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ASX ANNOUNCEMENT

ASX Code : **MGX**

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Shine Iron Ore Project Update Declaration of Stage 1 Ore Reserves

Key Points (all currency in Australian dollars unless stated otherwise)

- Shine "Stage 1" Hematite Ore Reserves of **2.8 Mt grading 59.4% Fe** declared within the previously reported total Hematite Mineral Resources of **10.8 Mt at 58.2% Fe**.
- Targeted direct shipping ore (DSO) production rate of **1.5 million wet metric tonnes (Mwmt) per annum** based on Ore Reserves, for an initial mine life of approximately two years. Potential to extend mine life by a further two years, subject to market conditions.
- Commercial and permitting requirements are currently being finalised to achieve targeted first ore sales in mid-2021.
- Indicative development capital cost of **\$17-20 million** predominantly relating to haul road construction and general site establishment activities.
- Indicative average cash operating costs, before royalties, of **\$65-70/wmt** of ore sold FOB.
- The base case assumes road haulage of iron ore from the Shine mine site to the Company's export facilities at Geraldton Port, with alternative transport options under investigation.

Mount Gibson Iron Limited (Mount Gibson) is pleased to provide the following update on the planned development of the Company's Shine Iron Ore Project, located 375km northeast of Perth, in the Mid-West region of Western Australia. Shine represents a near term, low capital production opportunity that will further extend Mount Gibson's 16-year operational presence in the Mid-West region, facilitated by the Company's established export infrastructure and logistics arrangements.

Mount Gibson has declared Proved and Probable Ore Reserves of 2.8 million dry metric tonnes grading 59.4% Fe, using a 55% Fe cut-off, within an initial "Stage 1" pit development, for a mine life of two years. Mine life could potentially be extended a further two years by developing a "Stage 2" pit subject to market conditions remaining supportive, based on Measured and Indicated Resources within the modelled pit shells.

The Company is currently finalising commercial and permitting requirements to commence development and achieve targeted first ore sales in mid-2021.

Mount Gibson Chief Executive Officer Peter Kerr said: "We are pleased to be able to capitalise on the positive iron ore market conditions by progressing the Shine Iron Ore Project in order to extend our significant presence in the Mid-West, where we have been an established iron ore exporter since 2004. Our detailed review of the project has confirmed Shine as an attractive production opportunity that can be quickly brought on line and appropriately staged to suit market conditions. Importantly, it will also provide continuing employment and export revenue for the Mid-West region."

Overview

Shine is located 85km north of Mount Gibson's Extension Hill mine site and 230km east of the port of Geraldton, from which Mount Gibson has been exporting hematite iron ore since early 2004 (refer Appendix A, Figure 1).

In March 2014 Mount Gibson acquired the iron ore mining and development rights associated with Shine on three granted mining leases held by a third party. The Shine project area covers approximately 6.5sqkm hosting the Shine Mineral Resource. Substantial exploration and mining assessments were previously undertaken, while State environmental approval was also received and subsequently renewed in May 2020.

Mount Gibson deferred the project in 2014/15 due to weak market conditions at that time and has periodically reassessed the project as iron ore prices have improved and its Mid-West operations matured. Mount Gibson commenced a comprehensive technical review of Shine in early 2020 to reassess viability based on optimised mine planning and available transport options. The review was supported by mine planning and optimisation studies and geotechnical review undertaken by external consultants.

This work has enabled declaration of Proven and Probable Ore Reserves of 2.8 million dry metric tonnes at 59.4% Fe (refer Table A). All Ore Reserves are contained within the previously reported Shine Hematite Mineral Resource of 10.8 Mt grading 58.2% Fe, which has not changed since last reported as at 30 June 2020. Including the additional magnetite component (5.1Mt), the total Shine Mineral Resource of 15.9Mt grading 58.1% Fe is also unchanged since 30 June 2020¹.

The technical and economic studies support a targeted direct shipping ore (DSO) production rate of approximately 1.5 Mwmt per year, based on the reported Ore Reserves, with production to be staged to ensure the project can be aligned with potential changes in market conditions.

The Stage 1 pit is projected to yield approximately 2.9 Mwmt of lump and fines material over an initial period of two years. Subject to market conditions remaining supportive, development of a proposed Stage 2 pit could potentially extend total mine life by a further two years, based on Measured and Indicated Resources within the modelled pit shells.

Mount Gibson has determined an indicative development capital cost of \$17-20 million, on the basis that third-party road, camp and other infrastructure in the nearby region will be available for use by the Company, or that such infrastructure would be relocated from the existing Extension Hill mine site. Discussions with relevant third parties to finalise access are advanced. Mount Gibson has sufficient cash reserves to fund development.

Operating costs are anticipated to be broadly consistent with the Company's existing Mid-West operations and transport arrangements and reflect recent quotations from operating contractors and transport service providers.

Indicative average total cash operating costs are expected to be approximately \$65-70/wmt of ore sold, Free on Board (FOB) at Geraldton Port, exclusive of State Government and other royalties.

The Stage 1 Pit is expected to produce a mix of lump and fines products with an average iron grade of 59.4% Fe, split approximately 40% lump and 60% fines. The Stage 1 pit has an average waste:ore strip ratio of 4.8:1, and requires approximately three months of pre-strip mining activity.

The Project base case assumes ore is trucked approximately 300km by road from the Shine mine site to Mount Gibson's export facilities at Geraldton Port (refer Figure 1). Discussions regarding potential alternative transport options are also advanced.

Given the advanced state of the Shine Project, and subject to finalising outstanding commercial and regulatory requirements, Mount Gibson expects to commence mining in the first half of 2021 with a view to achieving first ore sales in mid-2021.

¹ Refer ASX release dated 23 September 2020.

Shine Ore Reserve Estimate

Mount Gibson previously reported an Ore Reserve estimate for the Shine deposit in March 2014. However, this was later removed in 2015 when the Project was deferred indefinitely due to deteriorating iron ore market conditions.

Mount Gibson began a detailed technical review of the Shine Project in early 2020. This included the engagement of AMC Consultants Pty Ltd (AMC) to undertake a mine planning and pit optimisation study, and Coffey Services Australia Pty Ltd (Coffey) to undertake a geotechnical review.

This information was combined with Mount Gibson's haulage and port assumptions to determine Ore Reserves for the Shine project in accordance with the JORC Code, 2012 Edition, as shown in Table A below.

The total Proved and Probable Hematite Ore Reserves are estimated at 2.8 Mt at an average grade of 59.4% Fe using a cut-off grade of 55% Fe. Mineral Resources are reported inclusive of Ore Reserves. The Shine Hematite Mineral Resource has not changed since 30 June 2020.

Table A: Shine Hematite Mineral Resources (50% Fe cut-off) and Ore Reserves (55% Fe cut-off)

Shine Hematite Mineral Resources					
<i>Mineral Resources, above 50% Fe</i>	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Measured	4.9	59.0	9.11	1.96	0.081
Indicated	5.3	58.0	10.39	1.44	0.071
Inferred	0.5	56.3	12.76	1.64	0.084
Total	10.8	58.2	10.16	1.70	0.076
Shine Hematite Ore Reserves					
<i>Ore Reserves, above 55% Fe</i>	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Proved	2.1	59.8	7.40	2.32	0.086
Probable	0.7	58.4	9.70	2.15	0.057
Total	2.8	59.4	8.01	2.27	0.079
<i>Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages.</i>					

A summary of the JORC Code, 2012 Edition Table 1 for Shine is provided in Appendix B. Competent Persons attributions are detailed over the page.

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Competent Person's Statements

Exploration Results:

The information in this report that relates to Exploration Results including sampling techniques and data management is based on information compiled by Mr 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 Ms 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 previously 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 Mr Brett Morey, a member of the Australasian Institute of Mining and Metallurgy. Mr Morey is a full-time employee of Mount Gibson Iron Limited. Mr Morey 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.

Information material to understanding the Shine Ore Reserves

Mount Gibson has completed this Ore Reserve estimate for the Shine Iron Ore Project based on past feasibility and technical studies, Mount Gibson's experiences with mining operations and transport arrangements at its Extension Hill operation in the Mid-West, and quotations from operating contractors and transport service providers. The estimate is supported by a mine planning and optimisation study by AMC and geotechnical review by Coffey, in the context of prevailing iron ore market conditions.

The total Proved and Probable Hematite Ore Reserve is estimated at 2.8 Mt at an average grade of 59.4% Fe using a cut-off grade of 55% Fe. Mineral Resources are inclusive of Ore Reserves. Ore Reserves are defined as the mined material which is delivered to the run-of-mine (ROM) pad which will be crushed and sold as DSO products. Mount Gibson confirms the Ore Reserves and Mineral Resource estimates underpinning the production target for the Shine Iron Ore Project have been prepared by competent persons in accordance with the requirements in Appendix 5A (JORC Code). Refer to page 4 of this report for Competent Person attributions.

Ownership

Mount Gibson paid \$12 million in March 2014 to acquire the Shine Project from Gindalbie Metals Ltd (now a wholly-owned subsidiary of Chinese steel producer Ansteel). A further milestone payment of \$3 million is payable on the first commercial sale of ore from the Project. A price participation agreement between the parties also obliges Mount Gibson to pay a royalty on ore mined and sold when the monthly average of the daily midpoint Platts 62% Fe CFR index price, when converted to Australian dollars, is higher than \$115 per dry metric tonne. For every dollar that the Platts 62% Fe index price trades above this level, Mount Gibson will pay a royalty of \$0.20/tonne. The \$3 million milestone payment is deemed a non-refundable pre-payment of this price participation royalty.

Material assumptions and the outcomes of project studies

A number of economic and logistic studies were used as inputs and applied to Whittle Four-X optimisation software to undertake pit optimisation work based on the total Mineral Resource. The major assumptions for pit optimisation were geotechnical parameters, mining and logistics costs and price assumptions.

Mining costs have been built up on a first principles basis and are broadly in line with the mining cost at Extension Hill. Explosives, drill and blast and administration overheads have all been based on actual Extension Hill costs. Given the short mine life, contract crushing has been determined to be the most appropriate processing option for the operation. Processing costs are based on quotes received from contracting companies.

Capital cost estimates for the Ore Reserve estimate were prepared by Mount Gibson. The study assumes existing infrastructure such as office buildings and workshops will be relocated from the Extension Hill operation. A large part of the capital costs relate to road upgrades and construction.

The evaluation was predicated on conventional open pit mining of oxide hematite material to deliver a high grade direct shipping ore (DSO) iron product grading in excess of 59% Fe. A separate low grade material product grading less than 55% Fe will also be mined and stockpiled. It has been assumed that this product will not be processed or sold, with current cut-off grades reflecting the requirements to achieve DSO product specifications.

Revenue and price assumptions were based on Mount Gibson's experience and long standing customer relationships. A state royalty rate of 7.5% was applied. Mount Gibson's base case assumed an average 62% Fe iron ore benchmark price of US\$70/dmt (CFR northern China) and exchange rate of A\$1.00:US\$0.67.

Outputs from the mine design have been used in an economic model to confirm the validity of the optimisation and economic viability of the project. There is a high level of confidence in the study inputs and the project exhibits a significant positive net present value (NPV).

The Mineral Resource on which the Ore Reserves are based and criteria used in the classification

The Ore Reserve classification was derived from the classification of the Mineral Resource estimated by Haren Consulting for Mount Gibson in August 2014. Material classified as Measured and Indicated Mineral Resources that is located within the final pit mine design, adjusted by recovery and dilution, is converted to Proved and Probable Ore Reserves respectively. Portions of the Measured and Indicated Mineral Resource outside the pit design have not been included in the Ore Reserve estimate. Inferred Resources have not been included in the Ore Reserve estimation.

The mining method selected, mining assumptions, recovery and dilution factors

The study assumes conventional open pit mining with drill and blast, and load and haul typical to mining carried out in Western Australia. The economic model has assumed an owner-operator mining approach, consistent with Mount Gibson's existing Mid-West operations.

A minimum mining width of 20 metres has been assumed and dilution applied by the digital application of a 0.5 metre dilution skin around the Mineral Resource model. This methodology is consistent with Mount Gibson's other operations and has been proven to be an accurate indicator of mining dilution. Geotechnical parameters have been adopted from the earlier 2014 pre-feasibility study and reviewed by Coffey as part of this study. The pit design assumes 60° batter angles, 20 metre batters with 8 metre berms providing an inter ramp angle of 47°.

The processing method and assumptions

Processing will comprise crushing and screening on site to produce approximately 1.5 million wet tonnes per annum of standard lump and fines products. In-pit grade control, post-crushing sampling and stockpile management will be used to achieve products with grades and deleterious elements within specification, similar with Mount Gibson's other operations.

Ore Reserve cut-off grades

Cut-off grades are based on production of saleable DSO product:

- A cut-off grade of 55% Fe has been applied to deliver a high grade product with an average grade of 59.4% Fe.
- A second cut-off grade of 50% Fe has been applied to enable the production of a low grade product with an average grade of 52.9% Fe.

Estimation methodology

The Ore Reserve is the economically mineable portion of the Measured and Indicated Mineral Resource estimated in August 2014. The Mineral Resource was estimated for Fe, SiO₂, Al₂O₃, P, LOI, CaO, K₂O, MgO, MnO, S and TiO₂ grades and density using ordinary block kriging for all domains with hard domain boundaries.

Material Modifying Factors: Status of environmental approvals, mining tenements and infrastructure requirements for transportation to market

The project has secured State environmental approval, with other regulatory permits and approvals in the process of being finalised. Mount Gibson has not identified any regulatory or other major impediments to its development and has a reasonable expectation of receiving full project approval necessary to proceed.

The project is located within a defined area over portions of three mining leases over which Mount Gibson has all iron ore rights through a contractual agreement with the tenement holder.

The Project base case assumes ore is trucked approximately 300km by existing roads from the Shine mine site to Mount Gibson's export facilities at Geraldton Port (refer Figure 1). Discussions regarding potential alternative transport options are advanced.

APPENDIX A – Project information

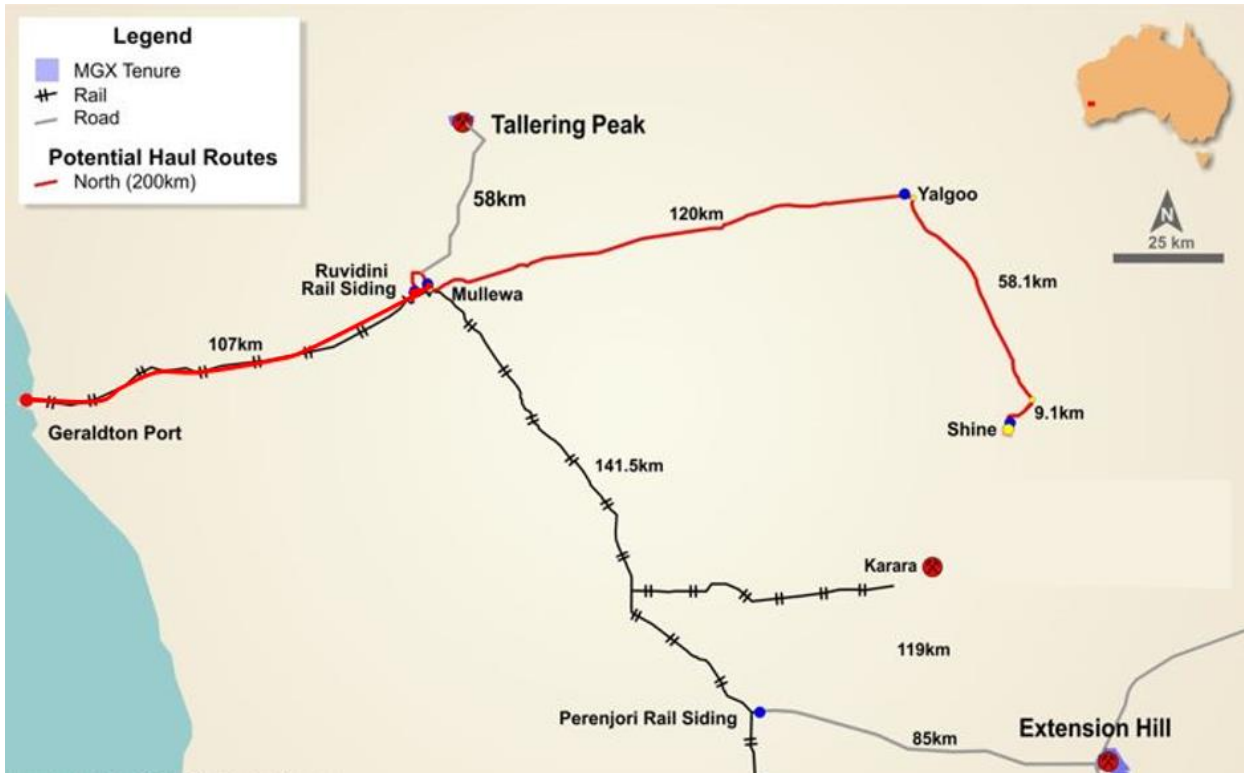


Figure 1: Shine Iron Ore Project – proximity to infrastructure and other Mount Gibson assets

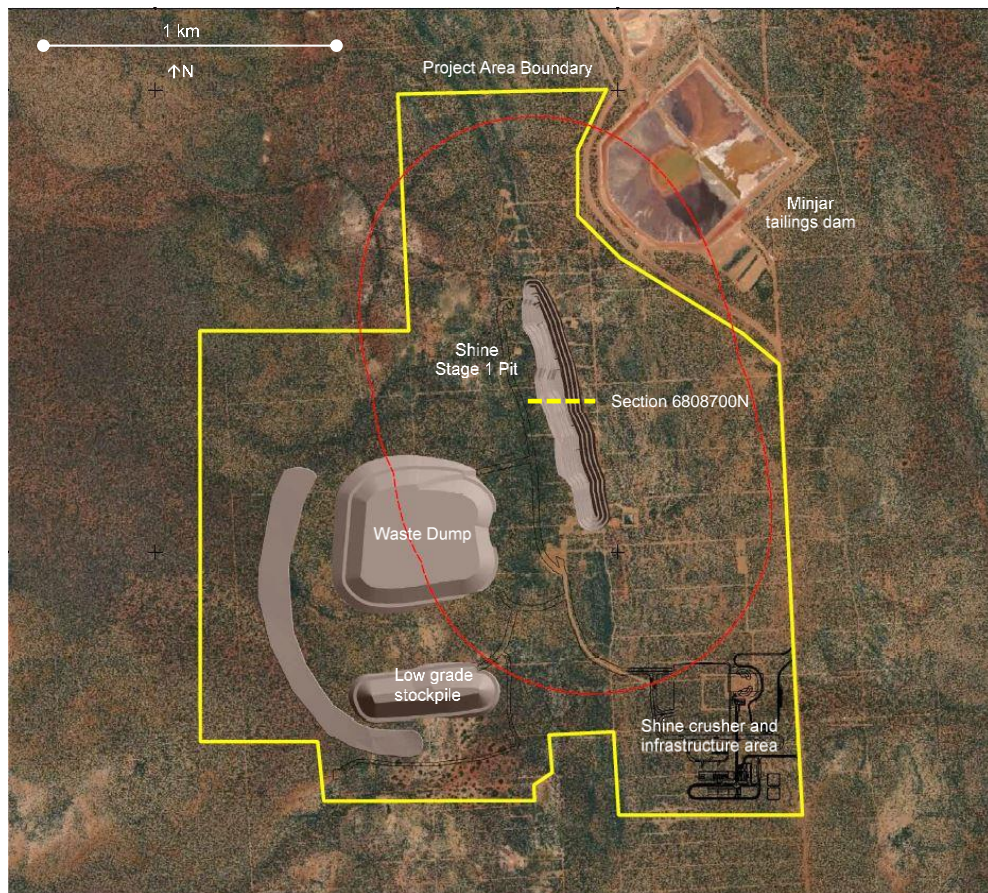


Figure 2: Shine Project Area, showing indicative site layout and Stage 1 Pit.

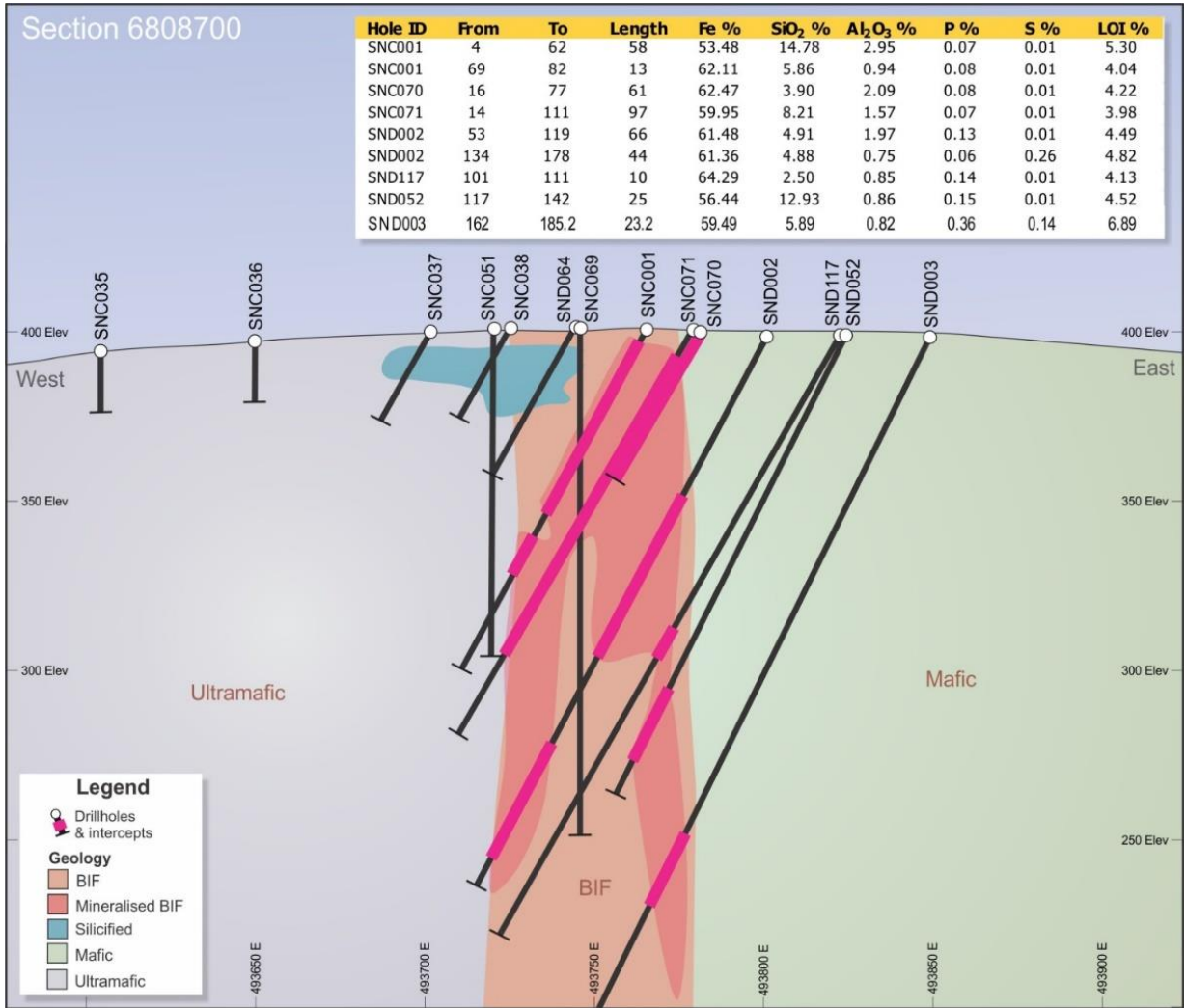


Figure 3: East-west cross-section illustrating the lithology and mineralisation domains

APPENDIX B – Summary of Information Material to understanding the Mineral Resource and Ore Reserve

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	<p>The bulk of the data used for Mineral Resource estimation is based on the logging and sampling of RC drilling conducted by Gindalbie Metals Ltd (Gindalbie) prior to acquisition of the Shine Project by Mount Gibson Iron (Mount Gibson) as well as the drill results from additional drilling conducted by Mount Gibson between 11 April 2014 and 9 June 2014.</p> <p>The Gindalbie RC samples (wet and dry) were collected at 1 m intervals using a cone splitter. Within the hematite mineralisation, 33 % of the samples are recorded as either wet or damp.</p> <p>The Gindalbie diamond core samples were half-core or quarter-core sampled using the same nominal sample interval.</p> <p>The additional Mount Gibson drilling totalled 6,243 samples consisting of 5,558 primary samples and 685 secondary samples which were collected and submitted to the Extension Hill laboratory for assaying. Primary samples were 1 m samples collected off a static cone splitter mounted to the RC rig and were used in the resource estimation. Secondary samples were collected as 2 – 4 m composites using the spear method of sample collection and these are not considered in the Mineral Resource estimation. Average sample weight was about 3 kg but sample weights ranged from 0.5 kg to 4 kg depending on sample recovery.</p> <p>Of all the Mount Gibson samples 33 % were recorded as either wet or damp.</p> <p>Quality control measures during sampling were implemented to prevent sample contamination which in turn ensures integrity of the samples and ultimately the integrity of the assays.</p>
Drilling techniques	<p>Gindalbie completed 154 RC holes using a 140 mm face sampling hammer. Gindalbie also drilled 23 diamond drill holes of HQ and PQ diameter.</p> <p>In 2014 Mount Gibson completed an additional 78 RC holes using either a 138 mm or 140 mm face sampling hammer and 6 diamond holes of PQ diameter. The RC drilling was conducted by VM Drilling using a track mounted HYDCO 800 RC drill rig. The rig utilised a mounted compressor with a capacity to produce 1150cfm @ 500psi and a separate auxiliary booster with a capacity to produce 2400cfm @ 1000psi.</p> <p>The total air pressure utilised to lift the sample into the cyclone affects the quality of the sample, sample recoveries and how representative the final primary sample is to the material generated from the face hammer per metre interval. The drilling was conducted by experienced drillers with a rig with sufficient air pressure to ensure excellent sample recoveries.</p>
Drill sample recovery	<p>Sample recovery information for the 2014 Mount Gibson samples from the RC drilling is based on visual judgement and is indicative. The data indicates 81 % of the samples to have been judged as attained high sample recovery, with 12 % having moderate sample recovery and 7 % having poor sample recovery. The majority of the samples with poor sample recovery were determined to come from the first 6 m of each drill hole and were generated whilst the RC drill hole was being collared.</p> <p>The information from the Gindalbie RC drill hole data regarding sample recovery is indicative only and suggests the majority of samples have achieved moderate to high sample recovery.</p> <p>No relationship between sample recovery and grade has been ascertained due to the subjective nature of sample recovery information.</p>
Logging	<p>Logging data from previous drilling was provided to Mount Gibson by Gindalbie Metals. Lithological units were determined by Gindalbie based on geological logging and geochemistry.</p> <p>Mount Gibson conducted qualitative logging utilising LogChief to capture the logging data. LogChief is logging software with inbuilt data validation commands. In addition to LogChief internal validations, the logging data was validated visually by geologists and also post-validated against geochemistry.</p> <p>Logging, geochemistry (assays) and cross section interpretations conducted during and after Mount Gibson drilling confirms the geological continuity at depth, of mapped outcrops of the hosting banded iron formation and associated outcropping iron mineralisation.</p> <p>An independent consultant, Haren Consulting, sighted diamond core from the Shine Mount Gibson 2014 diamond drilling to confirm the continuity of the mineralised intercepts.</p>

Criteria	Commentary
	<p>Mount Gibson logging of RC chips captured information about lithological variations, textures, alteration, mineralisation, level of oxidation and weathering, sample condition and sample recoveries. Geotechnical logging was also conducted on diamond core in addition to the above.</p> <p>Downhole geophysical logging data include Gyroscopic orientation data, density, resistivity and magnetic susceptibility.</p> <p>It is concluded that logging of drill hole samples was done with sufficient detail to meet the requirements of Mineral Resource estimation and Ore Reserve feasibility studies.</p>
<p>Sub-sampling techniques and sample preparation</p>	<p>RC drill samples (33 % of mineralised samples recorded as damp or wet from both Gindalbie and Mount Gibson drill programs) were collected using a cone splitter. Diamond core was generally half-core or quarter-core sampled.</p> <p>For Gindalbie samples three analytical laboratories were used for sample preparation and subsequent XRF analysis – Amdel Ltd in Perth and Adelaide, along with Ultra Trace Pty Ltd in Perth.</p> <p>Gindalbie sample preparation comprises oven drying and crushing to approximately 3 mm, followed by pulverising to 90 % passing 105 µm.</p> <p>Mount Gibson in 2014 used Extension Hill (EH) Spectrolab as the primary assaying laboratory for the Shine RC samples. Upon receiving samples from Shine, the EH Spectrolab sorted and registered the samples on to the lab tracking & processing system.</p> <p>Each sample was reduced by riffle splitting to approximately a 400 g sub-sample. The sub-sample was re-bagged and the residue returned to the original calico bag. The sub-samples were oven dried for 4 hours at temperatures between 100°C and 110°C before being pulverized to 90 % passing 106 µm fraction.</p> <p>The splitting of the samples into sub-samples and the sample sizes were considered to be appropriate to correctly represent the mineralisation, based on the style of mineralisation (massive hematite), the thickness and consistency of intersections and the drilling methodology.</p> <p>No samples from the 2014 Mount Gibson PQ diamond program have been used in the Mineral Resource estimation.</p>
<p>Quality of assay data and laboratory tests</p>	<p>Samples were assayed using the XRF method for a preferred iron ore suite of elements and compounds by Gindalbie and Mount Gibson. Loss on Ignition (LOI) was determined by Thermo-gravimetric analyser at 1000°C.</p> <p>In-house standards and field duplicates were inserted by Gindalbie Metals into the sample batches (nominal rate of 1:50 for standards and 1:25 for field duplicates) to monitor sampling and assaying quality.</p> <p>Previous analysis of the Gindalbie QAQC data for the Shine deposit did not identify any significant issues with the assay data which could be material to the resource estimate.</p> <p>Mount Gibson implemented quality control (QC) measures to qualify the assay data and laboratory tests. Approximately 4 % duplicate samples were collected and inserted in the sampling stream and approximately 5 % commercially available Certified Reference Material (CRM) were incorporated in the sampling stream submitted to Spectrolab for XRF analysis.</p> <p>Analysis of QC duplicates results suggests that the bulk of the sample material in the sample splitting system (static cyclone) was evenly split with geochemical variability between parent sample and duplicate sample within acceptable ranges. There were very few outliers and these are considered not material to the Mineral Resource.</p> <p>Results of the CRM data demonstrates that in general, that Spectrolab consistently reproduced assay results within the required limits for the particular CRM types used, indicating laboratory accuracy was good. On 3 occasions an assay batch failed a Fe standard. In each case the entire assay batch was re-analysed and returned Fe CRM results within the acceptable range.</p> <p>Mount Gibson implemented quality assurance (QA) measures to verify the sampling and assaying process. Approximately 10 % of the total primary samples were submitted to a secondary lab with half of these being pulps and the other half coarse rejects. QA plots indicate no bias and good relative precision for the majority of analytes except for Al₂O₃ which showed minor variation between Spectrolab and the secondary lab. This is not considered to be material to the Mineral Resource.</p>
<p>Verification of sampling and assaying</p>	<p>Haren Consulting has not conducted any independent verification of the assay data from either Gindalbie or Mount Gibson.</p> <p>All data from Gindalbie was collected electronically and stored in a SQL database with appropriate validation procedures.</p> <p>Mount Gibson used LogChief as a data capturing software and the data was stored in Datashed (a database software).</p>

Criteria	Commentary
	<p>No adjustments or calibrations were made to any assay data used in the estimate, apart from resetting below detection limit values to half positive detection so as to not have negative assay values within the resource estimation.</p> <p>No twinned diamond core holes have been completed to validate the RC drilling assay results by either Gindalbie or Mount Gibson.</p>
Location of data points	<p>The grid is based on the MGA 94 Zone 50 grid datum. Collar locations for both Gindalbie and Mount Gibson drill holes were surveyed routinely by surveyors using RTK DGPS with mm accuracy in X, Y and Z.</p> <p>Downhole surveys were collected for the majority of drill holes using gyroscopic survey techniques for both Gindalbie and Mount Gibson. Gyroscopic surveys are not affected by the magnetism of the BIF host rock. The data was presented at 5 m or 10 m intervals. Where gyroscopic surveys could not be completed to end of hole the last gyroscopic survey azimuth taken down the hole was inferred to end of hole and dip measurements taken from driller's magnetic tool were used to end of hole. The banded iron formation magnetism does not affect the driller's dip measurements, however the driller's azimuth measurements are not accurate and have not been used for data location purposes.</p> <p>The topography wireframe was based on 2m contours.</p>
Data spacing and distribution	<p>The drilling for both Gindalbie and Mount Gibson was completed along a set of east-west trending sections. The section spacing varies between 25 m and 50 m apart, with drill holes spaced 25 m apart on section.</p> <p>The section spacing achieved through drilling is sufficient to establish the degree of geological and grade continuity necessary to support the Mineral Resource classifications that were applied.</p> <p>The drilling was composited downhole using 1 m intervals.</p>
Orientation of data in relation to geological structure	<p>The host Banded Iron Formation (BIF) of the Shine iron mineralisation is sub-vertical and dips to the west at approximately -85°. Holes are predominately drilled at an inclination of -55° and -60° towards both west and east due to the sub-vertical nature of the hosting unit. Interpretation of the mineralised intercepts indicates that the mineralisation mimics the general sub-vertical orientation of the BIF. However, a horizontal orientation of the mineralisation is evident at the contact with an intervening flat lying dolerite dyke at depth. The location and orientation of the Shine drilling is appropriate given the strike, dip and morphology of the iron mineralisation.</p>
Sample security	<p>Haren Consulting does not believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate from the Gindalbie Metals drill results.</p> <p>All samples generated at Shine from the Mount Gibson 2014 drilling were handled, packaged and dispatched by Mount Gibson personnel to Spectrolab at the Mount Gibson Extension Hill Mine. There were no sample security issues during this process. No sample losses occurred between sampling and lab analysis with all samples were accounted for through field and lab tracking systems.</p>
Audits or reviews	<p>Haren Consulting is not aware of any audits or reviews for the Shine deposits, other than the due diligence conducted by Mount Gibson during the acquisition of Shine.</p> <p>Haren Consulting audited and reviewed the data capturing processes and the QAQC systems that Mount Gibson has in place and deemed them to be industry standard.</p>

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	<p>Gindalbie is the vendor of the project to Mount Gibson. The Shine Project area is defined by an area previously agreed between the tenement holder Minjar Gold and Gindalbie who held iron mineral rights over the tenure. The Shine Project Area is over parts of 3 mining leases M59/406, M59/421 and M59/731.</p>
Exploration done by other parties	<p>Exploration for iron mineralisation at the Shine Project Area has only been conducted by Gindalbie prior to the 2014 Mount Gibson RC and Diamond drill programs.</p>
Geology	<p>The Shine Hematite deposit is located within the Warriedar Fold Belt which is part of the Archaean Yalgoo-Singleton greenstone belt. The deposit is located along a north-northwest trending, sub-vertical 50 – 120 m wide</p>

Criteria	Commentary
	banded iron formation (BIF) of the Windanning Formation which is part of the Luke Creek Group. The BIF forms a prominent ridge which is approximately 50 m to 90 m wide in the Shine area. A sequence of mafic, ultramafic and pelitic sediments bounds the BIF to the east while a talc-rich ultramafic schist dominates west of the BIF. Where the BIF does not outcrop it is covered by lateritic or colluvial material. The iron mineralisation (goethite, hematite and magnetite) is strata bound occurring only within the BIF unit.
Drill hole Information	The majority of the drilling by Gindalbie has been RC drilling with some diamond holes drilled for metallurgical and geotechnical assessment. Specific drill hole information from Gindalbie is not presented here as it has been previously reported in August 2012. Drill hole information from drilling conducted by Mount Gibson in 2014 has previously been reported. The drill hole information comprised drill hole collars, eastings and northings, elevations, dips and azimuths, hole maximum depths and significant intercepts.
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.
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	No further exploration drilling will be required at Shine. The drilling conducted so far is sufficient to prove the lateral and depth continuity of the iron mineralisation and provides sufficient confidence to conduct Mineral Resource estimation prior to mining.

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	All data collected electronically and stored in a SQL database with appropriate data validation procedures. The database was managed by Gindalbie, and has now been transferred to Mount Gibson. Haren Consulting undertook a basic check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.
Site visits	No site visit has been conducted by the competent person for Mineral Resources.
Geological interpretation	The iron mineralisation has been interpreted based on a mixture of Fe threshold grades and the geological and geophysical logging. Iron mineralisation occurs as hematite-goethite in the upper portions of the BIF, with magnetite occurring at depth below the base of oxidation which is approximately 100 m below surface. The boundary between the hematite and magnetite is interpreted to occur over a relatively narrow zone (a few metres) and as such no transitional zone was modelled.

Criteria	Commentary
	<p>An east-west striking, shallow dipping, narrow dolerite dyke is interpreted which stopes out the mineralisation.</p> <p>The northern and southern areas of the BIF and associated iron mineralisation are covered by a siliceous capping (a product of near-surface weathering processes), which thickens to the north and south (i.e. this zone is thinnest in the central parts of the deposit).</p> <p>Outcrops of the iron mineralisation and various lithologies, confirms the validity of the geological interpretation based on the drilling.</p> <p>Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the Fe mineralised envelopes in terms of the reported classified resources at a 50 % Fe cut-off.</p>
Dimensions	<p>The Shine deposit is hosted within a north-south trending BIF. The mineralisation parallels the stratigraphy, trends roughly north-south and is sub-vertical, with a total strike length of about 1.7 km. The mineralisation occurs mainly in two sub-parallel zones which are up to 30 m wide in places.</p>
Estimation and modelling techniques	<p>Estimation of Fe, SiO₂, Al₂O₃, P, LOI, CaO, K₂O, MgO, MnO, S, TiO₂, Magnasat and density using ordinary block kriging for all domains with hard domain boundaries.</p> <p>Block model constructed using a parent cell size of 5 mE by 10 mN by 10 mRL for mineralised material. The search ellipse orientation and radius was based on the results of the grade continuity analysis, with the same search neighbourhood parameters used for all elements to maintain the metal balance and correlations between elements. An initial search of 200 m along strike by 100 m down dip by 20 m across the plane of mineralisation was used, with a minimum of eight and maximum of 20 samples.</p> <p>Hematite and magnetite mineralisation was modelled, along with the host rock domains. Where insufficient samples were available default values were assigned.</p> <p>Block estimates were validated against the input composite data both globally and locally.</p>
Moisture	<p>All tonnages have been estimated as dry tonnages.</p>
Cut-off parameters	<p>The iron mineralisation within the hematite was reported above a 50 % Fe cut-off grade.</p> <p>The cut-off grade was provided by Mount Gibson and is based on the assumption that the Shine deposit will be mined by open pit mining methods and that costs will be similar to existing mines operated by Mount Gibson (e.g. Extension Hill).</p> <p>The iron mineralisation within the magnetite was reported above a 50 % Fe cut-off grade.</p>
Mining factors or assumptions	<p>It is assumed the deposit will be mined using open cut methods.</p>
Metallurgical factors or assumptions	<p>It is assumed that the hematite ore will be direct shipping ore with minimal processing required (crushing and screening only). Magnetite mineralisation will likely require beneficiation to produce a concentrate.</p>
Environmental factors or assumptions	<p>It is assumed that no environmental factors exist that could prohibit any potential mining development at the Shine deposit.</p>
Bulk density	<p>The bulk density was estimated into the model blocks using ordinary kriging based on downhole geophysical logging.</p>
Classification	<p>The Mineral Resource has been classified based on the continuity of both the geology and the Fe grades, along with the drill hole spacing and data quality.</p> <p>The Mineral Resource has been classified as a combination of Measured, Indicated and Inferred.</p> <p>The mineralisation was classified as a Measured Resource where the drilling density was 25 mE by 50 mE (or less) and the hematite mineralisation shows good geological continuity.</p> <p>The mineralisation was classified as an Indicated Resource where the drilling density was greater than 25 mE by 50 mN but less than 25 mE by 100 mN and the hematite mineralisation shows reasonable geological continuity.</p> <p>The remainder of the mineralisation was classified as an Inferred Resource due to structural complexity and the narrow, discontinuous geometry of the mineralisation.</p>

Criteria	Commentary
	Poorly understood areas of mineralisation were not classified.
Audits or reviews	No external reviews or audits have been completed.
Discussion of relative accuracy/confidence	The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the local input data.

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 Ore Reserves	The Ore Reserve is based on the Mineral Resource Estimate, July 2014. The Mineral Resources are inclusive of Ore Reserves.
Site visits	The Competent Person responsible for the Ore Reserve estimate has visited the Project site.
Study status	While a new feasibility study <i>per se</i> has not been completed since 2014 there is sufficient information and completed studies to determine an economically viable and technically achievable estimate of an Ore Reserve.
Cut-off parameters	Cut-off grades are based on production of saleable Direct Shipping Ore (DSO) product. A cut-off grade of 55% Fe has been applied to deliver a High Grade product with an average grade of >59% Fe. A second cut-off grade of 50% Fe has been applied to enable the production of a Low Grade product for stockpiling and potential sales.
Mining factors or assumptions	The Project has been assessed with a view to conventional open pit selective mining. Owner operator mining has been applied to this operation. A detailed mine design has been completed based on Whittle 4X optimisation and with mining costs based on an existing operation of similar scale. Typical small scale open pit mining methods are appropriate for the deposit. Geotechnical parameters are based on the Dempers & Seymour "Shine Project – Pit Slope Design, Draft Report, June 2013" and have been reviewed by Coffey as part of the 2020 assessment. The inter-ramp slope angles are 47° with batter heights of 20 m and face angles of 60°. Berm widths are 8 m. A 0.5 m dilution skin has been applied to the mining model to reflect dilution. This methodology has been applied at several operating sites by Mount Gibson and has proved suitable for this type of deposit and mining method. A minimum mining width of 20 m is used. The Project assumes road haulage from the mine to the port in Geraldton (300 km). The Project will utilise an existing port facility.
Metallurgical factors or assumptions	Processing will be crushing and screening only typical of DSO Iron Ore. Crushing will occur on-site to produce lump and fines products for transport via road haulage to port for export. Product yields and quality are based on detailed metallurgical testing of 83 composite samples collected from PQ core. Metallurgical testing was conducted by ALS at the Iron Ore facility in Perth. The DSO lump and fines material meet the product specifications required to be marketable.
Environmental	Key State environmental approvals have been obtained and Mount Gibson does not foresee any impediments to obtaining outstanding approvals which could jeopardise the Project advancing.
Infrastructure	The indicative capital cost estimate includes costs to transport and establish infrastructure such as office buildings and workshops from Extension Hill to Shine, and for minor port facility upgrades.
Costs	Capital costs have been provided by Mount Gibson totalling \$17-20 million. Operating costs are based on quotes and actuals from existing Mount Gibson operations of a similar nature and scale. Indicative average total cash operating costs estimated at approximately \$65-70 per tonne of ore sold, exclusive of State Government and vendor royalties. Transport charges are based on existing costs for similar products in similar locations.

Criteria	Commentary
	There is a WA state government royalty of 7.5%.
Revenue factors	Revenue assumptions used in the pit optimisation were based on a 62% Fe iron ore benchmark price of US\$70/dmt (CFR northern China) and exchange rate of A\$1.00:US\$0.67. The economics of the project have been assessed for sensitivity at a number of iron ore price and foreign exchange rate scenarios.
Market assessment	The global market for DSO hematite is large relative to the Shine Hematite Ore Reserve with future consumption trends implying ongoing demand. The hematite market is diverse and increasingly transparent. Competitor analysis is not deemed necessary to enable confidence in market assessment.
Economic	The Project economics are directly related to the mining and logistics derived from quotations and existing costs. Confidence in the inputs is high. The Project exhibits a significant positive NPV. Key sensitivities are the cost of mining, cost of transport, iron ore price and exchange rate.
Social	Mount Gibson has initiated discussions with local stakeholders and has been actively mining in the Mid-West region since 2004, enjoying good relationships with Traditional Owners and local communities.
Other	Iron ore price variation and foreign exchange rates remain the key risks.
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 Ore Reserves accurately reflect the outcome of mine planning and the input of economic parameters into optimisation studies.
Audits or reviews	No audits have been undertaken on the Reserve.
Discussion of relative accuracy/ confidence	The Project economics related to mining and logistics are derived from quotations and existing costs. Confidence in the inputs is high.