

19 December 2022

ATLAS PROJECT ORE RESERVE UPDATE

Image Resources NL (ASX: IMA) ("Image" or "the Company") provides an updated Ore Reserve estimate at its 100%-owned, Atlas mineral sands project (Atlas Project) located in the infrastructurerich North Perth Basin in Western Australia. The northern section of the Mineral Resource is now excluded in this updated Ore Reserve estimate due to uncertainties of timing for environmental approval over the northern section of the deposit.

Highlights:

- 5.5 million tonnes of Ore Reserves at 9.2% total HM
 - 4.5 million tonnes (81%) classified as Proved Reserve at 10.6% total HM
 - o 481 kt (96%) of contained HM is in the Proved category
- 11.9% zircon, 7.9% rutile, 4.9% leucoxene and 53% Ilmenite in total HM.

This Ore Reserve estimate is based on a Mineral Resource estimate completed by Snowden Optiro as of December 2022 (refer to the Company's ASX announcement dated 15 December 2022). This Ore Reserve update was prepared and reported by Entech Mining Consultants in accordance with the guidelines of the JORC Code (2012). The Ore Reserve estimate is shown in Table 1, and additional details are available in Schedule 1. The previous Ore Reserve estimate is shown in Table 2.

Classification	Ore Tonnes	нм	Slimes	Oversize		Mine	ral Assem	blage (% of HI	VI)
	million	%	%	%	Zircon	Rutile	Leuc.	Ilmenite	Monazite
Proved	4.5	10.6	15	4.6	12	8	4.9	54	1.1
Probable	0.9	2.1	15	8.1	8.1	5.2	4.7	29	0.8
Total	5.5	9.2	15	5.2	11.9	7.9	4.9	53	1.1

Table 1. December 2022 Atlas Project Ore Reserve Summary¹⁻⁴

Table 1 notes:

- 1. Estimates have been rounded to the nearest 100,000t of ore, 0.1% for HM/Oversize/Zircon/Rutile/Leucoxene/Monazite/ZrO₂ and 0% for Slimes/Ilmenite/TiO₂.
- 2. Ore Reserves are reported as material south of 6,619,850 mN, within pit designs but limited to below a top-of-ore surface generated from consideration of the optimisation value modelling and current geological domain interpretation.
- 3. All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate, thus some of the columns may not be equal.
- 4. The Ore Reserves are based upon an FX rate US\$0.70:A\$1.00; and HMC product pricing is based upon a detailed pricing model contained within offtake agreements. These agreements are commercial-in-confidence.

Table 2. May 2017 Atlas Project Ore Reserve Summary¹⁻⁶

Classification	Ore Tonnes	нм	Slimes	Oversize			Mineral	Assemblage (% of	f HM)
	million	%	%	%	Zircon	Rutile	Leuc.	Ilmenite	Monazite
Proved	-	-	-	-	-	-	-	-	-
Probable	9.5	8.1	15.5	5.2	10.6	7.5	4.5	50.7	-
Total	9.5	8.1	15.5	5.2	10.6	7.5	4.5	50.7	-

Table 2 notes:

- 1. Mineral Resources have been reported as inclusive of Ore Reserves.
- 2. The mineral assemblages are reported as a percentage of in-situ HM content.
- 3. Ore Reserves are based upon a cut-off grade of 2% total heavy minerals.
- 4. The Ore Reserves are based upon an FX rate US\$0.73:A\$1.00; and the following commodity prices: ilmenite \$US171, leucoxene \$US522, rutile \$US936 and zircon \$US1,126.
- 5. Tonnes and grade data have been rounded to one decimal place. Discrepancies in summations may occur due to rounding.
- 6. Refer to the Company's ASX announcement dated 30 May 2017 for more information on the 2017 Ore Reserve estimate.

The following material changes have been made to the mine plan inputs since the previous Ore Reserve estimate:

- Mineral Resource estimate and corresponding block model updated for additional assay and mineral assemblage data obtained since the 2017 BFS due to the inclusion of additional drilling undertaken in the intervening period. The updated Mineral Resource has also now used the results of sachet logging and visual estimates of Iron Oxides (FeOx) to interpret and exclude laterite material within the interpreted strandlines;
- Change to Mine Development Envelope to exclude the northern section of the Mineral Resource. The northern section was excluded due to the uncertainties of achieving environmental approvals in a timely fashion over the Mount Jetty and Bibby creek lines, Aboriginal areas of cultural concern and areas of potentially sensitive flora and fauna as well as native vegetation. The Southern section of the Mineral Resource area is more economically robust due to higher HM grades and lower strip ratio, and consequently generates most of the net cash flow;
- Changes in pit design based on revised pit optimisation results using current study inputs and assumptions, including a reduced feed rate to the WCP from earlier studies; and
- A change to the assumptions and application of mining dilution to reflect a less selective mining method due to the thin strand mineralisation anticipated at the Atlas Project.

Mining adjustments from the previous Ore Reserve include adopting a different approach to applying mining dilution to encompass both internal laterite material and boundary material dilution at the top and bottom ore surfaces. The previous Ore Reserve excluded some material for the previously proposed high voltage powerline crossing, which has now been removed from the current mine plan. Together these adjustments have a minor effect on contained HM, though the dilution adjustments do increase the feed tonnage with a commensurate reduction in HM%. Very minor changes can be attributed to Mineral Resource modelling impacts between estimates.

The previous Ore Reserve estimate downgraded all Measured Mineral Resources to Probable Ore Reserve, based on some uncertainty surrounding density estimates. The current Mineral Resource estimates density using an algorithm that considers lithology, HM and slime grades interpolated into the model, such that a variable density attribute is estimated based on the material characteristics as modelled. The same method has been used for the Boonanarring deposit since 2019 and the algorithm has been refined since, using operational data from the Boonanarring site.

Hence this estimate includes no downgrading of Measured Mineral Resources, which convert directly to Proved Ore Reserves, subject to the application of appropriate modifying factors.

A detailed comparison has been performed between the 2017 Ore Reserve and this updated estimate. The main variance, both in terms of ore tonnage and contained HM, is due to the removal of the Northern area of the Mineral Resource since the disclosure of the previous Ore Reserve. Changes to the pit design are the next greatest area of variance between the updated and previous Ore Reserve. In general, the updated pit design focuses more tightly on the main economic core of the Resource where the majority of the cashflow is generated, with the removal of some more marginally economic regions to the north. These changes contribute to the uplift in total HM% and valuable mineral assemblage composition of the HM in the updated estimate.

Refer to Schedule 1 containing the Ore Reserves Estimate Executive Summary for further information on the material assumptions defining the updated Ore Reserve estimate.

Figure 1 shows the spatial comparison between 2017 and 2022 Ore Reserve Pit footprints. Waterfall charts illustrating the variance impacts due to these areas are shown in Figure 2-4.



Figure 1 : Comparison between 2022 Vs 2017 Ore reserve





Figure 3 : Change in HM Grade





Figure 4 : Change in HM Tonnes

This Ore Reserve estimate incorporates updated cost inputs, product pricing (reflecting current offtake agreements) and other study assumptions to reflect the current project development status, notably a significant reduction to the Mine Development Envelope from earlier studies.

This Ore Reserve estimate is based on modifying factors and processing inputs determined from technical studies to Feasibility Study level for the Atlas Project, informed where relevant by analysis of actual operating performance at Image's Boonanarring mine site. The Feasibility Study is based on mining of the Atlas Project, once mining and processing at the Boonanarring operation has finished, using conventional dry open pit mining techniques and wet concentration of the ore to produce Heavy Minerals Concentrates (HMC) for sale or toll treatment. Mining of the Atlas Project is currently scheduled to commence 2H 2023, with commissioning and first production near the end of Q4 2023. Life-of-mine (excluding rehab) for this Ore Reserve estimate is approximately 30 months. HMC production during the first 6 months is high as the mine plan concentrates on the central high-value area of the pit.

Final economic evaluation was conducted by Image using a standalone financial model and life-ofmine schedule, utilising the Ore Reserve pit designs. Where sales receipts or costs are in US Dollars, an exchange rate of 1.00:0.70 AUD:USD has been used. 100% of HMC produced at Atlas is contracted under life of mine offtake agreements and the Feasibility Study shows that operating cashflows are expected to remain positive for the production duration at the Atlas Project, with particularly strong operating margins expected in the first year of production. Operating margins are expected to decline after year one, as lower HM feed grades and HMC production is scheduled once mining advances away from the high-value central region of the pit. Sensitivity analysis was conducted on key variables (+/- 20%) based on undiscounted cashflows. The Atlas Project is reasonably insensitive to changes in capital and operating costs and is most sensitive to those variables that directly impact on the revenue stream, such as pricing and recovery/grade.

The Company anticipates providing guidance for 2023 and 2024, first full year of Atlas production, in early January 2023.

This document is authorised for release to the market by the Managing Director. For further information, please contact:

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FORWARD LOOKING STATEMENTS

Certain statements made during or in connection with this communication, including, without limitation, those concerning the economic outlook for the mining industry, expectations regarding prices, exploration or development costs and other operating results, growth prospects and the outlook of Image's operations contain or comprise certain forward-looking statements regarding Image's operations, economic performance and financial condition. Although Image believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward looking statements as a result of, among other factors. changes in economic and market conditions, success of business and operating initiatives, changes that could result from future acquisitions of new exploration properties, the risks and hazards inherent in the mining business (including industrial accidents, environmental hazards or geologically related conditions), changes in the regulatory environment and other government actions, risks inherent in the ownership, exploration and operation of or investment in mining properties, fluctuations in prices and exchange rates and business and operations risks management, as well as generally those additional factors set forth in our periodic filings with ASX. Image undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

COMPETENT PERSON'S STATEMENTS – MINERAL RESOURCES AND ORE RESERVES

The information in this report that relates to the Atlas Mineral Resource estimate is extracted from the Company's ASX announcement dated 15 December 2022, which is available on the Company's website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of mineral resources or ore reserves, that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to the estimation of Ore Reserves for the Atlas mine is based on, and fairly represents, information and supporting documentation prepared by Mr Per Scrimshaw, Mining Engineer and an employee of Entech Pty Ltd, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Scrimshaw has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Scrimshaw confirms there is no potential for a conflict of interest in acting as a Competent Person and has provided his prior written consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Schedule 1

Atlas Mineral Sands Deposit Ore Reserve Estimate – 2022

EXECUTIVE SUMMARY

Image Resources ("Image") engaged Entech Pty Ltd ("Entech") to undertake an Ore Reserve update for their Atlas Project, located approximately 90 km north of Images' existing Boonanarring operation and 170km north of Perth in Western Australia. Mining of the Atlas Project is currently scheduled to commence 2H 2023, with commissioning and first production near the end of Q4 2023.

Prior to this estimate, the most recent Atlas Project Ore Reserves were estimated by Optiro Pty Ltd (Optiro, now Snowden Optiro) as of May 2017. That Ore Reserve estimate was prepared for the 2017 Bankable Feasibility Study (BFS) incorporating both Boonanarring and Atlas deposits, prior to commencement of operations at the Boonanarring mine.

The following material changes have been made to the mine plan inputs since the previous Ore Reserve estimate:

- Mineral Resource estimate and corresponding block model updated for additional assay and mineral assemblage data obtained since the 2017 BFS due to the inclusion of additional drilling undertaken in the intervening period. The updated Mineral Resource has also now used the results of sachet logging and visual estimates of Iron Oxides (FeOx) to interpret and exclude laterite material within the interpreted strandlines,
- Change to Mine Development Envelope to exclude the northern section of the Mineral Resource. The northern section was excluded due to the uncertainties of achieving environmental approvals in a timely fashion over the Mount Jetty and Bibby creek lines, Aboriginal areas of cultural concern and areas of potentially sensitive flora and fauna as well as native vegetation. The Southern section of the Mineral Resource area is more economically robust due to higher HM grades and lower strip ratio, and consequently generates most of the net cash flow,
- Changes in pit design based on revised pit optimisation results using current study inputs and assumptions, including a reduced feed rate to the Wet Concentration Plant (WCP) from earlier studies, and
- A change to the assumptions and application of mining dilution to reflect a less selective mining method due to the thin strand mineralisation anticipated at the Atlas Project.

This Ore Reserve estimate update is based on a Mineral Resource estimate completed by Snowden Optiro as at December 2022. The Mineral Resource estimate used is separately reported in accordance with the JORC Code (2012).

Measured Mineral Resource have been converted to Proved Ore Reserve and Indicated Mineral Resource have been converted to Probable Ore Reserve after the application of appropriate modifying factors, subject to mine design physicals and an economic evaluation. Inferred and Unclassified Mineral Resource contained within the mine plan, and below the top-of-ore surface, are included in the Ore Reserve as planned dilution where it is considered unable to be selectively mined separately as waste. The Ore Reserve has been defined at delivery to the Feed Preparation unit (FPP).

The Ore Reserve estimate is based on a pit design, informed by guidance from updated pit optimisation studies, for which detailed mine scheduling and financial modelling have been prepared. All Image prepared pit designs, schedules and financial modelling have been reviewed by Entech for suitability for Ore Reserve disclosure.

A conventional 'dry mining' method, like that currently employed at the Boonanarring mine, is proposed for the Atlas Project. Mining services (and dayworks) will be performed by an established

mineral sands mining contractor under a fixed and variable schedule of rates contract. Clearing and grubbing occur shortly before overburden removal is required to expose scheduled ore blocks. Overburden will be removed using a waste fleet comprised of 190 t Excavators and 90 t Trucks or similar. Ore will be mined using an ore fleet comprised of a 120 t Excavator and 50 t Articulated Dump Trucks or similar. Ore will be hauled to a centrally located Run of Mine (ROM) pad located close to the FPP where it is blended and fed to the FPP using a front-end loader. Ore mining rates are based around providing an annualised production rate of approximately 2.6 Mt.

The current mine sequence (Figure 2) is based on:

- 1. Initially extracting the high grade (and value) middle section of the pit, by commencing mining at the 6,617,825N and advancing in a northern direction to 6,618,825N, then
- 2. Mining the southern section of the pit, by commencing at the 6,617,825N and advancing in a southerly direction until the southern extent of the design pit, then
- 3. Mine remaining Ore Reserves starting at the far northern extent of the pit and mining south till all depleted.

Processing operations at Atlas will be similar to Boonanarring, which consists of processing ore through a wet concentration plant (WCP) to produce a Heavy Mineral Concentrate (HMC) which is then shipped through the Port of Bunbury to customers with offshore Mineral Separation Plants (MSP).

This Ore Reserve estimate is based on modifying factors and processing inputs determined from technical studies to Feasibility Study level for the Atlas Project, informed where relevant by analysis of actual operating performance at Image's Boonanarring mine site.

Mining dilution has been considered by adopting a less selective mining method than the prior Ore Reserve, which included a 2% provision for mining dilution. In comparison, a total of 0.92Mt of dilution material at 1.6% HM, 5.7% ZrO2 and 26.7% TiO2 is included in this Ore Reserve estimate, or approximately 20% on a tonnage basis. Mining recovery is assumed to be 100% with provision for a FPP recovery of 99%. WCP mineral recoveries use estimates of 96.7% (ZrO₂) and 91.3% (TiO₂) and are based on bulk sample test work on Atlas ore feed samples.

Deleterious materials include oversize material and clay fines which are managed as part of rehabilitation management plan and mildly radioactive material, which is shipped with the HM concentrate at levels well below public safety limits.

Revenue estimates are based on contained ZrO₂ and TiO₂ percentages estimated throughout the Mineral Resource model and aligned with the current methodology for calculating bulk HMC sales revenues under the current offtake agreement pricing models. 100% of HMC produced at Atlas is contracted under life of mine offtake agreements. Operating cost inputs have been based on actual site operating data, contracted rates, or current budget estimates. Capital costs have been developed by EPCM specialists, ProjX, and are based on supplier quotes, already incurred costs or internally developed costings.

All material were subjected to an economic evaluation in a detailed financial model compiled by Image and reviewed by Entech. The mine plan is shown to be technically and financially feasible with positive cashflows, and a suitable cashflow positive buffer exists below the assumed product prices to provide confidence that the Ore Reserve estimate will be financially viable within a reasonably expectable range of product prices.

Development of the Atlas Project requires several approvals, some of which are still in progress. The most significant of these is EPA approval, which is required prior to the issuance of a Ministerial Approval Statement. The proposal has been referred with a public review period imminent and an

indicative timeline for EPA approval is expected to be June 2023. Image advises that they consider the proposal to meet EPA objectives for all Key Environmental Factors, with environmental offsets proposed to counter residual impacts on flora and fauna by mine disturbance and clearing. Other approvals required (including Mining Proposal / Mine Closure Plan, Dangerous Goods License, Radiation Management Plan, Works Approval & Site Environmental License and License to take Water) have either been submitted and awaiting approval or are contingent on the EPA approval process. Image have a workplan in place to ensure all required approvals are in place prior to the time required of the mine plan. Mining lease M 70/1305 was granted 1/04/2021 with an expiry 31/03/2042 and Development Approval for the camp was granted 17 December 2021 by the Shire of Dandaragan.

Mine and processing infrastructure will be located on crown land. Image has purchased adjacent land required for the accommodation camp and facilities. Part of the existing Boonanarring process infrastructure will be relocated to Atlas upon completion of operations at that site. A new WCP spiral plant building will be built for Atlas. Additional infrastructure works will be required for power, communication, and road access, which have been planned for and costed accordingly. Labour will be sourced from the local area and surrounds, with accommodation provided on site to support remote work due to the absence of alternate accommodation nearby.

An Ore Reserve estimate has been prepared and reported in accordance with the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). This is tabulated below (Table 1).

			(% in Ore)				Minera	al Assemblag	e (% of HM)		
Classification	Ore Tonnes (Mt)	нм	Oversize	Slimes	Zircon	Rutile	Leuc.	Ilmenite	Monazite	ZrO ₂	TiO₂
Proved	4.5	10.6	4.6	15	12.0	8.0	4.9	54	1.1	7.9	42
Probable	0.9	2.1	8.1	15	8.1	5.2	4.7	29	0.8	5.4	25
Total	5.5	9.2	5.2	15	11.9	7.9	4.9	53	1.1	7.8	42

Table 1 - 2022 Ore Reserve Update

Estimates have been rounded to the nearest 100,000 t of ore, 0.1% for HM/Oversize/Zircon/Rutile/Leucoxene/Monazite/ZrO₂ and 0% for Slimes/Ilmenite/TiO₂. Ore Reserves are reported as material south of 6,619,850 mN, within pit designs but limited to below a top-of-ore surface generated from consideration of the optimisation value modelling and current geological domain interpretation. All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal.

Detailed comparison has been performed between the 2017 Ore Reserve and this updated estimate. The main variance, both in terms of ore tonnage and contained HM is due to the removal of the Northern area of the Mineral Resource since the disclosure of the previous estimate (Removal of Northern Resource). Changes to the pit design (Pit Design Changes) are the next greatest area of variance between the updated and previous Ore Reserve. Mining adjustments and Resource modelling between estimates result in very minor impact (Figure 1).



Figure 1 - Change in HM Tonnage Waterfall

Figure 3 shows the spatial comparison between 2017 and 2022 Ore Reserve Pit footprints.

Mr Scrimshaw conducted a site visit to both the Boonanarring (operational) and Atlas (development) sites during July 2022.

Confidence in the mine design and schedule are high as mining rates are lower than current Boonanarring operations, the pit is shallow with low strip ratio and a highly conservative approach to mining dilution has been adopted. Confidence in processing assumptions and method are high as some of the plant will be relocated from Boonanarring and is well understood. The CT1 demonstration plant will have been tested for over 12 months at Boonanarring, upon which the Atlas WCP will be based. Confidence in operational costs is high as there is approx. 4+ years of operational history at Boonanarring upon which many assumptions have been based. Consideration of pit shell progression provides high confidence in the robustness of the current pit design, as removal of the northern region of the resource from development in this Ore Reserve estimate focusses the design to regions of the resource that are higher margin areas of the deposit and less sensitive to spatial changes in extent with changing economic inputs. Revenue estimates are based on short term forecasts (given the relatively short project duration), which should be of higher confidence than those based on more distant projections in time.



Figure 2 - Mining Direction and Extraction Sequence



Figure 3 - 2017 and 2022 Ore Reserve Pit Outlines

Appendix A JORC Code Table 1 criteria

The table below summaries the assessment and reporting criteria used for the Atlas deposit Mineral Resource estimate and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
	Nature and quality of sampling. These examples should not be taken as limiting the broad meaning of sampling.	Sampling of the deposit has been by vertical reverse-circulation air-core method (RCAC). This is a mineral sands industry-standard drilling technique.
Sampling techniques	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report.	The samples have been taken over intervals of 0.2 m, 0.25 m, 0.3 m, 0.5 m, 1 m, 1.5 m and 2 m. Within the interpreted mineralisation almost 80% of the samples have been taken over intervals of 1 m, 6% have been taken over intervals of 1.5 m and 13% over intervals of 2 m.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	All Image and historic RGC RCAC drillholes were drilled vertically using an NQ-sized (76 mm diameter) drill bit. All Iluka RCAC drillholes are vertical and were drilled using a BQ-sized drill bit (60 mm diameter). Water injection is used to convert the sample to a slurry so it can be incrementally sampled by a rotary splitter.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	At the drill site, Image's geologist estimates sample recovery qualitatively (as good, moderate or poor) for each 1 m or 2 m downhole sampling interval. Specifically, the supervising geologist visually estimates the volume recovered to sample and reject bags based on prior experience as to what constitutes good recovery. Image also monitors recovery through the mass of the laboratory sample, which is recorded prior to despatch and again on delivery to the laboratory. The mass variation in the laboratory samples can then be correlated back to the original total sample.

Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Image's supervising geologist logs the sample reject material at the rig and pans a small sub-sample of the reject, to visually estimate the proportions of sands, heavy mineral sands, 'slimes' (clays), and oversize (rock chips) in each sample, in a semi-quantitative manner. The geologist also logs colour, grainsize, an estimate of induration (a hardness estimate) and sample 'washability' (ease of separation of slimes from sands by manual attrition). To preclude data entry and transcription errors, the logging data is captured into a digital data logger at the rig, which contains pre-set logging codes. No photographs of samples are taken. The digital logs are downloaded daily and emailed to Image's head office for data security and compilation into the main database server. Samples visually estimated by the geologist to contain more than 0.5% total HM (by weight) are despatched for analysis along with the intervals above and below the mineralised interval. The level and detail of logging is of sufficient quality to support Mineral Resource estimates (MRE). All the intervals drilled by Image after 2010 have been logged. This accounts for 80% of the resource database.
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in- situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	Approximately 78% of samples were analysed for total heavy minerals (HM). The sample from the internal RC rods is directed to a cyclone and then through a 'rotating-chute' custom-built splitting device. This device allows different fraction splits from the cyclone sample stream to be directed to two 25 cm by 35 cm calico bags (as the laboratory despatch and reject samples. The rotary splitter directs ≈10 increments from the stream to the laboratory despatch samples, for a specified sampling interval.

		For resource definition drilling, two (replicate) 1/8 mass splits (each \approx 1.25 kg) are collected from the rotary splitter into two pre-numbered calico bags for each down hole interval. Selected replicate samples were collected and analysed to quantify field sampling precision, or as samples contributing to potential future metallurgical composites. Iluka is understood to have used a similar procedure, albeit no records are available to support this assertion. To monitor sample representation and sample number correctness, Image
		samples prior to despatch. The laboratory then weighs the received sample and reports the mass to Image. This quality control ensures no mix up of sample numbers and is also a proxy for sample recovery.
		Image considers the nature, quality and size of the sub samples collected are consistent with best industry practices of mineral sands explorers in the Perth Basin region.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Image and Iluka used industry standard approaches to estimating the contents of HM, slimes and oversize involving washing slimes from samples, then extracting the heavy minerals from the residual sands using heavy media. Image engaged two laboratories (Western GeoLabs and Diamantina Laboratory) for sample analysis. Image inserted standard samples for assaying undertaken in 2020. Both Iluka and Image collected duplicate samples, including field duplicates of the primary sample and laboratory duplicates at the laboratory sub sampling stage (post de-sliming). Analysis of QAQC data for the drilling programs indicates that it is of moderate to high quality and supports resource estimation. QEMSCAN analysis has been used to estimate the ilmenite, leucoxene, rutile, zircon and monazite concentrations within the total HM.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	No twinned holes have been intentionally drilled, but there are several holes drilled within <5 m of each other. Results from both sets of drillholes are consistent.

	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data	Image collected primary data on hard copy logs and also using a data logger. Data from laboratories was provided in digital form and compiled in Microsoft Access databases and spreadsheets.
	ouru.	In 2017, 28 samples of -2mm+53 μ m HMC were screened at 63 μ m to assess the total HM in the -63 μ m fraction. This data was used to determine an adjustment factor to derive estimates of the % total HM within the -63 μ m fraction from the % total HM within the -63 μ m fraction for samples where the % total HM from the -63 μ m fraction was not available.
		Drillhole collars at Atlas have been surveyed using handheld, DGPS and RTK DGPS methods, with the latter method deemed most accurate.
	Accuracy and quality of surveys used to locate drillholes (collar and	The collar coordinates and survey ground controls have been tied to the Landgate GOLA database by a registered surveyor.
Location of data points	downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	All collars for the MRE have been adjusted to a LiDAR topographic model described below.
	Specification of the grid system used. Quality and adequacy of topographic control.	Data for Atlas has been surveyed in MGA Zone 50 GDA94. The mineral resource has been estimated in the same coordinate system due to the north-south trending nature of Atlas. The topographic model for Atlas is based on LiDAR survey. A review of this survey by Image did not produce any significant variation in the resource.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral	Within the main strandline, the majority of the drilling is at 10 m to 25 m centres on 50 m to 150 m spaced section lines with some infill drillholes at a closer spacing of down to 5 m across strike and 15 m along strike. Outside of the main strandline the nominal drill spacing is approximately 20 m across strike on section lines spaced at 100 m or 200 m along strike and some areas have been drilled at a wider spacing of up to 50 m by 300 m
	Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	The drill database used in the resource estimate comprises 1,855 drillholes for a total 23,708 m drilled by Image, RGC and Iluka between 1989 and 2020.
		Samples for HM assemblage determination were composited on intervals according to a combination of grade and geology appropriate to reflect resource estimation domains.

		The Mineral Resource includes the results of 103 composite samples of heavy mineral concentrate (HMC) collected from 243 drillholes (over a total of 1,474 m) which were analysed by QEMSCAN to determine the heavy mineral assemblage.
		The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure and classification applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	All drillholes are vertical and intersect sub-horizontal strata. This is appropriate for the orientation of the mineralisation and will not have introduced a bias.
		All samples are collected from site by Image's staff as soon as practicable once drilling is completed and then delivered to Image's locked storage sheds. Image's staff deliver samples to the
Sample security	The measures taken to ensure sample security.	laboratory and collect heavy mineral floats from the laboratory, which are also stored in Image's locked storage.
		Image considers there is negligible risk of deliberate or accidental contamination of samples. Occasional sample mix-ups are corrected using Images checking and quality control procedures.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The results and logging have been reviewed internally by Image's senior exploration personnel including checking of masses despatched and delivered, checking of standard results, and verification logging of significant intercepts.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Atlas deposit is within granted mining lease M70/1305 (expiry 31/03/2042); exploration licences E70/2636 (expiry 19/02/2023), E70/2898 (expiry 13/11/2022, renewal pending) and E70/3997 (expiry 10/10/2025). Image has a 100% interest in each of these licences.

Criteria	JORC Code explanation	Commentary		
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.			
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Atlas deposit was discovered by RGC, which drilled out the deposit to an Inferred Resource Status. The work is well documented in reports from Iluka, and prior Mineral Resource estimator Widenbar and Associates (2011).		
Geology	Deposit type, geological setting and style of mineralisation.	Atlas is hosted in the Perth Basin, in surficial marine sediments eroded into Cretaceous basal sediments during the Pleistocene marine transgressions.		
		The host sediments consist of unconsolidated well sorted sands and clayey sands, sitting over basal sediments of very fine to granular or pebbly, poorly sorted sands and clayey sands.		
		Atlas has one major strandline of heavy minerals, with seven minor strandlines interpreted to the north, east and west of the main strandline and a small area of mineralisation above the main strandline.		
		The basement to the strandline mineralisation is identified by an increase in slimes and or oversize and/or coarser gain size.		
Drillhole information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: easting and northing of the drillhole 	Not relevant – Mineral Resource defined. Exploration results are not being reported for the Mineral Resource area.		
	 collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar 			
	dip and azimuth of the hole			
	downhole length and interception depth			
	hole length.			
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high	Not relevant – Mineral Resource defined. Exploration results are not being reported for the Mineral Resource area.		
	Material and should be stated.	There are no metal equivalent values assumptions applied in the Mineral Resource reporting.		

Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	The geometry of the Atlas mineralisation is effectively horizontal and the vertical drillholes used to
	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	define the Mineral Resource give the approximate true thicknesses of mineralisation.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection	The drillhole database is managed by Image. Maintenance of the database includes internal data validation protocols by Image.
	and its use for Mineral Resource estimation purposes. Data validation procedures used.	For the Mineral Resource estimate the drillhole data was extracted directly from Image's Access database.
		Data was further verified and validated by Snowden Optiro using mining software (Datamine) validation protocols, and visually in plan and section views.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Mrs Christine Standing (CP for the Mineral Resource estimate) has not visited the Atlas deposit. She has visited other mineral sands deposits in the North Perth Basin including Image's Boonanarring deposit during December 2016.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The Yoganup Formation was defined using a combination of slimes and oversize data and drillhole lithological logs
	Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation.	For the purposes of resource
		estimation, this unit was used in combination with grade criteria (nominal cut-off grade of 2% total HM) to define a main strandline, seven
	The use of geology in guiding and controlling Mineral Resource estimation.	additional strandlines to the north, west and east of the main strandline and a small mineralised horizon
	The factors affecting continuity both of grade and geology.	above the main strandline.

Criteria	JORC Code explanation	Commentary
		A lower grade halo was interpreted around the strandline mineralisation and within the Yoganup Formation using a nominal cut-off grade of 0.5% total HM.
		There is good confidence in the geological interpretation of the main strandline. Confidence in the other strandlines is lower, as reflected by the classification.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The main strandline mineralisation has been shown from drilling to extend for approximately 5.3 km north/south. The mineralisation extends from surface to 16 m depth, has an average thickness of 3.4 m and a maximum thickness of 12 m.
		mineralisation have been interpreted to the east, west and north of the main strandline. These additional strandlines are not as continuous along strike as the main strandline and are thinner and narrower. They are oriented north-south and strike lengths range from 0.1 km to 3.7 km. The top of the strandlines ranges in depth from surface to 14 m and the mineralisation extends to a depth of up to 18 m, with an average thickness that ranges from 1.4 m to 3.5 m.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search amployed	Data analysis and estimation was undertaken by Snowden Optiro using Snowden Supervisor and Datamine software. Wireframe interpretations of mineralisation were made by Snowden Optiro based on geological logging and HM content, using a threshold of ~2% HM to define the strandline mineralisation and a threshold of 0.5% HM to define the lower grade halo. Snowden Optiro assessed the robustness of these domains by critically examining the geological interpretation and by using a variety of measures, including statistical and geostatistical analysis. The domains are considered geologically robust in the context of the resource classification applied to the estimate.

Criteria	JORC Code explanation	Commentary
	Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables.	The nominal drill spacing is approximately 20 m across strike on section lines spaced at 100 m or 200 m along strike. Within the main
	Description of how the geological interpretation was used to control the resource estimates.	strandline there are drillholes at a closer spacing of down to 5 m across strike and 15 m along strike and outside of the main strandline some areas have been drilled at a wider
	using grade cutting or capping.	spacing of up to 50 m by 300 m.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if	from the three-dimensional interpretation of the mineralised horizons.
	available.	Samples are from intervals of 0.2 m, 0.25 m, 0.3 m, 0.5 m 1 m, 1.5 m and 2 m. As the majority of samples within the interpreted mineralisation (80%) are from intervals of 1 m, the data was composited to 1 m downhole intervals for resource estimation.
		Extrapolation of up to 50 m along strike and approximately half the drill spacing across strike was used for the interpretation.
		Total HM grade was estimated using ordinary kriging (OK) and inverse distance squared (ID2) into parent blocks of 10 mE by 50 mN by 1 mRL. Slimes and oversize quantities were estimated using OK into the parent blocks.
		Block dimensions were selected from kriging neighbourhood analysis and reflect the variability of the deposit and the model's practicality for future mine planning. Sub-cells to a minimum dimension of 2.5 mE by 12.5 mN by 0.5 mRL were used to represent the volume of the strandlines and sub-cells to minimum dimension of 1.25 mE by 6.25 mN by 0.25 mRL were used for definition of the possible exclusion area around the HV powerline.
		Zircon, leucoxene, rutile, ilmenite and monazite (VHM components) percentages within the HM fraction were estimated using inverse distance (squared) into the parent blocks.

Criteria	JORC Code explanation	Commentary
		Correlation coefficients of the mineral assemblage data used for resource estimation indicate a moderate positive relationship between ilmenite and rutile, rutile and zircon, and zircon and monazite and a poor positive relationship between leucoxene and rutile, ilmenite and zircon, and ilmenite and monazite. There is a poor negative relationship between Al-Fe-silicate and rutile, and Al-Fe- silicate and zircon. The other variables are not correlated (correlation coefficients are less than 0.3).
		All variables were estimated separately and independently.
		Hard boundaries were applied to the estimation of HM, slimes and oversize and the VHM components within the mineralisation domains.
		Grade capping was applied to HM within the lower grade halo and to slimes % and oversize % within the lower grade halo and the mineralised strandlines. The top cut levels were determined using a combination of top cut analysis tools, including grade histograms, log probability plots and the coefficient of variation.
		Variogram analysis was undertaken to determine the kriging estimation parameters used for OK estimation of HM, slimes and oversize and the search dimensions used for ID estimation of the VHM components.
		HM mineralisation continuity was interpreted from variogram analyses to have an along strike range of 540 m and an across strike range of 45 m within the main strandline. Within the other mineralised strandlines HM mineralisation has an along strike range of 210 m and an across strike range of 87 m. Within the lower grade halo HM mineralisation has an along strike range of 120 m and an across strike range of 75 m.
		The mineral assemblage continuity was interpreted from variogram analyses to have an along strike range of 640 m (ilmenite, rutile and leucoxene) and 830 m (zircon) and an across strike ranges of 230 m for ilmenite and rutile, 280 m for leucoxene and 420 m for zircon.

Criteria	JORC Code explanation	Commentary
		Kriging neighbourhood analysis was performed in order to determine the block size, sample numbers and discretisation levels.
		Three estimation passes were used for HM; the first search was based upon the variogram ranges; the second search was two times the initial search and the third search was up to five times the initial search with reduced sample numbers. The majority of blocks (65%) were estimated in the first pass, 32% in the second pass and 4% in the third pass.
		The HM, slimes and oversize estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the declustered drillhole data and by northing, easting and elevation slices.
		The VHM estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the drillhole data and by northing and easting slices.
		No production has occurred from the deposit.
		Compared to the 2017 Mineral Resource estimate, there has been a 5% decrease in tonnes and total HM grade. This is in line with the improved definition of the lateritic material (domain 500). The definition of lateritic material and down-grading this to Indicated or Inferred has reduced the Measured tonnes.
		The zircon, ilmenite and leucoxene grades have increased by 5%, 7% and 27% respectively and the rutile grade has increased slightly by 0.3%. The change in mineral assemblage reflects the additional mineral assemblage data obtained for the strandlines and the lower-grade halo.
		The contained total HM has decreased by 10%, the contained zircon, rutile and ilmenite have decreased by 5%, 9%, and 3% respectively and the contained leucoxene has increased by 15%.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resource estimate for the Atlas deposit has been reported above a 2.0% total HM cut-off. This cut-off grade was selected by Image based on technical and economic assessment and on comparison with similar deposits for consistency of reporting with Image's other deposits.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous.	Open pit mining methods will be used, similar to those commonly and currently in use in HM mining operations both in Australia and globally.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.	 Mineral assemblage data within the Mineral Resource estimate has been analysed using QEMSCAN. The QEMSCAN rules for the titanium mineral determination are as follows: Ilmenite: 50 to 70% TiO₂ Leucoxene: 70 to 95% TiO₂ Rutile: >95% TiO₂. Image considers there are no metallurgical factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation.	Image is undertaking environmental studies at Atlas in order to obtain mining permits. At present Image considers there are no environmental factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	A combination of lithology and grades (total HM and slimes) were used to determine the density values for the resource model.

Criteria	JORC Code explanation	Commentary
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk density assigned values and formulae were developed by Image during 2019 for the Boonanarring deposit (also in the Perth Basin) using bulk density measurements from a geotechnical drilling program and in- pit density measurements. The assigned values and formulae were verified and adjusted where required using data obtained at Boonanarring during 2020. These assigned values and formulae have been applied at Atlas for density estimation.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	The estimate has been classified according to the guidelines of the JORC Code (2012), into Measured, Indicated and Inferred Resources taking into account data quality, data density, geological continuity, grade continuity and confidence in estimation of heavy mineral content and mineral assemblage. In plan, polygons were used to define zones of different classification within each of the mineralised domains. Within the main strandline the majority of the drilling is at 10 m to 25 m on 50 m to 150 m spaced section lines and Measured Resources are defined where there is mineral assemblage data. Indicated and Inferred Resources are defined within the northern area of the strandline where there is a lack of mineral assemblage data. Within the less continuous additional strandlines, Indicated Resources are defined where the majority of the drilling is at 25 m to 40 m on 50 m to 300 m spaced section lines and mineral assemblage data is available. Inferred Resources are defined within areas where there is limited or no mineral assemblage data.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource has been reviewed internally as part of normal validation processes by Snowden Optiro. No external audit or review of the current Mineral Resource has been conducted.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.	The assigned classification of Measured, Indicated and Inferred reflects the Competent Persons' assessment of the accuracy and confidence levels in the Mineral Resource estimate. The confidence levels reflect production volumes on a quarterly basis.

Criteria	JORC Code explanation	Commentary
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	No production has occurred from the deposit.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

The table below summaries the assessment and reporting criteria used for the Atlas deposit Ore Reserves estimates and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	The Mineral Resource estimate used was prepared by Christine Standing of Snowden Optiro and classified in accordance with the JORC 2012 guidelines. The basis of this Resource estimate is as at December 2022 and was disclosed to the market 15 December 2022. The corresponding Datamine block model is $at_or_8sept2022.dm$
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	A site visit was undertaken in July 2022 by Per Scrimshaw of Entech Pty Ltd (the Competent Person for Estimation and Reporting of Ore Reserves) with the purpose of the visit being to assess requirements for evaluating the 2022 Ore Reserve. This visit encompassed both the Atlas development site, as well as Image's operating mine at Boonanarring.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre- Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Image Resources completed a Pre- Feasibility Study in 2013 and Bankable Feasibility study in 2017 which included both Boonanarring and Atlas projects. Image Resources commenced mining operations at Boonanarring in May 2018 and processing operations in November 2018. The mine plan underpinning the economic assessment of the current Ore Reserve for Atlas is underpinned by an updated Feasibility Study that uses current economic inputs and modifying factors. That study confirms a materially positive economic outcome for the project on a standalone basis.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	The cut-off grade has been calculated using optimisation software on a cashflow basis and an individual cut-off applied to each block within the model. The calculations consider, among other considerations, individual mineral and product values, operating costs, and other practical considerations (including ore and overburden variabilities) and HM and product recoveries. Pit shells upon which final pit designs are based are generated using this economic cut-off. A top of ore surface has been generated denoting the anticipated interface between the economic ore and waste after additional consideration of the practicalities of selective mining under the proposed mine fleet and extraction method. All material within the

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
		design pits but below this surface is considered ore, which includes amounts of waste, lateritic and low grade mineralisation outside the main strand mineralised domains as a diluting material.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	The process for converting the Mineral Resource to an Ore Reserve estimate included pit optimisation studies, followed by detailed mine design and scheduling. Pit designs and life-of-mine schedules generated by Image inform the physicals that support corporate budgeting and planning. Additionally, they have been reviewed by the competent person and are deemed suitably detailed to support an Ore Reserve disclosure.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	A truck and shovel method is proposed for the mining of the Atlas project. The truck and shovel method is used in similar dry mining mineral sands operations in Australia. Similar methods are currently employed at Image's operating Boonanarring mine and are well understood. Operations at Atlas will employ a generally smaller sized mine fleet better suited to the shallower deposit, thinner ore body, lower strip ratio and lower process feed rates anticipated.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.	Pit design batter angles are based on design recommendations outlined in a Technical Memorandum prepared by SRK Consulting. This report recommended overall slope angles of 32 degrees be used, which were assessed to most likely be suitably stable, even in wet ground conditions. SRK concluded that geotechnical risks at Atlas are considered to be low, given the shallow nature of the excavation and proposed mining and dewatering methods to be employed. No further geotechnical studies are considered to be required.
		As is common to most dry mine mineral sands operations, grade control will be conducted by a Geologist in pit using panning to establish ore contacts, in conjunction with the Mine Surveyor who is used to stake out ore surfaces.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The Mineral Resource block model used as a basis for mine planning models supporting this Ore Reserve estimate is at_or_8sept2022.dm.
	The mining dilution factors used.	Mining dilution has been considered by
	The mining recovery factors used.	adopting a less selective mining method than the prior Ore Reserve which included a 2% provision for mining dilution. A review of the practicality of mining the relatively thin mineralised strands anticipated at Atlas has resulted in increased amounts of lower grade and unmineralized domain (210, 200 and 300 domains) material being included as dilution in the ore feed. This material has

Criteria	JORC Code explanation	Commentary
		been estimated by applying a 300 mm dilution skin adjustment to the top and bottom ore surfaces. Additionally, material from the lateritic domain (500) has been included as a dilution material where it presents as an interburden within the mineralised strands and would present challenges in being selectively mined separately as waste. A total of 0.92Mt of dilution material at 1.6% HM, 5.7% ZrO2 and 26.7% TiO2 is included in this Ore Reserve estimate, or approximately 20% on a tonnage basis. A mining recovery factor of 100% is assumed based on current mining operations and mining techniques.
	Any minimum mining widths used.	No minimum mining width considerations have been made as the minimum pit width is 60 m (at the very southern end of the pit) and which is deemed to be readily mineable with the proposed fleet and equipment types.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	No Inferred Mineral Resources are utilised in the mining studies or included in the Ore Reserve. Minor amounts of unclassified waste domain material (60kt or approx. 1% of the Ore Reserve tonnes) has been included as a dilution and classified as Proved Ore Reserves. No HM grade has been assigned to the minor amounts of unclassified waste domain material included as dilution in the Ore Reserve.
	The infrastructure requirements of the selected mining methods.	Infrastructure required includes accommodation camp and village, site administration facilities, wet concentration and feed preparation plants, mining contractor workshop and associated facilities. Additionally, power and communication facilities will be required, and existing shire roads will be upgraded to enable HMC haulage access to Brand Highway. Much of the existing Boonanarring process infrastructure will be relocated to Atlas upon conclusion of processing operations at Boonanarring.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The ore will be processed through a Wet Concentration Plant (WCP) to produce a Heavy Mineral Concentrate (HMC) which is shipped through the Port of Bunbury to customers with offshore Mineral Separation Plants (MSP).
	Whether the metallurgical process is well-tested technology or novel in nature.	The WCP uses traditional mineral sands separation techniques. The process has been widely utilised in similar operations and is currently in use at Image's Boonanarring operation. Some of the existing Boonanarring process infrastructure will be relocated to Atlas upon conclusion of processing operations at Boonanarring, so it is proven in operation and well understood by the company's operations personnel. CT1 demonstration plant will have been tested for

Criteria	JORC Code explanation	Commentary
		over 12 months at Boonanarring upon which the Atlas WCP will be based.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	The Metallurgical parameters have been derived from test work undertaken on bulk samples of Atlas ore material and using the CT1 spiral technology that is proposed for use at Atlas. Process recoveries used for the Ore Reserve estimate are
		• FPP Recovery of 99%
		• WCP ZrO ₂ Recovery of 96.7%
		• WCP TiO ₂ Recovery of 91.3%
	Any assumptions or allowances made for deleterious elements.	Deleterious materials include oversize material and clay fines which are managed as part of Image's rehabilitation management plan and mildly radioactive material, which is shipped with the HM concentrate at levels well below public safety limits.
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	The Ore Reserve estimation has been based on the recoveries and processes outlined above. The Mineral assemblage interpolated throughout the Resource Model is derived from 100+ composite samples collected from 400+ drillholes throughout the orebody and these are used to estimate TiO_2 and ZrO_2 grades. Additionally, Image have been engaged with Mineral Technologies in testing the proposed CT1 spiral technology at their Boonanarring mine, where a demonstration scale pilot plant was commissioned in early 2022.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Yes, mine planning filters and metallurgical recovery through to final products.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Development of the Atlas Project requires several approvals, some of which are still in progress. The most significant of these is EPA approval, which is required prior to issuance of a Ministerial Approval Statement. Image have currently undertaken all relevant supporting studies (ecological, hydrological, hydrogeological and Aboriginal Heritage) required for this process. The proposal has been referred with public review period imminent and an indicative timeline for EPA approval is expected to be June 2023. Image advises that they consider the proposal to meet EPA objectives for all Key Environmental Factors, with environmental offsets proposed to counter residual impacts on flora and fauna by mine disturbance and clearing.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Image has purchased adjacent land required for the accommodation camp and facilities. Mine and processing infrastructure will be located on crown land. Image owns and operates a WCP, feed preparation plant (FPP), pipes, pumps, and

Criteria	JORC Code explanation	Commentary
		power infrastructure for mining at Boonanarring. Much of this will be relocated to the Atlas site. Additional infrastructure works will be required for power, communication, and road access, which have been planned for and costed accordingly.
		Labour will be sourced from the local area and surrounds, with accommodation provided on site to support remote work due to the absence of alternate accommodation nearby.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Image have engaged EPCM specialists, ProjX, as part of the Consolidated Management Team for the Atlas Project Development. They are also designing the Process Plant and the facilities related to this. In developing the capital costs for the infrastructure, Image/ProjX has based this on supplier quotes, already incurred costs, or internally developed costings.
	The methodology used to estimate operating costs.	Mining costs have been estimated using mining contractor submitted schedule of rates based on estimated haulage distances consistent with the current mine plan. Processing and fixed costs reflect Image budgeted costs, informed where relevant by operating experience gained through operations at the Boonanarring site. Transport and port costs are estimated by contractor submitted rates or actual invoice unit rates recently incurred. Shipping rates reflect the latest Image corporate views based on recent industry trends.
	Allowances made for the content of deleterious elements.	Cost penalties are applied to deleterious elements associated with slime disposal and oversize rehandle based on period quantities produced and disposal method scheduled for return to the final pit void. Product specifications deals with deleterious elements in HMC pricing model
	The source of exchange rates used in the study.	Image monitors a range of recognised external forecasters of foreign exchange rates but ultimately the exchange rates applied are an Image assessment. Exchange rate projections in the Image financial model use a 0.70 USD:AUD average exchange rate, for the projected LOM at Atlas.
	Derivation of transportation charges.	Transportation charges reflect contract quotes with service providers or are based upon recently incurred charges. The transportation charges are included in logistics costs. Logistics costs include provision for bagging, handling, transport to port, port costs and shipping.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Allowances for these aspects are considered within the HMC pricing model as currently applicable to offtake agreements.

Criteria	JORC Code explanation	Commentary
	The allowances made for royalties payable, both Government and private.	Allowances made for royalties are 5.03% of revenue (less allowable deductions) for WA state government and native title royalties.
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Revenue factors are used to establish pit sensitivities and to test for robustness of the Ore Reserve. Optimisation shells have been generated on 1% revenue increments, encompassing the bulk of the Resource.
		Revenue estimates for pit optimisation studies and final financial models are based on a value per unit of ZrO ₂ and TiO ₂ within the HMC which includes allowance for downstream dry processing costs incurred by the customer
		Exchange rate projections in the Image financial model use a 0.70 USD:AUD average exchange rate, for the projected LOM at Atlas.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	HMC product pricing is based upon a detailed pricing model contained within Image's offtake agreements. These agreements are commercial-in-confidence; however, the pricing model calculates the value of the HMC based on an agreed estimate of the value of the contained HM products (ZrO ₂ and TiO ₂) at Chinese CIF market prices. The underlying pricing assumptions of contained HM products (zircon, ilmenite, rutile, and leucoxene) are based upon TZMI long term prices adjusted for product quality and other factors.
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Image uses independent third-party reports as a guide as to future supply/demand, and hence potential pricing, for the underlying products contained within its HMC and applies these projected prices to its HMC sales price forecasts adjusted, where necessary, for expected quality differences of underlying products and expected specific demand for Image HMC.
		Demand for mineral sands products typically follow global GDP, however CY2021 and CY2022 saw strong demand across all products with zircon, rutile and ilmenite benchmark pricing considerably increased. Industry forecasts over the next 5 years suggest that zircon and rutile prices have likely plateaued and will remain similar to current levels over the period Atlas is expected to be operational. Sulfate Ilmenite prices are forecast to ease from their current peak due to demand weakness in China.
	A customer and competitor analysis along with the identification of likely market windows for the product.	Image produce an HMC containing ZrO ₂ and TiO ₂ products and 100% of Image HMC product is contracted under a life of mine offtake to three parties.
	Price and volume forecasts and the basis for these forecasts.	100% of HMC produced at Atlas is contracted under life of mine offtake agreements.

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	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	HMC sales are based on assayed TiO ₂ and ZrO_2 % within the Heavy Mineral Concentrate produced.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	To demonstrate the Ore Reserve is economic it has been evaluated through a detailed Image financial model that reflects current economic inputs as at the date of this estimate. This process has demonstrated the Ore Reserve generates materially positive period cash flows during operations at Atlas. Discounted cashflows for NPV have been assessed using a 10% discount rate, however the discounting effect is minor given the relatively short duration of processing operations (26 months).
		Macro-economic assumptions used in the economic analysis of the Ore Reserves, such as foreign exchange, inflation and discount rates have been internally generated and determined through detailed analysis by Image Resources and benchmarked against commercially available consensus data where applicable.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Project sensitivity analysis has been undertaken within the detailed financial model on key economic assumptions, with cash flow most sensitive to pricing and HM grade / recovery. At -20% individual variances to either of these variables the project remains economic over life of mine and generates positive cashflows.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Image has a Consultation Strategy which identifies key external stakeholders and determines how they will be impacted by the Project and what influence they have over its implementation. The aim of such extensive consultation is to develop productive relationships that ensure the Project is underwritten by sustainable agreements and necessary statutory approvals. The Consultation Strategy has also been developed to secure the approvals necessary for the construction and operation of the Project, which will require consultation with the following stakeholders:
		Local Government (including Shire);
		• State Government;
		Commonwealth Government;
		• Aboriginal groups with a connection to the Proposal lands; and
		 Private landowners, corporate and community stakeholders
		Although no land access agreement with the Yued people is required Image are currently negotiating a land access and mining compensation agreement with the Yued to provide a better structure for an ongoing relationship with the group.

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Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	
	Any identified material naturally occurring risks.	No identifiable naturally occurring risks have been identified impacting the Ore Reserves.
	The status of material legal agreements and marketing arrangements.	100% of HMC produced at Atlas is contracted under life of mine offtake agreements.
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	Development of the Atlas Project requires several approvals, some of which are still in progress. The most significant of these is EPA approval, which is required prior to issuance of a Ministerial Approval Statement. Image have currently undertaken all relevant supporting studies (ecological, hydrological, hydrogeological and Aboriginal Heritage) required for this process. The proposal has been referred with public review period imminent and an indicative timeline for EPA approval is expected to be June 2023. Image advises that they consider the proposal to meet EPA objectives for all Key Environmental Factors, with environmental offsets proposed to counter residual impacts on flora and fauna by mine disturbance and clearing.
		Other approvals required (including Mining Proposal / Mine Closure Plan, Dangerous Goods License, Radiation Management Plan, Works Approval & Site Environmental License and License to take Water) have either been submitted and awaiting approval or are contingent on the EPA approval process. Image have a workplan in place to ensure all required approvals are in place prior to the time required of the mine plan.
		Mining lease M 70/1305 was granted 1/04/2021 with an expiry 31/03/2042 and Development Approval for the camp was granted 17 December 2021 by the Shire of Dandaragan.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	Mineral Resources converted to Ore Reserves as per JORC 2012 guidelines i.e., Measured to Proved, Indicated to Probable. Minor amounts of unclassified waste domain material (60kt or approx. 1% of the Ore Reserve tonnes) has been included as a dilution and classified as Proved Ore Reserves.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The result reflects the Competent Person's view of the deposit.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Probable Ore Reserves have been derived from Measured Mineral Resources in this estimate.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve has been estimated by independent consultants Entech Pty Ltd with Image providing the relevant direction and Entech providing Competent Person signing

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		off on the Ore Reserve. Entech have undertaken internal peer review during the process.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	Confidence in mine design and schedule are high as mining rates are lower than current Boonanarring operations, pit is shallow with low strip ratio and a highly conservative approach to mining dilution has been adopted. Confidence in processing assumptions and method are high as much of the plant will be relocated from Boonanarring and is well understood. CT1 demonstration plant will have been tested for over 12 months at Boonanarring upon which the Atlas WCP will be based. Confidence in operational costs is high as there is approx. 4+ years of operational history at Boonanarring upon which many assumptions have been based. Consideration of pit shell progression provides high confidence in the robustness of the current pit design as removal of the northern region of the resource from development in this Ore Reserve estimate focuses the design to regions of the
		resource that are higher margin areas of the deposit and less sensitive to spatial changes in extent with changing economic inputs.
		Revenue estimates are based on short term forecasts (given the relatively short project duration), which should be of higher confidence than those based on more distant projections in time.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The statement relates to global estimates.
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	There remains some uncertainty as to the amount of internal and other dilution that will be encountered during mining at Atlas. This modifying factor is not considered to be material to the economic viability of the Ore Reserve as this Ore Reserve update has adopted a far more conservative approach to the application of dilution than that prior (approx. 20% dilution included in current estimate, from 2% used prior). If operations can selectively discard much of that material, this would enhance the overall project economics and increase the robustness of the Ore Reserve as significant reductions in ore feed variable and project fixed costs would result.
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence	Atlas is currently a development project and as such no production data currently exists with which to reconcile estimates to actual operating metrics

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	of the estimate should be compared with production data, where available.	