Changes to Pilbara Ore Reserves and Mineral Resources

2 March 2017

Included in Rio Tinto's annual Ore Reserves and Mineral Resources tables, released to the market today as part of its 2016 Annual report, are changes in Ore Reserves and Mineral Resources in Pilbara iron ore deposits in Western Australia.

The updated Ore Reserves and Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the ASX Listing Rules. As such, the reported changes relating to three Pilbara iron ore deposits require the additional supporting information set out in this release and its appendices. Ore Reserves and Mineral Resources are quoted on 100 per cent basis. Rio Tinto's interests are listed on pages 6, 7, 11, and 14.

Rio Tinto's Ore Reserves and Mineral Resources are set out in full in its 2016 Annual report.

During 2016, increases to estimated iron Ore Reserves have been delivered as part of the ongoing resource development drilling program designed to maintain Ore Reserves coverage ahead of mining depletion rates. During the same period, estimated Mineral Resources increased by 350 Mt.

This release and its appendices set out the following significant changes in Ore Reserves and Mineral Resources:

	Ore Reserves	Mineral Resources
Hope Downs 1	Hope Downs 1 Ore Reserves have increased from 196 Mt to 238 Mt due to the addition of the Hope Downs 1 South West mine area. The percentage of Proved Ore has increased significantly (from 3 Mt to 115 Mt) due to classification changes at Hope Downs 1 North.	Hope Downs JV Brockman Mineral Resources have increased (from 571 Mt to 645 Mt) and Brockman Process Ore Mineral Resources have increased (from 348 Mt to 398 Mt) due to significant additions at Hope Downs 1 Bedded Hilltop.
Koodaideri	Koodaideri Ore Reserves have increased from 452 Mt to 594 Mt due to new Ore Reserves at Koodaideri 38 West / 21 West (38W/21W) following additional drilling (more than 1,000 drill holes) used to update the geological model, Mineral Resource estimate, and increase the Resource classification to Indicated (in part).	
Hope Downs 2		Hope Downs JV Marra Mamba Mineral Resources have increased (from 396 Mt to 439 Mt despite transfers to Ore Reserves) and Detritals Mineral Resources have increased (from 70 Mt to 96 Mt) due to significant additions at Hope Downs 2.

In aggregate, estimated Pilbara iron Ore Reserves increased by 57 Mt during 2016 as set out below:

	Dry Product (Mt)
2015 Ore Reserves	**3,458**
Hope Downs 1 South West increases	42
Koodaideri 38 West increases	142
Net amount of other changes (including depletions of 305 Mt due to production and minor increases)	-127
2016 Ore Reserves	**3,515**

The locations of the deposits involved are shown in Figure 1.

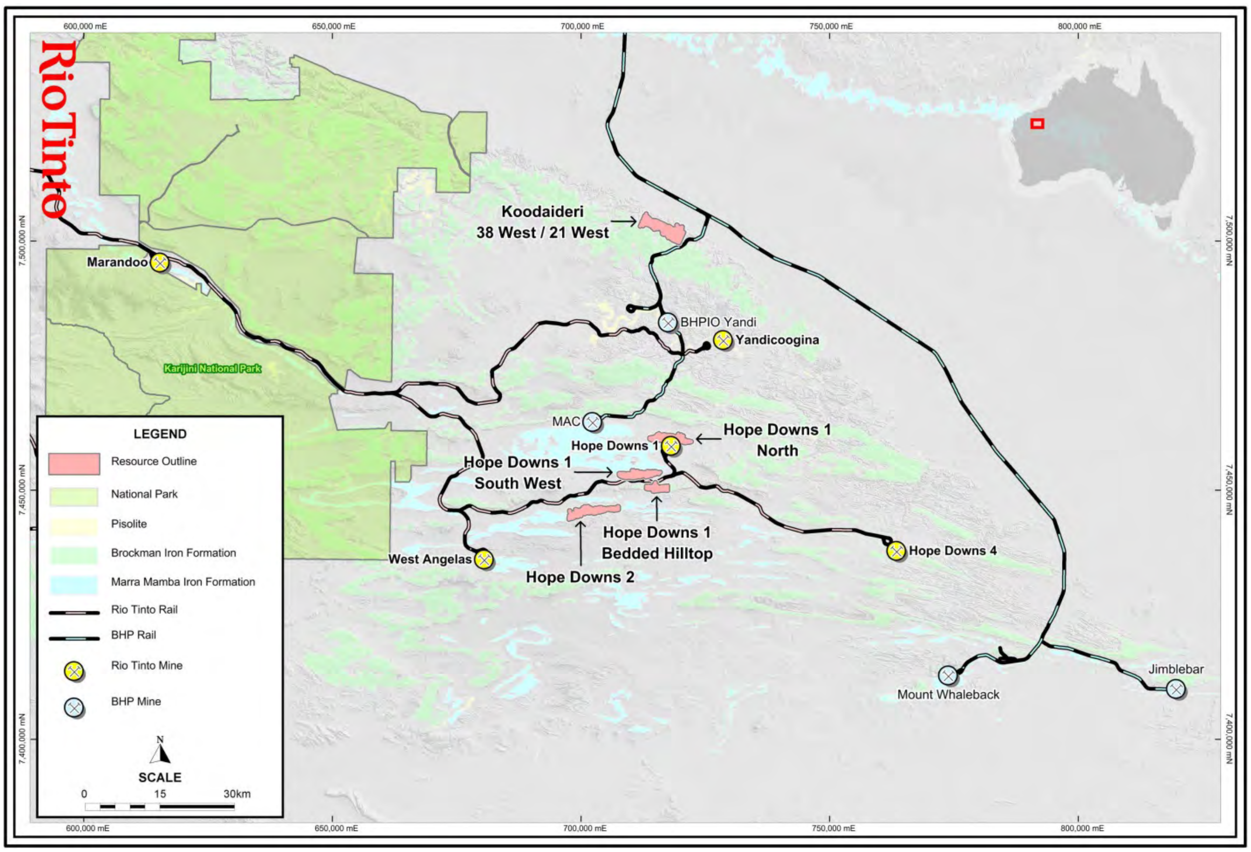

Figure 1 Deposit Location Map

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Summary of information to support the Ore Reserve and Mineral Resource estimates

Hope Downs 1

Increases in the Ore Reserve and Mineral Resource estimates for the Hope Downs 1 deposit in 2016 are supported by the information set out in Appendix 1 to this release and located at riotinto.com/JORC in accordance with the Table 1 checklist in the JORC Code. The following summary information is provided in accordance with rules 5.8 and 5.9 of the ASX Listing Rules.

The information under the headings below only pertains to Hope Downs 1 North, Hope Downs 1 South West, and Hope Downs 1 Bedded Hilltop as these are the deposits for which there was significant change in 2016.

Geology, drilling techniques, and geological interpretation

The Hope Downs 1 deposits are located within the Hamersley Basin of Western Australia, the host to some of the most significant iron ore deposits in the world. Hope Downs 1 North and Hope Downs 1 South West mineralisation is primarily hosted by the Marra Mamba Iron Formation although detrital mineralisation is also present. Hope Downs 1 Bedded Hilltop mineralisation is hosted by the Brockman Iron Formation.

Drilling at the deposits was carried out using diamond (except Bedded Hilltop), percussion and reverse circulation drilling rigs. In total, 2,153 holes are drilled at Hope Downs 1 North, 1,909 holes are drilled at Hope Downs 1 South West and 250 holes are drilled at Hope Downs 1 Bedded Hilltop. 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.

Geological interpretation 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.

Sampling, sub-sampling method and sample analysis method

For the reverse circulation drilling, sub-sampling at the drill rig was carried out using static and rotary splitters. For diamond drilling, 1m samples were passed through a jaw crusher with a top size of 2cm. A rotary splitter is then used to create an 'A' sub-sample with 40 per cent of the sample by mass.

The sub-sample is then sent to independent and certified laboratories for analysis. At the laboratory, the sample is oven dried at 105 degrees Celsius for a minimum of 24 hours. The sample is then crushed to less than 3mm using a jaw crusher and split to produce a sub-sample. The sub-sample is pulverised to 95 per cent of weight passing 150 µm. Fe, SiO_2, Al_2O_3, P, Mn, MgO, TiO_2, CaO and S are assayed using industry standard lithium metaborate fusion and X-Ray Fluorescence (XRF) analysis. Loss on Ignition (LOI) was determined using industry standard Thermo-Gravimetric Analyser.

Estimation methodology

Modelling was completed using the Rio Tinto Iron Ore Pilbara geological modelling and estimation standards. Ordinary Kriging methods were used to estimate grades through the deposits.

Criteria used for classification

The Mineral Resource for Hope Downs 1 North and Hope Downs 1 South West has been classified into the categories of Measured, Indicated and Inferred. Hope Downs 1 Bedded Hilltop has been classified as Inferred. The determination of the applicable category has considered the relevant factors (geological complexity, mineralisation continuity, sample spacing, data quality, and others as appropriate).

At Hope Downs 1 Bedded Hilltop the data spacing is 200m × 100m.

At Hope Downs 1 North and Hope Downs 1 South West the data spacing for each category is typically:

- Measured Mineral Resources 50m × 50m;
- Indicated Mineral Resources 100m × 50m and 50m × 50m;
- Inferred Mineral Resources 100m × 50m and 50m × 50m.

Note that the same spacing may result in different classification depending on other factors such as, but not limited to, geological complexity and mineralisation continuity.

Economic assumptions

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.

Mining and recovery factors (Hope Downs 1 North and Hope Downs 1 South West only)

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-Grosmann 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 assessments of diamond drill holes, specifically drilled for geotechnical purposes in the surrounding host rock.

Cut-off grades

At Hope Downs 1 North:

- The cut-off for Ore Reserves is greater than or equal to 57 per cent Fe;
- The cut-off grade for Mineral Resources is greater than or equal to 57 per cent Fe.

At Hope Downs 1 South West:

- The cut-off for Ore Reserves is greater than or equal to 58 per cent Fe;
- The cut-off grade for Mineral Resources is greater than or equal to 58 per cent Fe.

At Hope Downs 1 Bedded Hilltop:

- The cut-off for High Grade Mineral Resources is greater than or equal to 60 per cent Fe;
- The cut-off for Brockman Process Ore Mineral Resources is material 50 per cent ≤ Fe < 60 per cent and ≥ 3 per cent Al_2O_3 < 6 per cent (geology domain must be Dales Gorge, Joffre or Footwall Zone).

Processing (Hope Downs 1 North and Hope Downs 1 South West only)

Hope Downs 1 North ore is processed through the Hope Downs 1 dry crushing and screening plant. The ore is blended with ore from other Rio Tinto Iron Ore mine sites to make Pilbara Blend.

Hope Downs 1 South West ore will be processed through the Hope Downs 1 dry crushing and screening plant. It is planned to blend ore from Hope Downs 1 South West with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Hope Downs 1 South West 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.

Modifying factors (Hope Downs 1 North and Hope Downs 1 South West only)

The Hope Downs 1 operation is well established with central administration and workshop facilities. The workforce currently operates on a Fly in Fly out (FIFO) model using the West Angelas airport. Electric power is supplied by generators and additional communications infrastructure will be required to provide adequate communications to the Hope Downs 1 South West mine area. Water for Hope Downs 1 South West will be sourced from bores located to the south and the east of the deposit. These bores will support construction and operations.

The deposits are located within Mining Lease 282SA Section1 which was granted under the Iron Ore (Hope Downs) Agreement Act 1992.

The projects are located in the Hamersley Range, which has rich history of Aboriginal occupation. Ethnographic and archaeological surveys of the area have been completed, and all known sites have been located, recorded and considered during mine planning and engineering activities.

2016 Annual report Ore Reserves table, showing line items relating to the Hope Downs 1 upgrade

		Proved Ore Reserves at end 2016		Probable Ore Reserves at end 2016		Total Ore Reserves 2016 compared with 2015					
	Type (a)	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		Interest %	Recoverable metal
						2016	2015	**2016**	2015		
IRON ORE (b)		millions of tonnes	%Fe	millions of tonnes	%Fe	**millions of tonnes**	millions of tonnes	**%Fe**	%Fe		**Marketable product millions of tonnes**
Reserves at Operating Mines											
Hope Downs JV (Australia)											
- Hope Downs 1 (Marra Mamba ore) (c)	O/P	115	62.4	123	60.6	**238**	195	**61.5**	61.6	50.0	**119**

(a) Type of mine: O/P = open pit (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) Hope Downs 1 (Marra Mamba ore) Reserves tonnes increased due to the inclusion of additional pits.

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2016 Annual report Mineral Resources table, showing line items relating to the Hope Downs 1 changes

	Likely Mining Method (a)	Measured resources		Indicated resources at end 2016		Inferred resources at end 2016		Total resources 2016 compared with 2015				
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		Rio Tinto Interest %
								2016	2015	**2016**	2015	
IRON ORE (b)				millions of tonnes	%Fe	millions of tonnes	%Fe	**millions of tonnes**	millions of tonnes	**%Fe**	%Fe	
Hope Downs JV (Australia)												
- Brockman (d)	O/P	43	62.2	174	62.2	428	62.1	**645**	571	**62.1**	62.3	50.0
- Brockman Process Ore (d)	O/P	56	56.8	123	56.9	219	56.0	**398**	348	**56.4**	56.6	50.0

(a) O/P Open pit
(b) Mineral resources are reported on a dry weight basis.
(d) Hope Down JV Resources have increased as a result of additional drilling and updated geological models. A JORC table 1 in support of these changes will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/JORC.

Koodaideri 38 West / 21 West

Increases in the Ore Reserve estimates for the Koodaideri 38 West / 21 West (38W/21W) deposit are supported by the information set out in Appendix 2 to this release and located at riotinto.com/JORC 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.

Geology, drilling techniques, and geological interpretation:

The Koodaideri 38W/21W deposit is located within the Hamersley Basin of Western Australia, the host to some of the most significant iron ore deposits in the world. Mineralisation at the Koodaideri deposit occurs as hematite-goethite within the Brockman Iron Formation and overlying detrital ores.

Reverse circulation drilling is the predominant form of drilling and totals 1,533 holes for 92,220m. In addition to this 9 diamond drill holes 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.

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.

Sampling, sub-sampling method and sample analysis method

Sub-sampling at the drill rig was carried out using rotary splitters. The sample is then sent to independent and certified laboratories for analysis. At the laboratory, the sample is oven dried at 105 degrees Celsius for a minimum of 24 hours. The sample is then crushed to less than 3mm using a jaw crusher and split to produce a 500g sub-sample. The sub-sample is pulverised to 95 per cent of weight passing 150 µm. Fe, SiO_2, Al_2O_3, P, Mn, MgO, TiO_2, CaO and S are assayed using lithium metaborate fusion and X-Ray Fluorescence (XRF) analysis. Loss on Ignition (LOI) is determined using a Thermo-Gravimetric Analyser (TGA).

Estimation methodology

Modelling was completed using the Rio Tinto Iron Ore Pilbara geological modelling and estimation standards. Ordinary kriging methods were used for the grade estimates.

Criteria used for classification

The Mineral Resource has been classified into the categories of Indicated and Inferred. The determination of the applicable category has considered the relevant factors (geology complexity, mineralisation continuity, sample spacing, data quality, and others as appropriate).

At each deposit the data spacing for each category is typically:

- Indicated Mineral Resources 100m × 50m and 50m × 50m;
- Inferred Mineral Resources 200m × 50m and 100m × 50m.

Note that the same spacing may result in different classification depending on other factors such as, but not limited to, geological complexity and mineralisation continuity.

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Economic assumptions

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.

Mining and recovery factors

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 products tonnage, grades and yields.

Pit optimisation utilising the Lerchs-Grosmann 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, and the mine has been designed to utilise in-pit crushing and conveying to transport ore to a central processing facility.

The geotechnical parameters have been applied based on geotechnical studies informed by assessments of diamond drill holes drilled during the 2011, 2012 & 2013 drilling programmes, specifically drilled for geotechnical purposes on the surrounding host rock.

Processing

The Koodaideri mine has been designed with a dry crushing and screening processing facility similar to processing facilities at other Rio Tinto Iron Ore mining operations. Studies into alternative processing technologies continue, however this has been excluded from this Ore Reserve declaration. The proposed metallurgical process is a well-tested and proven processing methodology, having been utilised at Rio Tinto Iron Ore mining operations for decades.

During drill campaigns in 2003, 2011, 2012 and 2013 a total of 4,857 m of metallurgical diamond drill core (2,858 m PQ and 1,999 m Wide Diameter) were drilled in the Koodaideri 58W and Koodaideri 75W deposits and to a lesser extent Koodaideri 38W/21W. Data obtained from this core formed the basis for metallurgical test work which informed the study for the design of the processing facility and metallurgical models.

Cut-off grades

At Koodaideri 38W/21W:

- The cut-off for Ore reserves is greater than or equal to 60 per cent Fe;
- The cut-off for High Grade Mineral Resources is greater than or equal to 60 per cent Fe;
- The cut-off for Brockman Process Ore Mineral Resources is material meeting the criteria: 50 per cent ≤ Fe < 60 per cent and ≥ 3 per cent Al_2O_3 < 6 per cent and the geology domain must be Dales Gorge, Joffre or Footwall Zone.

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<u>Modifying factors</u>

The Koodaideri deposits are located within existing Mining Lease AM70/00252 (ML252SA), which was granted under the Iron Ore (Mount Bruce) Agreement Act 1972.

Additional tenure is required to connect the mine with the existing Rio Tinto Iron Ore rail network, as well as for roads, power, water and camp locations located outside of the ML252SA. Rio Tinto Iron Ore is currently in the process of negotiating third party consent to facilitate the grant of tenure for rail and ancillary infrastructure corridors.

The project is located in the Hamersley Range, which has rich history of Aboriginal occupation. Ethnographic and archaeological surveys of the area have been completed, and all known sites have been located, recorded and considered during mine planning and engineering activities.

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2016 Annual Report Ore Reserves table, showing line items relating to the Koodaideri upgrade

	Type (a)	Proved Ore Reserves at end 2016		Probable Ore Reserves at end 2016		Total Ore Reserves 2016 compared with 2015				Interest %	Recoverable metal
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade			
						2016	2015	**2016**	2015		
IRON ORE (b)		millions of tonnes	%Fe	millions of tonnes	%Fe	**millions of tonnes**	millions of tonnes	**%Fe**	%Fe		**Marketable product millions of tonnes**
Reserves at development projects											
Hamersley Iron (Australia)											
- Koodaideri (Brockman ore) (c)	O/P	263	62.2	331	61.6	**594**	452	**61.9**	61.8	100.0	**594**

(a) Type of mine: O/P = open pit
(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) Hamersley Iron Koodaideri (Brockman ore) Reserves tonnes increased due to the inclusion of additional pits.

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Hope Downs 2

Increases in the Mineral Resource estimates for the Hope Downs 2 deposit are supported by the information set out in Appendix 3 to this release and located at riotinto.com/JORC 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, drilling techniques, and geological interpretation:

The Hope Downs 2 deposit is located within the Hamersley Basin of Western Australia, the host to some of the most significant iron ore deposits in the world. Hope Downs 2 mineralisation is primarily hosted by the Marra Mamba Iron Formation although detrital mineralisation is also present.

Reverse Circulation (RC) drilling was carried out between 1989 and 2015 and a total of 1,339 holes were completed for 101,984m. In addition to the RC drilling, 14 diamond drill holes for 916m has been carried out to provide bulk density measurements. Geophysical logging was completed for most drill holes employing a suite of down hole tools to obtain calliper and gamma and other data to assist in the interpretation of the stratigraphy.

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.

Sampling, sub-sampling method and sample analysis method

Reverse circulation holes have been sub-sampled using rotary splitters. Samples are then sent for analysis by independent assay laboratories. At the laboratory the sample is dried at 105 degrees Celsius for a minimum of 24 hours. The sample is then crushed to less than 3mm using a jaw crusher and riffle split to produce a 500g sub-sample. The sub-sample is pulverised to 95 per cent of weight passing 150 µm. Fe, SiO_2, Al_2O_3, P, Mn, MgO, TiO_2, CaO and S are assayed using lithium metaborate fusion and X-Ray Fluorescence (XRF) analysis. Loss on Ignition (LOI) is determined using a Thermo-Gravimetric Analyser (TGA).

Estimation Methodology

Modelling was completed using the Rio Tinto Iron Ore Pilbara geological modelling and estimation standards. Ordinary kriging methods were used for the grade estimates.

Criteria used for classification

The Mineral Resource 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 others as appropriate). At this deposit the data spacing for each category is typically:

- Measured Mineral Resources 50m × 50m;
- Indicated Mineral Resources 100m × 50m and 50m × 50m;
- Inferred Mineral Resources 200m × 50m and 100m × 50m.

Note that the same spacing may result in different classification depending on other factors such as, but not limited to, geological complexity and mineralisation continuity.

Cut-off grades

The cut-off grade for high-grade Marra Mamba Mineral Resource at Hope Downs 2 is greater than or equal to 58 per cent Fe.

Mining and Metallurgical Methods and Parameters

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.

It is assumed that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of Hope Downs 2.

It is planned to blend ore from Hope Downs 2 with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Hope Downs 2 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.

No other significant modifying factors have yet been identified.

2016 Annual report Mineral Resources table, showing line items relating to Hope Downs 2 changes

	Likely Mining Method (a)	Measured resources		Indicated resources at end 2016		Inferred resources at end 2016		Total resources 2016 compared with 2015				
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		Rio Tinto Interest %
								2016	2015	**2016**	2015	
IRON ORE (b)				millions of tonnes	%Fe	millions of tonnes	%Fe	**millions of tonnes**	millions of tonnes	**%Fe**	%Fe	
Hope Downs JV (Australia)												
- Marra Mamba (d)	O/P	106	62.7	148	62.0	185	60.7	**439**	396	**61.7**	61.7	50.0
- Detrital (d)	O/P	14	59.1	12	59.0	70	59.7	**96**	70	**59.6**	59.4	50.0

(a) O/P Open pit
(b) Mineral resources are reported on a dry weight basis.
(d) Hope Down JV Resources have increased as a result of additional drilling and updated geological models. A JORC table 1 in support of these changes will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/JORC.

Competent Persons' Statement

The material in this report that relates to Mineral Resources is based on information prepared by Mr Bruce Sommerville, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy.

The material in this report that relates to Ore Reserves is based on information prepared by Mr Chris Tabb, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy.

Mr Sommerville and Mr Tabb are both full-time employees of Rio Tinto.

Mr Sommerville and Mr Tabb have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Each of Mr Sommerville and Mr Tabb consents to the inclusion in the report of the material based on information prepared by him in the form and context in which it appears.

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Hope Downs 1 - Table 1

The following table provides a summary of important assessment and reporting criteria used at the Hope Downs 1 North, Hope Downs 1 South West, and Hope Downs 1 Bedded Hilltop deposits for the reporting of Mineral Resources, and the Hope Downs 1 North and Hope Downs 1 South West deposits for the reporting of 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	<u>General Statements</u> • Samples for geological logging, assay, geotechnical, metallurgical and density test work are collected via drilling. • Diamond core drilling uses double and triple-tube techniques and samples were taken at 1 meter interval. • Metallurgical samples are collected from via diamond core drilling of PQ-3 core. • Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Density measured from accepted gamma-density is corrected for moisture from diamond drill core twinned with reverse circulation drilling. • Mineralisation is determined by a combination of geological logging and assay results. <u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • 2005-2014, drilling programmes were conducted on a north/south grid at 50 m x 50 m collar spacing utilising reverse circulation and diamond drilling. All intervals are sampled. • Reverse circulation drilling utilises a static or rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention on samples collected being of comparable weights. The splitter produces two 8% samples ('A' and 'B') and one 84% reject sample. Primary 'A' sample was collected at 2 m intervals through 8% blades from the outer cone of splitter. • Geotechnical and density samples are collected via diamond core drilling of HQ-3 core. • Density samples are collected via diamond core drilling of PQ-3 core. <u>Hope Downs 1 South West</u> • 2010-2015, drilling programmes were conducted on a north/south grid at 50 m x 50 m collar spacing utilising reverse circulation and diamond drilling. All intervals are sampled. • Reverse circulation drilling utilises a rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention on samples collected being of comparable weights. The rotary cone splitter produces two 8% samples ('A' and 'B') and one 84% reject sample. Primary 'A' sample was collected at 2 m intervals through 8% blades from the outer cone of rotary cone splitter. • Geotechnical and density samples are collected via diamond core drilling of HQ-3 core. • Density samples are collected via diamond core drilling of PQ-3 core. <u>Hope Downs 1 Bedded Hilltop</u> • 2012-2015, drilling programmes were conducted on a north/south grid at 200 m x 100 m collar spacing utilising reverse circulation drilling. All intervals are sampled. • Reverse circulation drilling utilises a rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention on samples collected being of comparable weights. The rotary cone splitter produces two 8% samples ('A' and 'B') and one 84% reject sample. Primary 'A' sample was collected at 2 m intervals through 8% blades from the outer cone of rotary cone splitter.
Drilling techniques	<u>General Statements</u> • The majority of drilling is oriented vertically. • Reverse circulation drilling utilises 140 mm diameter face sampling bit with sample shroud, attached to pneumatic piston hammer used to penetrate ground and deliver sample up 6 m drill rod inner tubes (4 m starter rod) through to the cyclone and cone splitter with the aid of rig and auxiliary booster compressed air. <u>Deposit Specific Statements</u>

	Hope Downs 1 North • Drilling is predominantly reverse circulation (representing approximately 89% of the total dataset used in geological interpretation) with a lesser proportion of percussion, dual rotary and diamond drill core (Refer to Section 2, Drill hole Information, for a detailed breakdown of drilling by method and year). • Geotechnical diamond core was oriented using the ACE orientation tool, which marks the bottom of core at the end of each run. • Diamond drilling was a combination of HQ and PQ core sizes (HQ-3 = 61.1 mm core diameter and PQ-3 = 83.0 mm core diameter) using double and triple tube techniques. • Most holes were drilled wet from surface, using water injection to mitigate risks associated with fibrous mineral intersection in Marra Mamba Formation. • Pre-1995, reverse circulation holes were predominantly drilled using dry methods, although wet samples were common below the water table. Hope Downs 1 South West • Drilling is predominantly reverse circulation (representing approximately 96% of total dataset used in geological interpretation) with a lesser proportion of percussion, dual rotary and diamond drill core (Refer to Section 2, Drill hole Information, for a detailed breakdown of drilling by method and year). • Geotechnical diamond core was oriented using the ACE orientation tool, which marks the bottom of core at the end of each run. • Diamond drilling was a combination of HQ and PQ core sizes (HQ-3 = 61.1 mm core diameter and PQ-3 = 83.0 mm core diameter) using double and triple tube techniques. • The majority of 2010-2015 holes were drilled wet from surface using water injection to mitigate risks associated with fibrous mineral intersection in Marra Mamba Formation. • Pre-2000 reverse circulation holes were drilled dry. Hope Downs 1 Bedded Hilltop • Drilling is predominantly reverse circulation with a lesser proportion of percussion, dual rotary and diamond drill core (Refer to Section 2, Drill hole Information, for a detailed breakdown of drilling by method and year). • Pre 2013; all reverse circulation holes were dry drilled and 2013-2015 programmes were wet drilled. • Diamond drilling was at PQ core size (PQ-3 = 83.0 mm core diameter) using double and triple tube techniques.
Drill sample recovery	General Statements • No direct recovery measurements of reserve circulation samples are performed. Sample weights are recorded at laboratory as sample received and at the rig is qualitatively estimated for loss per drilling interval. • Diamond core recovery is maximised via the use of triple-tube sampling and additive drilling muds. • Diamond core recovery is recorded using rock quality designation (RQD) measurements with all cavities and core loss recorded in the Rio Tinto Iron Ore acQuire™ database. • Sample recovery in some friable mineralisation may be reduced; however, it is unlikely to have had a material impact on the reported assays for those intervals. • Thorough analysis of duplicate sample performance does not indicate any chemical bias as a result of inequalities in samples weights.
Logging	General Statements • All drill holes are geologically logged utilising standard Rio Tinto Iron Ore Material Type Classification Scheme (RTIO MTCS) logging codes and entered into the acQuire™ database package on field Toughbook laptops. • Internal training and validation of logging includes RTIO MTCS identification and calibration workshops, peer reviews and validation of logging verses assay results. • Geological logging is performed on 2 m intervals for all reverse circulation drilling, and either 1 m or 2 m intervals for diamond holes, depending on the level of detail required. • All diamond drill core is photographed digitally and files stored on Rio Tinto network servers. • Magnetic Susceptibility readings taken using a Kappameter for each interval. • Since 2001, all drill holes have been geophysically logged using downhole tools for gamma trace, calliper, gamma density, resistivity, and magnetic susceptibility. • Open-hole acoustic and optical televiewer image data have been collected in specific reverse circulation and diamond drill core holes throughout the deposit for structural analyses. Deposit Specific Statements

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<u>Hope Downs 1 North</u>

Data collected from pre-2000 campaigns was recorded on paper logs, and mineral constituents resolved predominantly to 5%, with 1% resolutions also used (rarely) for minor or trace constituents.

<u>Hope Downs 1 South West</u>

Data collected from pre-2000 campaigns was recorded on paper logs, and mineral constituents resolved predominantly to 5%, with 1% resolutions also used (rarely) for minor or trace constituents.

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<td>Sub-sampling techniques and sample preparation</td>
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<u>Deposit Specific Statements</u>

<u>Hope Downs 1 North</u>
Sub-sampling techniques:

Pre-1995:
Reverse circulation drilling samples were collected from a rig-mounted, multi-level riffle with a split ratio of 7.5% with an 85% reject.
1995-1999:
Reverse circulation drilling samples were collected in calico bags using a four tier Jones riffle splitter producing two samples with a split ratio of 7.5% with an 85% reject.
2005-2014:
Reverse circulation drilling samples were collected using a static and rotary cone splitter beneath a cyclone return system, producing approximate splits of:

‘A’ Split – Analytical sample – 8%
‘B’ Split – Retention sample – 8%
Bulk Reject – 84%.

Sample preparation:

2005-2014:

‘A’ split sample dried at 105° C.
Sample crushed to -3 mm using Boyd Crusher and split using a linear and rotary sample divider to capture 1 – 2.5 kg samples.
Robotic and Manual LM5 used to pulverise total sample (1 – 2.5 kg) to 90% of weight passing 150 micrometers (μm) sieve.
A 100 gram sub sample collected for analysis.
Diamond drill core samples are crushed to -6 mm particle size (whole core sample) and follow reverse circulation sample preparation if they are to be assayed.

Pre-2005:
Drilling was conducted by Hancock Prospecting Pty Ltd, and details of sample preparation are not available.

<u>Hope Downs 1 South West</u>
Sub-sampling techniques:

2012-2015:
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 splits of:

‘A’ Split – Analytical sample – 8%
‘B’ Split – Retention sample – 8%
Bulk Reject – 84%.

Sample preparation:

2012-2015:

‘A’ split sample dried at 105° C.
Sample crushed to -3 mm using Boyd Crusher and split using a linear and rotary sample divider to capture 1 – 2.5 kg samples.
Robotic and Manual LM5 used to pulverise total sample (1 – 2.5 kg) to 90% of weight passing 150 micrometers (μm) sieve.
A 100 gram sub sample collected for analysis.
Diamond drill core samples are crushed to -6 mm particle size (whole core sample) and follow reverse circulation sample preparation if they are to be assayed.

Prior to 2010:
Drilling was conducted by Hancock Prospecting Pty Ltd, and details of sampling procedures are not available.

Hope Downs 1 Bedded Hilltop
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	Sub-sampling techniques:
	• 2012-2015:
	  ○ 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 splits of:
	    ▪ 'A' Split – Analytical sample – 8%
	    ▪ 'B' Split – Retention sample – 8%
	    ▪ Bulk Reject – 84%.
	
	Sample preparation:
	• 2012-2015:
	  ○ 'A' split sample dried at 105° C.
	  ○ Sample crushed to -3 mm using Boyd Crusher and split using a linear and rotary sample divider to capture 1 – 2.5 kg samples.
	  ○ Robotic and Manual LM5 used to pulverise total sample (1 – 2.5 kg) to 90% of weight passing 150 micrometers (µm) sieve.
	  ○ A 100 gram sub sample collected for analysis.
	  ○ Diamond drill core samples are crushed to -6 mm particle size (whole core sample) and follow reverse circulation sample preparation if they are to be assayed.

Quality of assay data and laboratory tests	<u>Deposit Specific Statements</u>
	
	<u>Hope Downs 1 North</u>
	Assay methods:
	• An X-Ray Fluorescence (XRF) analysis is conducted to determine:
	  ○ Pre-2005:
	    ▪ Fe, SiO_2, Al_2O_3, TiO_2, Mn, CaO, P, S, K_2O, Na_2O.
	  ○ 2005-2014:
	    ▪ 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, Na.
	• Loss on Ignition (LOI) is determined using industry standard Thermo-Gravimetric Analyser (TGA):
	  ○ Pre-2005:
	    ▪ LOI was measured at 371° C for moisture associated with goethite and at 1000° C for moisture associated with goethite and clay minerals.
	  ○ 2005-2014:
	    ▪ LOI was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C.
	• Samples are dispatched to Perth for preparation and analytical testing:
	  ○ Pre-2005:
	    ▪ Samples were submitted to Analabs/SGS Australia Pty Ltd.
	  ○ 2005-2008 and 2010-2013:
	    ▪ Samples were submitted to Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories).
	  ○ 2009:
	    ▪ Samples were submitted to both Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories) and Analabs/ SGS Australia Pty Ltd.
	  ○ 2014:
	    ▪ Samples were submitted to Genalysis Laboratory Services Pty Ltd.
	
	Quality assurance measures include:
	• 2005-2014:
	  ○ Insertion of coarse reference standard by Rio Tinto Iron Ore 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 is 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).
	  ○ Coarse reference standards contain a trace of strontium carbonate that is added at the time of preparation for ease of identification.
	  ○ Field duplicates were collected by sacrificing a 'B' split retention sample directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc is included in the duplicate sample for later identification.
	  ○ At a frequency of one in 20, -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 identify grouping, segregation and delimitation errors.

- Internal laboratory quality assurance and quality control measures involve the use of internal laboratory standards using certified reference material in the form of pulps, blanks and duplicates were inserted in each batch.
- Random re-submission of pulps at an external laboratory is performed following analysis.
- Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to third party (Geostats) as part of Rio Tinto Iron Ore quality assurance and quality control (RTIO QA/QC) procedures to attained analytical precision and accuracy.
- Analysis of the performance of certified standard and field duplicates has indicated an acceptable level of accuracy and precision with no significant bias.

- Pre-2005:
  - QA/QC practices and results are variably documented and some quality issues have been identified.
  - Overall the work conducted over this period was at an acceptable standard, however where uncertainty exists that data has been excluded.

<u>Hope Downs 1 South West</u>

Assay methods:

- All assaying of samples used in Mineral Resource estimates have been performed by independent, National Association of Testing Authorities (NATA) certified laboratories.
- An X-Ray Fluorescence (XRF) analysis is conducted to determine:
  - Pre-2010:
    - Fe, SiO_2, Al_2O_3, TiO_2, Mn, CaO, P, S, K_2O, Na_2O.
  - 2010-2016:
    - 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, Na.
    -
- Loss on Ignition (LOI) is determined using industry standard Thermo-Gravimetric Analyser (TGA):
  - Pre-2010:
    - LOI was measured at 371° C for moisture associated with goethite and at 1000° C for moisture associated with goethite and clay minerals.
  - 2010-2016:
    - LOI was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C.
- Samples were dispatched to Perth for preparation and analytical testing:
  - 1993-1999:
    - Samples were submitted to SGS Australia Pty Ltd.
  - 2010-2013:
    - Samples were submitted to Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories).
  - 2014-2016:
    - Samples were submitted to Genalysis Laboratory Services Pty Ltd.

Quality assurance measures include:

- Insertion of coarse reference standard by Rio Tinto Iron Ore 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 is 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).
- Coarse reference standards contain a trace of strontium carbonate that is added at the time of preparation for ease of identification.
- Field duplicates were collected by sacrificing a 'B' split retention sample directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc is included in the duplicate sample for later identification.
- At a frequency of one in 20, -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 identify grouping, segregation and delimitation errors.
- Internal laboratory quality assurance and quality control measures involve the use of internal laboratory standards using certified reference material in the form of pulps, blanks and duplicates were inserted in each batch.
- Random re-submission of pulps at an external laboratory is performed following analysis.
- Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to third party (Geostats) as part of Rio Tinto Iron Ore

	quality assurance and quality control (RTIO QA/QC) procedures to attained analytical precision and accuracy.
	• Analysis of the performance of certified standard and field duplicates has indicated an acceptable level of accuracy and precision with no significant bias.
	
	<u>Hope Downs 1 Bedded Hilltop</u>
	Assay methods:
	• All assaying of samples used in Mineral Resource estimates have been performed by independent, National Association of Testing Authorities (NATA) certified laboratories.
	• 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, Na are assayed using industry standard lithium tetraborate and lithium metaborate fusion and X-Ray Fluorescence (XRF) analytical technique.
	• Loss on Ignition (LOI) is determined using industry standard Thermo-Gravimetric Analyser (TGA) and was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C.
	• Samples were dispatched to Perth for preparation and analytical testing:
	  o 2012-2013:
	    ▪ Samples were submitted to Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories).
	  o 2014-2015:
	    ▪ Samples were submitted to Genalysis Laboratory Services Pty Ltd.
	
	Quality assurance measures include:
	• 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 is 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).
	• Coarse reference standards contain a trace of strontium carbonate that is added at the time of preparation for ease of identification.
	• Field duplicates were collected by sacrificing a 'B' split retention sample directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc is included in the duplicate sample for later identification.
	• At a frequency of one in 20, -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 identify grouping, segregation and delimitation errors.
	• Internal laboratory quality assurance and quality control measures involve the use of internal laboratory standards using certified reference material in the form of pulps, blanks and duplicates were inserted in each batch.
	• Random re-submission of pulps at an external laboratory is performed following analysis.
	• Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to third party (Geostats) as part of Rio Tinto Iron Ore quality assurance and quality control (RTIO QA/QC) procedures to attained analytical precision and accuracy.
	• Analysis of the performance of certified standard and field duplicates has indicated an acceptable level of accuracy and precision with no significant bias.

Verification of sampling and assaying	<u>General Statements</u> • Comparison of reverse circulation and twinned diamond drill core assay data distributions show that the drilling methods have similar grade distributions verifying the suitability of reverse circulation samples in the Mineral Resource estimate. • Field data was logged directly onto field Toughbook laptops using pre-formatted and validated logging templates, with details uploaded to the acQuire™ database on a daily basis. • Assay data is returned electronically from the laboratory and uploaded into the acQuire™ database. • 2012-2015, assay data were only accepted in the acQuire™ database once the quality control process undertaken utilising Batch Analysis tool. • 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 is 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.
Location of data points	<u>General Statements</u> • Drill hole collar reduced level (RL) data is compared to detailed topographic maps and shows that the collar survey data is accurate.

	• Down-hole surveys are conducted on nearly every hole, with the exception of collapsed or otherwise hazardous holes; any significant, unexpected deviations are investigated and validated. Holes greater than 100 m depth are generally surveyed with an in-rod gyro tool. <u>Deposit Specific Statements</u> Hope Downs 1 North • Details on collars for pre-2005 holes were not available; field reviews have been successful in locating drill holes in some instances. • From 2005 onwards, all drill hole collar locations at the Hope Downs 1 North deposit have been surveyed to Geocentric Datum of Australia 1994 (GDA94) grid by qualified surveyors using Differential Global Positioning System (DGPS) survey equipment, accurate to within10 cm in both horizontal and vertical directions. • Pre-2006, survey validation processes were poorly documented but deemed to be low risk. • From 2006 onwards, all collar survey data is validated by checking actual versus planned coordinate discrepancies. • The pre-mining topographic surface for the Hope Downs 1 North area utilised the 2006 high resolution aerial photography, merged with the lower resolution Light Detecting and Ranging (LiDAR) data. Drill holes have not been registered to topography, as it is assumed that the collar pick up data is generally more reliable. <u>Hope Downs 1 South West</u> • All pre-2010 holes were resurveyed by Rio Tinto Iron Ore in 2008. • From 2010 onwards, all drill hole collar locations at the Hope Downs 1 South West deposit have been surveyed to Geocentric Datum of Australia 1994 (GDA94) grid by qualified surveyors using Differential Global Positioning System (DGPS) survey equipment, accurate to 10 cm in both horizontal and vertical directions. • Collar location data is validated by checking actual versus planned coordinate discrepancies. Once validated, the survey data is uploaded into the drill hole database. • All holes interpreted and used in the resource model have surveyed coordinates. Holes with suspect collar coordinates were excluded from the data set. • The topographic surface has been derived from a 5 m resolution composite surface developed from surface mapping and Light Detecting and Ranging (LiDAR) data from 1995-2014. Accuracy of the topographic surface is further enhanced by incorporation of additional spot height data including the validated DGPS hole collar points generated in each successive drilling campaign. <u>Hope Downs 1 Bedded Hilltop</u> • From 2012 onwards, all drill hole collar locations at the Hope Downs 1 Bedded Hilltop deposit are surveyed to Geocentric Datum of Australia 1994 (GDA94) grid by qualified surveyors using Differential Global Positioning System (DGPS) survey equipment, accurate to 10 cm in both horizontal and vertical directions. • The topographic surface is based on 10 m grid sampling of the 2015 Light Detecting and Ranging (LiDAR) survey, including spot heights from DGPS drilling collars and is considered robust.
Data spacing and distribution	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Drill hole spacing is predominately 50 m x 50 m, widening to between 100 m x 50 m to 200 m x 100 m on the extremities of the deposit. • The drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied. • The mineralised domains for the Hope Downs 1 North deposit have demonstrated sufficient continuity in both geology and grade to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code guidelines. <u>Hope Downs 1 South West</u> • Drill hole spacing is predominately 50 m x 50 m with some areas at 100 m x 50 m and 200 m x 100 m. • Overall drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied. • The mineralised domains for the Hope Downs 1 South West deposit have demonstrated sufficient continuity in both geology and grade to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code guidelines.

	Hope Downs 1 Bedded Hilltop • Drill spacing is predominantly 200 m x 100 m. • The drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied. • The mineralised domains for the Hope Downs 1 Bedded Hilltop deposit have demonstrated sufficient continuity in both geology and grade to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code guidelines.
Orientation of data in relation to geological structure	Deposit Specific Statements Hope Downs 1 North • Drill lines are oriented north/south, perpendicular to the deposit strike. • The majority of drilling is completed vertically due to restrictions commonly encountered with ground conditions. Mineralisation varies from broadly horizontal to deep vertical features, resulting in a range of orientations being intersected during drilling. • While mineralisation is frequently intersected at an angle, the orientation of mineralisation relevant to drilling is not considered likely to have introduced any material sampling bias. Hope Downs 1 South West • Drill lines are oriented north/south, perpendicular to the deposit strike. • The deposit is located on the south eastern end of a regional anticline, and the general stratigraphic dip is gently dipping (varying between 10° to 40°) to the south with minor parasitic folding throughout and a large thrust fault through the centre of the deposit. • Reverse circulation drilling is predominantly vertical and intersects the gently undulating stratigraphy approximately at right angles. • Where applicable selected holes have been angled (70°-85°) to facilitate intersection of the prevailing stratigraphy at right angles, and to obtain downhole optical and acoustic televiewer data. Hope Downs 1 Bedded Hilltop • Drill lines are oriented north/south, perpendicular to the deposit strike. • Reverse circulation drilling is predominantly vertical and intersects the folded stratigraphy at right angles.
Sample security	General Statements • The sample chain of custody is managed by Rio Tinto Ltd. • Analytical samples (‘A’ splits) are collected by field assistants, placed onto steel sample racks and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. • Retention samples (‘B’ splits) are collected and stored in drums at on-site facilities. • 150 grams of excess pulps from primary samples is retained indefinitely at laboratories and external storage facilities at CTI Logistics Ltd in Perth, Western Australia.
Audits or reviews	General Statements • No external audits have been performed specifically on sampling techniques or data. • Inter-lab checks were performed in 2014 and 2015. A collection of coarse retentions from randomly distributed drill holes across Hope Downs deposits were sent by Genalysis Laboratory Services Pty Ltd to Australian Laboratory Services Pty Ltd and Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories). Results of the re-analysed coarse retentions were sent by electronic distribution to Rio Tinto Iron Ore geologists for analysis. No conflicted results 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.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	Commentary

Mineral tenement and land tenure status	<u>General Statements</u>
	• The tenement on which the deposits are located is subject to the Hope Downs Joint Venture Agreement. The present ownership of the joint venture and the tenement is as follows:
	  ○ Hope Downs Iron Ore Pty Ltd 50%; and
	  ○ Hamersley WA Pty Ltd 50%.
	• The deposits lie wholly within Mining lease M282SA (Sec 001) granted 31/03/2006.

Exploration done by other parties	<u>Deposit Specific Statements</u>
	
	<u>Hope Downs 1 North</u>
	• Exploration was completed by Hancock Prospecting Pty Ltd during various programs between 1971 and 1999.
	• The pre-2005 phase of exploration by Hancock Prospecting Pty Ltd included:
	  ○ 262 Percussion holes;
	  ○ 523 Reverse circulation holes;
	  ○ 108 Diamond holes.
	
	<u>Hope Downs 1 South West</u>
	• Prior to 2010, Hancock Prospecting Pty Ltd drilled 92 percussion holes and one diamond hole between 1993 and 1999. The type of percussion is unknown and is assumed to be reverse circulation.
	• 12 reverse circulation drill holes along the rail corridor to the south of the bedded deposit were drilled by BHP Billiton Iron Ore Pty Ltd in 2014 and information provided to Rio Tinto Iron Ore in 2015.
	
	<u>Hope Downs 1 Bedded Hilltop</u>
	• 19 reverse circulation drill holes were drilled by Hancock Prospecting Ltd Pty between 1996 and 1998.
	• 7 reverse circulation drill holes along the rail corridor to the north of the bedded deposit were drilled by BHP Billiton Iron Ore Pty Ltd in 2014 and information provided to Rio Tinto Iron Ore in 2015.

Geology	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Hope Downs 1 North deposit is located at the eastern closure of a regional fold structure referred to as the Weeli Wolli Anticline. • It is classified as a Marra Mamba Iron Formation hosted deposit and is divided into four areas: North-West, Flat Top, North-East 1 and North-East 3. • The iron mineralisation consists of various types of enrichment, broadly subdivided into the iron formation-hosted "bedded" mineralisation style and weathering/redeposition products termed "detrital". <u>Hope Downs 1 South West</u> • The deposit contains both detrital and bedded-hosted iron mineralisation. • Bedded mineralisation is hosted within the Mount Newman Member of the Marra Mamba Iron Formation. It is located within a complex geological setting that is thrust faulted, folded and overlain in part with detrital mineralisation. • Detrital mineralisation is predominantly Marra Mamba derived Red Ochre Detrital (ROD). <u>Hope Downs 1 Bedded Hilltop</u> • The deposit contains both detrital and bedded-hosted iron mineralisation. • The bedded-hosted iron mineralisation occurs as a high-phosphorus Brockman Iron Formation deposit with a weathering overprint. • The detrital mineralisation is a Brockman Iron Formation-derived detrital iron deposit overlying the north/central portion of the bedded Dales Gorge Member of the Archean Brockman Iron Formation. • The geology is typically flat with some gentle folding.
Drill hole Information	<u>Deposit Specific Statements</u>

Criteria	Commentary

Hope Downs 1 North

- Summary of drilling data used for the Hope Downs 1 North Mineral Resource estimate:

Year	Diamond Holes		Reverse Circulation		Percussion (Open hole)	
	# Holes	Metres	# Holes	Metres	# Holes	Metres
Pre-2005	90	13,510	559	53,835	167	15,607
2005	2	263	174	21,308	-	-
2006	2	388	804	71,856	-	-
2008	-	-	17	1,822	-	-
2009	-	-	19	2,034	-	-
2010	-	-	164	20,627	-	-
2011	-	-	35	4,384	-	-
2013	-	-	42	5,166	-	-
2014	-	-	78	2,730	-	-
Total	**94**	**14,161**	**1,892**	**183,762**	**167**	**15,607**

- An additional 93 drill holes were used for geological interpretation only.
- A total of 283 drill holes were excluded from the dataset, due mainly to unreliable or incomplete assay and/or collar survey data. Excluded holes include:
  - 96 Percussion holes for 5,199 m;
  - 148 Reverse circulation holes for 14,398 m;
  - 39 Diamond holes for 4,406.3 m.

Hope Downs 1 South West

- Summary of drilling data used for the Hope Downs 1 South West Mineral Resource estimate:

Year	Diamond Holes		Reverse Circulation		Percussion (Open hole)	
	# Holes	Metres	# Holes	Metres	# Holes	Metres
Pre-2010	1	263			-	-
2010	-	-	45	3,715	-	-
2011	10	634.7	40	4,954	-	-
2012	-	-	158	16,085	-	-
2013	21	1,581.9	302	26,140	-	-
2014	9	1,026.05	1151	81,080	-	-
2015	-	-	172	12,120	-	-
Total	**41**	**3,505.65**	**1,868**	**144,094**	**0**	**0**

- An additional 154 drill holes were used for geological interpretation only.
- A total of 12 BHP Billiton Iron Ore Pty Ltd holes (2,202 m) from 2014 were excluded from estimation due to lack of QA/QC data.
- A total of 3 drill holes (all pre-2000 percussion) for 405 m were excluded from the dataset, due to unreliable or incomplete assay and/or collar survey data.

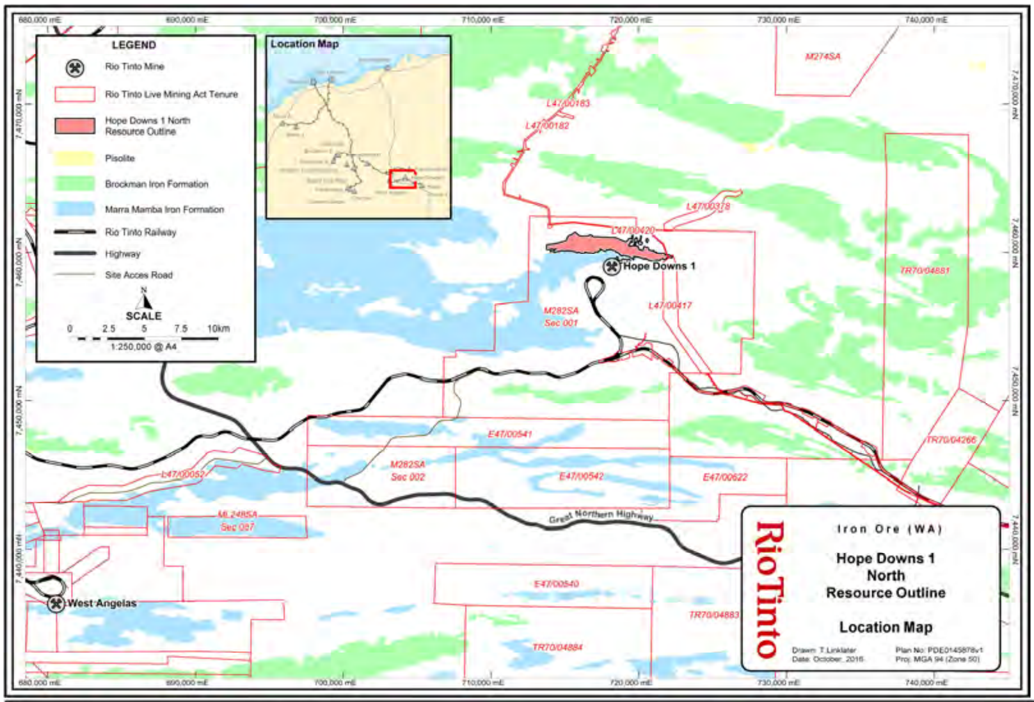
Hope Downs 1 Bedded Hilltop

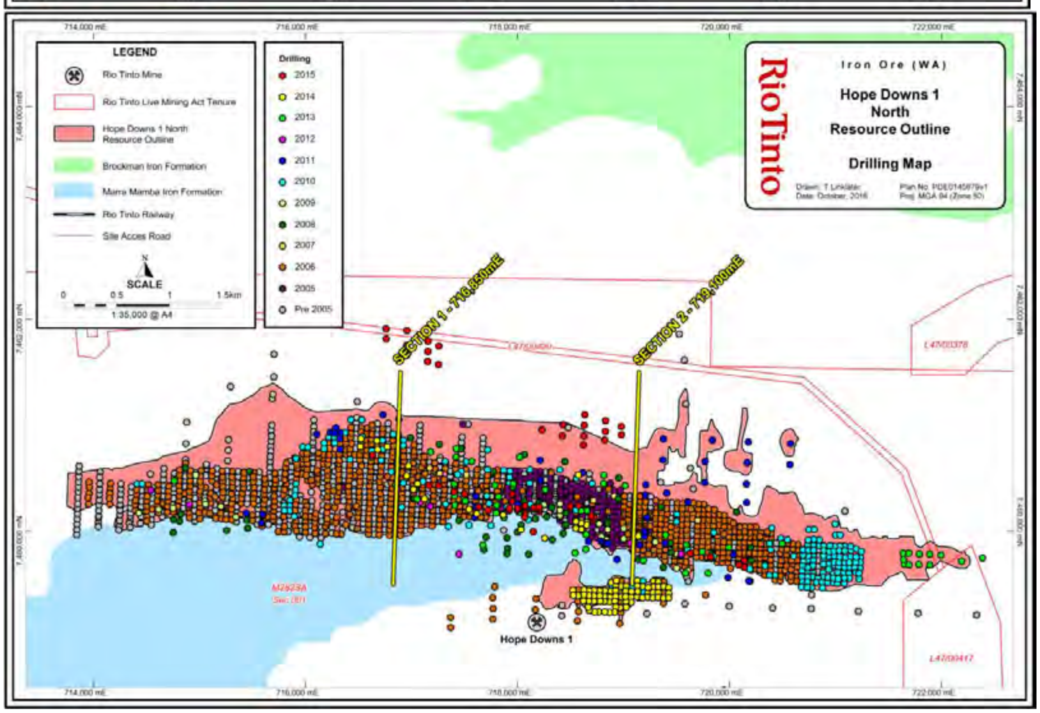
- Summary of drilling data used for the Hope Downs 1 Bedded Hilltop Mineral Resource estimate:

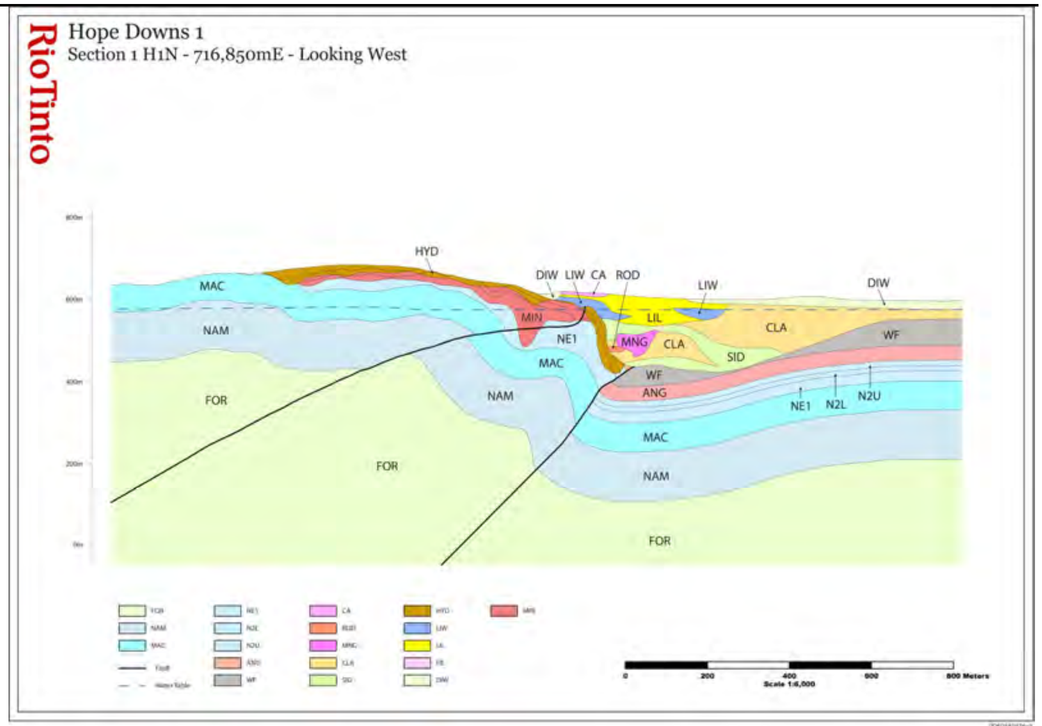
Year	Diamond Holes		Reverse Circulation		Percussion (Open hole)	
	# Holes	Metres	# Holes	Metres	# Holes	Metres
2012	-	-	51	5,006	-	-
2013	-	-	57	3,552	-	-

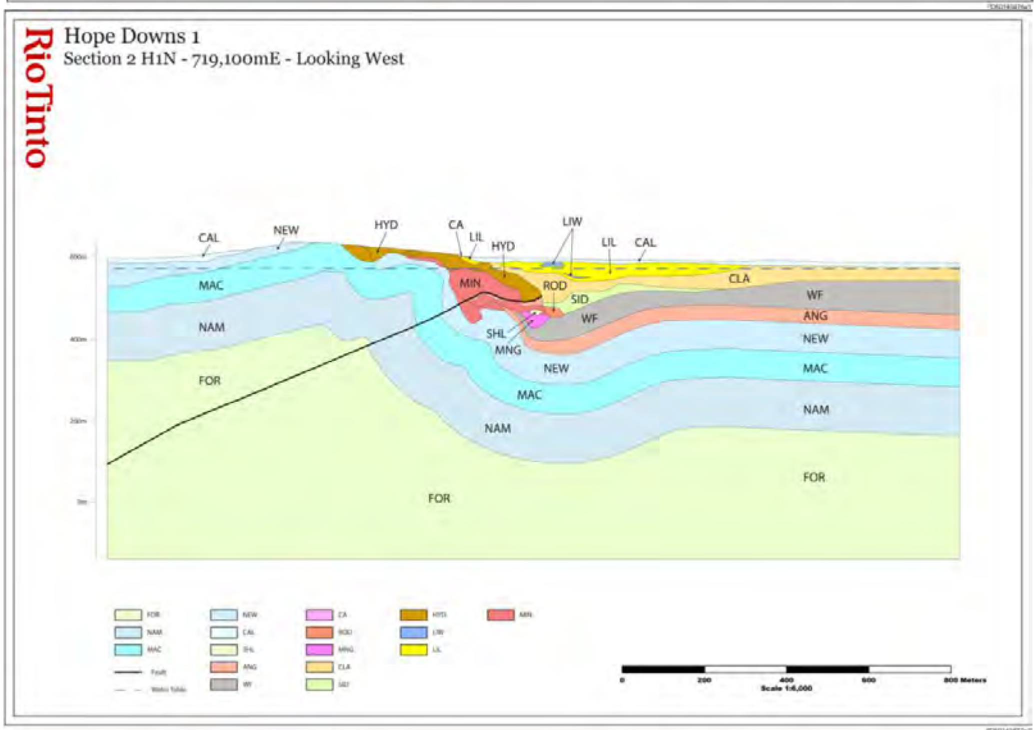
Criteria	Commentary
	<table><tr><td>2014</td><td>-</td><td>-</td><td>19</td><td>2,824</td><td>-</td><td>-</td></tr><tr><td>2015</td><td>-</td><td>-</td><td>123</td><td>6,690</td><td>-</td><td>-</td></tr><tr><td>**Total**</td><td>**0**</td><td>**0**</td><td>**250**</td><td>**18,072**</td><td>**0**</td><td>**0**</td></tr></table> • An additional 19 holes drilled by Hancock Prospecting Pty Ltd between 1996 and 1998 were excluded from estimation due to lack of QA/QC data. • Seven BHP Billiton Iron Ore Pty Ltd holes (1,110 m) from 2014 were excluded from estimation due to lack of QA/QC data. • Three diamond holes (301.5 m) were excluded due to a lack of assay data.
Data aggregation methods	General Statements • All assay, geology, and density data have been composited to 2 m for Mineral Resource modelling and estimation. • No grade truncations are performed.
Relationship between mineralisation widths and intercept lengths	Deposit Specific Statements Hope Downs 1 North • Intervals are reported as down-hole depths. Given the variable folding of the strata and associated mineralisation this often results in down-hole intercepts significantly greater than true widths. • The difference between down-hole and true thickness is resolved graphically via sectional and three dimensional interpretation of mineralisation boundaries based on the prevailing bedding, stratigraphic and structural controls. Hope Downs 1 South West • Drilling programs have been designed to intersect dipping mineralised sequences as close as practically possible to perpendicular. • In general down-hole intercept lengths are deemed to provide an acceptable representation of true mineralisation widths at Hope Downs 1 South West due to vertical or near-vertical drilling and predominance of gently dipping to moderately undulating strata. • The difference between down-hole and true thickness is resolved graphically via sectional and three dimensional interpretation of mineralisation boundaries based on the prevailing bedding, stratigraphic and structural controls. Hope Downs 1 Bedded Hilltop • Down-hole interval lengths reported are essentially true width due to vertical drilling and gently dipping or horizontal strata.

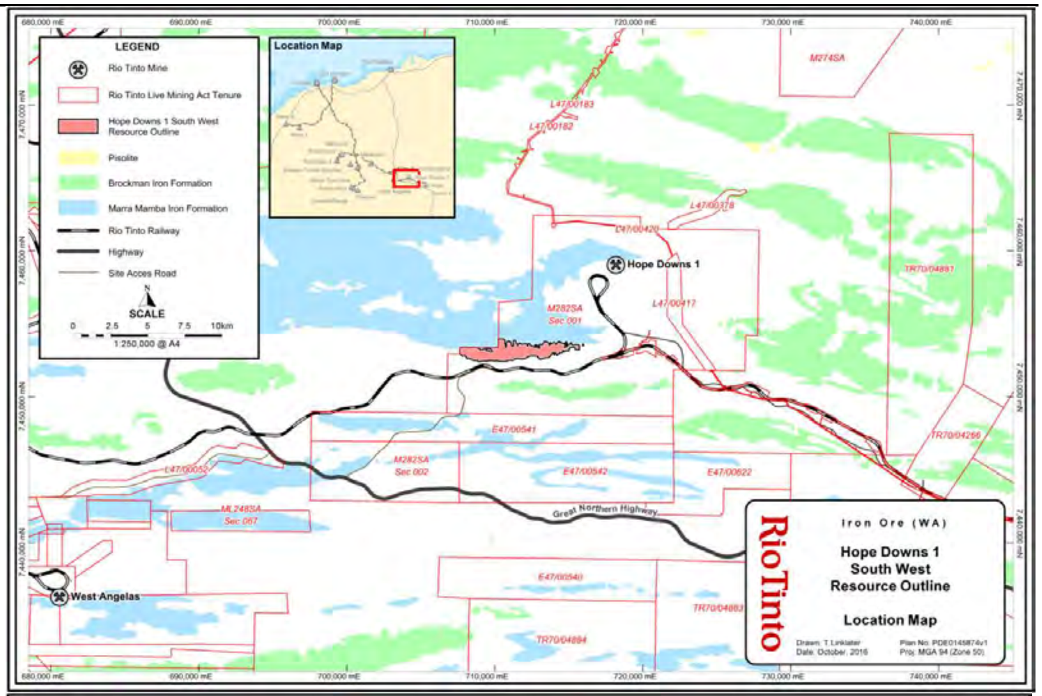
Diagrams

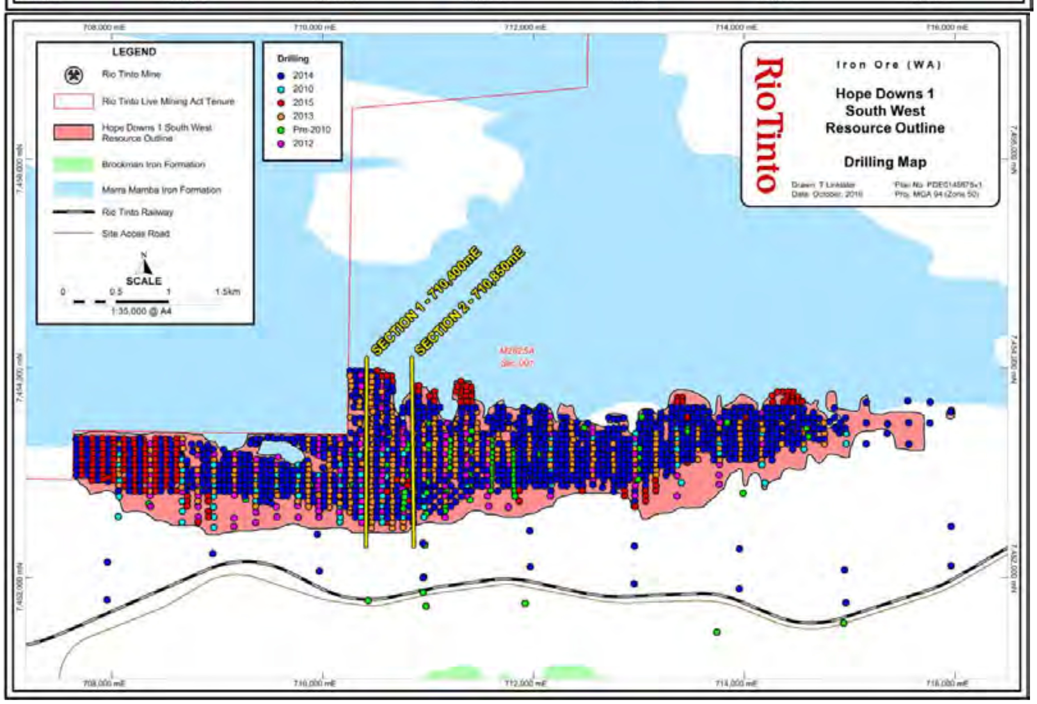

LEGEND
Rio Tinto Mine
Rio Tinto Live Mining Act Tenure
Hope Downs 1 North Resource Outline
Pisolite
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Highway
Site Acces Road
SCALE
1:250,000 @ A4
Location Map
Hope Downs 1
West Angelas
Great Northern Highway
M274SA
L47/00183
L47/00182
L47/00378
L47/00420
L47/00417
M282SA Sec 001
M282SA Sec 002
TR70/04881
TR70/04266
TR70/04883
TR70/04884
E47/00541
E47/00542
E47/00622
E47/00540
L47/00052
RioTinto
Iron Ore (WA)
Hope Downs 1
North
Resource Outline
Location Map

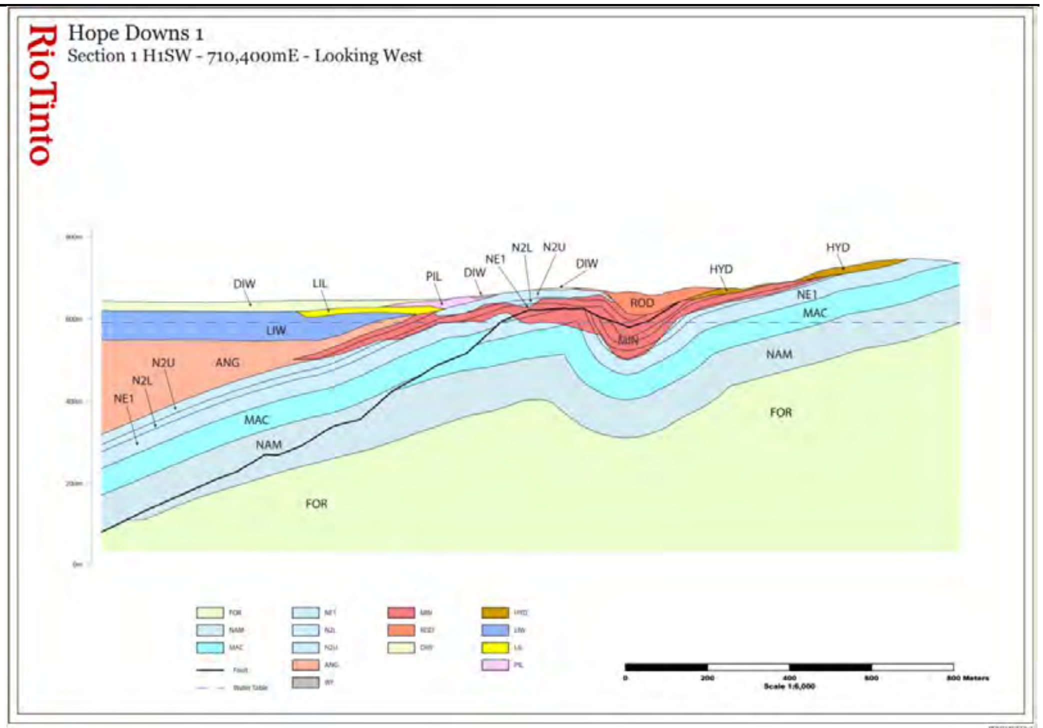

LEGEND
Rio Tinto Mine
Rio Tinto Live Mining Act Tenure
Hope Downs 1 North Resource Outline
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Site Acces Road
SCALE
1:35,000 @ A4
Drilling
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
Pre 2005
RioTinto
Iron Ore (WA)
Hope Downs 1
North
Resource Outline
Drilling Map
SECTION 1 - 716,850mE
SECTION 2 - 719,100mE
L47/00378
L47/00417
Hope Downs 1

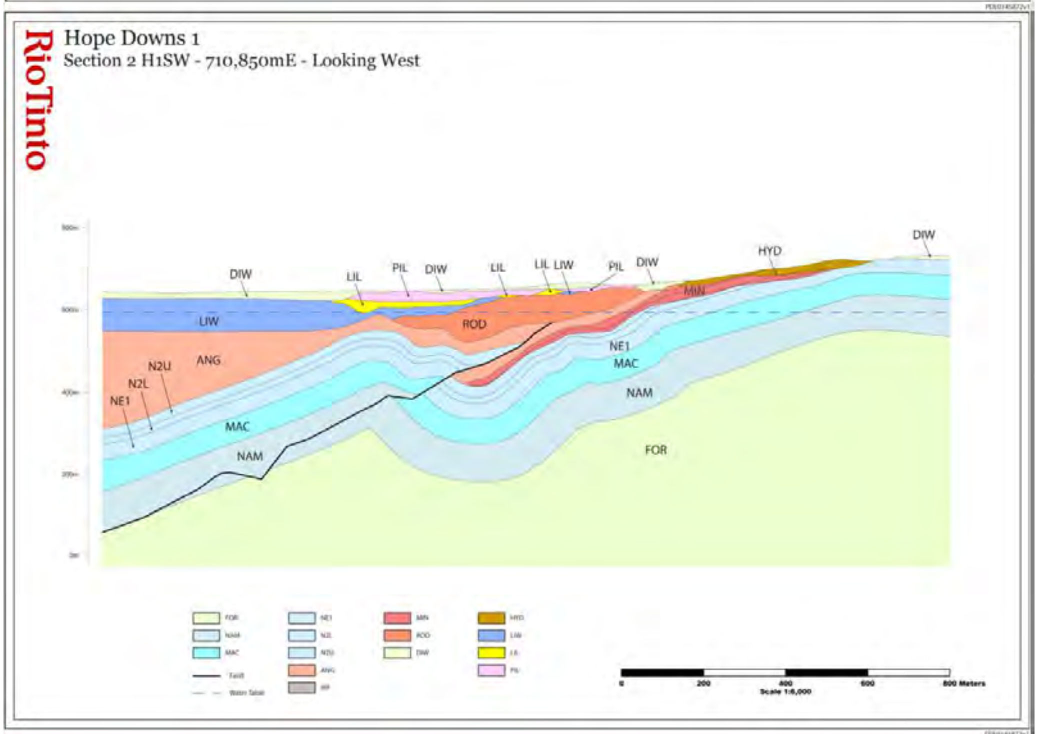

RioTinto
Hope Downs 1
Section 1 H1N - 716,850mE - Looking West
HYD
MAC
DIW LIW CA ROD
LIW
DIW
MIN
LIL
NAM
NE1
MNG
CLA
CLA
WF
SID
MAC
WF
ANG
FOR
NAM
NE1 N2L N2U
MAC
FOR
NAM
FOR
0 200 400 600 800 Meters
Scale 1:6,000

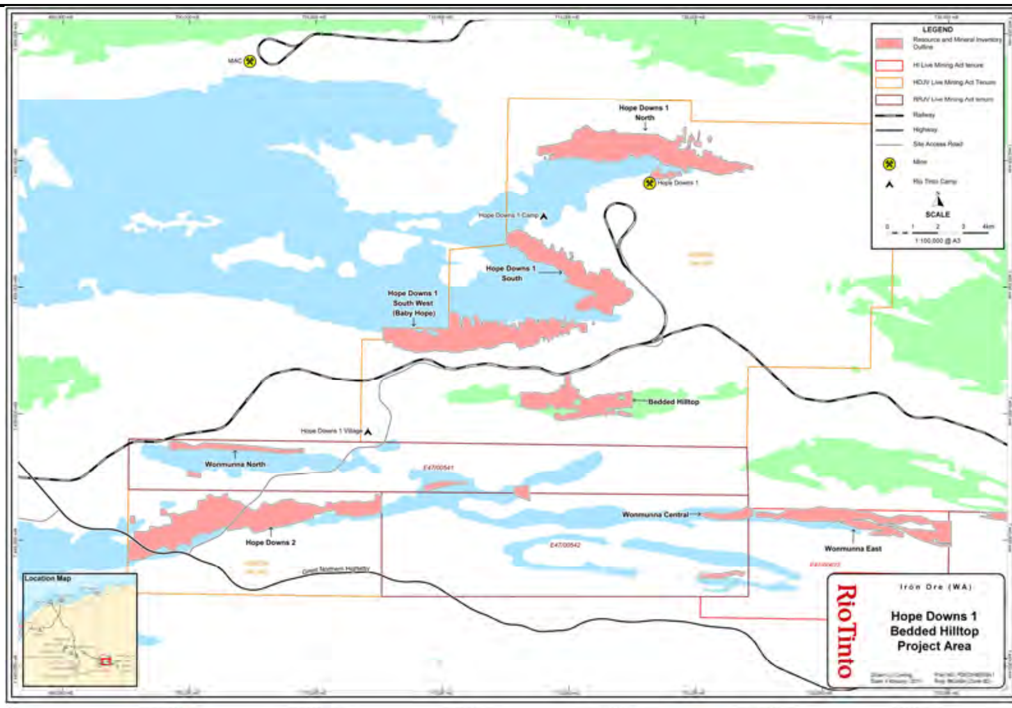

RioTinto
Hope Downs 1
Section 2 H1N - 719,100mE - Looking West
CAL
NEW
HYD
CA
LIL
HYD
LIW
LIL
CAL
MAC
MIN
ROD
CLA
SID
WF
WF
ANG
NAM
SHL
MNG
NEW
FOR
NEW
MAC
MAC
NAM
NAM
FOR
FOR
0 200 400 600 800 Meters
Scale 1:6,000

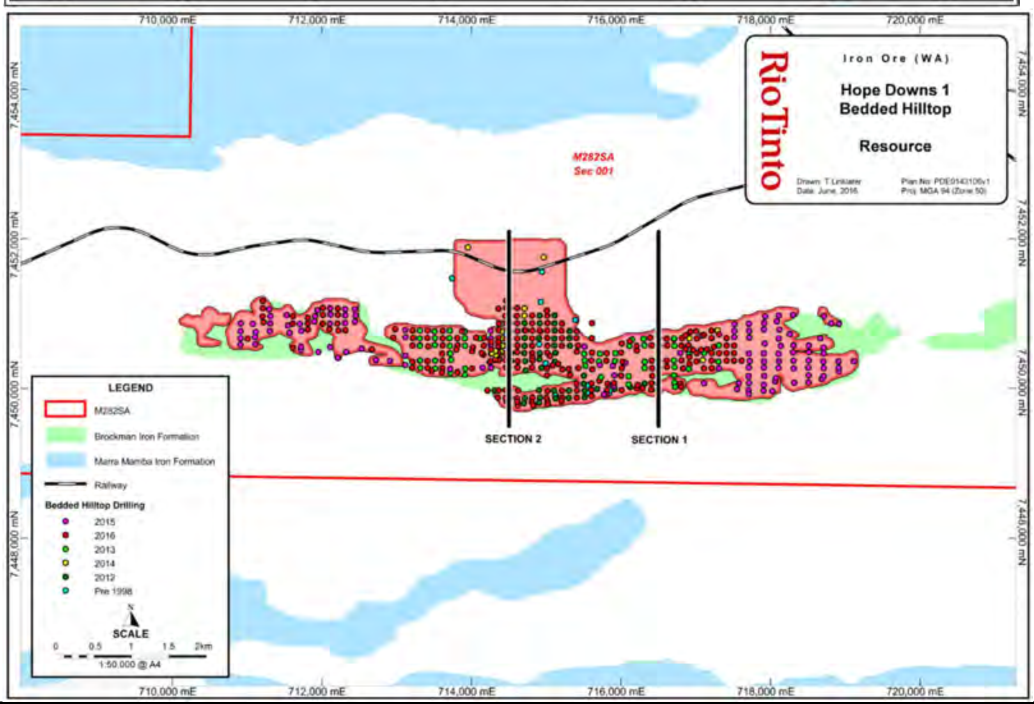

LEGEND
Rio Tinto Mine
Rio Tinto Live Mining Act Tenure
Hope Downs 1 South West Resource Outline
Pisolite
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Highway
Site Acces Road
SCALE
1:250,000 @ A4
Location Map
Hope Downs 1
West Angelas
Great Northern Highway
RioTinto
Iron Ore (WA)
Hope Downs 1
South West
Resource Outline
Location Map

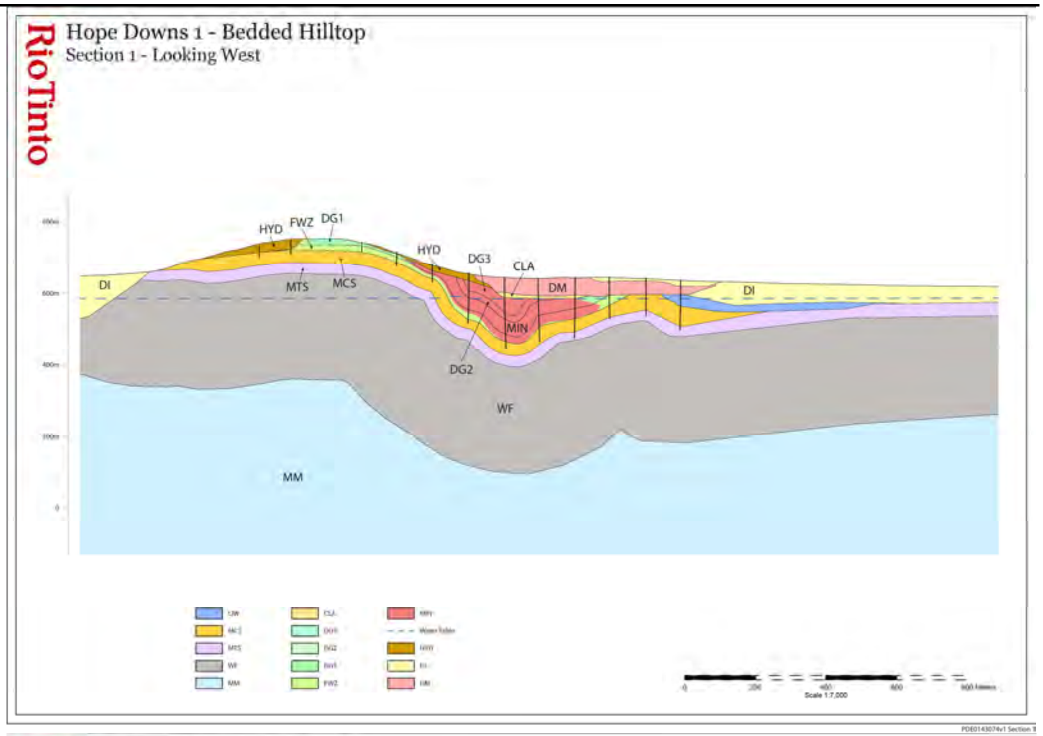
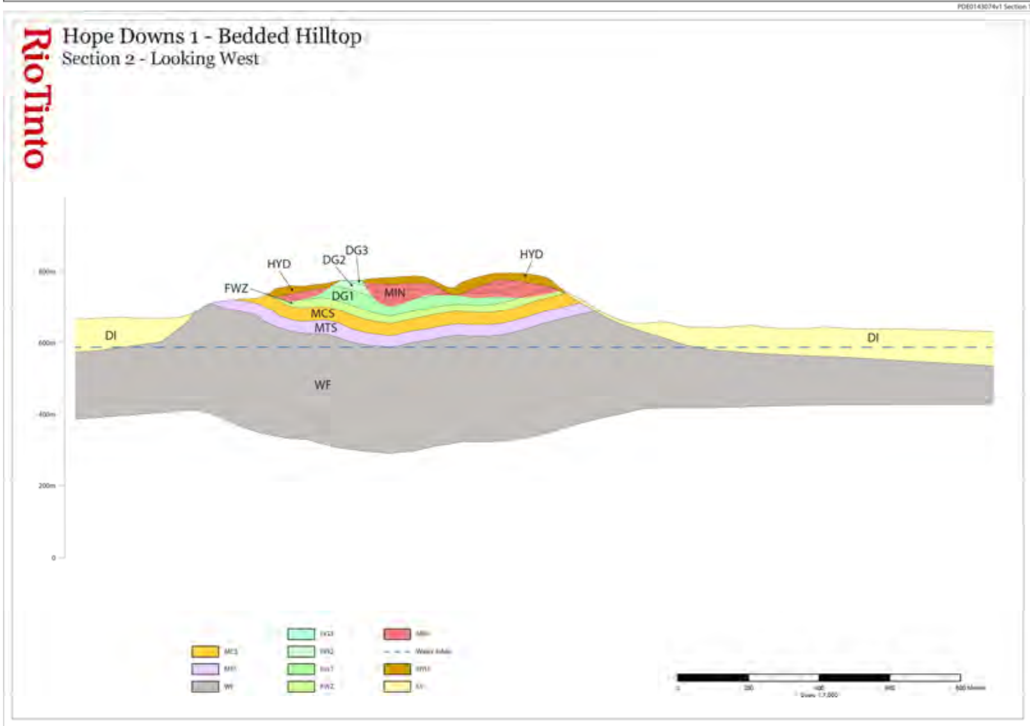

LEGEND
Rio Tinto Mine
Rio Tinto Live Mining Act Tenure
Hope Downs 1 South West Resource Outline
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Site Acces Road
SCALE
1:35,000 @ A4
Drilling
2014
2010
2015
2013
Pre-2010
2012
RioTinto
Iron Ore (WA)
Hope Downs 1
South West
Resource Outline
Drilling Map
SECTION 1 - 710,400mE
SECTION 2 - 710,650mE


RioTinto
Hope Downs 1
Section 1 H1SW - 710,400mE - Looking West
DIW
LIL
PIL
DIW
NE1
N2L
N2U
DIW
HYD
HYD
ROD
NE1
MAC
LIW
MIN
NAM
N2U
ANG
N2L
NE1
MAC
FOR
NAM
FOR
Scale 1:6,000
0
200
400
600
800 Meters


RioTinto
Hope Downs 1
Section 2 H1SW - 710,850mE - Looking West
DIW
DIW
LIL
PIL
DIW
LIL
LIL
LIW
PIL
DIW
HYD
MIN
LIW
ROD
NE1
MAC
N2U
ANG
N2L
NE1
NAM
MAC
FOR
NAM
Scale 1:6,000
0
200
400
600
800 Meters


LEGEND
Resource and Mineral Inventory Outline
HI Live Mining Act tenure
HDJV Live Mining Act Tenure
RRJV Live Mining Act tenure
Railway
Highway
Site Access Road
Mine
Rio Tinto Camp
SCALE
0 1 2 3 4km
1:100,000 @ A3
MAC
Hope Downs 1 North
Hope Downs 1
Hope Downs 1 Camp
Hope Downs 1 South
Hope Downs 1 South West (Baby Hope)
Bedded Hilltop
Hope Downs 1 Village
Wonmunna North
E47/00541
Wonmunna Central
Hope Downs 2
E47/00542
Wonmunna East
Great Northern Highway
Location Map
RioTinto
Iron Ore (WA)
Hope Downs 1
Bedded Hilltop
Project Area


710,000 mE
712,000 mE
714,000 mE
716,000 mE
718,000 mE
720,000 mE
7,454,000 mN
7,452,000 mN
7,450,000 mN
7,448,000 mN
RioTinto
Iron Ore (WA)
Hope Downs 1
Bedded Hilltop
Resource
Drawn: T Linklater
Date: June, 2016
Plan No: PDE0143106v1
Proj: MGA 94 (Zone 50)
M282SA
Sec 001
SECTION 2
SECTION 1
LEGEND
M282SA
Brockman Iron Formation
Marra Mamba Iron Formation
Railway
Bedded Hilltop Drilling
2015
2016
2013
2014
2012
Pre 1998
SCALE
0 0.5 1 1.5 2km
1:50,000 @ A4

	 
Balanced reporting	<u>General Statements</u> • Not applicable as Rio Tinto Ltd. has not released exploration results for this deposit.
Other substantive exploration data	<u>General Statements</u> • Detailed geological surface mapping has been collected across the Hope Downs 1 area in 2006, at 1:6,000 scale and in 2008 at 1:5,000 scale. The mapping was revisited in 2013 and validated. <u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Metallurgical test work was carried out on 24 diamond holes that were drilled as part of the

	2005, 2006 and 2007 campaigns. • Bulk samples have been obtained via the excavation of winzes and adits. Hope Downs 1 South West • Metallurgical test work was carried out on 31 diamond holes that were collected as part of the 2013 drill program, an additional 8 diamond holes were collected as part of the 2014 drill program. Hope Downs 1 Bedded Hilltop • Metallurgical test work has been carried out of 3 diamond holes that were collected as part of the 2015 drill program.
Further work	Deposit Specific Statements Hope Downs 1 North • Further reverse circulation drilling is planned to test the eastern extension of the deposit on a variable grid pattern ranging from a planned 200 m x 50 m down to final infill spacing of 50 m x 50 m. Hope Downs 1 South West • Further infill reverse circulation drilling is planned for the deposit to a planned spacing of 50 m x 50 m. Hope Downs 1 Bedded Hilltop • Further infill reverse circulation drilling is planned to achieve first a 100 m x 100 m drilling grid and then finally a drilling grid at 50 m x 50 m spacing.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary

Database integrity	General Statements
	• All drilling data is securely stored in an acQuire™ geoscientific information management system managed by a dedicated team within Rio Tinto Iron Ore. The system is backed up nightly on servers located in Perth, Western Australia. The backup system was tested in May 2016, 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:
	  ○ Data is imported and exported through automated interfaces, with limited manual input;
	  ○ Inbuilt validation checks ensure errors are identified prior to import;
	  ○ Once within the acQuire™ database, editing is very limited and warning messages ensure accidental changes are not made;
	  ○ Audit trail records updates and deletions should an anomaly be identified;
	  ○ 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:
	  ○ acQuire™ scripts for relational integrity, duplicates, total assay and missing / blank assay values;
	  ○ Grade ranges in each domain;
	  ○ Domain names and tags;
	  ○ Survey data down-hole consistency;
	  ○ Null and negative grade values;
	  ○ Missing or overlapping intervals;
	  ○ Duplicate data.
	• Drill hole data is also validated visually by domain and compared to the geological model.

Site visits	General Statements • The Competent Person visited Hope Downs 1 in 2016. There were no outcomes as a result of these visits.
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 is performed followed by interpretation of mineralisation boundaries. Three-dimensional wireframes of the sectional interpretations are created to produce the geological model. • 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. • The geological model is sub-divided into domains and both the composites and model blocks are coded with these domains.
Dimensions	Deposit Specific Statements Hope Downs 1 North • Hope Downs 1 North strikes approximately east/west with an along strike extent of approximately 8.5 km and a width of up to 1.1 km. The mineralisation extends from surface to a depth of 300 m. Hope Downs 1 South West • Hope Downs 1 South West strikes east/west for approximately 8 km and has a width of approximately 1.5 km, with a moderate dip of 20-30 degrees to the south. The mineralisation extends from surface to a depth of 300 m. Hope Downs 1 Bedded Hilltop

	• Hope Downs 1 Bedded Hilltop strikes east/west for approximately 9 km and has a width of approximately 1.4 km. The mineralisation extends from surface to a depth of 260 m.
Estimation and modelling techniques	General Statements • Ten grade attributes (Fe, SiO_2, Al_2O_3, P, Mn, LOI, S, TiO_2, MgO, and CaO), and density were estimated for input into Mine Planning and Marketing assessments. • The grade estimation process was completed using Maptek™ Vulcan™ software. • Statistical analysis was carried out on data from all domains. • All domains were estimated with hard boundaries applied. • The block model was validated using a combination of visual, statistical, and multivariate global change of support techniques. Deposit Specific Statements Hope Downs 1 North • The majority of the mineralised domains were estimated by ordinary kriging and non-mineralised domains were estimated using inverse distance to the power of 2. • A block size of 25 m (X) × 25 m (Y) × 5 m (Z) was used for parent blocks. Parent blocks are sub-celled to the geological boundaries to preserve volume. • A 'high yield limit' or grade dependent restriction on a sample's range of influence was used for Mn, MgO, S, TiO_2, SiO_2 and CaO for the mineralised domains. The limits differed for different domains and were selected based on histograms and the spatial distribution of the respective assay values. • Grades were extrapolated to a maximum distance of approximately 400 m from data points. • Additional validation involved the comparison of the block model against production data via reconciliation. Hope Downs 1 South West • The majority of the mineralised domains were estimated by ordinary kriging and non-mineralised domains were estimated using inverse distance to the power of 1. These methods are deemed appropriate by the Competent Person for estimating the tonnes and grade of the reported Mineral Resources. • A block size of 25 m (X) × 25 m (Y) × 10 m (Z) was used for parent blocks. Parent blocks are sub-celled to the geological boundaries to preserve volume. • A 'high yield limit' or grade dependent restriction on a sample's range of influence was used for Mn, SiO_2, S and CaO for the mineralised domains and S for the waste domains. The limits differed for different domains and were selected based on histograms and the spatial distribution of the respective assay values. • Grades are extrapolated to a maximum distance of approximately 650 m from data points. Hope Downs 1 Bedded Hilltop • The majority of the mineralised domains were estimated using ordinary kriging and non-mineralised domains were estimated using inverse distance to the power of 1. • A block size of 100 m (X) × 50 m (Y) × 5 m (Z) was used for parent blocks. Parent blocks are sub-celled to the geological boundaries to preserve volume. • A 'high yield limit' or grade dependent restriction on a sample's range of influence was used for Mn, TiO_2, and CaO for the mineralised domains. The limits differed for different domains and were selected based on histograms and the spatial distribution of the respective assay values. • Grades are extrapolated to a maximum distance of approximately 600 m from data points.
Moisture	General Statements • All Mineral Resource tonnages are estimated and reported on a dry basis.
Cut-off parameters	Deposit Specific Statements Hope Downs 1 North • The cut-off for high grade ore is greater than or equal to 57% Fe. Hope Downs 1 South West • The cut-off for high grade ore is greater than or equal to 58% Fe. Hope Downs 1 Bedded Hilltop • The cut-off for high grade ore is greater than or equal to 60% Fe. • The cut-off for Brockman Process Ore is material 50% ≤ Fe < 60% and ≥ 3% Al_2O_3 < 6% (geology domain must be Dales Gorge, Joffre or Footwall Zone).

Mining factors or assumptions	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Development of additional Mineral Resource at this existing mine site assumes mining using similar methods to those currently employed. The current mining method is conventional truck and shovel, open pit mining at appropriate bench heights. Current mining practices include grade control utilising blast hole data. • Ore from Hope Downs 1 North is blended with ore from other Rio Tinto Iron Ore mine sites to produce the Pilbara Blend product. • Spatial mapping of problematic material types was performed to assist in scheduling of material through the plant in order to maximise plant performance. <u>Hope Downs 1 South West</u> • 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. • It is planned to blend ore from Hope Downs 1 South West 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. <u>Hope Downs 1 Bedded Hilltop</u> • 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. • It is planned to blend ore from Hope Downs 1 Bedded Hilltop 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	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Development of additional Mineral Resources at this mine site assumes that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable. <u>Hope Downs 1 South West</u> • It is assumed that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of Hope Downs 1 South West. • Further work has also been completed to better predict the spatial variability of problematic ore types for processing. <u>Hope Downs 1 Bedded Hilltop</u> • It is assumed that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of Hope Downs 1 Bedded Hilltop.
Environmental factors or assumptions	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Rio Tinto Iron Ore has an extensive environmental and heritage approval process. There are no issues that impact on the Mineral Resource estimate. • The S estimate, in conjunction with the mapping of oxidised shales, black carbonaceous shales, lignite and pyrite, 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 Mineral Waste Management and Acid Rock Drainage (ARD) Control Environmental Standards. <u>Hope Downs 1 South West</u> • Rio Tinto Iron Ore has an extensive environmental and heritage approval process. A review of these requirements was undertaken as part of a recent Feasibility Study. No issues were identified that would impact on the Mineral Resource estimate. • The S estimate, in conjunction with the mapping of oxidised shales, black carbonaceous shales, lignite and pyrite, 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 Mineral Waste Management and Acid Rock Drainage (ARD) Control Environmental Standards. <u>Hope Downs 1 Bedded Hilltop</u> • Rio Tinto Iron Ore has an extensive environmental and heritage approval process. A detailed review of these requirements is being undertaken as part of the current Order of Magnitude Study. No issues were identified that would impact on the Mineral Resource estimate.

Bulk density	<u>Deposit Specific Statements</u>
	
	<u>Hope Downs 1 North</u>
	• Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Accepted gamma-density data is corrected for moisture using diamond drill core specifically drilled throughout the deposit.
	• Dry core densities are generated via the following process:
	  o The core volume is measured in the split and the mass of the core is measured and recorded.
	  o Wet core densities are calculated by the split and by the tray.
	  o Core recovery is recorded.
	  o The core is then dried and dry core masses are measured and recorded.
	  o Dry core densities are then calculated.
	• Accepted gamma-density values were estimated using ordinary kriging in mineralised zones and inverse distance weighted to the second power in waste zones.
	• Estimated gamma-density values were corrected for moisture using diamond drill core twinned with reverse circulation drilling.
	
	<u>Hope Downs 1 South West</u>
	• Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Accepted gamma-density data is corrected for moisture using diamond drill core specifically drilled throughout the deposit.
	• Dry core densities are generated via the following process:
	  o The core volume is measured in the split and the mass of the core is measured and recorded.
	  o Wet core densities are calculated by the split and by the tray.
	  o Core recovery is recorded.
	  o The core is then dried and dry core masses are measured and recorded.
	  o Dry core densities are then calculated.
	• Accepted gamma-density values were estimated using ordinary kriging in mineralised zones and inverse distance weighted to the second power in waste zones.
	• Estimated gamma-density values were corrected for moisture using diamond drill core twinned with reverse circulation drilling.
	
	<u>Hope Downs 1 Bedded Hilltop</u>
	• Density was scripted using strand averages from Rio Tinto Iron Ore All Pilbara dry core density data.
	• No dry core density data is available for dry bulk density analysis.

Classification	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • 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). • The Competent Person is satisfied that the stated Mineral Resource classification reflects the relevant factors of the deposit. • Approximately 5% of the Mineral Resource lies above the water table. <u>Hope Downs 1 South West</u> • The Mineral Resource classification is 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). • The Competent Person is satisfied that the stated Mineral Resource classification reflects the geological controls interpreted and the estimation constraints of the deposits. • Approximately 72% of the Mineral Resource lies above the water table. <u>Hope Downs 1 Bedded Hilltop</u>

	• The Mineral Resource classification is Inferred. The determination of the applicable resource category has considered the relevant factors (geology, mineralisation continuity, sample spacing, data quality, and others). • The Competent Person is satisfied that the stated Mineral Resource classification reflects the geological controls interpreted and the estimation constraints of the deposits • Approximately 82% of the Mineral Resource lies above the water table.
Audits or reviews	General Statements • All stages of Mineral Resource estimation have undergone a documented internal peer review process, which has documented all phases of the process. The Mineral Resource estimate has been accepted by the Competent Person.
Discussion of relative accuracy/ confidence	Deposit Specific Statements Hope Downs 1 North • Rio Tinto Iron Ore operates the Hope Downs 1 Mine. Reconciliation of actual production with the Ore Reserve estimates for Hope Downs is accurate to within ten percent for tonnes on an annual basis. This result is indicative of a robust Mineral Resource Estimation process. Hope Downs 1 South West • Rio Tinto Iron Ore operates multiple mines in the Pilbara region of Western Australia. The Mineral Resource data collection and estimation techniques used for Hope Downs 1 South West is 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). Hope Downs 1 Bedded Hilltop • The spacing of data at this stage only supports an Inferred Mineral Resource. There is uncertainty around density, as there is no deposit specific dry core data. • The accuracy and confidence of the Mineral Resource estimate is consistent with the current level of study (Order of Magnitude Study).

SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Deposit Specific Statements Hope Downs 1 North • The declared Ore Reserves are for the Hope Downs 1 North deposit. • The modifying factors for this Ore Reserve estimate were based on a Mineral Resource estimate completed in October 2015. • The most recent Mineral Resource estimate together with the latest update of pit designs were used for reporting Ore Reserves. • Mineral Resources are reported in addition to Ore Reserves. Hope Downs 1 South West • The declared Ore Reserves are for the Hope Downs 1 South West deposit. • The modifying factors for this Ore Reserve estimate were applied to a Mineral Resource estimate completed in July 2015. • Mineral Resources are reported additional to Ore Reserves.
Site visits	General Statements • The Competent Person visited Hope Downs 1 in 2012.
Study status	Deposit Specific Statements Hope Downs 1 North • Hope Downs 1 North is an existing operation. Hope Downs 1 South West • A Feasibility Study was completed in January 2016.
Cut-off parameters	Deposit Specific Statements Hope Downs 1 North • The cut-off grade for high-grade Marra Mamba ore is greater than or equal to 57% Fe. Hope Downs 1 South West • The cut-off grade for high-grade Marra Mamba ore is greater than or equal to 58% Fe.
Mining factors or assumptions	General Statements • Pit optimisations utilising the Lerchs-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 mine schedules and economic valuations 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 are applied. • Metallurgical models were applied to the regularised model in order to model products tonnage, grades and yields. Deposit Specific Statements Hope Downs 1 North • The Mineral Resource model was regularised to a block size of 25 m (X) × 12.5 m (Y) × 10 m (Z), 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. • The geotechnical parameters have been applied based on geotechnical studies informed by assessments of 70 drill holes drilled during the 2006, 2008, 2009, 2010, 2011 & 2013 drilling programmes, specifically drilled for geotechnical purposes on the surrounding host rock. The resultant inter-ramp slope angles vary between 26 and 48 degrees depending on the local rock mass and structural geological conditions. Hope Downs 1 South West

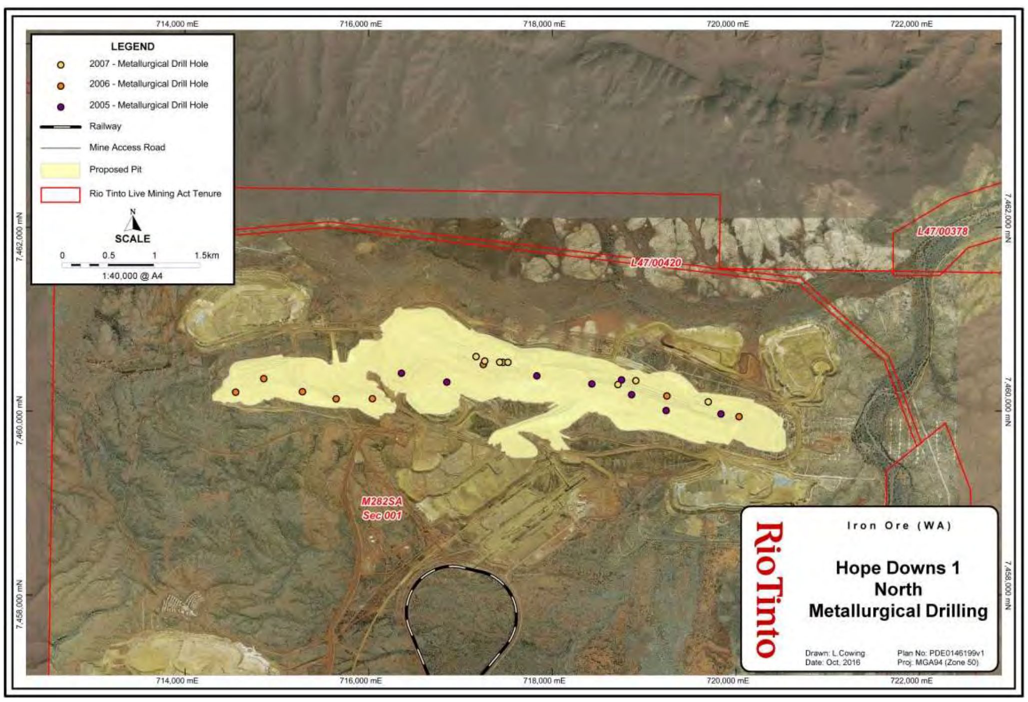
Criteria	Commentary
	• The Mineral Resource model was regularised to a block size of 25 m (X) × 12.5 m (Y) × 5 m (Z) which was determined to be the selective mining unit following an analysis of a range of selective mining units. Dilution and mining recovery were modelled by applying the regularisation process to the sub-block geological model. • The geotechnical parameters have been applied based on geotechnical studies informed by assessments of 31 drill holes drilled during the 2014 drilling programme, specifically drilled for geotechnical purposes on the surrounding host rock. The resultant inter-ramp slope angles vary between 9 and 29 degrees depending on the local rock mass, structural geology, and hydrogeological conditions. • The infrastructure will be shared with the existing Hope Downs 1 operations.

Metallurgical factors or assumptions

<u>Deposit Specific Statements</u>

<u>Hope Downs 1 North</u>

- Hope Downs 1 North ore is processed through the Hope Downs 1 dry crushing and screening plant. Product prediction regressions for dry processing routes are assigned to the designated domains assuming a nominal 6.3mm separation cut size between lump and fines products, based on the most appropriate available metallurgical data generated from PQ core and production data. The regressions were last updated in Q3 2016.
- The Hope Downs 1 North ore is typically blended with Hope Downs 1 South ore to maximise throughput through the Hope Downs 1 dry crushing and screening plant.
- During drill campaigns from 2005 to 2007 a total of 2,810m of metallurgical diamond drill core was drilled across the deposit. Data obtained from this core formed the basis for the metallurgical test work, which informed the operation for the suitability of the Hope Downs 1 processing facility and product prediction. The map below shows the location of these drill holes.

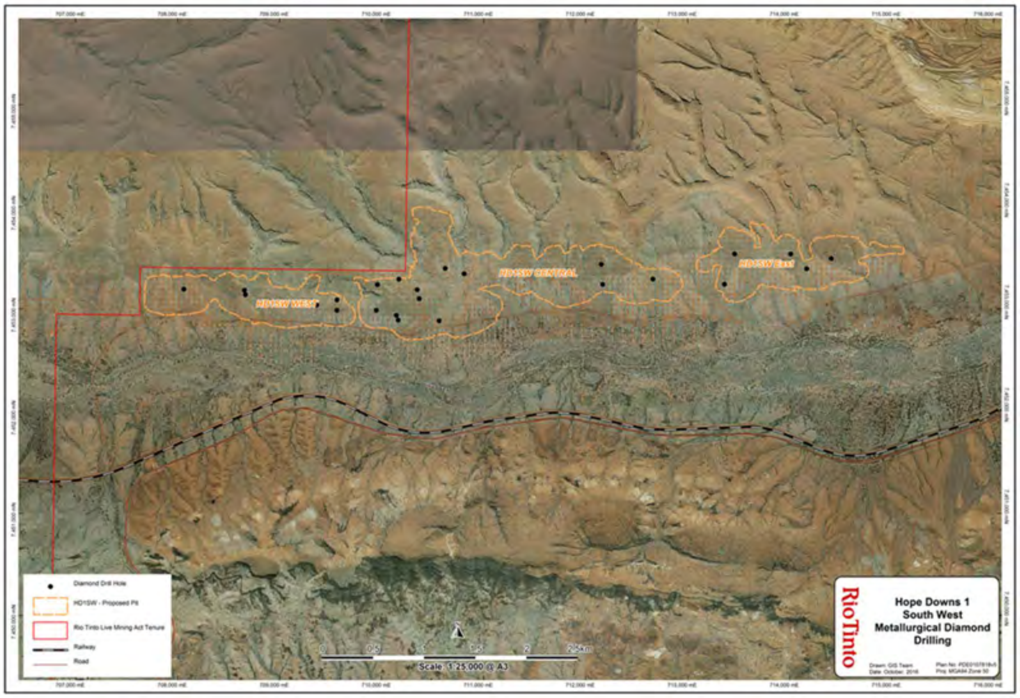


<u>Hope Downs 1 South West</u>

- Hope Downs 1 South West ore will be processed through Hope Downs 1 dry crushing and screening plant. Product prediction regressions for dry processing routes are assigned to the designated domains, based on the most appropriate available metallurgical data generated from PQ core and production data.
- The proposed metallurgical process is a well-tested and proven processing methodology, having been utilised at Rio Tinto Iron Ore mining operations for decades.
- During drill campaigns in 2013 and 2014 a total of 1,265m of metallurgical diamond drill core was drilled in the west, central and east deposits. Data obtained from this core formed the basis for the metallurgical test work, which informed the study for the suitability of the Hope Downs 1 processing facility and the metallurgical models. The map below shows the location of these drill holes.

Criteria	Commentary

- The diamond drill core test results were 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.



Environmental

Deposit Specific Statements

Hope Downs 1 North

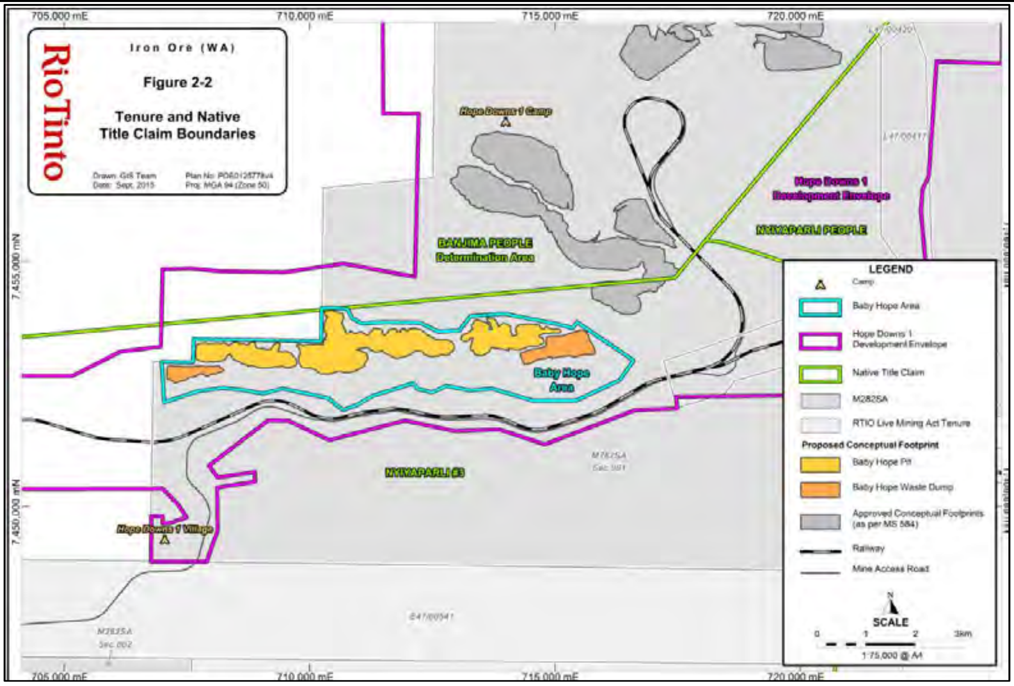
- The Hope Downs 1 Proposal was referred to the Western Australian Environmental Protection Authority (EPA) in 2000 and was assessed at a Public Environmental Review (PER) level of assessment under Part IV of the Environmental Protection Act 1986 (WA). The Proposal included above and below water table mining of Hope Downs 1 north and south pits, supporting infrastructure, rail spur and management of surplus water from dewatering.
- The Minister for Environment authorised the Hope Downs 1 Project on 1 February 2002 via Ministerial Statement 584 (MS 584). Several minor changes to MS 584 have been authorised under subsequent s45C applications in 2005, 2006, 2009, 2010, 2012, and 2013. MS 893 was issued as an amendment to MS 584 in 2012 which included a new environmental condition relating to supplementation discharge to Weeli Wolli Spring.
- Assessment of the potential for impacts on matters of National Environmental Significance (MNES) did not trigger a requirement to refer the proposed development of Hope Downs 1.
- A geochemical risk assessment has been completed for the project. The assessment encompasses all material types present at the site, and tests have been conducted in accordance with industry standards. Mining operations at the project pose a high Acid and Metalliferous Drainage (AMD) risk based on current pit designs and the assessment of samples from within the pit locations. Subsequent studies have been completed to evaluate the most appropriate location and methods to store high risk material and minimise AMD potential.

Hope Downs 1 South West

- The Hope Downs 1 South West Proposal was referred to the Western Australian Environmental Protection Authority (EPA) in June 2014 and was Assessed on Proponent Information (API) under Part IV of the Environmental Protection Act 1986 (WA). The Proposal included above water table mining of three pits to sustain production at Hope Downs 1.
- The Minister for Environment authorised the Hope Downs 1 South West Project on 24 December 2015 via Ministerial Statement 1025 (MS 1025) as an amendment to MS 584 for the Hope Downs 1 Project.
- Assessment of the potential for impacts on matters of National Environmental Significance (MNES) did not trigger a requirement to refer the proposed development of Hope Downs 1 South West.

Criteria	Commentary
	• A geochemical risk assessment has been completed for the project. The assessment encompasses all material types present at the site, and tests have been conducted in accordance with industry standards. Mining operations at the project pose a low acid mine drainage risk based on current pit designs and the assessment of samples from within the pit locations.
Infrastructure	<u>Deposit Specific Statements</u> <u>Hope Downs 1 North</u> • Hope Downs 1 North utilises existing facilities. <u>Hope Downs 1 South West</u> • Access to the site during construction will be from the Great Northern Highway and then along the Hope Downs Mine Access Road. • Fly-in, Fly-out (FIFO) personnel access will fly in to West Angelas Airport and be brought to site by bus. • Designs for buildings, workshops and related facilities proposed for the Hope Downs 1 South West project have been modelled on existing Rio Tinto Iron Ore facilities, with modifications for safety, capital and operating efficiency. • A central hub for all production support facilities will be located immediately to the south of Central Pit. • The Existing Hope Downs 1 Explosive Facility will be utilised for the storage of explosives for the Hope Downs 1 South West operations. • Electric power will be supplied by generators and additional communications infrastructure will be required to provide adequate communications to the mine area. • Water will be sourced from bores located to the south and the east of the deposit. These bores will support construction and operations. • Ore will be railed to Rio Tinto's ports at Dampier and Cape Lambert. The existing port and railway networks will have sufficient capacity to accommodate ore supply from Hope Downs 1 South West.
Costs	<u>General Statements</u> • Operating costs were benchmarked against similar operating Rio Tinto Iron Ore mine sites. • 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. <u>Deposit Specific Statements</u> <u>Hope Downs 1 South West</u> • The capital costs are based on a Feasibility Study utilising experience from the construction of existing similar Rio Tinto Iron Ore projects in the Pilbara, Western Australia.
Revenue factors	<u>General Statements</u> • 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	<u>General Statements</u> • Blending of iron ore from Brockman and Marra Mamba sources results in a high Fe product, whilst reducing both the average values, and variability, of SiO_2, Al_2O_3, and P. This product attracts a market premium and accounts for annual sales in excess of 150 Mt/a. • The supply and demand situation for iron ore is affected by a wide range of factors, and 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 have successfully competed with iron ore products supplied by other companies. <u>Deposit Specific Statements</u>

Criteria	Commentary
	Hope Downs 1 North • Ore from Hope Downs 1 North is blended with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Hope Downs 1 North ore is not marketed directly. Hope Downs 1 South West • It is planned to blend ore from Hope Downs 1 South West with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Hope Downs 1 South West 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.
Economic	General Statements • 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 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 Ltd investment criteria.
Social	Deposit Specific Statements Hope Downs 1 North • The Hope Downs 1 North deposits are located within existing Mining Lease M282SA Section 001 (M282SA Sec 001), which was granted under the Iron Ore (Hope Downs) Agreement Act 1992. • The Hope Downs 1 North mine and proposed associated infrastructure falls within the area of the Banjima group's native title claim. • The Hope Downs 1 North project is located in the Hamersley Range, which has rich history of Aboriginal occupation. Ethnographic and archaeological surveys of the area have been completed, and all known heritage sites have been located, recorded and considered during mine planning and engineering activities. • Rio Tinto Iron Ore has undertaken environmental surveys across the project area to support the development of Hope Downs 1 North deposit including flora and vegetation and vertebrate fauna surveys, troglofauna sampling and an assessment of bat colonies and aquatic habitats. • A number of native vegetation clearing permits have been granted by the Western Australian Department of Mines and Petroleum (DMP) to allow the development of Hope Downs 1 North project. • The Hope Downs 1 North deposits and associated infrastructure is located within the Shire of East Pilbara. Rio Tinto Iron Ore has established engagement frameworks with the Shire of East Pilbara, which include scheduled meetings and project updates. Hope Downs 1 South West • The Hope Downs 1 South West deposits are located within existing Mining Lease M282SA Section 001 (ML282SA Sec 001), which was granted under the Iron Ore (Hope Downs) Agreement Act 1992. • The Hope Downs 1 South West mine and proposed associated infrastructure falls within the area of the Nyiyaparli group's native title claim. There is a very small portion of the proposed development envelope that crosses into the Banjima group's native title claim. See map below.

Criteria	Commentary
	 • The project is located in the Hamersley Range, which has rich history of Aboriginal occupation. Ethnographic and archaeological surveys of the area have been completed, and all known heritage sites have been located, recorded and considered during mine planning and engineering activities. Relevant approvals will be sought for any heritage sites that will be impacted by the development of the Hope Downs 1 South West deposit. • Rio Tinto Iron Ore has undertaken environmental surveys across the project area to support the development of the project including flora and vegetation and vertebrate fauna surveys, troglofauna sampling and an assessment of bat colonies and aquatic habitats. • A number of native vegetation clearing permits have been granted by the Western Australian Department of Mines and Petroleum (DMP) to allow for preliminary works such as sterilisation drilling, geotechnical investigations, mineral exploration, a construction camp, and associated activities. • The Hope Downs 1 South West deposit and associated infrastructure is located within the Shire of East Pilbara. Rio Tinto Iron Ore has established engagement frameworks with the Shire of East Pilbara, which includes scheduled meetings and project updates.
Other	General Statements • Semi-quantitative risk assessments have been undertaken throughout the applicable study phases, no material naturally occurring risks have been identified through the above mentioned risk management processes.
Classification	Deposit Specific Statements Hope Downs 1 North • The Ore Reserves consist of 83% Proved Reserves and 17% Probable Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of technical and economic studies. Hope Downs 1 South West • The Ore Reserves consist of 51% Proved Reserves and 49% Probable Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of technical and economic studies.
Audits or reviews	General Statements • No external audits have been performed. • 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.

Criteria	Commentary
Discussion of relative accuracy/ confidence	Deposit Specific Statements Hope Downs 1 North • Rio Tinto Iron Ore operates multiple mines in the Pilbara region of Western Australia. The Ore Reserve estimation techniques utilised for the Hope Downs 1 North 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 percent for tonnes on an annual basis. This result is indicative of a robust Ore Reserve estimation process. Hope Downs 1 South West • Rio Tinto Iron Ore operates multiple mines in the Pilbara region of Western Australia. The Ore Reserve estimation techniques utilised for the Hope Downs 1 South West 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 percent for tonnes on an annual basis. This result is indicative of a robust Ore Reserve estimation process. • Accuracy and confidence of modifying factors are generally consistent with the current level of study (Feasibility Study).

Koodaideri 38W/21W - Table 1

The following table provides a summary of important assessment and reporting criteria used at the Koodaideri 38W/21W deposit 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	• Samples for geological logging, assay, metallurgical and density test work are collected via drilling. • Drilling is conducted on regularly spaced grids across the deposit. All intervals are sampled. • Reverse circulation drilling utilises a static or rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention on samples collected being of comparable weights. The splitter produces two 8% samples ('A' and 'B') and one 84% reject sample. Primary 'A' sample was collected at 2 m intervals through 8% blades from the outer cone of splitter. • Diamond core drilling uses double and triple-tube techniques and samples were taken at 1 meter intervals. • Dry core density samples are collected via diamond core drilling of HQ-3 core. • Metallurgical core samples are collected via diamond core drilling of PQ-3 core. • Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Density measured from accepted gamma-density is corrected for moisture from diamond drill core twinned with reverse circulation drilling. • Mineralisation is determined by a combination of geological logging and assay results.
Drilling techniques	• Drilling is predominantly reverse circulation with the remainder diamond drill core (Refer to Section 2, Drill hole Information, for a detailed breakdown of drilling by method and year). • Reverse circulation drilling utilises 140 mm diameter face sampling bit with sample shroud, attached to pneumatic piston hammer used to penetrate ground and deliver sample up 6 m drill rod inner tubes (4 m starter rod) through to the cyclone and cone splitter with the aid of rig and auxiliary booster compressed air. • Wet drilling was introduced in 2013, pre-2013, predominantly dry drilling. • The majority of drilling is oriented vertically. • Diamond drilling was a combination of HQ and PQ core sizes (HQ-3 = 61.1 mm core diameter and PQ-3 = 83.0 mm core diameter) using double and triple tube techniques.
Drill sample recovery	• No direct recovery measurements of reserve circulation samples are performed. Sample weights are recorded at laboratory as sample received and at the rig is qualitatively estimated for loss per drilling interval • Diamond core recovery is maximised via the use of triple-tube sampling and additive drilling muds. • Diamond core recovery is recorded using rock quality designation (RQD) measurements with all cavities and core loss recorded in the Rio Tinto Iron Ore acQuire™ database. • Sample recovery in some friable mineralisation may be reduced; however it is unlikely to have a material impact on the reported assays for these intervals. • Thorough analysis of duplicate sample performance does not indicate any chemical bias as a result of inequalities in samples weights.
Logging	• All drill holes are geologically logged utilising standard Rio Tinto Iron Ore Material Type Classification Scheme (RTIO MTCS) logging codes and entered into the acQuire™ database package on field Toughbook laptops. • Internal training and validation of logging includes RTIO MTCS identification and calibration workshops, peer reviews and validation of logging verses assay results. • Geological logging is performed on 2 m intervals for all reverse circulation drilling, and either 1 m or 2 m intervals for diamond holes, depending on the level of detail required. • All diamond drill core is photographed digitally and files stored on Rio Tinto network servers. • Magnetic Susceptibility readings taken using a Kappameter for each interval. • Since 2001, all drill holes have been geophysically logged using downhole tools for gamma trace, calliper, gamma density, resistivity, and magnetic susceptibility. • Open-hole acoustic and optical televiewer image data have been collected in specific reverse circulation and diamond drill core holes throughout the deposit for structural

Criteria	Commentary
	analyses.
Sub-sampling techniques and sample preparation	Sub-sampling techniques: • Reverse circulation drilling samples were collected using a static or rotary cone splitter beneath a cyclone return system, producing approximate splits of: o 'A' Split – Analytical sample – 8% o 'B' Split – Retention sample – 8% o Bulk Reject – 84%. Sample preparation: • 'A' split sample dried at 105° C. • Sample crushed to -3 mm using Boyd Crusher and split using a linear and rotary sample divider to capture 1 – 2.5 kg samples. • Robotic and Manual LM5 used to pulverise total sample (1 – 2.5 kg) to 90% of weight passing 150 micrometers (μm) sieve. • A 100 gram sub sample collected for analysis. • Diamond drill core samples are crushed to -6 mm particle size (whole core sample) and follow reverse circulation sample preparation if they are to be assayed.
Quality of assay data and laboratory tests	Assay methods: • All assaying of samples used in Mineral Resource estimates have been performed by independent, National Association of Testing Authorities (NATA) certified laboratories. • 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, Na are assayed using industry standard lithium tetraborate and lithium metaborate fusion and X-Ray Fluorescence (XRF) analytical technique. • Loss on Ignition (LOI) is determined using industry standard Thermo-Gravimetric Analyser (TGA) and was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C. • Samples were dispatched to Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories) in Perth for preparation and analytical testing. Quality assurance measures include: • Insertion of coarse reference standard by Rio Tinto Iron Ore 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 is 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). • Coarse reference standards contain a trace of strontium carbonate that is added at the time of preparation for ease of identification. • Field duplicates were collected by sacrificing a 'B' split retention sample directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc is included in the duplicate sample for later identification. • At a frequency of one in 20, -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 identify grouping, segregation and delimitation errors. • Internal laboratory quality assurance and quality control measures involve the use of internal laboratory standards using certified reference material in the form of pulps, blanks and duplicates were inserted in each batch. • Random re-submission of pulps at an external laboratory is performed following analysis. • Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to third party (Geostats) as part of Rio Tinto Iron Ore quality assurance and quality control (RTIO QA/QC) procedures to attained analytical precision and accuracy. • Analysis of the performance of certified standard and field duplicates has indicated an acceptable level of accuracy and precision with no significant bias.
Verification of sampling and assaying	• Comparison of reverse circulation and twinned diamond drill core assay data distributions show that the drilling methods have similar grade distributions verifying the suitability of reverse circulation samples in the Mineral Resource estimate. • Field data was logged directly onto field Toughbook laptops using pre-formatted and validated logging templates, with details uploaded to the acQuire™ drill hole database on a daily basis. • Assay data was returned electronically from the laboratory and uploaded into the acQuire™ database.

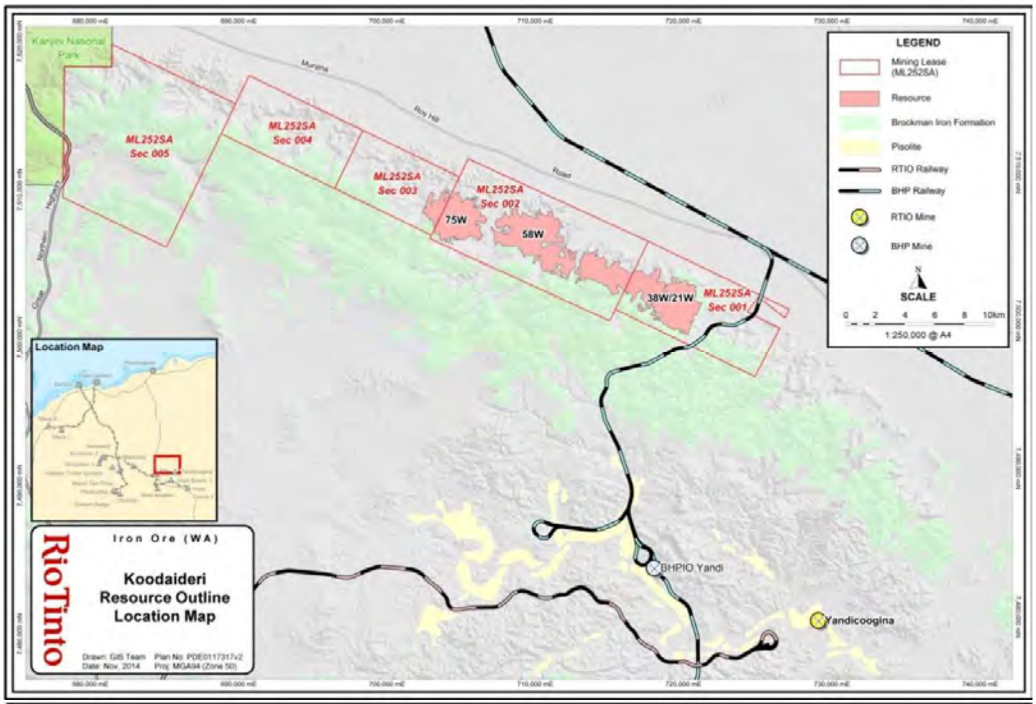
Criteria	Commentary
	• 2012-2015, assay data were only accepted in acQuire™ database once the quality control process conducted utilising Batch Analysis tool. • Written procedures outline the processes of geological logging and data importing, quality assurance and quality control validation and assay importing. A robust, restricted-access database is 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.
Location of data points	• All drill hole collar locations have been surveyed to Geocentric Datum of Australia 1994 (GDA94) and Map Grid of Australia 1994 (MGA94) Zone 50 grid by qualified surveyors using Differential Global Positioning System (DGPS) survey equipment, accurate to within10 cm in both horizontal and vertical directions. • Collar location data is validated by checking actual versus planned coordinate discrepancies. Once validated, the survey data is uploaded into the acQuire™ database. • Drill hole collar reduced level (RL) data is compared to detailed topographic maps and shows that the collar survey data is accurate. • All holes interpreted and used in the resource model have surveyed coordinates. Holes with suspect collar coordinates were excluded from the data set. • Down-hole surveys were conducted on nearly every hole, with the exception of collapsed or otherwise hazardous holes, and any significant, unexpected deviations were investigated and validated. Holes greater than 100 metres in depth are generally surveyed with an in-rod gyroscopic tool to accurately measure downhole deviation. • The topographic surface is based on 10 m grid sampling of the 2012 Light Detecting and Ranging (LiDAR) survey. Accuracy of the topographic surface is further enhanced by incorporation of additional spot height data including the validated DGPS hole collar points generated in each successive drilling campaign.
Data spacing and distribution	Koodaideri 38W: • Drill hole spacing is predominately 100 m × 50 m with some peripheral areas at 100 m × 100 m. Koodaideri 21W: • Drill hole spacing is predominately 400 m × 50 m with the south western corner at 100 m x 50 m. • The drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied. • The mineralised domains for the Koodaideri 38W/21W deposit have demonstrated sufficient continuity in both geology and grade to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code guidelines.
Orientation of data in relation to geological structure	• Drill lines lie north-northeast to south-southwest, perpendicular to the deposit strike. • Reverse circulation drilling is predominantly vertical and intersects the gently undulating stratigraphy approximately at right angles. • Metallurgical and dry core density diamond holes were also drilled vertically. • Where applicable selected holes have been angled (70- 85 degrees) to facilitate orientation of downhole optical and acoustic televiewer data.
Sample security	• The sample chain of custody is managed by Rio Tinto Ltd. • Analytical samples (‘A’ splits) are collected by field assistants, placed onto steel sample racks and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. • Retention samples (‘B’ splits) are collected and stored in drums at on-site facilities. • 150 grams of excess pulps from primary samples is retained indefinitely at laboratories and external storage facilities at CTI Logistics Ltd in Perth, Western Australia.
Audits or reviews	• No external audits have been performed specifically on sampling techniques or data. • 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.

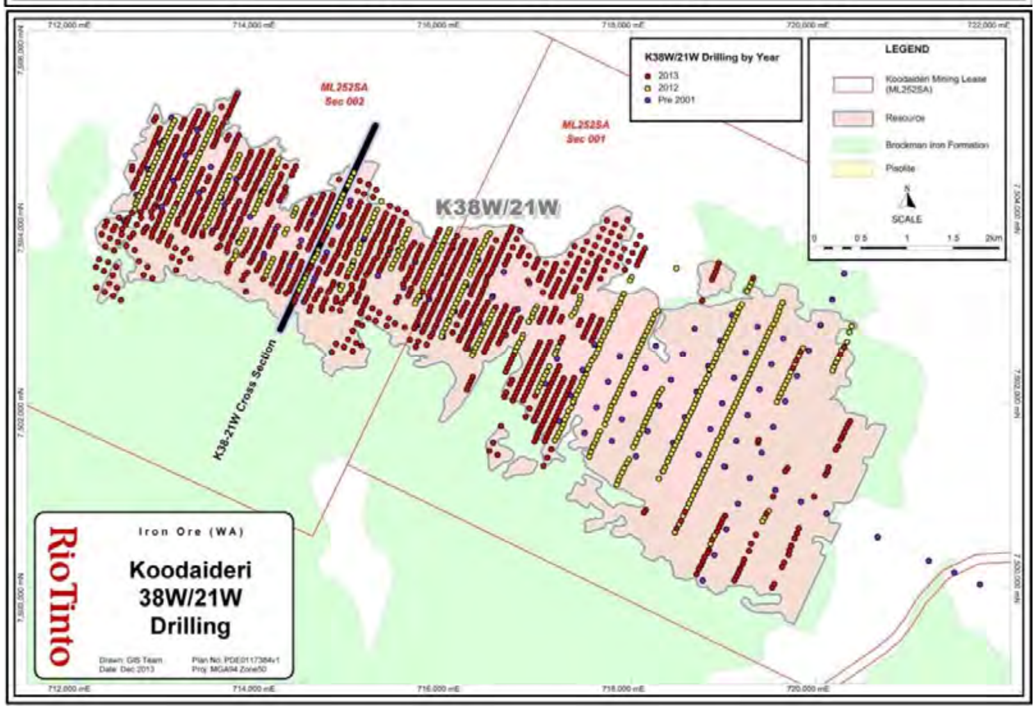
SECTION 2 REPORTING OF EXPLORATION RESULTS

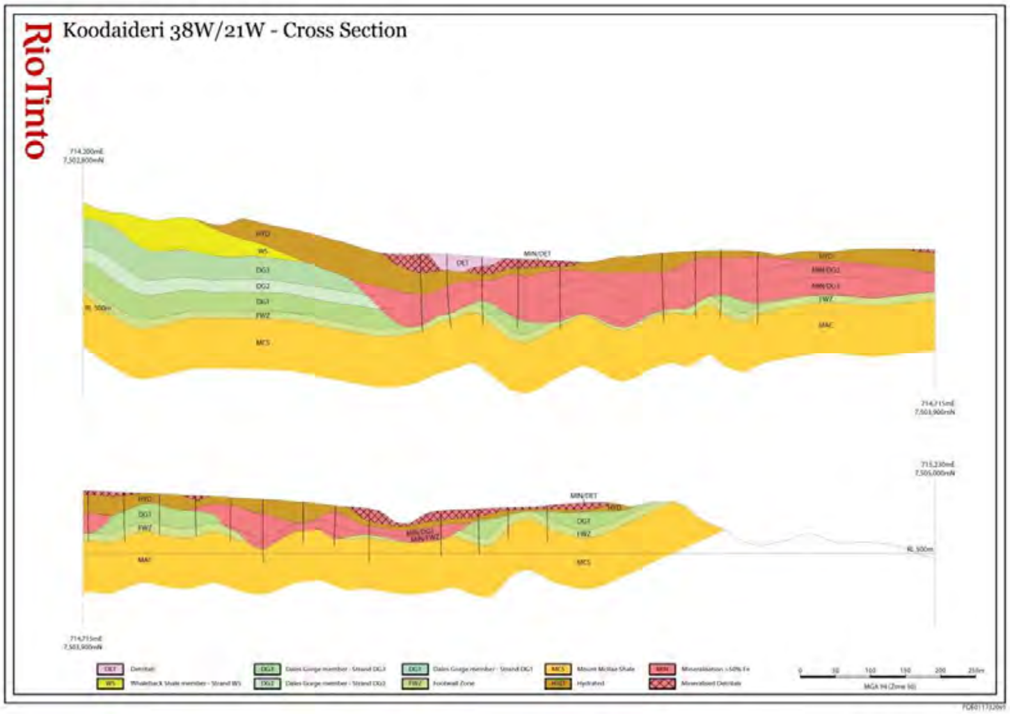
Criteria	Commentary
Mineral tenement and land tenure status	• The deposit is located on Mining lease AM70/00252, granted 07/06/1974. • ML252SA is 100% owned by Hamersley Iron Proprietary Ltd (100% Rio Tinto Ltd).
Exploration done by other parties	• Initial exploration drilling at Koodaideri 38W/21W was undertaken by Mount Bruce Mining Pty Ltd during the 1970's. This included a total of 112 percussion holes. This data has not been used in the Mineral Resource estimate as a result of investigations indicating that the assay data was biased.
Geology	• The deposit type is a bedded iron ore deposit hosted in the Dales Gorge Member of the Proterozoic Brockman Iron Formation. • Mineralisation occurs as a high-phosphorous Brockman Iron Formation deposit with a weathering overprint.
Drill hole Information	• Summary of drilling data used for the Koodaideri 38W/21W Mineral Resource estimate: (see table below) • An additional 16 drill holes were used for geological interpretation only. • A total of 112 drill holes (all pre-2012) for 6,444 m were excluded from the dataset, due to unreliable assay data.
Data aggregation methods	• All assay, geology, and density data have been composited to 2 m for Mineral Resource modelling and estimation. • No grade truncations are performed.
Relationship between mineralisation widths and intercept lengths	• Drilling programs have been designed to intersect dipping mineralised sequences as close as practically possible to perpendicular. • In general down hole intercept lengths are deemed to provide an acceptable representation of true mineralisation widths at Koodaideri 38W/21W due to vertical or near vertical drilling and predominance of gently folded strata with an average dip of 10 degrees. • Where significant difference exists, this is resolved via sectional and three dimensional interpretation of mineralisation boundaries based on the prevailing bedding, stratigraphic and structural controls.

Year	Diamond Holes		Reverse Circulation	
	# Holes	Metres	# Holes	Metres
2012			486	31,310
2013	9	561	1,047	60,910
Total	**9**	**561**	**1,533**	**92,220**

Diagrams


LEGEND
Mining Lease (ML252SA)
Resource
Brockman Iron Formation
Pisolite
RTIO Railway
BHP Railway
RTIO Mine
BHP Mine
SCALE
0 2 4 6 8 10km
1:250,000 @ A4
Karijini National Park
ML252SA Sec 005
ML252SA Sec 004
ML252SA Sec 003
ML252SA Sec 002
ML252SA Sec 001
75W
58W
38W/21W
Munjina
Roy Hill
Road
BHPIO Yandi
Yandicoogina
Location Map
RioTinto
Iron Ore (WA)
Koodaideri Resource Outline Location Map
Drawn: GIS Team Plan No: PDE0117317v2
Date: Nov, 2014 Proj: MGA94 (Zone 50)


K38W/21W Drilling by Year
2013
2012
Pre 2001
LEGEND
Koodaideri Mining Lease (ML252SA)
Resource
Brockman Iron Formation
Pisolite
SCALE
0 0.5 1 1.5 2km
ML252SA Sec 002
ML252SA Sec 001
K38W/21W
K38-21W Cross Section
RioTinto
Iron Ore (WA)
Koodaideri 38W/21W Drilling
Drawn: GIS Team Plan No: PDE0117384v1
Date: Dec 2013 Proj: MGA94 Zone50



Balanced reporting	• Not applicable as Rio Tinto Ltd has not released exploration results for this deposit.
Other substantive exploration data	• Geological surface mapping data has been collected across the Koodaideri area in 2006, 2007, 2009, and 2013 at 1:5,000 scale.
Further work	• Further infill reverse circulation drilling is planned for the deposit to a planned spacing of 50 m × 50 m.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary

Database integrity	• Drilling data is securely stored in an acQuire™ geoscientific information management system managed by a dedicated team within Rio Tinto Iron Ore. The system is backed up nightly on servers located in Perth, Western Australia. The backup system was tested in May 2016, 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:
	  ○ Data is imported and exported through automated interfaces, with limited manual input;
	  ○ Inbuilt validation checks ensure errors are identified prior to import;
	  ○ Once within the acQuire™ database, editing is very limited and warning messages ensure accidental changes are not made;
	  ○ Audit trail records updates and deletions should an anomaly be identified;
	  ○ 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:
	  ○ acQuire™ scripts for relational integrity, duplicates, total assay and missing / blank assay values;
	  ○ Grade ranges in each domain;
	  ○ Domain names and tags;
	  ○ Survey data down-hole consistency;
	  ○ Null and negative grade values;
	  ○ Missing or overlapping intervals;
	  ○ Duplicate data.
	• Drill hole data is also validated visually by domain and compared to the geological model

Site visits	• The Competent Person for the reporting of Mineral Resources last visited Koodaideri in 2014. There were no outcomes as a result of this visit.
Geological interpretation	• 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 is performed followed by interpretation of mineralisation boundaries. Three-dimensional wireframes of the sectional interpretations are created to produce the geological model. • The geological model is sub-divided into domains and both the composites and model blocks are coded with these domains. • 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	• Koodaideri 38W/21W extends approximately 8.6 km along strike in a west-northwest to east-southeast direction, up to 2.8 km across strike in a north-northeast to south-southwest direction and to a maximum depth of 100 m below surface (averaging 75 m in depth). • The hardcap (weathering) overprint extends across the deposit, varying in depth from 2 m to 40 m below surface (averaging 20 m in depth).
Estimation and modelling techniques	• Ten grade attributes (Fe, SiO_2, Al_2O_3, P, Mn, LOI, S, TiO_2, MgO, and CaO), and density were estimated for input into Mine Planning and Marketing assessments. • The grade estimation process was completed using Maptek™ Vulcan™ software. • Mineralised domains are predominantly estimated by ordinary kriging however those domains where robust semi-variograms were not able to be created employed inverse distance weighting to the second power. Non-mineralised domains are estimated by inverse distance weighting to the first power. These methods are deemed appropriate by the Competent Person for estimating the tonnes and grade of the reported Mineral Resources. • All domains were estimated with hard boundaries applied. • Statistical analysis was carried out on data from all domains. • Block sizes are 25 m (X) × 25 m (Y) × 5 m (Z) for parent blocks. Parent blocks are sub-celled to the geological boundaries to preserve volume.

Criteria	Commentary
	• Block models are rotated to align with the orientation of the deposits. • A 'high yield limit' or grade dependent restriction on a sample's range of influence was used for Mn and CaO. The limits differed for different domains and were selected based on histograms and spatial distribution of the respective assay values. • Grades are extrapolated to a maximum distance of approximately 400 m from data points. • The block model was validated using a combination of visual, statistical and multivariate global change of support techniques in the absence of any production data.
Moisture	• All Mineral Resource tonnages are estimated and reported on a dry basis.
Cut-off parameters	• The cut-off grade for High-Grade ore is greater than or equal to 60% Fe. • The cut-off for Brockman Process Ore is material 50% ≤ Fe < 60% and ≥ 3% Al_2O_3 < 6% (geology domain must be Dales Gorge, Joffre or Footwall Zone).
Mining factors or assumptions	• 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. • It is planned to blend ore from Koodaideri 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	• It is assumed that standard dry crush and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of the Koodaideri deposit.
Environmental factors or assumptions	• Rio Tinto Iron Ore has an extensive environmental and heritage approval process. A detailed review of these requirements has been undertaken in a recent Pre-Feasibility Study. No issues were identified that would impact on the Mineral Resource estimate. • Mapping of oxidised shales, black carbonaceous shales, lignite and pyrite, 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 Mineral Waste Management and Acid Rock Drainage (ARD) Control Environmental Standards.

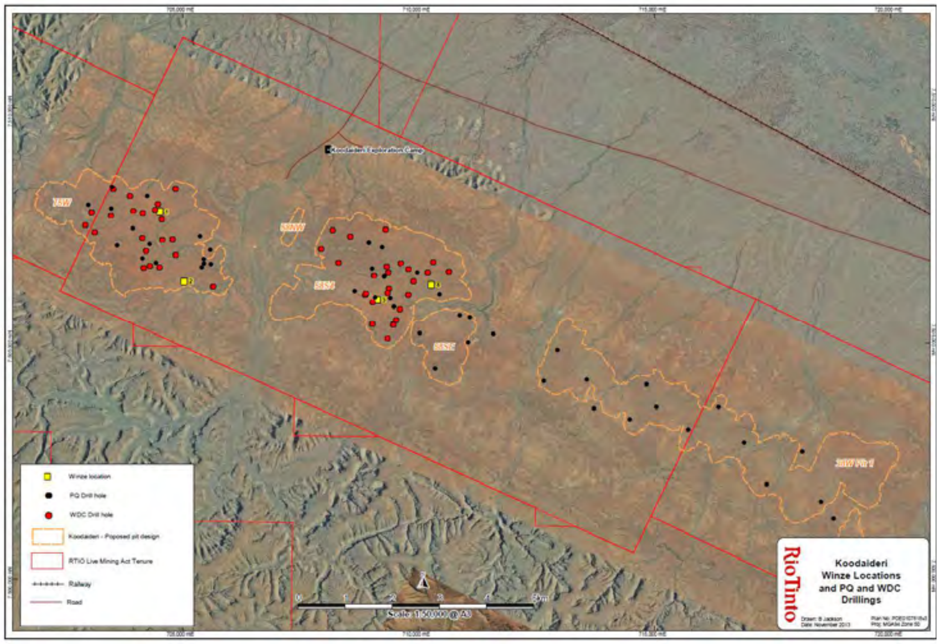
Bulk density	• Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Accepted gamma-density data is corrected for moisture using diamond drill core specifically drilled throughout the deposit.
	• Dry core densities are generated via the following process:
	  ○ The core volume is measured in the split and the mass of the core is measured and recorded.
	  ○ Wet core densities are calculated by the split and by the tray.
	  ○ Core recovery is recorded.
	  ○ The core is then dried and dry core masses are measured and recorded.
	  ○ Dry core densities are then calculated.
	• Accepted gamma-density values were estimated using ordinary kriging in mineralised zones and inverse distance weighted to the first power in waste zones.
	• Estimated gamma-density values were corrected for moisture using diamond drill core twinned with reverse circulation drilling.

Classification	• The Mineral Resource classification is Indicated and Inferred. Mineral Resources are predominantly in the Inferred category in areas of wider spaced drilling, increasing to Indicated where a tighter drill pattern is achieved. • Approximately 97% of the Mineral Resource lies above the water table. • The Competent Person is satisfied that the stated Mineral Resource classification reflects the geological controls interpreted and the estimation constraints of the deposits.
Audits or reviews	• All stages of Mineral Resource estimation have undergone an internal peer review process, which has documented all phases of the process. The Mineral Resource estimate has been accepted by the Competent Person.
Discussion of relative accuracy/ confidence	• Rio Tinto Iron Ore operate multiple mines in the Pilbara region of Western Australia. The Mineral Resource data collection and estimation techniques used for Koodaideri 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

Criteria	Commentary
	level of study (Pre-Feasibility Study).

SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Initial generation of the modifying factors for this Ore Reserve estimate were based on a Mineral Resource estimate completed in April 2012. Subsequent to the completion of the Pre-Feasibility Study an updated Mineral Resource estimate was completed (incorporating more recent drilling information) in 2013 which formed the basis for a redesign of the open pits. The most recent Mineral Resource estimate (2015), together with the latest update of pit designs were used for reporting Ore Reserves. • The declared Ore Reserves are for the Koodaideri 38W deposit. • Mineral Resources are reported in addition to Ore Reserves.
Site visits	• The Competent Person visited Koodaideri in 2016. • The outcome of this visit was observation of the Project area to better understand location, environmental, groundwater and infrastructure considerations.
Study status	• A Pre-Feasibility Study was completed in 2013. A Feasibility Study is in progress.
Cut-off parameters	• The cut-off grade for High-Grade ore is greater than or equal to 60% Fe.
Mining factors or assumptions	• The Mineral Resource model was regularised to a block size of 25 m (X) × 25 m (Y) × 5 m (Z) 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 tonnages, grades and yields. • Pit optimisations utilising the Lerchs-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 mine schedules and economic valuations utilised to validate the economic viability of the Ore Reserves. • Conventional mining methods (truck and shovel) similar to other Rio Tinto Iron Ore mines were selected. The mine has been designed to utilise in-pit crushing and conveying to transport ore to a central processing facility. • The geotechnical parameters have been applied based on geotechnical studies informed by assessments of 80 drill holes drilled during the 2011, 2012 & 2013 drilling programmes, specifically drilled for geotechnical purposes on the surrounding host rock. The resultant inter ramp slope angles vary between 18 and 49 degrees depending on the local rock mass and structural geological conditions. • The Pre-Feasibility and Feasibility Studies have 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	• The Koodaideri mine has been designed with a dry crushing and screening processing facility similar to processing facilities at other Rio Tinto Iron Ore mining operations. Studies into alternative processing technologies continue, however this has been excluded from this Ore Reserve declaration. • The proposed metallurgical process is a well-tested and proven processing methodology, having been utilised at Rio Tinto Iron Ore mining operations for decades. • During drill campaigns in 2003, 2011, 2012 and 2013 a total of 4,857 m of metallurgical diamond drill core (2,858 m PQ and 1,999 m Wide Diameter) were drilled in the K58W and K75W deposits and to a lesser extent K21W and K38W. Data obtained from this core formed the basis for metallurgical test work which informed the study for the design of the processing facility and metallurgical models. The map below show the location of these drill holes. • The diamond drill core test results were utilised to develop metallurgical models

Criteria	Commentary
	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. 
Environmental	• The Koodaideri project was referred to the Western Australian Environmental Protection Authority (EPA) on 28 May 2012, followed by a referral to the Commonwealth on 1 June 2012. The Koodaideri project was given a level of assessment of a Public Environmental Review under Part IV of the Environmental Protection Act 1986 (WA) The Koodaideri project was also determined to be a controlled action under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (Cwth). The project was assessed by the EPA under the bilateral assessment process agreed with the Commonwealth. Ministerial Statement 999 was granted by the State Minister for Environment on 10 March 2015. The EPBC 2012/6422 approval was granted by the Commonwealth on 9 May 2015. • A geochemical risk assessment has been completed for the project. The assessment encompasses all material types present at the site, and tests have been conducted in accordance with industry standards. Mining operations at the project pose a low acid mine drainage risk based on current pit designs and the assessment of samples from within the pit locations.
Infrastructure	• Access to the site during construction will be from the Great Northern Highway and then along the Roy Hill Road. A second access road from the south will link the existing Yandicoogina Access Road to the Koodaideri operations. • Main fuel freight and supply for ammonium nitrate and fuel oil (ANFO) will access Koodaideri via the Roy Hill Road. Fly-in, Fly-out (FIFO) personnel access will fly in to Barimunya Airport and be bussed to site. • Designs for buildings, explosives storage, workshops and related facilities proposed for the Koodaideri project have been modelled on existing Rio Tinto Iron Ore facilities, with modifications for safety, capital and operating efficiency. • A central hub for all non-process support facilities, will be located close the existing Munjina-Roy Hill road for ease of access. It is located central to the mine, processing plant and accommodation precinct. • The Koodaideri Explosive Facility is located north of the K58W pit and will be similar to facilities at Rio Tinto Iron ore projects in the Pilbara, Western Australia. • Electric power will be supplied to Koodaideri from the Rio Tinto transmission network via linking into an existing Rio Tinto 220 kV transmission line between Juna Downs and Yandicoogina. • Water for Koodaideri will be initially sourced from bores located to the east of Koodaideri together with other surrounding bores at Koodaideri. These bores will support construction and operations. • Ore will be railed to Rio Tinto's ports at Dampier and Cape Lambert. Upon completion of current and planned/approved construction projects, the port and railway networks will

Criteria	Commentary
	have sufficient capacity to accommodate ore supply from Koodaideri.
Costs	• The capital costs are based on a Definitive Engineering Study utilising experience from the construction of existing similar Rio Tinto Iron Ore projects in the Pilbara, Western Australia. • Operating costs were benchmarked with similar operating Rio Tinto Iron Ore mine sites. • 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	• It is planned to blend ore from Koodaideri with ore from other Rio Tinto Iron Ore mine sites to make a saleable ore product. Koodaideri 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 a high Fe product, whilst reducing both the average values, and variability, of SiO_2, Al_2O_3, and P. This product attracts a market premium and accounts for annual sales in excess of 150 Mt/a. • The supply and demand situation for iron ore is affected by a wide range of factors, and 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 Koodaideri 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 Koodaideri deposits are located within existing Mining Lease AM70/00252 (ML252SA), which was granted under the Iron Ore (Mount Bruce) Agreement Act 1972. • Additional tenure is required to connect the mine with the existing Rio Tinto Iron Ore rail network, as well as for roads, power, water and camp locations located outside of the ML252SA. Rio Tinto Iron Ore is currently in the process of negotiating third party consent to facilitate the grant of tenure for rail and ancillary infrastructure corridors. • The Koodaideri mine and most of the proposed associated infrastructure falls within the area of the Banjima group's registered native title claim. The north-west rail option route lies within both Banjima and Yindjibarndi Native Title Claims. • The Koodaideri project is located in the Hamersley Range, which has a deep and rich history of Aboriginal occupation. A number of ethnographic surveys and archaeological surveys of the area have been completed to date, in which heritage sites have been identified and considered during mine planning and engineering activities. • Rio Tinto Iron Ore has undertaken environmental surveys across the project area to support the development of the Koodaideri project including flora and vegetation and vertebrate fauna surveys, troglofauna sampling and an assessment of bat colonies and aquatic habitats. • A number of native vegetation clearing permits have been granted by the Western Australian Department of Mines and Petroleum (DMP) to allow for preliminary works such as sterilization drilling, geotechnical investigations, mineral exploration, a construction camp, and associated activities. • The Koodaideri deposits and associated infrastructure are located within the Shire of Ashburton and the Shire of East Pilbara. Rio Tinto Iron Ore has established engagement frameworks with the Shire of Ashburton and the Shire of East Pilbara, which includes scheduled meetings and project updates. Engagement with both Shires on Koodaideri has been established and will be ongoing throughout the project.

Criteria	Commentary
Other	• Semi-quantitative risk assessments have been undertaken throughout the Koodaideri study phases, no material naturally occurring risks have been identified through the above mentioned risk management processes. • The mine and associated rail routes require additional tenure. Negotiations are ongoing with third parties and are generally progressing satisfactorily.
Classification	• The Ore Reserves consist of 100% Probable Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of technical and economic studies.
Audits or reviews	• No external audits have been performed. • 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 Koodaideri deposits 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 percent for tonnes on an annual basis. This result is indicative of a robust Ore Reserve estimation process. • Accuracy and confidence of modifying factors are generally consistent with the current level of study (Pre-Feasibility Study). It is anticipated that the modifying factors will be further refined during the Feasibility Study which is currently under way.

Hope Downs 2 - Table 1

The following table provides a summary of important assessment and reporting criteria used at the Hope Downs 2 for the reporting of Mineral Resources 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	• Samples for geological logging, assay, geotechnical, metallurgical and density test work are collected via drilling. • 2014-2015, drilling programmes were conducted on regularly spaced grids across the deposit. All intervals are sampled. • Reverse circulation drilling utilises a static or rotary cone splitter beneath a cyclone return system to obtain a primary and secondary sample, with particular attention on samples collected being of comparable weights. The splitter produces two 8% samples (‘A’ and ‘B’) and one 84% reject sample. Primary ‘A’ sample was collected at 2 m intervals through 8% blades from the outer cone of splitter. • Diamond core drilling uses triple-tube techniques and samples were taken at 1 meter intervals. • Density samples are collected from via diamond core drilling of PQ-3 core. • Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Density measured from accepted gamma-density is corrected for moisture from diamond drill core twinned with reverse circulation drilling. • Mineralisation is determined by a combination of geological logging and assay results
Drilling techniques	• Drilling is predominantly reverse circulation with a lesser proportion of percussion and diamond drill core (Refer to Section 2, Drill hole Information, for a detailed breakdown of drilling by method and year). • The majority of drilling is angled to better approximate true thickness. • Diamond core drilling was PQ core size (PQ-3 = 83.0 mm core diameter) using triple tube techniques. • Reverse circulation drilling utilises 140 mm diameter face sampling bit with sample shroud, attached to pneumatic piston hammer used to penetrate ground and deliver sample up 6 m drill rod inner tubes (4 m starter rod) through to the cyclone and cone splitter with the aid of rig and auxiliary booster compressed air. • Majority of the 2014-2015 holes were drilled wet from surface, using water injection to mitigate risks associated with fibrous mineral intersection in Marra Mamba Formation
Drill sample recovery	• No direct recovery measurements of reserve circulation samples are performed. Sample weights are recorded at laboratory as sample received and at the rig is qualitatively estimated for loss per drilling interval. • Diamond core recovery is maximised via the use of triple-tube sampling and additive drilling muds. • Diamond core recovery is recorded using rock quality designation (RQD) measurements with all cavities and core loss recorded in the Rio Tinto Iron Ore acQuire™ database. • Sample recovery in some friable mineralisation may be reduced; however it is unlikely to have a material impact on the reported assays for these intervals. • Thorough analysis of duplicate sample performance does not indicate any chemical bias as a result of inequalities in samples weights.
Logging	• All drill holes are geologically logged utilising standard Rio Tinto Iron Ore Material Type Classification Scheme (RTIO MTCS) logging codes and entered into the acQuire™ database package on field Toughbook laptops. • Internal training and validation of logging includes RTIO MTCS identification and calibration workshops, peer reviews and validation of logging verses assay results. • Geological logging is performed on 2 m intervals for all reverse circulation drilling, and either 1 m or 2 m intervals for diamond holes, depending on the level of detail required. • All diamond drill core is photographed digitally and files stored on Rio Tinto network servers. • Magnetic Susceptibility readings taken using a Kappameter for each interval. • Since 2001, all drill holes have been geophysically logged using downhole tools for gamma trace, calliper, gamma density, resistivity, and magnetic susceptibility. • Open-hole acoustic and optical televiewer image data have been collected in specific

Criteria	Commentary
	reverse circulation and diamond drill core holes throughout the deposit for structural analyses. • For 1980's and 1990's drill campaigns, geological data was recorded on paper logs. Materials were resolved predominantly to 5%, with 1% resolutions also used (rarely) for trace constituents.

Sub-sampling techniques and sample preparation	Sub-sampling techniques:
	• 2014-2015:
	  ○ 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 splits of:
	    ▪ 'A' Split – Analytical sample – 8%
	    ▪ 'B' Split – Retention sample – 8%
	    ▪ Bulk Reject – 84%.
	
	Sampling preparation:
	• 2014–2015:
	  ○ 'A' split sample dried at 105° C.
	  ○ Sample crushed to -3 mm using Boyd Crusher and split using a linear and rotary sample divider to capture 1 – 2.5 kg samples.
	  ○ Robotic and Manual LM5 used to pulverise total sample (1 – 2.5 kg) to 90% of weight passing 150 micrometers (µm) sieve.
	  ○ A 100 gram sub sample collected for analysis.
	  ○ Diamond drill core samples are crushed to -6 mm particle size (whole core sample) and follow reverse circulation sample preparation if they are to be assayed.
	• 1989-1996:
	  ○ Drilling was conducted by Hancock Prospecting Pty Ltd, and details of sample preparation are not available.

Quality of assay data and laboratory tests	Assay methods:
	• All assaying of samples used in Mineral Resource estimates have been performed by independent, National Association of Testing Authorities (NATA) certified laboratories.
	• 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, Na are assayed using industry standard lithium tetraborate and lithium metaborate fusion and X-Ray Fluorescence (XRF) analytical technique.
	• Loss on Ignition (LOI) is determined using industry standard Thermo-Gravimetric Analyser (TGA) and was measured at three steps of temperatures: 140° - 425° C, 425° - 650° C, 650° - 1000° C.
	• Samples were dispatched to Perth for preparation and analytical testing:
	  ○ 2014-2015
	    ▪ Samples were submitted to Genalysis Laboratory Services Pty Ltd in Perth for sample preparation and analytical testing
	
	Quality assurance measures include:
	• Insertion of coarse reference standard by Rio Tinto Iron Ore 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 is 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).
	• Coarse reference standards contain a trace of strontium carbonate that is added at the time of preparation for ease of identification.
	• Field duplicates were collected by sacrificing a 'B' split retention sample directly from the rig splitter. Duplicate insertion occurred at a frequency of one in 20. Trace zinc is included in the duplicate sample for later identification.
	• At a frequency of one in 20, -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 identify grouping, segregation and delimitation errors.
	• Internal laboratory quality assurance and quality control measures involve the use of internal laboratory standards using certified reference material in the form of pulps, blanks and duplicates were inserted in each batch.
	• Random re-submission of pulps at an external laboratory is performed following analysis.
	• Chemical Analysis Testing (CAT) and Analytical Precision Testing (APT) samples were collected one per batch and submitted to third party (Geostats) as part of Rio Tinto Iron Ore

Criteria	Commentary
	quality assurance and quality control (RTIO QA/QC) procedures to attained analytical precision and accuracy. • Analysis of the performance of certified standard and field duplicates has indicated an acceptable level of accuracy and precision with no significant bias.
Verification of sampling and assaying	• No twinned holes of reverse circulation and diamond drill core were used. • Field data was logged directly onto field Toughbook laptops using pre-formatted and validated logging templates, with details uploaded to the acQuire™ database on a daily basis. • Assay data was returned electronically from the laboratory and uploaded into the acQuire™ database. • 2012-2015 assay data were only accepted in the acQuire™ database once the quality control process undertaken utilising Batch Analysis tool. • 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 is 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.
Location of data points	• Most historical drill hole collar locations were resurveyed by Rio Tinto Iron Ore in 2008. • From 2010 onwards, all drill hole collar locations at the Hope Downs 2 deposit have been surveyed to Geocentric Datum of Australia 1994 (GDA94) and Map Grid of Australia 1994 (MGA94) Zone 50 grid by qualified surveyors using Differential Global Positioning System (DGPS) survey equipment, accurate to 10 cm in both horizontal and vertical directions. • Collar location data is validated by checking actual versus planned coordinate discrepancies. Once validated, the survey data is uploaded into the the acQuire™ database. • Drill hole collar reduced level (RL) data is compared to detailed topographic maps and shows that the collar survey data is accurate. • All holes interpreted and used in the resource model have surveyed coordinates. Holes with suspect collar coordinates were excluded from the data set. • Down-hole surveys were conducted on nearly every hole, with the exception of collapsed or otherwise hazardous holes, and any significant, unexpected deviations were investigated and validated. Holes greater than 100 metres in depth are generally surveyed with an in-rod gyroscopic tool to accurately measure downhole deviation. • The topographic surface is based on 2 m contour data.
Data spacing and distribution	• Drilling was mainly 100 m × 50 m and in-filled to 50 m × 50 m in some areas. Wider spaced drilling of 200 m ×100 m was used for the eastern portion of the deposit. • Angled holes were used to intersect dipping stratigraphy at right angles. • The drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied. • The mineralised domains for the Hope Downs 2 deposit have demonstrated sufficient continuity in both geology and grade to support the definition of Mineral Resources, and the classifications applied under the 2012 JORC Code guidelines.
Orientation of data in relation to geological structure	• Drill lines are oriented on a rotated north/south grid, perpendicular to the deposit strike. • Drilling is predominantly angled (70°-85°) to intersect bedding at right angles and to allow for Televiewer data. • The general stratigraphy of the deposit is a gently dipping (varying between 5 to 30 degrees) synclinal structure with minor folds and a large fault through the centre of the deposit.
Sample security	• The sample chain of custody is managed by Rio Tinto Ltd. • Analytical samples ('A' splits) are collected by field assistants, placed onto steel sample racks and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. • Retention samples ('B' splits) are collected and stored in drums at on-site facilities. • 150 gram of excess pulps from primary samples is retained indefinitely at laboratories and external storage facilities at CTI Logistics Ltd in Perth, Western Australia.
Audits or reviews	• No external audits have been performed specifically on sampling techniques or data. • Inter-lab checks were performed in 2014 and 2015. A collection of coarse retentions from randomly distributed drill holes across Hope Downs deposits were sent by Genalysis Laboratory Services Pty Ltd to Australian Laboratory Services Pty Ltd and Bureau Veritas Minerals Pty Ltd (formerly Ultra Trace Laboratories). Results of the re-analysed coarse retentions were sent by electronic distribution to Rio Tinto Iron Ore geologists for analysis. No conflicted results were identified.

Criteria	Commentary
	• 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.

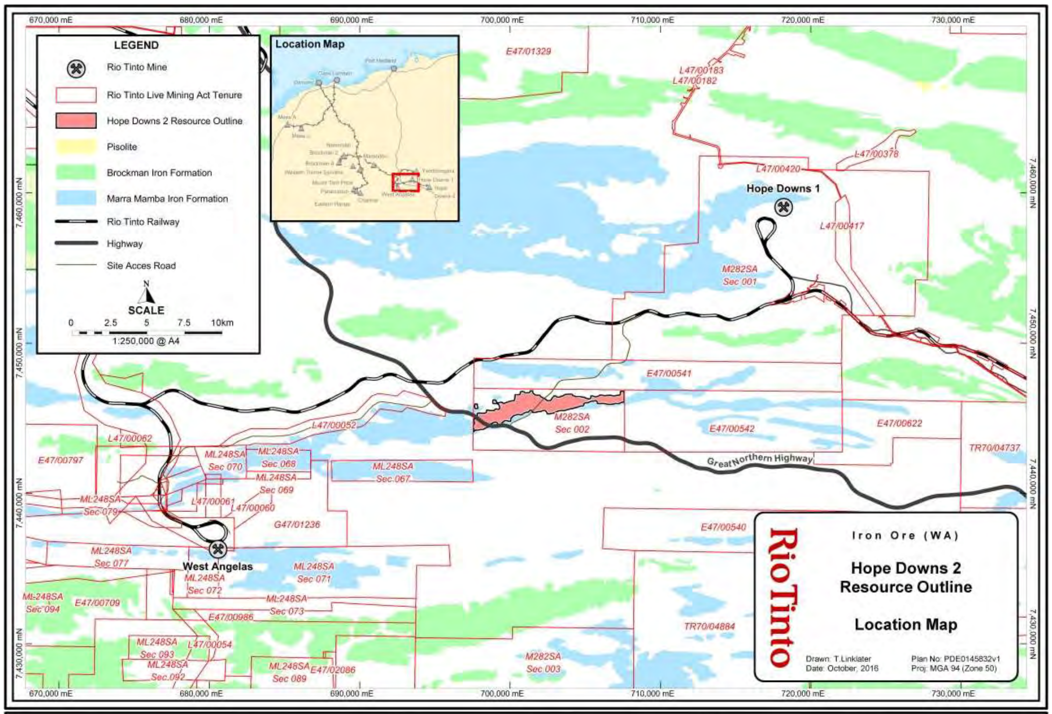
SECTION 2 REPORTING OF EXPLORATION RESULTS

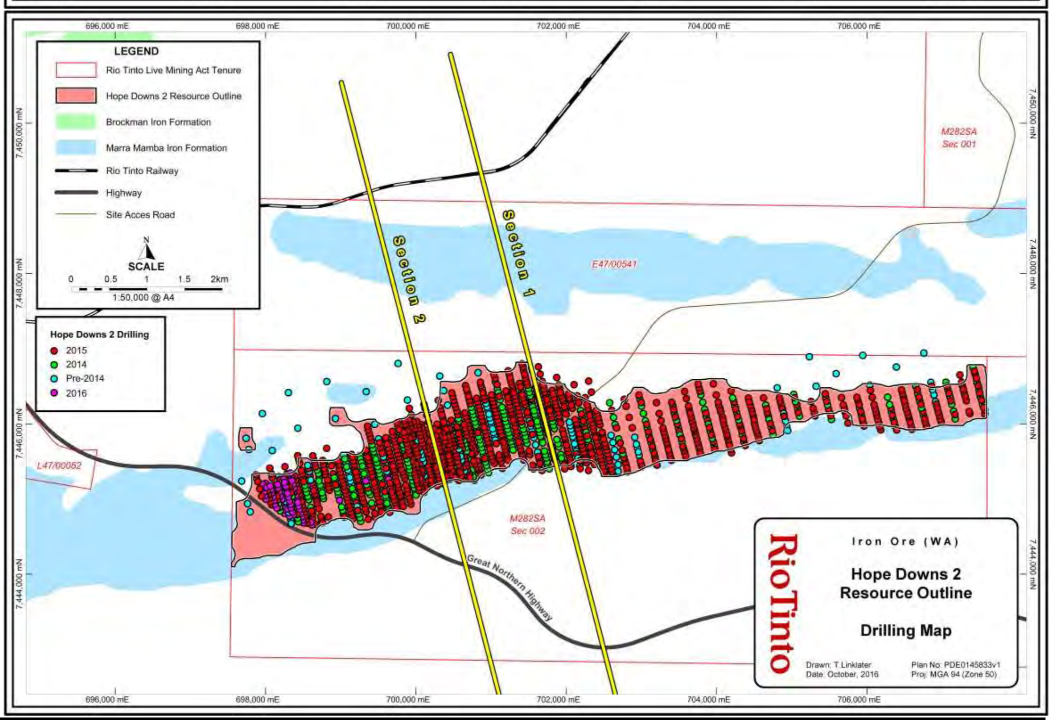
Criteria	Commentary
Mineral tenement and land tenure status	• The deposit is located on Mining Lease AM70/00282, granted 31/03/2006. ML282SA is held by the Hope Downs Joint Venture, under the Hope Downs Joint Venture Agreement. The participants in the Hope Downs Joint Venture are as follows: o Hope Downs Iron Ore Pty Ltd 50%; and o Hamersley WA Pty Ltd 50%.
Exploration done by other parties	• Exploration was completed by Hancock Prospecting Pty Ltd across various programs between 1989-1996.
Geology	• The deposit contains both detrital and bedded-hosted iron mineralisation. • Bedded mineralisation is hosted within the Mount Newman Member of the Marra Mamba Iron Formation. It is located within a complex geological setting that is thrust faulted, folded and overlaid with detritals. • Detrital mineralisation predominantly comprises Marra Mamba derived Red Ochre Detritals (ROD).
Drill hole Information	• Summary of drilling data used for the Hope Downs 2 Mineral Resource estimate:

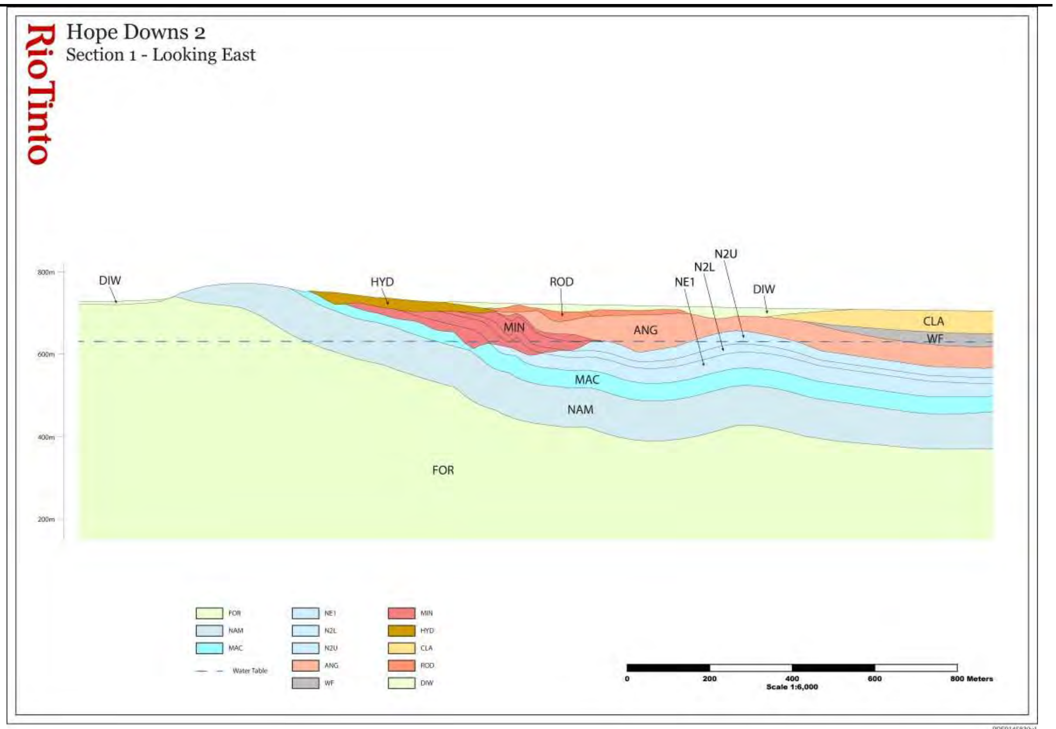
Year	Diamond Holes		Reverse Circulation	
	# Holes	Metres	# Holes	Metres
1989	-	-	9	492
1990	-	-	7	312
1991	-	-	3	234
1992	-	-	80	6,140
1993	-	-	6	530
1996	-	-	28	2,210
2014	-	-	279	21,040
2015	14	916.3	927	71,026
Total	**14**	**916.3**	**1,339**	**101,984**

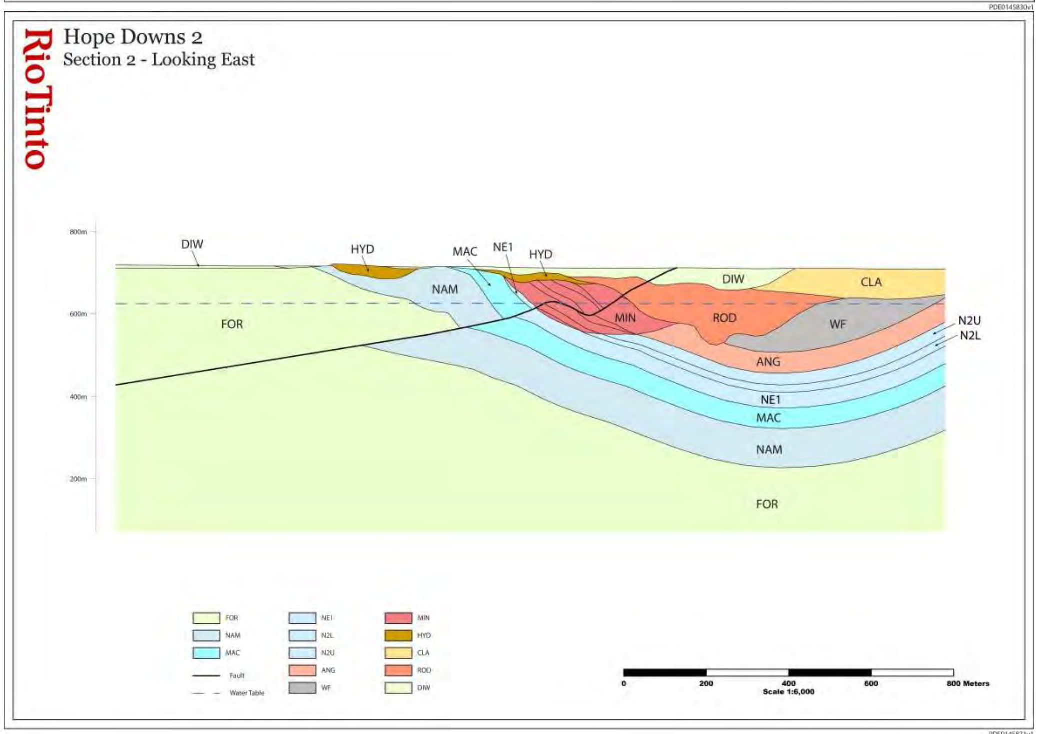
Criteria	Commentary
Drill hole Information (continued)	• A total of 1,353 drill holes were included in the geological model for interpretation and estimation. • Three reverse circulation holes in 2015 were pre collar diamond holes (96 m). • Four drill holes were excluded from the data set due to no assay data or unreliable survey co-ordinates.
Data aggregation methods	• All assay, geology, and density data have been composited to 2 m for Mineral Resource modelling and estimation. • No grade truncations are performed.
Relationship between mineralisation widths and intercept lengths	• Geometry of the mineralisation with respect to the drill hole angle is well-defined in most areas of the deposit. Strata are generally dipping/sometimes folded and perceived true width is held consistent during geological interpretations.

Diagrams


LEGEND
Rio Tinto Mine
Rio Tinto Live Mining Act Tenure
Hope Downs 2 Resource Outline
Pisolite
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Highway
Site Acces Road
SCALE
1:250,000 @ A4
Location Map
Hope Downs 1
West Angelas
Great Northern Highway
Iron Ore (WA)
Hope Downs 2
Resource Outline
Location Map
RioTinto
Drawn: T.Linklater
Date: October, 2016
Plan No: PDE0145832v1
Proj: MGA 94 (Zone 50)


LEGEND
Rio Tinto Live Mining Act Tenure
Hope Downs 2 Resource Outline
Brockman Iron Formation
Marra Mamba Iron Formation
Rio Tinto Railway
Highway
Site Acces Road
SCALE
1:50,000 @ A4
Hope Downs 2 Drilling
2015
2014
Pre-2014
2016
Section 1
Section 2
Great Northern Highway
Iron Ore (WA)
Hope Downs 2
Resource Outline
Drilling Map
RioTinto
Drawn: T.Linklater
Date: October, 2016
Plan No: PDE0145833v1
Proj: MGA 94 (Zone 50)





Balanced reporting	• Not applicable as Rio Tinto Ltd. has not released exploration results for this deposit.
Other substantive exploration data	• Detailed geological surface mapping was collected across the Hope Downs 2 area in 2013 at 1:5,000 scale.
Further work	• Further work at Hope Downs 2 is required to better define the orebody and improve structural understanding. Additional infill grade reverse circulation drilling (50 m × 50 m) is required across most of the deposit. • Geotechnical drilling and metallurgical test work is required across the deposit.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Commentary
Database integrity	• Drilling data is securely stored in an acQuire™ geoscientific information management system managed by a dedicated team within Rio Tinto Iron Ore. The system is backed up nightly on servers located in Perth, Western Australia. The backup system was tested in May 2016, 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 acQuire™ database, editing is very limited and warning messages ensure accidental changes are 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 and tags; o Survey data down-hole consistency; o Null and negative grade values; o Missing or overlapping intervals; o Duplicate data. • Drill hole data is also validated visually by domain and compared to the geological model
Site visits	• The Competent Person last visited Hope Downs 2 in 2015. There were no outcomes as a result of these visits.
Geological interpretation	• 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 is performed followed by interpretation of mineralisation boundaries. Three-dimensional wireframes of the sectional interpretations are created to produce the geological model. • 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. • The geological model is sub-divided into domains and both the composites and model blocks are coded with these domains.
Dimensions	• Hope Downs 2 strikes approximately 070 degrees with an along strike extent of approximately 10 km and a width of 1.4 km. The mineralisation extends from surface to a depth of 200 m.
Estimation and modelling techniques	• Ten grade attributes Fe, SiO_2, Al_2O_3, P, Mn, LOI, S, TiO_2, MgO, and CaO), and density were estimated for input into Mine Planning and Marketing assessments. • The grade estimation process was completed using Maptek™ Vulcan™ software. • Mineralised domains are predominantly estimated by ordinary kriging however those domains where robust semi-variograms were not able to be created employed inverse distance weighting to the second power. Non-mineralised domains are estimated by inverse distance weighting to the first power. These methods are deemed appropriate by the Competent Person for estimating the tonnes and grade of the reported Mineral Resources. • All domains were estimated with hard boundaries applied. • A block size of 25 m (X) × 25 m (Y) × 5 m (Z) was used for parent blocks. Parent blocks are sub-celled to the geological boundaries to preserve volume. • Statistical analysis was carried out on data from all domains. • A 'high yield limit' or grade dependent restriction on a sample's range of influence was used for Mn, S, and CaO for the mineralised domains. The limits differed for different domains

Criteria	Commentary
	and were selected based on histograms and the spatial distribution of the respective assay values. • Grades were extrapolated to a maximum distance of approximately 400 m from data points. • The block model was validated using a combination of visual, statistical, and multivariate global change of support techniques in the absence of any production data.
Moisture	• All Mineral Resource tonnages are estimated and reported on a dry basis.
Cut-off parameters	• The cut-off for high grade ore is greater than or equal to 58% Fe.
Mining factors or assumptions	• 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. • It is planned to blend ore from Hope Downs 2 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	• It is assumed that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of Hope Downs 2.
Environmental factors or assumptions	• Rio Tinto Iron Ore has an extensive environmental and heritage approval process. No issues have yet been identified that would impact on the Mineral Resource. • Mapping of oxidised shales, black carbonaceous shales, lignite and pyrite, 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 Mineral Waste Management and Acid Rock Drainage (ARD) Control Environmental Standards.
Bulk density	• Dry bulk density is derived from accepted gamma-density data collected at 10 cm intervals from down-hole geophysical sondes. Accepted gamma-density data is corrected for moisture using diamond drill core specifically drilled throughout the deposit. • Dry core densities are generated via the following process: ○ The core volume is measured in the split and the mass of the core is measured and recorded. ○ Wet core densities are calculated by the split and by the tray. ○ Core recovery is recorded. ○ The core is then dried and dry core masses are measured and recorded. ○ Dry core densities are then calculated. • Accepted gamma-density values were estimated using ordinary kriging in mineralised zones and inverse distance weighted to the second power in waste zones. • Estimated gamma-density values were corrected for moisture using diamond drill core twinned with reverse circulation drilling.
Classification	• 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). • Approximately 77% of the 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	• All stages of Mineral Resource estimation have undergone an internal peer review process, which has documented all phases of the process. The Mineral Resource estimate has been accepted by the Competent Person.
Discussion of relative accuracy/ confidence	• 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 Hope Downs 2 deposit 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.