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### ASX ANNOUNCEMENT

28 September 2023

ASX Code: MGX

## Mineral Resources and Ore Reserves Statement as at 30 June 2023

- Mount Gibson Iron Limited (**Mount Gibson** or the **Company**) reports its Mineral Resources and Ore Reserves estimates as at 30 June 2023.
- Koolan Island Ore Reserves of 12.4 Mt at 65.2% Fe, confirming Koolan Island's status as Australia's highest grade direct shipping hematite iron ore operation, and underpinning future high grade production. The movement from the prior year's Ore Reserve estimate (2022: 16.0 Mt at 65.4% Fe) largely reflects mining depletion in the Main Pit.
- Total Group Mineral Resources of 41.5 Mt grading 63.3% Fe, with movements from the prior year (2022: 59.8 Mt at 62.2% Fe) reflecting mining depletion at Koolan Island and removal of the Shine Mineral Resource (15.1 Mt at 58.2% Fe) due to its recent divestment.
- Mineral Resources are reported inclusive of Ore Reserves, and all tonnages are estimated as dry metric tonnages.

### Summary

This statement details the Mineral Resources and Ore Reserves estimates of Mount Gibson as at 30 June 2023 in accordance with the JORC Code (2012 Edition) and ASX Listing Rules.

Total Mineral Resources are estimated at **41.5 million tonnes (Mt) of iron ore at an average grade of 63.3% Fe** (30 June 2022: 59.8 Mt at 62.2% Fe), and total **Ore Reserves** are estimated at **12.4 Mt at an average grade of 65.2% Fe** (30 June 2022: 16.0 Mt at 65.4% Fe).

The changes in the Mineral Resources and Ore Reserves estimates compared with the prior year primarily reflect mining depletion at Koolan Island and removal of the Shine Project Mineral Resource estimate due to its announced divestment on 29 June 2023 (subsequently completed on 21 July 2023).

### Koolan Island

Mineral Resources at Koolan Island as at 30 June 2023 totalled 41.5 Mt grading 63.3% Fe, including 30.5 Mt grading 64.3% Fe within the high grade Main Deposit. Mineral Resources at Koolan Island were reduced by approximately 3.2 Mt in the year to 30 June 2023 primarily through mining depletion.

Mount Gibson's Ore Reserves are all located at Koolan Island, where the Ore Reserve estimate totals 12.4 Mt grading 65.2% Fe. Ore Reserves at Koolan Island were reduced by approximately 3.6 Mt over the year, largely reflecting mining depletion in the Main Deposit.

Measured Resources and Proved Reserves include substantial mined and processed ore stockpiles totalling 1.2 Mt at an average grade of 63.3% Fe as at 30 June 2023. These stockpiles reflect the Company's investment in building mined ore inventories during the past financial year while repairs were completed to the Koolan Island processing plant damaged by the August 2022 fire.

Mount Gibson confirms that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates continue to apply and have not materially changed. Historical production experience and reconciliations have provided confidence in the estimation methodology and results, with depletion from mining being in balance with production outputs.

### Mid-West

A material change occurred to the Mid-West Mineral Resources during the reporting period due to the divestment of Mount Gibson's iron ore mining and infrastructure interests, including the suspended Shine Project and the closed Extension Hill mine site. The divestment was announced on 29 June 2023 and completed shortly after the reporting period on 21 July 2023 (refer ASX releases dated 29 June and 24 July 2023).

Consequently, Mount Gibson has removed the Shine Mineral Resources estimate, which totalled 15.1 Mt at an average grade of 58.2% Fe at 30 June 2022, from the Company's Mineral Resources statement.

## **Other Disclosures**

No other material changes occurred during the reporting period with regards to Mount Gibson's Mineral Resources and Ore Reserves estimates.

Mount Gibson has maintained consistency and not changed sampling methods, sub-sampling techniques or sample assay analyses, drill and data spacing, estimation methodology, cut-off grade, or mining and metallurgical methods in any material way.

All of Mount Gibson's Mineral Resources and Ore Reserves estimates are reported in compliance with the JORC Code, 2012 Edition and the ASX Listing Rules. Mineral Resources are reported inclusive of Ore Reserves and all tonnages have been estimated as dry metric tonnages.

Refer to Tables A and B on the following pages for details of the Mineral Resources and Ore Reserves estimates by individual project and for the Group, and for Competent Person disclosures.

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## Mineral Resources and Ore Reserves Statement as at 30 June 2023

Koolan Island					
	Tonnes millions	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
Mineral Resources, above	50% Fe (includes	Mined Ore Stock	piles)	1	T
Measured	4.0	61.1	11.63	0.48	0.009
Indicated	27.8	64.6	5.80	0.64	0.014
Inferred	9.7	60.4	12.31	0.59	0.013
Total at 30 June 2023	41.5	63.3	8.24	0.58	0.013
Total at 30 June 2022	44.7	63.6	7.71	0.61	0.013
Ore Reserves, above 50%	6 Fe (includes Mine	d Ore Stockpiles)			
Proved	1.2	63.3	7.22	0.93	0.013
Probable	11.2	65.4	4.93	0.78	0.014
Total at 30 June 2023	12.4	65.2	5.15	0.79	0.014
Total at 30 June 2022	16.0	65.4	4.79	0.85	0.013
Mined ROM Stockpiles av	ailable for processi	ing (included in M	leasured Resource	es and Proved Re	eserves)
Total at 30 June 2023	1.2	63.3	7.21	0.93	0.013
Total at 30 June 2022	-	-	-	-	-
Shine*				•	
	Tonnes millions	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
Mineral Resources, above	e 50% Fe				
Total at 30 June 2023*	-	-	-	-	-
Total at 30 June 2022	15.1	58.2	9.54	1.36	0.071

### Table A: Mineral Resources and Ore Reserves by Project as at 30 June 2023

Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves. \*Shine Mineral Resources were removed due to their being subject to the sale agreement for Mount Gibson's Mid-West iron ore assets announced on 29 June 2023 and completed on 21 July 2023.

Total Group Mineral Resources and Ore Reserves at 30 June 2023 (above 50% Fe)					
	Tonnes millions	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
Total Mineral Resources at 30 June 2023	41.5	63.3	8.24	0.58	0.013
Total Ore Reserves at 30 June 2023	12.4	65.2	5.14	0.79	0.014
Total Mineral Resources at 30 June 2022	59.8	62.2	8.17	0.80	0.028
Total Ore Reserves at 30 June 2022	16.0	65.4	4.79	0.85	0.013
Discrepancies may appear due to rounding Minaral Resources are reported inclusive of Ore Resource. All tempages have					

Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Mineral Resources and Ore Reserves are reported inclusive or mined Ore stockpiles at Koolan Island.

### **Competent Persons and Responsibilities**

### Exploration Results:

The information in this report that relates to Exploration Results including sampling techniques and data management is based on information compiled by Brett Morey, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Morey is a full-time employee of Mount Gibson Iron Limited and has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken, to qualify as a Competent Person as defined in the December 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Morey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### Mineral Resources:

The information in this report relating to Mineral Resources is based on information compiled by Elizabeth Haren, a Competent Person who is a member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and member of the Australian Institute of Geoscientists. Ms Haren was a full-time employee of, and is now a consultant to, Mount Gibson Iron Limited. Ms Haren has 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 a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ms Haren consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

### Ore Reserves:

The information in this report relating to Ore Reserves is based on information compiled by Brett Morey, a member of the Australasian Institute of Mining and Metallurgy. Mr Morey is a full-time employee of Mount Gibson Iron Limited and has 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 a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Morey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Mineral Resources and Ore Reserves Explanatory Notes KOOLAN ISLAND

Koolan Island					
	Tonnes millions	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
Mineral Resources, above 50% Fe					
Measured	4.0	61.1	11.63	0.48	0.009
Indicated	27.8	64.6	6.26	0.61	0.014
Inferred	9.7	60.4	12.40	0.58	0.013
Total	41.5	63.3	8.21	0.59	0.013
Total as at 30 June 2022	44.7	63.6	7.71	0.61	0.013
Ore Reserves, above 50% Fe					
Proved	1.2	63.3	7.21	0.93	0.013
Probable	11.2	65.4	4.93	0.78	0.014
Total as at 30 June 2023	12.4	65.2	5.14	0.79	0.014
Total as at 30 June 2022	16.0	65.4	4.79	0.85	0.013
Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves.					

Total Koolan Island Mineral Resources and Ore Reserves as at 30 June 2023.

- The Mineral Resource at Koolan Island has been depleted by approximately 3.2 Mt through mining depletion since 30 June 2022.
- The Mineral Resource at Koolan Island includes 1.2 Mt of stockpiles which have been classified as Measured in Mineral Resource Estimate. Stockpiles include ex-pit run of mine (ROM) and processed ore stockpiles.
- The Ore Reserve at Koolan Island was depleted by approximately 3.6 Mt through mining since 30 June 2022.
- The Ore Reserve at Koolan Island includes 1.2 Mt of stockpiles which have been classified as Proved in the Ore Reserve estimate. Stockpiles include ex-pit run of mine (ROM) and processed ore stockpiles.

## **Main Deposit**

Main					
	Tonnes millions	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %
Mineral Resources, above 50% Fe					
Measured	2.1	59.8	13.80	0.34	0.007
Indicated	23.3	65.3	5.24	0.63	0.012
Inferred	5.2	61.3	11.25	0.76	0.010
Total as at 30 June 2023	30.5	64.3	6.84	0.63	0.012
Total as at 30 June 2022	34.9	64.6	6.23	0.66	0.011
Ore Reserves, above 50% Fe					
Proved	-	-	-	-	-
Probable	11.2	65.4	4.93	0.78	0.014
Total as at 30 June 2023	11.2	65.4	4.93	0.78	0.014
Total as at 30 June 2022	16.0	65.4	4.79	0.85	0.013
Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves.					

- The Mineral Resource at the Main Deposit has been depleted by approximately 3.2 Mt through mining since 30 June 2022.
- The reporting of the Mineral Resource of the Main Deposit is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules. A summary of the JORC Code, 2012 Edition Table 1 for Koolan Island Main is provided in Appendix 1.
- The Ore Reserve at the Main Deposit was depleted by approximately 3.6 Mt through mining since 30 June 2022.
- The reporting of the Ore Reserve for the Main Deposit is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules. A summary of the JORC Code, 2012 Edition Table 1 for Koolan Island Main Deposit is provided in Appendix 1.

## Acacia East Deposit

Acacia East							
	Tonnes	Fe	SiO <sub>2</sub>	$AI_2O_3$	Р		
	millions	%	%	%	%		
Mineral Resources, above 50% Fe							
Measured	0.7	60.9	12.63	0.15	0.008		
Indicated	2.4	61.5	11.62	0.23	0.010		
Inferred	3.4	60.0	13.70	0.19	0.010		
Total as at 30 June 2023	6.6	60.6	12.80	0.20	0.009		
Total as at 30 June 2022	6.6	60.6	12.80	0.20	0.009		
Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages.							

 The Mineral Resource at the Acacia East deposit has not been re-interpreted or re-estimated since 30 June 2022. • The reporting of the Mineral Resource of Acacia East is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules. A summary of the JORC Code, 2012 Edition Table 1 for Koolan Island Acacia East is provided in Appendix 2.

## **Mangrove Deposit**

Mangrove						
Tonnes millions	Fe %	SiO₂ %	Al <sub>2</sub> O <sub>3</sub> %	P %		
Mineral Resources, above 50% Fe						
-	-	-	-	-		
2.1	59.9	11.36	0.80	0.039		
1.2	58.2	13.70	0.97	0.038		
3.3	59.3	12.21	0.86	0.039		
3.3	59.3	12.21	0.86	0.039		
	millions 50% Fe 2.1 1.2 3.3	millions         %           50% Fe         -           2.1         59.9           1.2         58.2           3.3         59.3	millions         %         %           50% Fe             2.1         59.9         11.36           1.2         58.2         13.70           3.3         59.3         12.21	millions         %         %           50% Fe         -         -           2.1         59.9         11.36         0.80           1.2         58.2         13.70         0.97           3.3         59.3         12.21         0.86		

Discrepancies may appear due to rounding. All tonnages have been estimated as dry tonnages.

- The Mineral Resource at Koolan Island Mangrove deposit has not changed since 30 June 2022.
- The reporting of the Mangrove Mineral Resource is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules. A summary of the JORC Code, 2012 Edition Table 1 for Koolan Island Mangrove is provided in Appendix 3.

## **MID-WEST**

## SHINE PROJECT

Total Shine Mineral Resources at 30 June 2023.

Shine					
	Tonnes	Fe	SiO <sub>2</sub>	$AI_2O_3$	Р
	millions	%	%	%	%
Mineral Resources, above 50% Fe					
Total as at 30 June 2023         -         -         -         -         -					
Total as at 30 June 2022	15.1	58.2	9.54	1.36	0.071
Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages.					

- Shine Mineral Resources were removed due to their being subject to the sale agreement for Mount Gibson's Mid-West iron ore assets announced on 29 June 2023 and completed on 21 July 2023.
- The reporting of the Shine Mineral Resource is in compliance with the JORC Code, 2012 Edition and the current version of the ASX Listing Rules.

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# **APPENDIX 1** – Koolan Island, Main Deposit

# Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding	g sections.)
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Criteria	Commentary
Sampling techniques	All of the data used for resource estimation is based on the logging and sampling of RC and diamond core drilling. Percussion samples were composited over 2m intervals. Diamond samples were taken at 1m intervals.
	Reverse Circulation samples were taken over 1m intervals. Historical sampling (pre 1993) is of lower quality and where any ambiguity exists is excluded from the database for estimation.
	Historic BHP drill hole data from 1957 to 1986 was mostly percussion drilled. BHP drilled 1 diamond hole, 25 RC holes with diamond tails, 44 RC holes and an adit. The BHP data makes up 26% of the total database.
Drilling techniques	Aztec drilled 32 reverse circulation holes which make up 10% of the database.
	Mount Gibson Iron Limited has drilled 243 reverse circulation drill holes and four diamond holes since 2007. The Mount Gibson holes make up the majority of the database.
	Geologist or driller records sample recovery during drilling. No issues were detected.
Drill sample	Standard drilling techniques were adequate for sample recovery.
recovery	No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.
Logging	All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation with logging subsequently confirmed through mining.
	The total length of drill holes is 49,834.5m with approximately 98% of the drill holes logged.
Sub- sampling techniques	Samples are received and prepared at the SGS run Koolan Island lab as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75μm, from which an aliquot is taken for XRF and LOI analysis.
and sample preparation	Sample preparation from historical drilling prior to 1993 by BHP is not clearly understood, however this makes up 26% of the drill database, and less than 10% of sample and assay data used for the remaining Mineral Resource.
	The nature, quality and appropriateness of the sample preparation techniques employed by Mount Gibson Iron Limited are to industry standard.
Quality of assay data and laboratory	Most BHP holes were shallow and the areas have since been mined out. No QAQC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QA/QC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.
tests	Aztec Resources Ltd holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.
	Mount Gibson Iron Limited uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson Iron Limited's QAQC procedures and results are of acceptable quality.
	No external verification was completed.
Verification of sampling	Historical BHP data was twinned by Aztec RC holes and found to be acceptable
of sampling and assaying	Drill hole data found to be spurious was excluded from the database
	Adjustments to data were made where required after data validation processes.
Location of data points	Survey control of hole locations have been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors, Surtron.

Criteria	Commentary
	Koolan Island Mine Grid (KIMG) is aligned consistent with average strike trends of the mineralisation at most of the known deposits, and the Main deposit in particular. The marked variants from this are the Eastern and Mullet limbs. All directional references in the Mineral Resources reports are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51). Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey
	companies and is considered high quality.
Data spacing	The data spacing is approximately 50m along the strike of the mineralisation.
and distribution	The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.
Orientation of data in relation to geological structure	The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.
Sample security	Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson Iron Limited to ensure sample security.
Audits or reviews	A formal audit of BHP drilling and survey data was carried out by Snowden Mining consultants in 2004. The historical BHP and Aztec data is generally of moderate quality as inferred by nearby Mount Gibson Iron Ltd drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. Ongoing reconciliations have not to date indicated an urgent need for external audits of the resource database. An audit of the Koolan Island mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.

## Section 2 Reporting of Exploration Results

(Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	Main Mineral Resource is located on Mining Lease M04/417-I held by Koolan Iron Ore Pty Ltd, a 100% owned subsidiary of Mount Gibson Iron Limited. The mining tenement is granted under the Western Australian Mining Act, 1978. Koolan Iron Ore Pty Ltd has a native title and heritage agreement with the Dambimangari Native title group.
Exploration done by other parties	Exploration has been conducted in the area of the Main resource since 1922, with active exploration (and mining) by BHP from 1957 to 1993, Aztec Resources from 2004 to 2006 and Mount Gibson Iron Ltd from 2006 to 2012.
Geology	The mineralised zone is an overturned enriched haematitic sandstone horizon within the Yampi Sandstone Member unconformably overlying the Elgee Siltstone. It is between 12 and 30 metres thick, and dips 55 to 80° to the south.
Drill hole Information	As outlined in Drilling techniques of Section 1, there are more than 300 drill holes at or around the Main deposit dating back to 1957 forming the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Main pit have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Main area have been considered in establishing the Mineral Resource discussed in section 3.
Data aggregation methods	Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.
Relationship between mineralisation	No exploration results or drill hole intercepts are discussed in this ASX announcement, however as the deposit has been mined for a number of years the true mineralisation widths are well known and understood.

Criteria	Commentary
widths and intercept lengths	
Diagrams	Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX announcements.
Balanced reporting	Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.
Other substantive exploration data	Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
	Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data validity. The database is maintained by Mount Gibson Iron Limited with automated validation and extraction processes in place.
Database integrity	Checks on data include sensible ranges of values for attributes, drill hole collars matching topography and within expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in the estimation.
	Further checks are completed during the importing of the data into the mine planning software prior to modelling and estimation.
Site visits	Elizabeth Haren, the Competent Person for Mineral Resources, has made several visits to Koolan Island. Elizabeth Haren was a full-time employee of, and is now a consultant to, Mount Gibson Iron Limited.
	There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology is very consistent and has been proven by historical and current mining on Koolan Island.
	Interpretation used in the Mineral Resource estimate uses the drill holes exclusively.
Geological interpretation	There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.
	The mineralisation is in the Yampi Sandstone directly above the unconformity of the Elgee Siltstone.
	The continuity of grade and geology is well defined.
Dimensions	The Main deposit mineralisation is approximately 2,000 m in length and is currently modelled to approximately 215 m in depth below mean sea level. Mineralisation continues and extends beyond this depth however further infill drilling is required to define this area with confidence. The resource is open at depth.
Estimation and modelling techniques	Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , LOI, P, S, CaO, MnO, MgO, Na <sub>2</sub> O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.
	Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades.
	While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.
	No assumptions were made regarding recovery of by-products.

Criteria	Commentary
	A full suite of Iron Ore elements were estimated.
	Block sizes used are 25 mE, 6 mN and 8 mRL. The bulk of the drilling data is at a nominal 25 m x 25 m spacing at the western end of the deposit and increases to nominally 50 m x 50 m in the eastern end.
	No local estimation or SMU correction has been undertaken.
	Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.
	All estimation was completed within mineralisation units using "hard" boundaries.
	In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred, this was done prior to sample compositing.
	Validation was completed by checking the global averages of composites versus model from each domain, by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 50% Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Lump and Fines products as currently occurring at Koolan Island.
purumeters	A cut-off study was completed by Coffey International Ltd (mining consultants) supporting the choice of 50% Fe as the cut-off.
Mining factors or assumptions	The mining factors assumed correlate directly to recent operations at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors assumed correlate directly to recent operations at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the recent mining operations at Koolan Island.
	Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island.
	In all cases the Surtron data confirms the positive relationship between Fe and density.
Bulk density	Regression formulas have been used to assign densities with respect to Fe estimates. In 2013, review of reconciliation information between production and the Mineral Resource estimate led to a review of bulk density. On this basis the regression was modified to reflect higher densities for the 2013 Mineral resource. This method was reviewed and continued for subsequent Mineral Resource estimations.
Classification	<ul> <li>The basis for the classification of the Mineral Resource has included:</li> <li>Quality and reliability of raw data;</li> <li>Confidence in the geological interpretation;</li> <li>Number, spacing and orientation of intercepts in each mineralised zone;</li> <li>Confidence concerning the known limits of mining;</li> <li>Knowledge of grade and density continuities gained from observations and;</li> <li>Geostatistical analyses.</li> </ul> This information was used to code blocks meeting confidence criteria such as which estimation pass it was estimated in and the kriging variance of a block to define Measured, Indicated and Inferred material.
Audits or reviews	The Mineral Resource estimates are reviewed internally within Mount Gibson Iron Limited on a three levelled assessment structure. Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.

Criteria	Commentary
Discussion of relative accuracy/ confidence	The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the input data. Monthly, quarterly and annual reconciliations are conducted, assessed and reported.
	The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design, and are not necessarily sufficient for shorter term planning and scheduling.

## Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
Mineral Resource estimate for conversion to	The Mineral Resource for Main deposit has not been re-interpreted or re-estimated since 30 June 2022. There has been no additional data or information to alter the Mineral Resource estimate. This Mineral Resource statement was signed by Elizabeth Haren, a consultant to Mount Gibson Iron Limited and an AusIMM member with sufficient relevant experience to qualify as a Competent Person.
Ore Reserves	The Mineral Resource is inclusive of these Ore Reserves.
Site visits	Brett Morey, Chief Geologist with Mount Gibson Iron worked at Koolan Island for four years from 2012 to 2016 and in the corporate office since 2016.
Study status	A detailed and practical mine plan was developed within the previously established Main Pit. The Main Pit was optimised using Whittle software.
	Conventional open pit mining is planned to continue as per previous operations using hydraulic excavators and dump trucks.
	Standard modifying factors used for open pit mining were applied.
Cut-off parameters	A cut-off grade of 50% Fe was used. This cut-off grade reflects current mining practice, blending, and product sales. A cut-off grade study was undertaken in 2014 which supports the use of the 50% cut off used in this statement.
	Mount Gibson Iron Limited uses the definition of marginal cut-off grade as follows: "material that would produce a more positive cash flow if processed than when treated as waste in the process of mining towards the defined pit limits. It applies to material that will be mined or stockpiled in the process of gaining access to economic material."
Mining factors or assumptions	The deposit has been mined by conventional open pit mining methods, utilising industry standard practices of drilling, blasting, and load and haul using hydraulic backhoe excavators. The overburden waste has been removed by large size excavators with bulk mining method. Where required medium size excavators have been used for selective mining of ore.
	Known mining parameters from Main pit were used in the optimisation and pit design.
	A review of the geotechnical parameters was completed by Mount Gibson Iron Limited technical staff in 2019 which resulted in an increased slope angle in the hangingwall rock units. The revised design parameters were validated by Mining One Consultants before being adopted in the Life of Mine pit design.
	Modelling of mining dilution in three dimensions is by the digital application of a dilution skin around the ore in the Mineral Resource model.
	Metallurgical parameters are then added to the diluted model.
	The final diluted mining block model is used directly for pit optimisation and scheduling, without the further application of global factors.
	Ore Reserves are reported directly from the diluted mining block model, with consideration of grade, topography and pit design.
	Inferred Mineral Resources do not form part of the Ore Reserves.
	Mine infrastructure is well established following 10 years of mining operations.
	The physical width and therefore depth of Main Pit is constrained by the final hanging wall pit limit relative to the position of the seawall.

Criteria	Commentary
Metallurgical factors or assumptions	Ore from the Main deposit is crushed and screened at the existing Koolan Island process plant. Metallurgical characteristics of Main Pit ore are known from ten years of recent actual production data, and 30 years of historical mining and crushing prior to 1993.
Environmental	All statutory and regulatory approvals have been received for mining, occupational health and safety, environmental, and native title rights.
Infrastructure	Existing site infrastructure in place includes haul roads, pumping, crusher plant, stockpile areas, port, offices, workshop, warehouse, camp, water supply, airstrip, power generation, barge landing and associated facilities.
Costs	All costs for mining, processing and shipping were derived from the operating mine and existing contracts. Royalties currently paid to the State Government were included in cost modelling. Penalties and premiums currently applying to impurities levels in product sales to customers were included in cost modelling.
Revenue factors	Ore Reserves were calculated based on Mount Gibson Iron Limited FY2023 financial modelling. Financial assumptions used in cost modelling are derived from the operating mine and existing contracts and include: forecast consensus Pilbara FOB benchmark iron ore contract prices; impurity penalties; shipping freight; currency exchange rates; and royalties.
Market assessment	Mount Gibson Iron Limited has customer contracts in place for all of Koolan Island's production volume. Koolan Island product is a very high quality ore that is sought after by customers. Crushed and screened products were sold to these customers in previous years.
Economic	The LOM financial model has demonstrated that Main pit will generate significant NPV. The NPV is most sensitive to iron ore price and foreign exchange rate variation, but has the benefit of a high Fe grade of 65.2%, and average strip ratio of 1.2:1 Waste:Ore.
Social	The Koolan Island mine has operated continuously under Mount Gibson management since 2006. Mount Gibson Iron Limited enjoys a good relationship with the Traditional Owners and local community.
Other	Major risks identified are:
	Seawall. Independent experts were engaged throughout the design process to review the seawall design to mitigate the risk of seawall failure and flooding of Main Pit. Ongoing external consultant peer reviews are completed monthly to assess the ongoing performance of the seawall.
	Footwall. Extensive geotechnical studies have been carried out, with established factors of safety of the footwall and a ground support plan established.
	Water ingress from high rainfall events and cyclones is a short term risk. Strategies are in place to control this risk, including implementation of a high capacity pumping system.
	Iron ore price variation and foreign exchange rates.
Classification	In-pit Measured and Indicated Mineral Resources have been converted to Proved and Probable Ore Reserves.
	Ore Reserves do not include Inferred Mineral Resources.
	Mr Brett Morey is satisfied that the stated Proved and Probable Ore Reserves accurately reflect the outcome of mine planning and the input of economic parameters into optimisation studies.
Audits or reviews	The project parameters and outcomes have been internally reviewed and approved by Mount Gibson Iron Limited executive management. Periodic updates are completed when new information and understanding is required to be reflected in the Ore Reserve.
Discussion of	All parameters are well defined from the existing mining operation.
relative accuracy/ confidence	Monthly and annual reconciliations are conducted, assessed and reported. Historical reconciliation data indicates that the factors used to convert from Mineral Resource to Ore Reserve are robust.

# **APPENDIX 2 – Koolan Island, Acacia East Deposit**

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	All of the data used for resource estimation is based on the logging and sampling of RC and diamond core drilling. Percussion samples were composited over 2m intervals. Diamond samples were taken at 1m intervals.
	Reverse Circulation samples were taken over 1m intervals. Historical sampling (pre 1993) is of lower quality and where any ambiguity exists, samples and assays are excluded from the database for estimation.
Drilling techniques	31 historic BHP drill holes from 1961 to 1986 were percussion drilled. BHP drilled 1 diamond hole in 1959. The BHP data make up 14% of the total database. 50 reverse circulation drillholes were completed by Aztec in 2004 & 2005, and 136 reverse circulation holes completed by Mount Gibson Iron Limited from 2007 to 2012.
	Geologists or drillers recorded sample recovery during drilling. No issues were detected.
Drill sample recovery	Standard drilling techniques were adequate for sample recovery.
	No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.
	All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation.
Logging	Some diamond core has been photographed.
	The total length of drill holes is 21,544.78m with approximately 98% of the drill holes logged.
Sub- sampling techniques	Samples are received and prepared at the SGS run Koolan Island lab as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using riffle splitters or rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75µm, from which an aliquot is taken for XRF and LOI analysis.
and sample preparation	Sample preparation from historical drilling prior to 1993 by BHP is not clearly understood, however this makes up 14% of the drill database, and less than 8% of sample and assay data used for the remaining Mineral Resource.
Quality of assay data and	Most BHP holes were shallow and the areas have since been mined out. No QAQC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QAQC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.
laboratory tests	Aztec Resources Ltd holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.
	Mount Gibson Iron Limited uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson Iron Limited QAQC procedures and results are of acceptable quality.
	No external verification was completed.
Verification of sampling and assaying	Historical BHP data was twinned by Aztec RC holes and found to be acceptable
	Drill hole data found to be spurious was excluded from the database Adjustments to data were made where required after data validation processes.
Location of data points	Survey control of hole locations has been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors Surtron.
	Koolan Island Mine Grid (KIMG) which is aligned consistent with average strike trends of the mineralisation at most of the known deposits and the Main deposit in particular. The marked variants from this are the Eastern and

Criteria	Commentary
	Mullet limbs. All directional references in this report are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51).
	Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey companies.
	The data spacing is approximately 25m along the strike of the mineralisation.
Data spacing and	The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.
distribution	Percussion samples were composited over 2m intervals.
Orientation of data in relation to geological structure	The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.
Sample security	Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson Iron Limited to ensure sample security.
Audits or reviews	A formal audit of BHP drilling and survey data was carried out by Snowden Mining consultants in 2004. The historical BHP and Aztec data is generally of moderate quality as inferred by nearby Mount Gibson Iron Limited drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. An audit of the Koolan mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.

Section 2 Reporting of Exploration Results (Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	Acacia East Mineral Resource is located on Mining Lease M04/416-I held by Koolan Iron Ore Pty Ltd, a 100% owned subsidiary of Mount Gibson Iron Ltd. The mining tenement is granted under the Western Australian Mining Act, 1978. Koolan Iron Ore Pty Ltd has a native title and heritage agreement with the Dambimangari Native title group
Exploration done by other parties	Exploration has been conducted in the area of the Acacia East resource since 1959, with active exploration by BHP from 1959 to 1993, Aztec Resource from 2004 to 2006 and Mount Gibson Iron Limited from 2006 to 2012.
Geology	The mineralised zone is an enriched haematitic sandstone horizon within the Yampi Sandstone member unconformably overlying the Elgee Siltstone. It is between 8 and 20 metres thick, and dips 45 to 600 to the south.
Drill hole Information	As outlined in Drilling techniques of Section 1, there are 237 drillholes at the Acacia East resource dating back to 1959, forming the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Acacia East have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Acacia area have been considered in establishing the Mineral Resource discussed in section 3. Going forward any new exploration results that result in a material change to existing Mineral Resource in section 3 will be updated under the normal transitioning to JORC 2012.
Data aggregation methods	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Relationship between mineralisation widths and	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Criteria	Commentary
intercept lengths	
Diagrams	No exploration results or drillhole intercepts are discussed in this ASX announcement. Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX reports.
Balanced reporting	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Other substantive exploration data	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Further work	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
Database integrity	Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data is valid. The database is maintained by Mount Gibson Iron Limited with automated extraction processes in place.
	Checks on data include sensible ranges of values for attributes, drill hole collars matching topography and with expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in the estimation.
	Further checks are completed during the importing of the data into the mine planning software prior to modelling and estimation.
Site visits	Elizabeth Haren, the Competent Person for the Acacia East Mineral Resource, has made several visits to Acacia East at Koolan Island.
	There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology is very consistent and has been proven by historical and current mining on Koolan Island.
	Interpretation used in the Mineral Resource estimate uses the drill holes exclusively.
Geological interpretation	There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.
	The mineralisation is generally between two geological units.
	The continuity of grade and geology is very good.
Dimensions	The Acacia East mineralisation is approximately 1,500m in length and is modelled to approximately 300 m in depth.
Estimation and modelling techniques	Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , LOI, P, S, CaO, MnO, MgO, Na <sub>2</sub> O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.
	Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades.

Criteria	Commentary
	While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.
	No assumptions were made regarding recovery of by-products.
	A full suite of Iron Ore elements were estimated.
	Block sizes used are 12.5 mE, 8 mN and 6 mRL. The bulk of the drilling data is on 50mE spaced sections or closer.
	No local estimation or SMU correction has been undertaken.
	Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.
	All estimation was completed within mineralisation units using "hard" boundaries.
	In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred this was done prior to sample compositing.
	Validation was completed by checking the global averages of composites versus model from each domain, by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 50% Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Lump and Fines products as currently occurring at Koolan Island.
Mining factors or assumptions	The mining factors are assumed to correlate directly to the current operation at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors are assumed to correlate directly to current operation at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the current mining operations at Koolan Island.
Bulk density	Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island. In all cases the Surtron data confirms the positive relationship between Fe and density. Regression formulas have been used to assign densities with respect to Fe estimates.
Classification	The basis for the classification of the Mineral Resource has included: quality and reliability of raw data; confidence in the geological interpretation; number, spacing and orientation of intercepts in each mineralised zone; confidence concerning the known limits of mining; knowledge of grade and density continuities gained from observations; and geostatistical analyses.
	This information was used to guide digitising of strings around defined classification areas in either long section or plan, depending on the orientation of the mineralisation. The strings were then used to flag the classification to the model.
Audits or reviews	The Mineral Resource estimates are reviewed internally within Mount Gibson Iron Limited on a three levelled assessment structure. Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.
Discussion of relative accuracy/	The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design, and are not necessarily sufficient for shorter term planning and scheduling. The block model grade estimates were validated against the drillhole composites to ensure that the model reflects the input data.
confidence	Monthly, quarterly and annual reconciliations are conducted, assessed and reported.

# **APPENDIX 3 – Koolan Island, Mangrove Deposit**

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	All of the data used for the Mineral Resource estimation is based on the logging and sampling of RC and diamond core drilling.
	Percussion samples were composited over 2m intervals. Diamond samples were taken at 1m intervals. Reverse Circulation samples were taken over 1m intervals. Historical sampling is of lower quality and where any ambiguity exists is excluded from the database for estimation.
Drilling techniques	9 percussion drilled holes and 44 reverse circulation holes were used for estimation.
	Geologist or driller records show sample recovery during drilling. No issues were detected.
Drill sample	Standard drilling techniques were adequate for sample recovery.
recovery	No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.
Logging	All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation with logging subsequently confirmed through mining.
Sub- sampling techniques and sample preparation	Samples are received and prepared at the SGS run Koolan Island lab as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using riffle splitters or rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75µm, from which an aliquot is taken for XRF and LOI analysis.
	The nature, quality and appropriateness of the sample preparation techniques employed by Mount Gibson Iron Limited are to industry standard.
Quality of assay data and laboratory tests	Most BHP holes were shallow and the areas have since been mined out. No QAQC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QA/QC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.
	Aztec Resources Ltd holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.
	Mount Gibson Iron Limited uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson Iron Limited QAQC procedures and results are of acceptable quality.
	No external verification was completed.
Verification of sampling	Historical BHP data was twinned by Aztec RC holes and found to be acceptable
and assaying	Drill hole data found to be spurious was excluded from the database
	Adjustments to data were made where required after data validation processes.
Location of data points	Survey control of hole locations have been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors Surtron.
	Koolan Island Mine Grid (KIMG) is aligned consistent with average strike trends of the mineralisation at most of the known deposits and the Main deposit in particular. The marked variants from this are the Eastern and Mullet limbs. All directional references in the Mineral Resources reports are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51).
	Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey companies and is considered high quality.

Criteria	Commentary
	The data spacing is approximately 50m along the strike of the mineralisation.
Data spacing and distribution	The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.
	Percussion samples were composited over 2m intervals.
Orientation of data in relation to geological structure	The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.
Sample security	Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson Iron Limited to ensure sample security.
Audits or reviews	A formal audit of BHP drilling and survey data was carried out by Snowden Mining consultants in 2004. The historical BHP and Aztec data is generally of moderate quality as inferred by nearby Mount Gibson Iron Limited drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. An audit of the Koolan mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.

Section 2 Reporting of Exploration Results (Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	The Mangrove Mineral Resource is located on Mining Lease M04/417-I held by Koolan Iron Ore Pty Ltd, a 100% owned subsidiary of Mount Gibson Iron Ltd. The mining tenement is granted under the Western Australian Mining Act, 1978. Koolan Iron Ore Pty Ltd has a native title and heritage agreement with the Dambimangari Native title group
Exploration done by other parties	Exploration has been conducted in the area of the Mangrove resource since 1955, with active exploration by BHP from 1957 to 1993, Aztec Resource from 2004 to 2006 and Mount Gibson Iron Limited from 2006 to 2012.
Geology	The mineralised zone is an enriched haematitic sandstone horizon within the Yampi Sandstone Member unconformably overlying the Elgee Siltstone. It is between 12 and 30 metres thick. The mineralised unit is overturned and dips from 80° to the south in the west, twisting to right way up and 80° to the North in the east.
Drill hole Information	As outlined in Drilling techniques of Section 1, there are 9 percussion drill holes and 44 reverse circulation drill holes at Mangrove, which form the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Mangrove have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Mangrove area have been considered in establishing the Mineral Resource discussed in section 3. Going forward any new exploration results that result in a material change to existing Mineral Resource in section 3 will be updated under the normal transitioning to JORC 2012.
Data aggregation methods	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Relationship between mineralisation widths and intercept lengths	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Criteria	Commentary
Diagrams	No exploration results or drillhole intercepts are discussed in this ASX announcement. Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX reports.
Balanced reporting	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Other substantive exploration data	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Further work	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
Database integrity	Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data is valid. The database is maintained by Mount Gibson with automated extraction processes in place.
	Checks on data include sensible ranges of values for attributes, drillhole collars matching topography and with expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in estimation.
Site visits	Elizabeth Haren, the Competent Person for Mineral Resources, has made several visits to Koolan Island.
	There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology is very consistent and has been proven by historical and current mining on Koolan Island.
	Interpretation uses the drill holes exclusively.
Geological interpretation	There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.
	The mineralisation is generally between two geological units.
	The continuity of grade and geology is very good.
Dimensions	The Mangrove mineralisation is approximately 1,000m in length and is modelled to approximately 250 m in depth.
Estimation and modelling techniques	Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , LOI, P, S, CaO, MnO, MgO, Na <sub>2</sub> O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.
	Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades.
	While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.
	No assumptions were made regarding recovery of by-products.
	A full suite of Iron Ore elements were estimated.
	Block sizes used are 12.5 mE, 8 mN and 6 mRL. The bulk of the drilling data is on 50mE spaced sections or closer.

Criteria	Commentary
	No local estimation or SMU correction has been undertaken.
	Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.
	All estimation was completed within mineralisation units using "hard" boundaries.
	In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred this was done prior to sample compositing.
	Validation was completed by checking the global averages of composites versus model from each domain, by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 50%Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Lump and Fines products as currently occurring at Koolan Island.
Mining factors or assumptions	The mining factors are assumed to correlate directly to current operations at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors are assumed to correlate directly to current operations at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the current mining operations at Koolan Island.
	Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island.
Bulk density	In all cases the Surtron data confirms the positive relationship between Fe and density.
	Regression formulas have been used to assign densities with respect to Fe estimates.
Classification	The basis for the classification of the Mineral Resource has included: quality and reliability of raw data; confidence in the geological interpretation; number, spacing and orientation of intercepts in each mineralised zone; confidence concerning the known limits of mining; knowledge of grade and density continuities gained from observations; and geostatistical analyses.
	This information was used to guide digitising of strings around defined classification areas in either long section or plan, depending on the orientation of the mineralisation. The strings were then used to flag the classification to the model.
Audits or reviews	The Mineral Resource estimates are reviewed internally within Mount Gibson Iron Limited on a three levelled assessment structure.
	Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.
Discussion of relative accuracy/ confidence	The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the input data. The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design, and are not necessarily sufficient for shorter term planning and scheduling.