for the treatment of potential environmental impacts. This process is in accordance with Rio Tinto's Chemically Reactive Mineral Waste Standard.
Bulk density	General Statements: • Dry bulk density was derived from gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Accepted gamma-density data was corrected for moisture using diamond drill core specifically drilled throughout the deposit. • Dry core densities were generated via the following process: o The core volume was measured in the split and the mass of the core was measured and recorded. o Wet core densities were calculated by the split and by the tray. o Core recovery was recorded. o The core was then dried and dry core masses are measured and recorded. o Dry core densities were then calculated. • Accepted gamma-density values at the Western Range 36W-50W and 55W-66W deposits were estimated using ordinary kriging or inverse distance weighted to the second power (ID2) with some blocks (generally less than 40%) assigned average grades in minor domains via scripting where sufficient data was not available in mineralised zones and inverse distance weighted to the first power ID1 or scripted average in waste zones.
Classification	General Statements: • The Mineral Resource has been classified into the categories of Measured, Indicated and Inferred. The determination of the applicable resource category has considered the relevant factors (geology, mineralisation continuity, sample spacing, data quality, and others). • Measured Resource is bedded mineralisation that demonstrates good or reasonable geological and grade continuity and is drilled at 60 m x 60 m spacing or closer. • Indicated Resource is bedded, hydrated or mature detrital mineralisation that has reasonable geological and grade continuity and is drilled at 120 m x 60 m spacing. • Inferred Resource is bedded, hydrated or mature detrital mineralisation with drill spacing greater than 120 m x 60 m, or open mineralisation along domain margins and at depth with no drill support, or bedded mineralisation with limited continuity or limited drill support across strike. Deposit Specific Statements: Western Range 36W-50W: • Approximately 89% of the Western Range 36W-50W Mineral Resource lies above the water table. The Competent Person is satisfied that the stated Mineral Resource classification reflects the relevant factors of the deposit. Western Range 55W-66W: • Approximately 99% of the Western Range 55W-66W Mineral Resource lies above the water table. The Competent Person is satisfied that the stated Mineral Resource classification reflects the relevant factors of the deposit. •

Audits or reviews	General Statements: • All stages of Mineral Resource estimation have undergone a documented internal peer review process, which has reviewed all phases of the process. No material issues were raised during the review. Deposit Specific Statements: Western Range 36W-50W: • Rio Tinto Group Internal Audit engaged SRK Consulting to undertake a Resource and Reserve process audit on Greater Paraburdoo (including WR 36W-50W) in 2020. The result was rated as Satisfactory and no material findings were identified.
Discussion of relative accuracy/ confidence	General Statements: • Rio Tinto Iron Ore operates multiple mines in the Pilbara region of Western Australia. The Mineral Resource data collection and estimation techniques used for the Western Range 36W-50W and 55W-66W deposits are consistent with those applied at other deposits which are being mined. Reconciliation of actual production with the Mineral Resource estimates for individual deposits is generally accurate to within ten percent for tonnes on an annual basis. This result is indicative of a robust process. • The accuracy and confidence of the Mineral Resource estimate is consistent with the current level of study (Feasibility Study).

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Generation of the modifying factors for this Ore Reserve estimate were 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 additional to Ore Reserves.
Site visits	• The Competent Person visited the Greater Paraburdoo Iron Ore Hub in 2021.
Study status	• The Greater Paraburdoo mine site is an existing operation. The Western Range 36W–50W deposit forms an extension to the operating life of the Greater Paraburdoo operations. • The Feasibility Study was completed in Q4 2021.
Cut-off parameters	• The Western Range 36W–50W deposit will be reported using variable cut-off grade (VCoG), in line with a number of other Pilbara deposits. Application of VCoG allows the variation of the head grade across the life of the deposit, to achieve desired product grades. At Western Range 36W – 50W, this approximates to a cut-off of 58.5% Fe over the mine life.
Mining factors or assumptions	• The Mineral Resource models for Western Range 36W–50W were regularised to a block size of 15 m E × 15 m N × 10 m RL which was determined as the selective mining unit, following an analysis of a range of potential selective mining units. • Metallurgical models were applied to the regularised model in order to model product tonnages, grades and yields. • Pit optimisations utilising the Lerch-Grossmann algorithm with industry standard software were undertaken. This optimisation utilised the regularised Mineral Resource model, together with cost, revenue, and geotechnical inputs. The resultant pit shells were used to develop detailed pit designs with due consideration of geotechnical, geometric and access constraints. These pit designs were used as the basis for production scheduling and economic evaluation. • During the above process, Inferred Mineral Resources were excluded from the production schedules and economic valuations were utilised to validate the economic viability of the Ore Reserves. • Conventional mining methods (truck and shovel), similar to other Rio Tinto Iron Ore operating mines were selected. • Applied geotechnical parameters are based on geotechnical studies informed by technical

	assessment of 90 drill holes drilled, specifically for geotechnical purposes between 2012 and 2020. The resultant inter-ramp slope angles vary between 24° and 52°, depending on slope sector rock mass and/or structural geological conditions. • The Feasibility Study considered the infrastructure requirements associated with the conventional truck and shovel mining operation, including crushing and conveying systems, dump & stockpile locations, maintenance facilities, access routes, explosive storage, water, and power.
Metallurgical factors or assumptions	• Western Range 36W–50W ore is planned tobe 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 Western Range 36W–50W deposit. • Dry crushing and screening with desliming of fine ore has been utilised at Paraburdoo since 1996 and is well understood. • Metallurgical drilling campaigns have been conducted at Greater Western Range operations (incorporating the 36W-50W and 55-66W deposits) from 2003-2018, with 57 PQ Diamond holes drilled specifically throughout the Western Range 36W–50W deposit. A total of 154 composites of high grade ore (totalling 2257m) and 81 composites of low grade ore (totalling 1125m), were processed using the standard Brockman plant mimic, which has been calibrated to produce representative plant products. • The Diamond drill core test results were 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.
Environmental	• The Greater Paraburdoo Iron Ore Hub (Proposal) was referred to the State Environmental Protection Authority (EPA) under s.38 of the Environmental Protection Act 1986 (EP Act) on 5 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 was also referred to the Commonwealth Department of the Environment and Energy (now Department of Climate Change, Energy, the Environment and Water; DOCCEEW) on 6 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. • The Proposal progressed through the formal assessment steps throughout 2019 through to 2022 resulting in the EPA publishing its Assessment Report (Number 1723) on 10 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 1 July 2022. No public appeals were received. • Ministerial Statement 1195 was published on 5 August 2022 under Part IV of the EP Act. • A Decision Notice is yet to be issued under the EPBC Act.
Infrastructure	• Access to the Greater Western Range operations (incorporating the 36W-50W and 55-66W deposits) will be via an access road from the existing Paraburdoo mine. • A crusher and conveyor will be built at the Greater Western Range operations, linking to the existing Paraburdoo mine processing plant. The Paraburdoo mine product stockpiles, rail and train load-out system will be utilised. • Ore will be railed to Rio Tinto ports at Dampier and Cape Lambert. The existing port and railway networks have sufficient capacity to accommodate ore supply from the Western Range 36W-50W deposit. • Support facilities located at the Greater Western Range operations will include 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, explosive facility, and waste fines storage facility. • Electric power will be supplied to the Greater Western Range operations via a 33kV connection to the Rio Tinto transmission network at Paraburdoo. • Water for the Greater Western Range construction and operations will be sourced from bores at Western Range, supplemented by a connection to Paraburdoo borefields. • Residential and Fly in, Fly out operations personnel will be accommodated in the Paraburdoo town, and utilise the Paraburdoo airport.
Costs	• Operating costs were benchmarked against similar operating Rio Tinto Iron Ore mine sites. • The capital costs for Western Range 36W–50W are based on the Feasibility Study, utilising

	experience from the construction of similar Rio Tinto Iron Ore projects in the Pilbara, Western Australia. • Exchange rates were forecast by analysing and forecasting macro-economic trends in the Australian and World economy. • Transportation costs were based on existing operating experience at Rio Tinto Iron Ore mine sites in the Pilbara, Western Australia. • Allowances have been made for royalties to the Western Australian government and other private stakeholders.
Revenue factors	• Rio Tinto applies a common process to the generation of commodity prices across the group. This involves 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. The detail of this process and of the price point curves is commercially sensitive and is not disclosed.
Market assessment	• Rio Tinto Iron Ore plans to blend ore from Western Range 36W-50W deposit with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Western Range 36W-50W ore will not be marketed directly. This plan is in line with current Rio Tinto Iron Ore practices where ore from multiple mines is combined to produce the Pilbara Blend product. • Blending of iron ore from Brockman and Marra Mamba sources results in achieving Pilbara Blend Fe requirement, whilst reducing both the average values, and variability, of SiO_2, Al_2O3, and P. This product attracts a market premium and accounts for annual sales in excess of 200 Mt/a. • The supply and demand situation for iron ore is affected by a wide range of factors. As iron and steel consumption changes with economic development and circumstances, Rio Tinto Iron Ore delivers products aligned with its Mineral Resources and Ore Reserves. These products have changed over time and successfully competed with iron ore products supplied by other companies.
Economic	• Economic inputs such as foreign exchange rates, carbon pricing, and inflation rates are also generated internally at Rio Tinto. The detail of this process is commercially sensitive and is not disclosed. • Sensitivity testing of the Western Range 36W-50W Brockman Ore Reserves using both Rio Tinto long-term prices and a range of published benchmark prices demonstrates a positive net present value for the project sufficient to meet Rio Tinto Limited investment criteria.
Social	• The Western Range 36W–50W deposit is located on Mining Lease AM70/00246 (ML246SA), granted pursuant to the Paraburdoo State Agreement. • State Agreement approval is required for the development of Western Range. Approvals pursuant to the Iron Ore (Hamersley Range) Agreement Act 1968 (Paraburdoo) are being progressed, with the primary proposal seeking approval for the main development of Western Range to be submitted upon receipt of key State environmental approvals and project endorsement and funding • The Western Range 36W–50W deposit falls within the area of the Yinhawangka Native Title determination. • Extensive archaeological and ethnographic surveys have been undertaken over the majority of the Greater Paraburdoo area and will continue into 2023. These have been undertaken with full participation and involvement of the Yinhawangka People. • A Social Cultural Heritage Management Plan (SCHMP) for the Western Range area was jointly prepared by Yinhawangka Aboriginal Corporation and Rio Tinto and endorsed by the Yinhawangka people and was submitted to the EPA to support the Part IV submission. A Cultural Heritage Management Plan is also under development. • The project contains known heritage sites which require approval under the Aboriginal Heritage Act before disturbance can occur. Based on the consultation to date with the Yinhawangka people combined with company experience and knowledge, it is expected that these approvals will be obtained within the timelines required in the mine production schedule. • Groundwater abstraction and quality will continue to be managed in accordance with the existing Greater Paraburdoo Groundwater Licences and associated Groundwater Operating Strategy, and any amendments as required. • The Western Range 36W–50W deposit is 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.
Other	• Semi-quantitative risk assessments have been undertaken throughout the Greater Western Range study phases. No material naturally occurring risks have been identified through this process. • 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 time of reporting, negations were underway.
Classification	• The Ore Reserves for Western Range 36W–50W consist of 66% Proved Reserves and 34% Probable Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of technical and economic studies.
Audits or reviews	• Rio Tinto Group Internal Audit engaged SRK Consulting to undertake a Resource and Reserve process audit on Greater Paraburdoo (including WR 36W-50W) in 2020. The result was rated as Satisfactory and no material findings were identified. • Internal Rio Tinto Iron Ore peer review processes and internal Rio Tinto technical reviews have been completed. These reviews concluded that the fundamental data collection techniques are appropriate.
Discussion of relative accuracy/ confidence	• Rio Tinto Iron Ore operates multiple mines in the Pilbara region of Western Australia. The Ore Reserve estimation techniques utilised for the Western Range 36W–50W Brockman deposit are consistent with those applied at the existing operations. Reconciliation of actual production with the Ore Reserve estimate for individual deposits is generally within 10% for tonnes on an annual basis. This result is indicative of a robust Ore Reserve estimation process. • For the Western Range 36W–50W, accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).