22 February 2023

REVISED ANNOUNCEMENT - WIMMERA DEVELOPMENT PROGRESS

WIM100 ORE RESERVE ESTIMATE AND UPDATED MINERAL RESOURCE ESTIMATE

Iluka Resources is pleased to announce an inaugural Ore Reserve estimate for the company's Wimmera heavy mineral (HM) deposit WIM100, reported in accordance with the guidelines of the JORC Code (2012 edition). This announcement replaces the Company's Australian Securities Exchange Notice titled "Wimmera Development Progress – WIM100 Ore Reserve Estimate and Updated Mineral Resource Estimate" dated 21 February 2023 and provides additional details in relation to the key assumptions and outcomes of the WIM100 Pre-Feasibility Study (refer to pages 17-19 and 43). The Ore Reserve and Mineral Resource estimates and all other content remain unchanged.

- The WIM100 deposit contains a Probable Reserve estimate of 180Mt grading 5.4% HM for 9.9Mt of contained HM. WIM100 is the initial, primary focus of Iluka's Wimmera project, for which a definitive feasibility study (DFS) has been approved by the company's Board in February 2023.

Iluka also announces a Mineral Resource update for the WIM100 deposit, reported in accordance with the guidelines of the JORC Code (2012 edition).

- Following additional exploration and modelling, the WIM100 deposit has been re-estimated to contain an Indicated Mineral Resource estimate of 380Mt grading 4.6% HM for 18Mt of contained HM; and an Inferred Mineral Resource estimate of 70Mt grading 4.3% HM for 3Mt of contained HM – totalling 450Mt grading 4.6% HM for 21Mt of contained HM.

- This represents a 9% increase in the total reported HM resource tonnage and an 11% increase in the Indicated resource category compared to the previous Mineral Resource estimate announced on 30 November 2021. The increase is attributed to robust grades from infill drilling and expansion of the resource footprint predominantly to the south.

The total Wimmera Mineral Resource inventory, including the previously reported WIM50 and WIM50N deposits, is 380 Mt of Indicated Resource grading 4.6% HM containing 18Mt of HM and an Inferred Resource of 1,000Mt grading 5.1% HM containing 51Mt of HM for a total Wimmera Mineral Resource of 1,380Mt of material grading 4.9% HM and containing 68Mt of HM.

Wimmera's DFS is scheduled for completion by the end of 2025, at a cost of $30 million. Subject to study outcomes and Board approval, commissioning is currently scheduled for 2028.

Managing Director commentary

The Wimmera development is a potential multi-decade source of both zircon and rare earths, including the highly valuable heavy rare earths dysprosium and terbium.

Its gating to DFS and Iluka's declaration of an Ore Reserve and increased Mineral Resource marks further important progress on what is a globally significant critical minerals province.

With this declaration, Iluka has more than doubled the total Ore Reserves in the company's portfolio.

Our preliminary feasibility study has demonstrated Wimmera's economic viability. In a first for Iluka, a mineral sands development Ore Reserve has been declared on the basis of the value of its refined rare earth oxides. This has been made possible as a result of the parallel development of the company's Eneabba rare earths refinery,[1] which enables Iluka to capture additional value from the rare earth minerals in the Wimmera region that is not available to others. Wimmera provides another example of the mutually reinforcing nature of our mineral sands and rare earth businesses.

Since 2014, Iluka has invested substantially in resolving a range of technical challenges associated with Wimmera's zircon. This has included the challenge of physical separation (given the fineness of the Wimmera deposits), which the company resolved in 2018.

A further characteristic shared by deposits in the Wimmera region is higher levels of impurities in their zircon. Absent a processing solution to remove these impurities, the Wimmera zircon is ineligible for sale into key markets, including the ceramics market, which accounts for approximately 60% of total zircon demand.

Iluka has proven the technical viability of a zircon purification process at lab scale. We continue to conduct pilot scale testing, with the goal of then demonstrating the commercial viability of zircon purification via a demonstration plant. This will be progressed alongside the DFS. The company considers this a prudent and appropriate step given the nature of the purification technology. Similarly, zircon revenue has not been accounted for in Wimmera's Ore Reserve estimation and represents significant potential future upside to the development's economics.

From a rare earths perspective, Wimmera further strengthens Iluka's position in heavy rare earths and complements the strategic partnership we agreed with Northern Minerals in October 2022 for the supply of concentrate from the Browns Range deposit. Browns Range is uncommon globally in that it has an assemblage dominant in heavy rare earths.

Dysprosium and terbium are highly sought after and will be an important part of the product offering from the Eneabba refinery. Just as Iluka's leading position in zircon has underpinned our competitive advantage in mineral sands over the past decade, the production of separated heavy rare earth oxides in Australia will be an important differentiator for our rare earths business in the decades to come.

This document was approved and authorised for release to the market by Iluka's Managing Director.

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[1] Refer ASX release *Eneabba Rare Earths Refinery Final Investment Decision*, 4 April 2022.

WIMMERA MINERAL RESOURCE ESTIMATE - OVERVIEW

The WIM100 deposit is located along the south eastern margin of the Murray Basin geomorphological province in the state of Victoria, Australia (Figure 1). The zone of mineralisation grading in excess of 1% HM is hosted in a single tabular horizon within the Loxton Parilla Sand (LPS) geological unit. Mineralisation extends over a north-south strike distance of 9.5km and an east-west distance of 3.5km. The mineralisation varies from 3 to 20m in thickness averaging 9.5m and resides beneath 8 to 20 m of unmineralised sediment.

The Wimmera Industrial Minerals (WIM) style HM deposits were historically delineated by Conzinc Riotinto of Australia (CRAE) in the 1980s. The HM differs from traditional beach placer deposits as the valuable minerals are very fine grained and difficult to recover using traditional HM concentrating equipment. In addition, the zircon contained in these deposits has higher levels of impurities which in the absence of a processing solution, renders most ineligible for the ceramics market.

The WIM100 deposit, along with the adjacent WIM50 and WIM50 North deposits, is located on tenements exclusively held by Iluka's wholly owned subsidiary company (Basin Minerals Holdings Pty Ltd).

The Mineral Resource estimate for Iluka's Wimmera deposits was prepared under the supervision of Brett Gibson, an employee of Iluka Resources (refer to Competent Persons Statement) and is reported in accordance with the guidelines of the JORC (2012 Ed.).

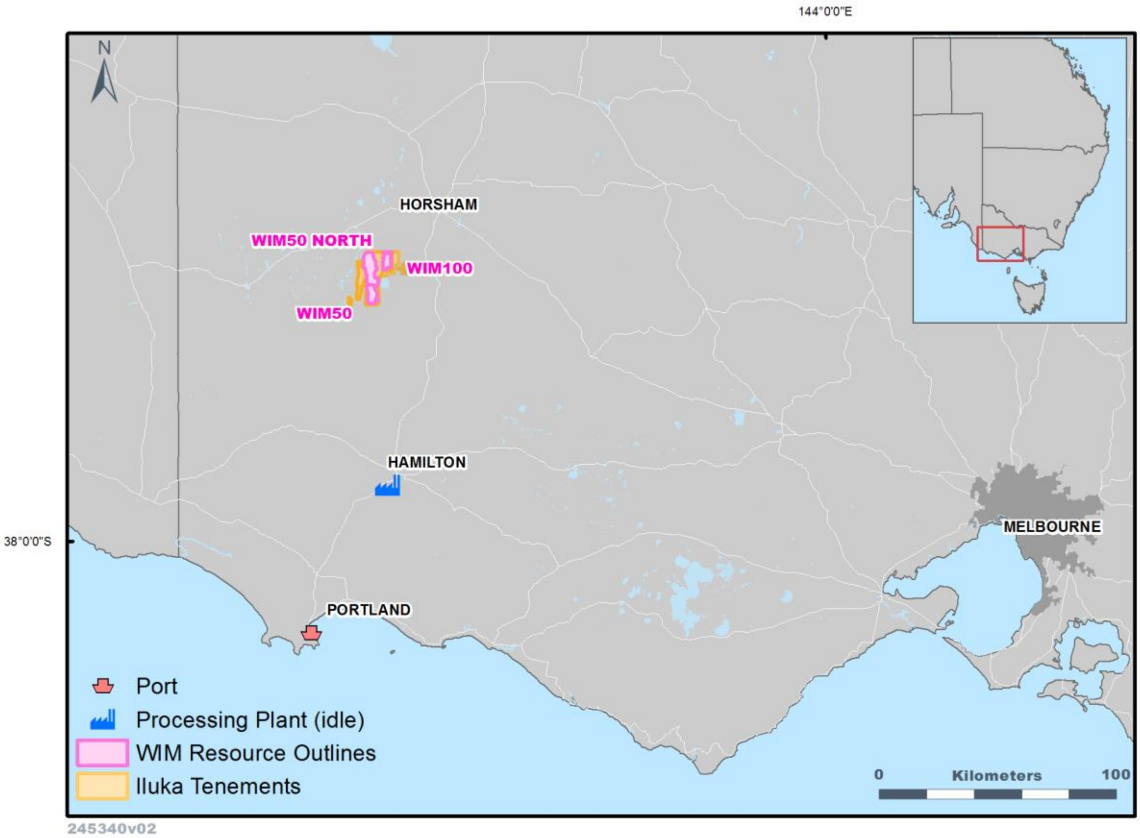


Figure 1: Location plan showing the location of the WIM100 deposit relative to current infrastructure.

Table 1: Updated Mineral Resource estimate for WIM100 reported by deposit and JORC Code (2012 Ed.) Category and previously reported Mineral Resource estimates for WIM50 and WIM50 North.

Deposit[4]	Mineral Resource Category[1]	Resource Tonnes[1]	In situ HM Tonnes	HM	Clay	Mineral Assemblage in HM[2]					
						Ilmenite	Leucoxene	Rutile	Zircon	Monazite	Xenotime
		Mt [2]	Mt	%	%	%	%	%	%	%	%
WIM100	Indicated	380	18	4.6	13	30	3	6	17	2.2	0.5
WIM100	Inferred	70	3	4.3	13	32	6	7	19	2.7	0.7
WIM100	Sub Total	450	21	4.6	13	30	4	6	17	2.3	0.5
WIM50[4]	Inferred	360	15	4.1	12	38	7	7	16	1.8	0.4
WIM50 North[4]	Inferred	580	33	5.7	14	29	4	4	15	1.8	0.4
Total[3]	**Indicated**	**380**	**18**	**4.6**	**13**	**30**	**3**	**6**	**17**	**2.2**	**0.5**
Total[3]	**Inferred**	**1000**	**51**	**5.1**	**13**	**32**	**5**	**5**	**15**	**1.9**	**0.4**
TOTAL[3]	**All**	**1380**	**68**	**4.9**	**13**	**31**	**5**	**5**	**16**	**1.9**	**0.4**

Notes:

(1) Mineral Resources are reported at a cut-off grade of 1.0% HM.

(2) The mineral assemblage is reported as a percentage of the HM content.

(3) Rounding may generate differences in the totals.

(4) The Mineral Resource estimates for WIM50 and WIM50 North were disclosed in an announcement titled "Wimmera Mineral Resource Estimate "released by the ASX on 30 November 2021.

Overall the total contained HM tonnage for WIM100 has increased from 19 Mt to 21 Mt as a result of increases in the resource tonnage (440 Mt to 450 Mt) and HM grade (4.4 % to 4.6 %). The increase in resource tonnage is attributable to an increase in the resource area and the improved HM grade stems from additional drilling undertaken in 2020. The infill drilling has also resulted in the Indicated Resource HM tonnage increasing by 11% from 16 Mt to 18 Mt.

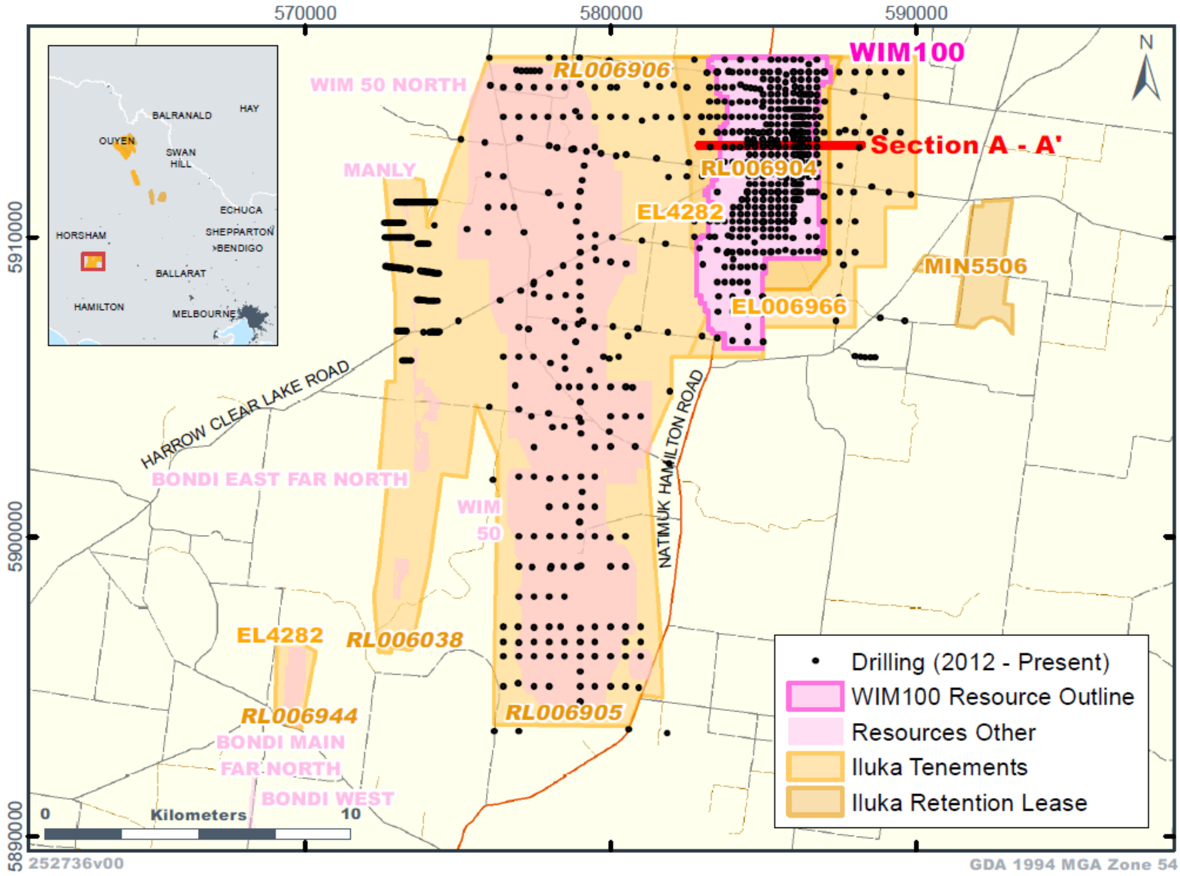


Figure 2: WIM100 Mineral Resource outline and drill collar locations for WIM50, WIM50 North and WIM100. The location for cross sections A-A' (Figure 5) is shown.

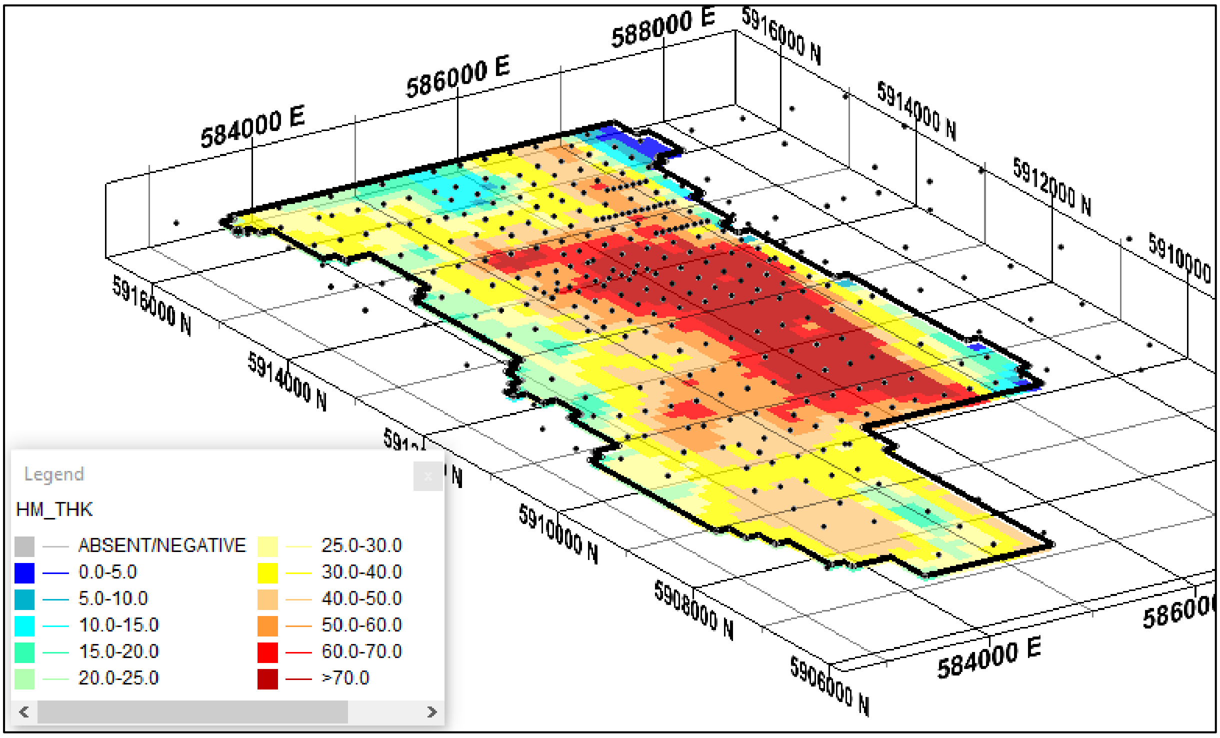


Figure 3: Summary plan showing HM grade * thickness distribution for WIM100. The black line represents the outline of the reported Mineral Resource.

The average ratio of the REO suite based on the laser ablation analysis of mineralogical composite samples is tabled below.

Table 2: Average REO proportions in the WIM100 mineralogical composite samples expressed as a percentage of the total REO content. An allowance for Y_2O_3 content of 0.39% in zircon has been made.

Rare earth oxide	Oxide %
Cerium (CeO_2)	34.8
Dysprosium (Dy_2O_3)	2.7
Erbium (Er_2O_3)	1.9
Europium (Eu_2O_3)	0.2
Gadolinium (Gd_2O_3)	2.5
Holmium (Ho_2O_3)	0.6
Lanthanum (La_2O_3)	16.5
Lutetium (Lu_2O_3)	0.3
Neodymium (Nd_2O_3)	14.5
Praseodymium (Pr_6O_{11})	4.0
Scandium (Sc_2O_3)	1.4
Samarium (Sm_2O_3)	2.8
Terbium (Tb_4O_7)	0.4
Thulium (Tm_2O_3)	0.3
Yttrium (Y_2O_3)	14.9
Ytterbium (Yb_2O_3)	2.1
Total	**100%**

SUMMARY OF RESOURCE ESTIMATION AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, information material to the updated WIM100 Mineral Resource estimate is summarised below. More detail is provided in the JORC Code (2012 Ed.) Table 1 Summary, Sections 1 to 3 in **Appendix 1**.

Deposit geology and interpretation

WIM100 along with adjacent deposits WIM50 and WIM50 North are located along the southern margin of the Murray Basin, a shallow, intracratonic basin of Cainozoic age. The basin covers a saucer-shaped area around 300,000km^2 extending into eastern South Australia, south-western New South Wales and north-western Victoria. It is flanked by uplands of Proterozoic and Palaeozoic rocks.

The Murray Basin contains a succession of freshwater, marine, coastal and continental sediments. The latest marine transgression-regression event resulted in the deposition of the Late Miocene to Late Pliocene Loxton-Parilla Sand (LPS). These sediments were deposited in shallow marine, littoral environments with some terrestrial fluvial intercalation and are characterised by fine to coarse-grained, generally well sorted sand with minor clay silt and gravel.

The LPS extends over large parts of the basin and is the host of many known HM deposits within the Murray Basin. These include many coarse-grained HM deposits, some of which have been mined, formed in a beach placer environment through the interaction of longshore drift and storm activity. Within the basin, large mineralised zones exist containing very fine grained HM (WIM style deposits), of which WIM50, WIM50 North and WIM100 are examples. The WIM deposits are interpreted to be hosted in low energy offshore shallow marine environments.

The HM in the WIM deposits likely originate from river systems eroding elevated areas of Palaeozoic igneous rocks and Mesozoic sandstones, draining into the Murruvian Sea. These sediments included quantities of valuable HM such as rutile, zircon, ilmenite, monazite and xenotime which were concentrated through the winnowing action of storms, tides and currents.

The basic stratigraphy for Iluka's WIM deposits comprises Shepparton Formation, overlaying LPS which in turn overlays sediments of the Winnambool Formation or Ettrick Formation. The Shepparton Formation blankets the area and is described by Brown and Stevens (BMR235, 1991). It is typically 5m to 10m thick and consists of clay and silty clay with intercalated lenses of fine to coarse sand and gravel. The clay is silty, variegated grey, red-brown, yellow and white; the sand consists of poorly sorted, rounded to angular, high sphericity to low sphericity polymictic grains. The LPS presents as an extensive blanket of fine to very coarse sand about 20m thick underlying the Shepparton Formation.

The LPS intersected within Iluka's Wimmera deposits is typically unconsolidated although erratic soft to medium and rare hard iron cementing is prevalent in places.

The offshore sediments of the LPS locally overlay fossiliferous and glauconitic grey-green silty-clay and clay of the Winnambool and Ettrick Formations.

Thickness of the Winnambool and Ettrick Formation vary but are generally 30m thick in the project area where they overlie Palaeozoic basement rocks.

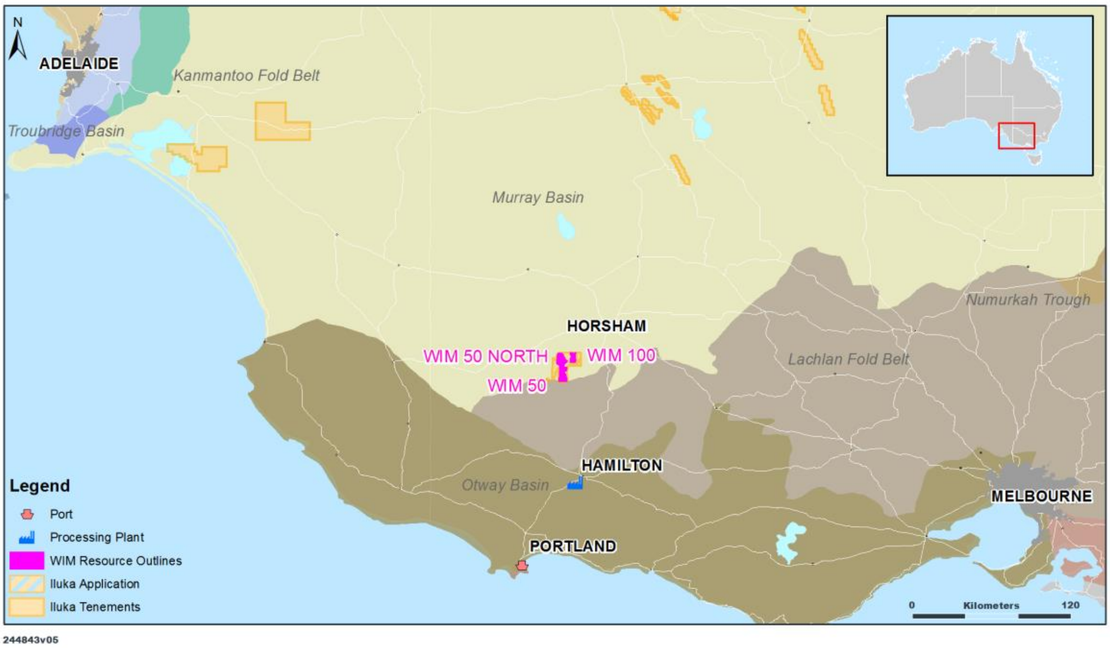


Figure 4: Regional geology plan and Iluka Wimmera deposit locations.

Table 3: Typical stratigraphy through the WIM100 deposit

Formation	Environment	Thickness	Description
Shepparton Formation	Fluvial Lacustrine sediment	5 - 10m	White, orange, brown to dark grey Clay, silty clay and poorly sorted fluvial sand
Loxton Parilla Sand	Beach placer and shallow marine sediment	15 - 22m	White, yellow orange mottled moderate to well sorted micaeous silt to coarse sand and occasional grit/pebbles.
Winnambool Formation	Fossiliferous silty clay and clay	+10m	Brown to blue grey and grey very fine grained silt, silty clay and clay, richly fossiliferous
Ettrick Formation	Glauconitic clay unit		Grey, green fossiliferous silty clay and clay

Data storage

Data supporting the Mineral Resource estimate for WIM100 was recorded on Toughbook field computers installed with acQuire data management software. Data was electronically transferred to acQuire GIM Suite, a geological data management system designed and licensed by acQuire Technology Solutions Pty Ltd. Currently, drill logs and assay data are validated on site, then imported directly into the database. The results from sample analysis by Iluka owned/operated laboratories is hosted in CCLAS, a laboratory Information management system owned by Datamine Software Solutions. The assay results are also electronically transferred from CCLAS to the acQuire database system.

Drill technique and hole spacing

Historically close spaced drilling was done by Iluka and predecessor companies, during the period from 1980 to 2010, in the search for high grade beach placer strand mineralisation. This drilling often intersected the fine grained WIM style mineralisation but was given little attention and assay data was often unreliable as a result of the fine grain nature of the HM and an inappropriate assay method being used. Drilling targeting the WIM mineralisation was originally completed on widely spaced drill lines several km apart, typically on road verges, with drill holes spaced at about 500m on the lines. This was subsequently infilled to 1km to 2km spaced drill lines on areas of anomalous or known mineralisation with further infill on a regular grid spacing at WIM100 of about 500m by 500m and down to 250m by

250m spacing to support increased resource confidence and future mine planning. Some drilling at 50m to 60m hole spacing has been completed along the eastern margin of WIM100 for edge definition and where increased geological complexity is evident.

All the drilling carried out on the WIM deposits to support the Mineral Resource estimates was done by suitably equipped contractor companies using Reverse Circulation Air Core (AC) drilling techniques and using NQ diameter (76mm) drill string.

Table 4: Summary of exploration on Iluka's WIM100 deposit

Drill Year	Holes	Metres	Intervals	HM Assays
2013	2	61	61	26
2014	94	6002	4190	1665
2015	9	303	303	227
2016	25	756	756	260
2018	7	305	305	83
2019	124	3939	3937	2807
2020	144	4428	4428	1882
2022	88	2878	2878	1037
Total	**493**	**18672**	**16858**	**7987**

The current resource estimate has included all drilling and assaying carried out up to 2020. Assay data from the 2022 drilling programme was not available at the time of the current resource estimation but field logging data was used to support the geological framework incorporated into the block model.

During 2019 10 diamond core holes were drilled at WIM100 for geotechnical purposes and a further 6 were drilled in 2022 to provide further samples for geotechnical testing and density analysis.

Geological logging

All drill intervals have been logged by Iluka company or contracted geologists; or Iluka trained and supervised geo-technicians. The logging is done on site at the time of drilling and records pertinent information such as:

- colour;
- grainsize information;
- lithology;
- estimated HM and Slimes content;
- induration type and an estimate of the percentage of induration;
- quality of the HM including trash and grainsize; and
- presence of ground water.

Sampling and sub-sampling techniques

Virtually all the AC sampling at WIM100 was done at 1m intervals of the assayed intervals 6142 are 1m while there are 2 assayed intervals of 1.5m, 1 assay interval of 2m and 2 assay intervals of 3m. Only 1m intervals are present in the mineralised zones so no decompositing of the longer assay intervals was done. Sample was delivered via the RC rod string and sample hose to a rig mounted cyclone and rotary splitter. About a 1.5kg to 2kg quarter sample split was collected beneath the rotary splitter for sample analysis.

Sample analysis method

All samples were analysed at Iluka owned and operated laboratories, located at either Hamilton (Vic) or Narngulu (WA). The analysis method for determining the HM content was the same for all samples. Samples were dried at 105^{O} C for a minimum of 24 hours and then wet sieved with removal of +2mm Oversize (OS) and -38µm Slimes. About 100 grams of the dried sand fraction was split out, screened at 710µm with the 38µm to 710µm sand fraction subjected to float/sink analysis using Lithium Sodium Tungstate (LST) at 2.85 SG. The HM (sinks) from this fraction was used to calculate the in situ HM content.

Mineralogical composite sampling of the HM from the float/sink analysis was done to determine the mineral assemblage, mineral sizing and key mineral quality indicators. This involved combining weighted amounts of HM from geologically unique zones which was subjected to magnetic separation followed with density separation using Thallium Malonate Formate (TMF) liquid at various SG's. XRF analysis of selected magnetic and non-magnetic SG fractions was done to infer the HM mineral assemblage. Additional magnetic separation was done to isolate a high susceptibility magnetic fraction which was subjected to XRF analysis to provide information on the ilmenite quality. Inherent zircon quality was determined from the XRF analysis of the +4.38 SG non-magnetic fraction.

The analysis of the mineralogical composite samples was augmented with QEMSCAN analysis of a split of the composite head feed HM at Bureaux Veritas (BV) Laboratory to support the mineral assemblage determination. BV also carried out major element analysis using XRF analysis and Laser Ablation ICPMS analysis was used to determine minor element and Rare Earth Oxide (REO) content of the HM.

Estimation methodology

Geological interpretation, wireframe surfaces and grade interpolation were completed using Datamine Studio RM Software. The geological interpretation was done on east-west drill sections through the WIM100 deposit. This was used to create open and closed wireframe surfaces to code the 3D block model with geological and mineralised domains. The drill hole data was also coded so that only values within each domain were used to inform model cells within the corresponding model domains.

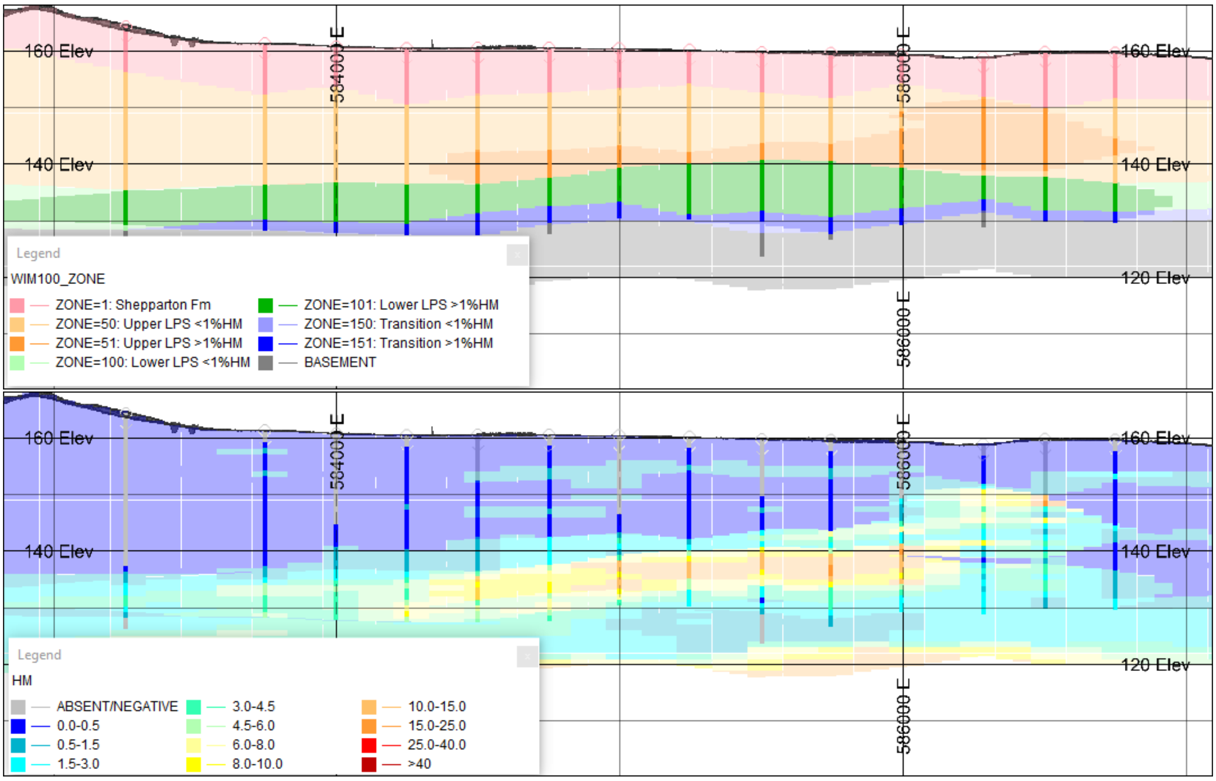
The drill hole spacing at the time of modelling of the WIM100 deposit varied from about 500m x 1000m down to 250m by 500m or 250m by 250m. Minor drilling spaced at about 60m by 250m has been completed along the eastern margin to serve as edge definition and provide information in an area of increased geological complexity. A parent cell dimension of 125m by 125m by 1m was selected for the WIM100 deposit given the predominantly 250m by 250m or 250m by 500m drill spacing and 1m assay length. Sub-celling in the X, Y and Z dimensions is used to assist with volume representation within closed surfaces and along domain boundaries.

Grade interpolation was done using inverse distance weighting cubed (ID3) for primary assay data while hardness and composite identifier were interpolated using nearest neighbour (NN). Selected composite data was joined to the model using the composite identifier as a key value. The orientation of the search ellipse used for grade interpolation was dynamically adjusted to honour variation in geological and mineralised trends. Successive search volume factors of 2 and 7 were applied if insufficient data was available to inform the model cells with the primary search dimensions. Model and interpolation parameters are tabled below.

Table 5: WIM100 model parameters

Deposit WIM100	Cell Dimension			Interpolation Method	Search Ellipse Dimension			2nd Search Vol Factor	3rd Search Vol Factor
	East	North	RL		X	Y	Z		
Assay Data	125	125	1	ID3	375	700	3	2	7
Composite Data	125	125	1	NN	375	700	5	2	7

Variogram analysis was carried out on the WIM100 data set to provide information on the continuity of the HM grades and verify the search ellipse dimensions, and also to support the JORC Code Mineral Resource Category assigned.



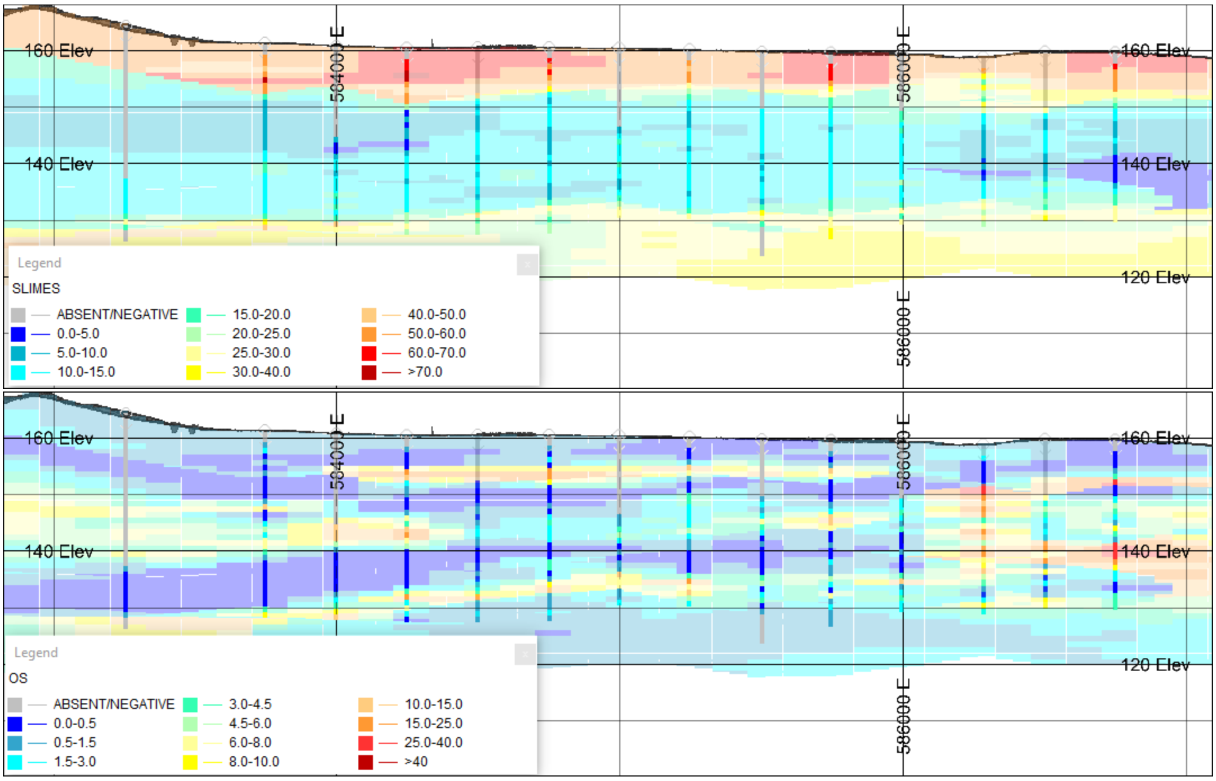


Figure 5: Cross section at 5913000 mN (A – A' in Figure 2) showing drill holes and Model zone assignment, HM, slimes and oversize grades.

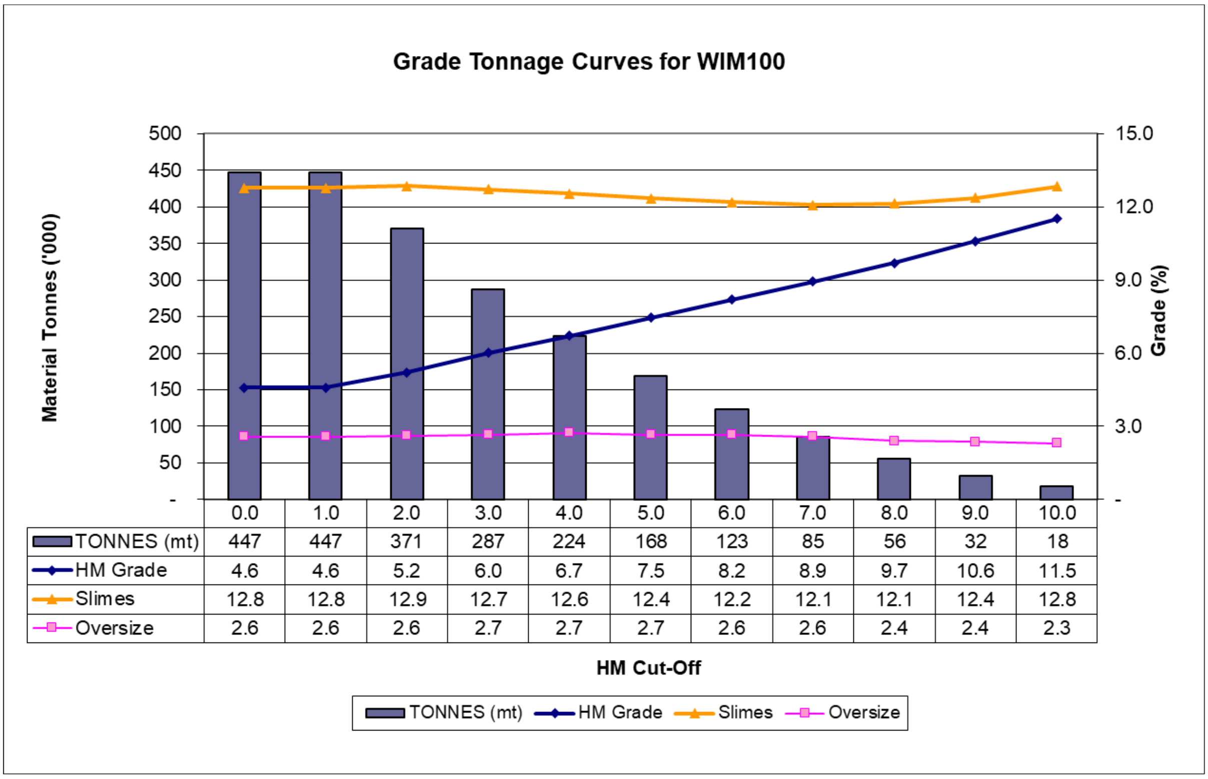
Cut-off grade

The WIM100 Mineral Resource estimate was reported using several criteria:

- a lower HM cut-off grade of 1% was adopted;
- an upper Slimes cut-off of 35% was applied;
- material logged with significant hardness was excluded; and
- a "grade*thickness to depth of burial" ratio was applied in conjunction with the 1% HM cut-off.

The "grade*thickness to depth of burial" ratio assists in identifying lower grade and/or deeply burial mineralisation that is unlikely to be economic to mine which is excluded from the reported resource estimate.

The 1% HM cut-off was adopted on the basis of the percentage and composition of VHM in the mineral suite, a deposit morphology that allows for large scale low cost mining and is supported by preliminary mine optimisation studies.



HM Cut-Off	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
TONNES (mt)	447	447	371	287	224	168	123	85	56	32	18
HM Grade	4.6	4.6	5.2	6.0	6.7	7.5	8.2	8.9	9.7	10.6	11.5
Slimes	12.8	12.8	12.9	12.7	12.6	12.4	12.2	12.1	12.1	12.4	12.8
Oversize	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.4	2.4	2.3

Figure 6: Grade tonnage curves for the WIM100 deposit.

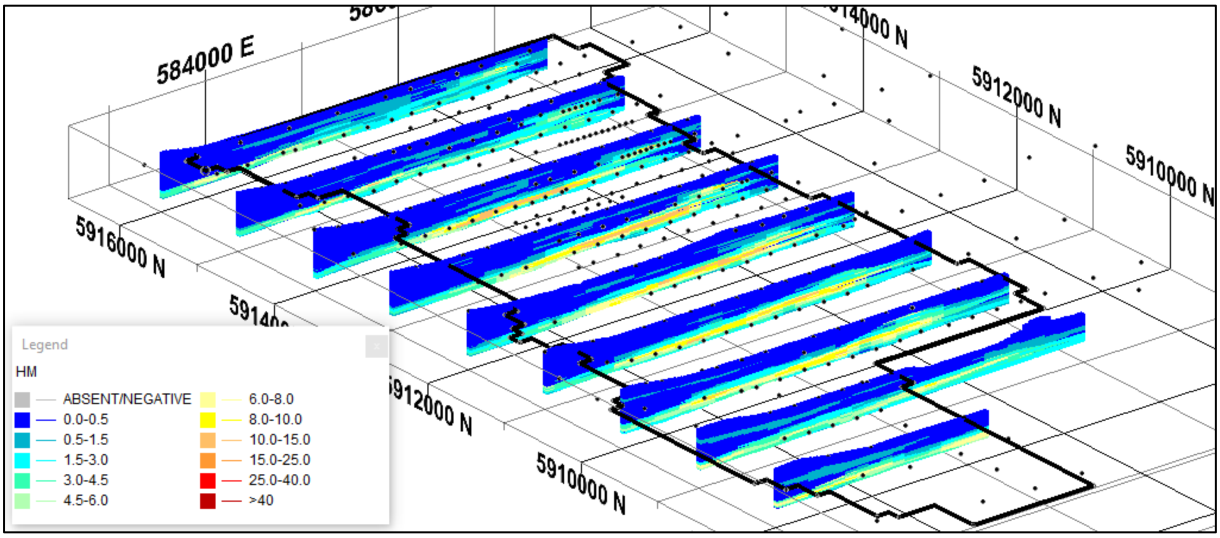


Figure 7: WIM100 deposit block model slices showing HM grade, (20x vertical exaggeration).

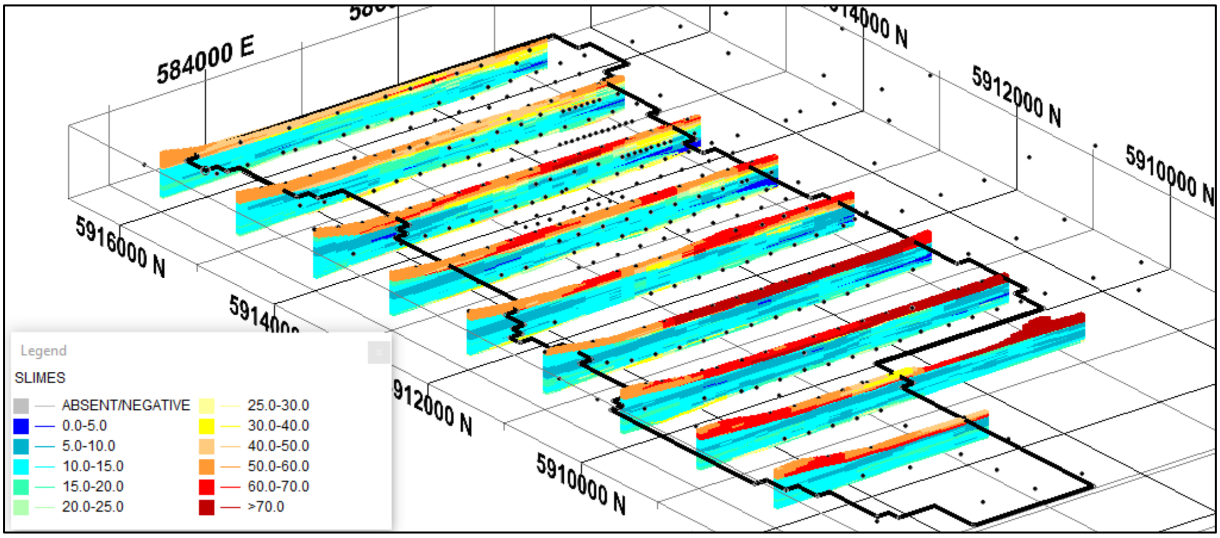


Figure 8: WIM100 deposit block model slices showing Slimes grade, (20x vertical exaggeration).

Resource classification assignment

The Mineral Resource estimate for WIM100 was assigned a resource category based on the definitions espoused in the JORC Code (2012 Ed.). The resource category applied is based on:

- drill hole spacing and sample density, supported by established grade continuity (variography);
- continuity of geological domains;
- confidence in the supporting analytical data; and
- distribution of mineral assemblage composites.

Variogram analysis on the WIM mineralised domains typically shows continuity ranges of 1000m to 1500m along strike (north-south) and 500m to 1000m across strike (east-west) for HM. This provided confidence that model cells supported by drill holes spaced 500m across strike and 1000m along strike and suitably informed with mineralogical composite data can be considered Indicated. Mineral Resources supported by drill holes spaced at greater than 500m by 1000m and/or poorly informed by mineralogical composite data have been assigned an Inferred JORC Code Classification. There is limited extrapolation of mineralisation up to distances of 250m from drillholes along strike to the south and up to 75m along strike to the north at WIM100. Less than 1% of the reported Mineral Resource for WIM100 is based on the extrapolation of geological continuity beyond the limit of current drill hole information.

Mining and metallurgical methods and parameters

The WIM100 deposit comprises a large horizontal, lobate and consistently mineralised horizon with in the LPS. It is covered by unmineralised sediments varying from 8 to 20m in thickness that would need to be removed as overburden during mining. The geomorphology and unconsolidated nature of the resource allows for large scale low cost earthmoving options to be deployed in open pit scenarios. The mineralised layer could conceivably be mined using large scale truck and shovel or dredge.

Iluka has developed innovative mineral separation and processing techniques which will be unique to mineral sands production, some of which are considered commercial in confidence and may be subject to patenting. Ore will be screened and deslimed with the sand fraction being subjected to flotation. Test work has shown greater than 90% recovery of zircon, rare earth and titanium minerals to a HM concentrate from the ore.

An innovative process has also been developed to remove contaminants from zircon, which have historically hindered marketability. Pilot scale testing is in progress with the goal of then demonstrating the commercial viability of the zircon purification process via a demonstration plant.

Competent Persons Statement

The information in this report that relates to Exploration Results or Mineral Resource estimates is based on, and fairly represents information and supporting documentation prepared by or under the supervision of Mr Brett Gibson, a permanent employee of Iluka. Mr Gibson is a member of the Australian Institute of Geoscientists (MAIG) and he has sufficient experience which is relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for reporting of Exploration Results, Mineral Resources and Ore reserves". Mr Gibson consents to the inclusion in this release of the matters based on the information in the form and the context in which they appear. Mr Gibson is a shareholder of Iluka.

WIM100 ORE RESERVE ESTIMATE – OVERVIEW

The Ore Reserve estimate for the WIM 100 deposit is presented in Table 6 and background information is presented in Appendix 1 (JORC Code, 2012 Edition, Table 1). The location of the WIM 100 Ore Reserves are shown in Figure 9.

Table 6: Ore Reserve Summary for WIM100

Ore Reserve Category[1]	Reserve Tonnes	In situ HM	HM	Clay	Mineral Assemblage in HM[2]					
					Ilmenite	Leucoxene	Zircon[4]	Rutile	Monazite	Xenotime
	Mt	Mt	%	%	%	%	%	%	%	%
Probable	180	9.9	5.4	12	29	3.0	17	6.0	2.1	0.5
Total [3]	**180**	**9.9**	**5.4**	**12**	**29**	**3.0**	**17**	**6.0**	**2.1**	**0.5**

Notes:
1. Ore Reserves are a sub-set of Mineral Resources, and estimated in accordance with JORC Code 2012 Edition
2. The mineral assemblage is reported as a percentage of the HM content
3. Discrepancies may occur due to rounding
4. No zircon revenue has been applied in the Ore Reserve estimate

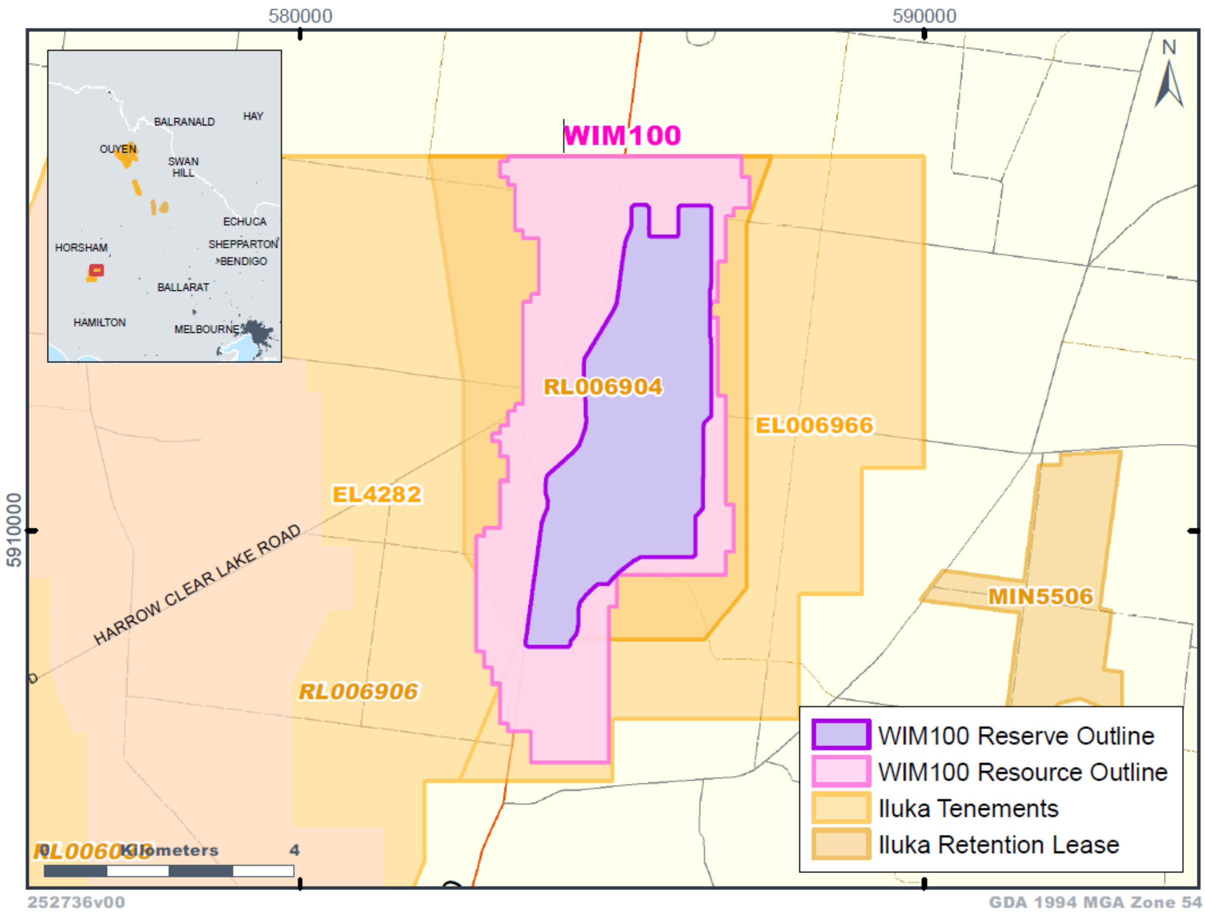


Figure 9: Plan showing WIM100 Ore Reserve boundary

SUMMARY OF ORE RESERVE ESTIMATE REPORTING CRITERIA

As per ASX Listing Rule 5.9 and the 2012 JORC Code reporting guidelines, a summary of the PFS material assumptions and outcomes used to estimate the WIM100 Ore Reserve is detailed below (for more detail refer to Table 1, Section 4 included as Appendix 1 and the summary sections below).

PFS Material Assumptions and Outcomes

The PFS outcomes have confirmed the economic viability of the Wimmera Project, with financial analysis concluding that the project satisfies Iluka's internal hurdles for economic viability. The project has been determined to deliver positive NPV and robust IRR outcomes under a range of sensitivities and development scenarios. The PFS analysis is based on:

- revenues from refined rare earth oxide products and other mineral sands product - excluding any potential revenue from zircon products;
- capital cost estimates developed through the PFS in accordance with Iluka, AusIMM and AACE guidelines, derived from a combination of Iluka inputs, third party valuations (land) and specialist engineering, construction and mining consultant inputs;
- operating cost estimates developed through the PFS based upon processing Process Flow Diagrams and mass balances, existing mining contracts, third party estimates of dredge mining costs and logistic studies;
- construction and operational factors (e.g. schedule and ramp up assumptions) aligned with the analysis undertaken in the PFS.

Further detail is included throughout this release and is summarised in this section.

Table 7: Key Physicals

Measure	Unit	Ore Reserve Physicals[1]
Ore Mined	Mt	180
Life of Mining Operation	Years	20
Product Sold – Zircon Premium	kt	-
Product Sold – Chemical Zircon	kt	-
Product Sold – HyTi90	kt	630
Product Sold – Chloride Ilmenite	kt	470
Product Sold – Sulphate Ilmenite	kt	2,020
Rare Earth Concentrate – Internally processed	kt	280
Product Sold – Neodymium + Praseodymium oxide (combined)	kt	21.3
Product Sold – Terbium oxide	kt	0.4
Product Sold – Dysprosium oxide	kt	2.5

The Ore Reserve was estimated using internal Iluka long-term price forecasts for the mineral sands products which are confidential and commercially sensitive, and Adamas September 2021 Scenario 1 price forecasts for the rare earth oxide products (see below). The internally derived commodity price assumptions are established by monitoring supply and demand on an ongoing basis using confidential and commercially sensitive trading arrangements. These internally derived price assumptions are benchmarked against commercially available price forecasts by industry observers including TZMI. Revenue factors are used to establish pit sensitivities and to test for robustness of the Ore Reserve.

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[1] The Ore Reserve physicals information summarised above is based solely on the Ore Reserve estimate disclosed in this market announcement (100%, probable). Physicals derived from Mineral Resource estimates within areas outside the reported Ore Reserve area have been excluded from the study.

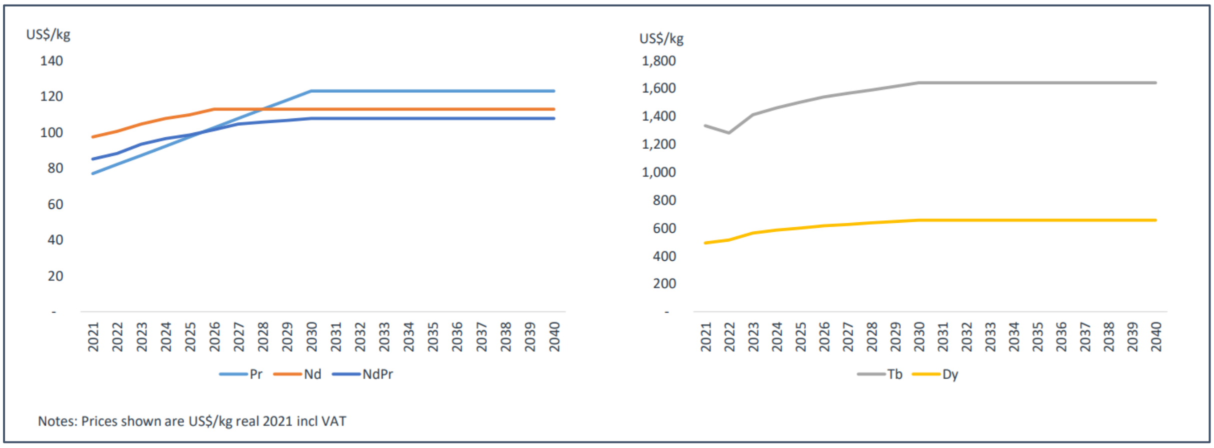


Figure 10: Pricing Assumptions – Adamas Intelligence September 2021

The PFS has selected a conventional truck and excavator mining of the overburden material at Wimmera, with a wheel suction dredge utilised for ore mining. Oversize and slimes are removed from the ore via a combination of screens and cyclones.

Due to the fine-grained heavy mineral, flotation technology has been developed for heavy mineral recovery and separation in conjunction with conventional magnetic separation. Rare earth concentrate will be transported to Iluka's Eneabba rare earth refinery, through which saleable rare earth oxides will be produced from primarily Pr, Nd, Dy and Tb. A zircon-rich stream is also generated and stockpiled, with end-use subject to technology developments. Processing Recoveries are summarised below.

Table 8: Recoveries

Mineral Species / Rare Earth Oxide	Overall Recovery
Ilmenite	79.2%
Rutile	61.1%
Non Mag Leucoxene	61.1%
Neodymium	76.6%
Praseodymium	75.8%
Terbium	69.5%
Dysprosium	70.9%

The capital cost estimate includes:

- mine development costs;
- mine Infrastructure and dredger;
- water management infrastructure;
- all processing infrastructure including feed preparation and product storage requirements;
- non-processing-infrastructure including site communication and IT, utilities and services;
- project management costs;
- construction of temporary and permanent camp facilities; and
- contingency.

The capital cost estimate developed within the PFS has been determined to fall between a Class 3 and Class 4 estimate. Execute Capital Cost is estimated to be A$775 million -15%/+45% including approximately A$200 million in approvals, access and commissioning costs. The project remains economic across these capital ranges.

Table 9: Material Assumptions

Criteria	Assumption (real 2022 terms)
Wimmera production physicals	First production – H1 2028 Mine life – 20 years Average strip ratio – 1.5:1 Mining equipment – - Overburden: truck and shovel - Ore: dredge Dredge mining rate – 1,000 tph ore Clay tailings processed through the accelerated mechanical consolidation method Sand tailings are pumped back to the pit or stockpiled ex-pit dependent on void space
Project timing assumptions	Execute Capex – 2026 to 2027 First production – H1 2028 Final production – 2047
Ramp-up assumptions	4 months at 250tph 4 months at 500tph 4 months at 750tph Full operating rate at 1000tph (from month 13)
Closure rehabilitation	Total area to be rehabilitated – 2,200ha Total rehabilitation cost estimate – $460m
Operating costs	LOM average costs: - Direct mining: T/S + OB A$3.80/bcm, based on current contract mining rates - Dredge ore mining A$1.30/t ore, based on 3rd party engineering estimates - Processing costs A3.90/t ore, based on consultant estimates. - Site wide costs $3.00/t ore, selling costs $0.81/t ore ERER Processing Costs: A$13/kg REO
Escalation	Revenue, Opex and Capex is subject to 2.5% pa escalation except in the following cases: Category specific forecast real escalation rates have been applied to diesel, transport, contract mining and labour operating costs using internal estimates to reflect the latest inflation data for 2022.
Wimmera REC blending	It is assumed that Wimmera REC is blended with the Eneabba Stockpile material initially, and then has feed priority once the Eneabba Stockpile is depleted.
FX rate	US$0.73:A$1.00
Discount rate	7.3% real for project (10% nominal) 5.6% real for ERER (8.25% nominal) consistent with ERER DFS

Reserve Classification

The stated Probable Ore Reserves correspond with Indicated Mineral Resources (following the application of modifying factors at a confidence level generally consistent with the level of a pre-feasibility study, in accordance with JORC 2012) and values reported are in situ. There are no Inferred Resources included in the stated reserve estimate.

Mining and recovery factors

Pit optimisations were conducted using Minemax mine planning software which is industry standard software. Optimisation parameters used consisted of current and projected costs, revenues and recoveries. Localised areas of the deposits were excluded due to proximity to existing infrastructure, and surface water catchments with associated archaeological or environmental constraints. The results of the pit optimisations were used for production scheduling and economic evaluation.

The mining method selected is truck and shovel for overburden. This method has been used successfully at nearby historic Iluka mines, Douglas and Echo. Dredge mining, via a conventional wheel suction dredge, is the selected ore mining method, as the deposit sits largely below the groundwater table and the geology is amenable due to low oversize or induration. Dredging has been successfully used at competitor Murray Basin mine sites for a number of years.

A mining recovery factor of 98.5% was applied in the pit optimisations to account for ore spillage remaining in the pond following dredge clean-up cycles. Planned dilution due to pit design practicalities is estimated to be 4%.

The WIM100 deposit is located adjacent to the Natimuk-Hamilton road, connecting the site with nearby regional towns of Hamilton and Horsham. Power is planned to be extended approximately 5 km from the existing network grid. The Rocklands Reservoir is planned to be the primary water source for site, with supply via an extension of the existing Rocklands-Douglas pipeline near Iluka's Douglas mine site.

Modifying Factors

Modifying factors such as ore loss, processing recoveries and costs have been applied from work completed during the PFS.

Mining costs were derived from contract rates at existing Iluka operations, and project-specific estimates by dredging specialists.

WIM100 mineral sands products include HyTi90, a sulphate ilmenite and a chloride ilmenite with the revenue calculated using price assumptions based on internal long-term forecasts. The rare earth revenue assumptions are based on Adamas forecasts for a rare earth oxide produced at Iluka's Eneabba Rare Earth Refinery. No zircon revenue has been applied when estimating the Ore Reserve.

Based on the outcomes of the PFS, the project has a positive NPV.

Cut-off grades

As there are multiple saleable products, cut-off grades vary depending on the overall HM grade and individual assemblage of each block in the Mineral Resource model.

Cut-off grades have been calculated within optimisation software and an individual cut-off grade applied to each block within the model. The calculations consider overall heavy mineral grade, mineral assemblage, operating costs, recoveries and other modifying factors.

Processing

Iluka has developed extensive knowledge in applied mineral separation and processing techniques which will be unique to mineral sands production, some of which are considered commercial in confidence.

The ore will be pumped by the dredge to a mining unit plant (MUP) located at the project's processing plant where oversize material is removed before the sand and fines components of the ore are subject to further mineral separation and concentration.

Processing plant recovery assumptions for WIM100 have been validated via in-house test work programs on a number of samples throughout various study phases including technical development and PFS. Process recovery factors have been included in Table 1 Section 4 in Appendix 1.

As is common at most mineral sands operations, REO and other HM concentrates produced at site may potentially contain levels of radiation above occupational exposure limits. Management plans will be in place to ensure health risks to employees are managed appropriately.

Other material modifying factors

The Ore Reserves are located within existing mining tenements. The WIM 100 deposit is located adjacent to the Natimuk-Hamilton road, connecting the site with nearby regional towns of Hamilton and Horsham, with significant connecting road infrastructure to various port and rail facilities (e.g. Port of Portland, Port of Melbourne, Geelong Port, Wimmera Intermodal Freight Terminal) for product transportation. This allows the sale of end-products (ilmenite and HyTi90) to customers and the transport of rare earths concentrate to Iluka's Eneabba rare earth refinery.

Whilst there are Victorian and Commonwealth government regulatory approvals required for the project that are yet to be granted, based on Iluka's detailed assessments and previous experience with similar projects there is reasonable grounds to expect that these will be in place before the project is executed. Studies required to gain the necessary State and Commonwealth government approvals have commenced.

Competent Persons Statement

The information in this report that relates to Ore Reserve estimates is based on information and supporting documentation prepared by Mr Andrew Walkenhorst who is a member of the Australasian Institute of Mining and Metallurgy (AUSIMM) and a permanent employee of Iluka Resources Limited.

Mr Walkenhorst has sufficient experience that is relevant to the styles of mineralisation and types of deposits under consideration, and to the activity which is 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', the JORC Code 2012 Edition. Mr Walkenhorst consents to the inclusion in this release of the matters based on the information in the form and the context in which they appear. Mr Walkenhorst is a shareholder of Iluka.

Appendix 1

JORC Code 2012 edition – Table 1 report

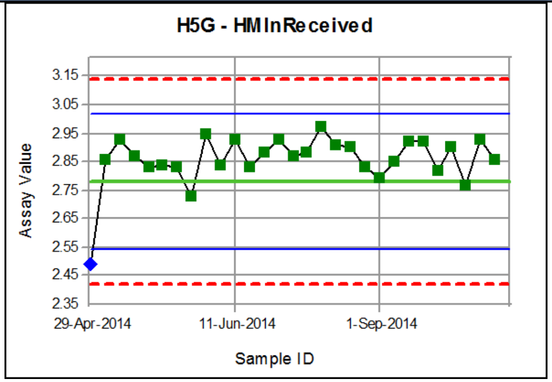
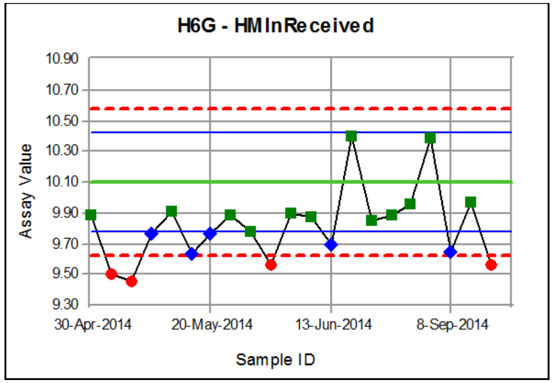
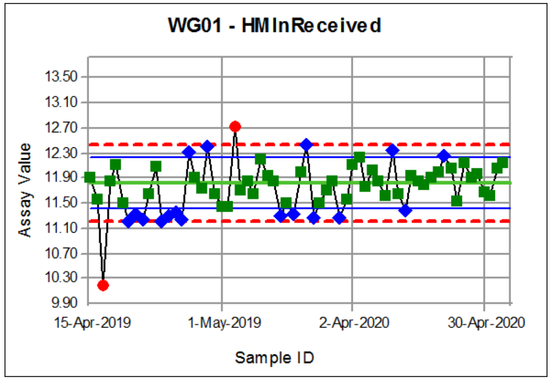
Section 1 Sampling Techniques and Data

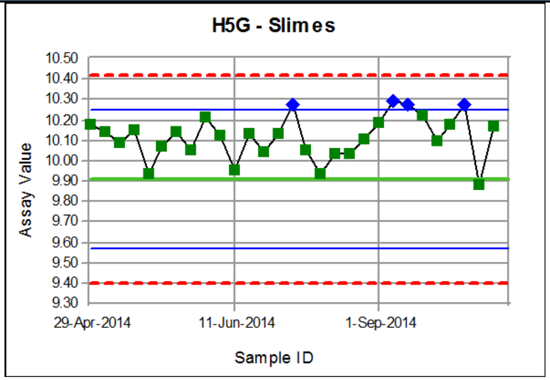
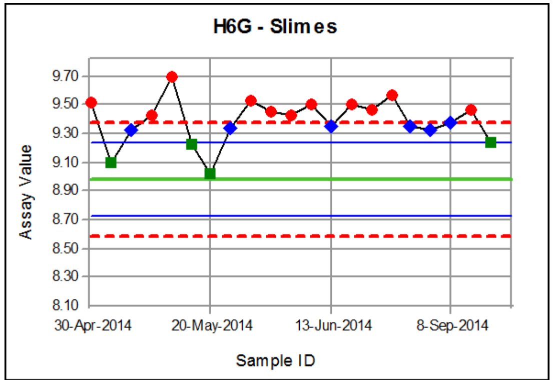
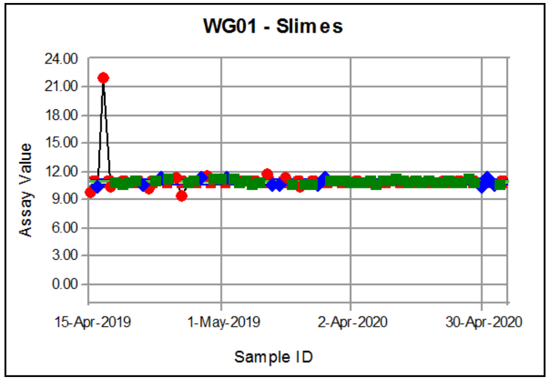
(Criteria in this section apply to all succeeding sections)

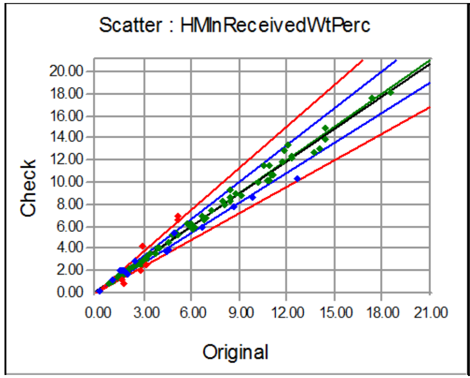
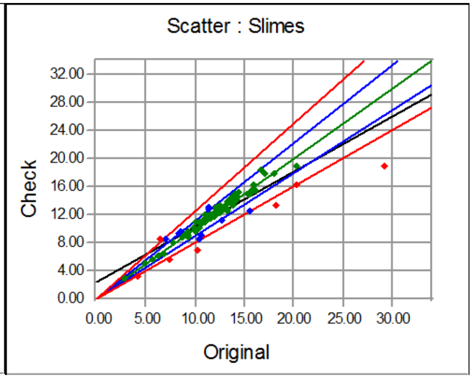
Criteria		Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *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.* *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	WIM100 was sampled using Reverse Circulation Air-Core (AC) drill holes. Three hundred and forty four (344) drill holes used in the resource estimation were drilled vertically which is essentially perpendicular to the mineralisation. Samples were collected at 1m or 1.5m intervals. A rotary splitter was used to disperse material exiting the cyclone and a sub sample was collected from a quadrant beneath the splitter. Duplicate samples were taken from a second quadrant at a rate of approximately 1 in 40 primary samples assayed. All of the drilling utilised the same drilling and assay methodology, and mineralogical composite sample analysis techniques. Samples estimated to contain greater than of 0.5% heavy mineral or greater were considered 'mineralised' and submitted for analysis. The samples were dried, weighed, de-slimed (material <38µm removed) and oversize (material +2mm) was removed. About 100g of the 38µm to 2000µm sand fraction was sieved at 710µm with the 38µm to 710µm (sand) fraction subjected to float/sink analysis using Lithium-Sodium-Tungsten (LST, SG=2.85). The resulting HM concentrate was dried and weighed to determine the in situ HM percentage. Following interpretation of the deposit geology, HM concentrate from similar geological domains was grouped together to form mineralogical composite samples. The composite samples were subjected to magnetic separation with the magnetic and non-magnetic fractions subjected to densometric separation using Thallium Malonate Solution (TMF). Various fractions were then analysed using XRF analysis to determine the mineral assemblage. This separation technique was used to isolate a zircon rich fraction to determine grain size and indicative quality for Zircon. Another split of about 20 grams of HM was sent to an external laboratory for QEMSCAN Analysis to support the interpretation of the mineral assemblage.
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, Sonic, etc) and details (eg 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 sampling was based on vertical AC drilling boring a 76mm hole diameter.
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.*	Both sample quality and water content were recorded in the field logging. Any factors that have affected sample recovery were recorded in the logging comments. Sample weights were recorded by the laboratory which in conjunction with QA/QC data provides an indication of the effectiveness and representativeness of the sample splitting. Sample weights were generally in the order of 1.5Kg although some variation is noted. AC samples were visually

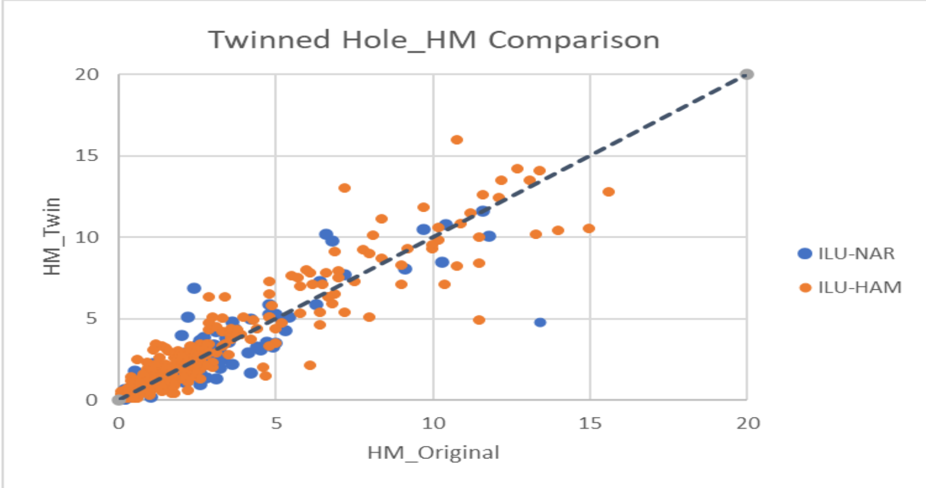
Criteria		Commentary
		checked for recovery, moisture and contamination and a check was done to ensure a consistent rate of penetration was maintained. Sample weights recorded at the laboratory indicate reasonable sample quality and representativity. The mineralised samples were not typically affected by the presence of rock or induration and no sample bias is evident. Minor slimes loss may have occurred with moisture seeping through the calico sample bags as water injection was used to facilitate sample recovery during the drilling.
	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.	No relationship exists between grade and recovery with mineralised samples exhibiting good recovery in line with expectation for the air core drilling method.
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.*	Geological logging of AC samples recorded colour, lithology, grainsize, sorting, induration type, hardness and an estimate of the rock, clay and HM content. Whether the sample was dry or wet or water was injected during drilling was also noted. A small portion of all samples were panned and logged on site at the time of drilling. 100% of the samples were logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No diamond coring was used to support the estimate of contained mineralisation. Diamond drilling was conducted at WIM100 as part of geotechnical studies and collection of sample for density testwork but was not used in the estimation of grade for the WIM100 Mineral Resource.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	A rotary splitter was used to produce sub samples of typically wet substrate. Most of the mineralisation drilled at the Wimmera Deposits is located below the water table and some water injection was used to assist the sample return.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is consistent with industry standard techniques used for sampling mineral sand deposits. A 1 kg to 1.5 kg "quarter" sample split was taken by rotary splitter mounted which is considered to provide a representative sample.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicate sample pairs consisting of an additional quarter split are collected from the rig mounted rotary splitter at specified rates. A total of 147 field duplicates were collected from drilling on the WIM100 deposit and analysed (1 in 32 samples) which show good correlation between the original and duplicate values for HM, Slimes and Oversize, despite some scatter in the received weight. A comparison of the HM and slimes gave correlation coefficients of 0.99 and 0.92 respectively with no significant bias.
	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.	Regular duplicate sample analysis is undertaken at Iluka's laboratory with a 50/50 split generated from a rotary splitting unit. A total of 231 laboratory duplicate samples were analysed with no significant bias evident in the results for HM, slimes and oversize. Although the precision for the slimes values was noted to be moderate at times. This reflects the difficult nature of achieving

Criteria		Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	reliable analytical data for the very fine grained material hosting the WIM mineralisation but will have not have a significant impact on the mineral resource estimate. The sampling methodology is considered consistent with typical industry methods for sampling HM mineralisation and appropriate for providing representative samples of the material hosting the Wimmera deposits. The sample size collected at the time of drilling is deemed appropriate for the fine grain sand material intersected in the Wimmera deposits to provide a reliable representation of the HM, slime, sand and oversize characteristics.
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.*	The assay method used is appropriate for assessment of the mineralisation at WIM100. Wet sieving at 38um has been used to ensure appropriate recovery the fine grained mineral associated with this style of mineralisation. The mineralogical composite sample evaluation processes are appropriate for the current level of study. While the QA/QC data indicates some difficulty in analysis for the fine grained samples, the quality of the data is considered appropriate for the estimate of mineral resources. The technique is considered a total analysis.
	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.	Downhole gamma logging conducted in 125 AC holes confirmed the presence of HM mineralisation corresponding to elevated U and Th present in certain heavy minerals but the geophysical logging was not used in the resource estimation process.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	A total of 210 field standards were analysed (about 1 per 30 routine samples) in conjunction with the WIM100 exploration programs carried out between 2013 and 2021. The HM analysis of the field standards returned a fail rate of 6% (12 fails) while the slimes fail rate was 15%.. HM standard results reported outside the 3 standard deviations (SD) triggered re-split and re-assay of the standard and selected samples that were processed at same time as the standard. The repeat assays were assessed and if the standard returned HM results within specification, then all the repeat assays replaced the original results in the Geology acQuire Database. Slimes results outside of 3SD did not trigger repeat assays as the slimes component of the sample is lost during initial processing. The high number of Slimes fails are attributed to a number of factors including difficulty in desliming with sieve screens "blinding" due to the very fine material, sensitivity of the slimes to screen wear and analytical process. A total of 198 laboratory reference standards were assayed in conjunction with exploration programs carried out on the WIM100 deposit. This represents a submission rate of 1 per 30 primary samples. The HM fail rate was 5% while the slimes fail rate was 9%. The field and laboratory standard analysis show reasonable procedural control with no significant bias noted for HM. Some apparent bias observed was deemed to be primarily due to a slight shift in the expected values of the standard material rather than poor laboratory control.

Criteria		Commentary
		  

Criteria		Commentary
		   A total of 147 field and 231 laboratory duplicate sample were assayed synchronously with the analysis of the Wimmera samples.

Criteria		Commentary
		The duplicate samples also show good correlation as shown in the charts below confirming the data set is robust and appropriate to support resource estimation.   The results from the QAQC are considered acceptable although there appears to be scope for improvement in the determination of the slimes content. The modest precision shown by the slimes data does not impact on the estimate of the contained HM.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All assay data is routinely inspected visually and statistically prior to resource estimation. The data has been reviewed by both exploration and resource development personnel at Iluka. The HM component from all samples was verified by examining the sinks after LST separation under a microscope and comparison to adjacent samples within the drill hole and drill holes on the same section.
	The use of twinned holes.	Twenty three twin hole pairs are recorded in Iluka's Geology Database. A comparison of the drill grades between twinned holes show acceptable correlation. Downhole the high and low grade sections compared well, however metre by metre comparison was modest suggesting some in ground variability. One of the twinned pair was removed prior to resource estimation.

Criteria		Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. *Discuss any adjustment to assay data.*	 Logging of AC samples was input directly into a laptop computer using acQuire software with data verification routines enabled. Data was then electronically transferred into Iluka's SQL hosted geology database interfaced with acQuire data management software which incorporates further verification routines. No bias or errors were identified in the assay data and no adjustments were made.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	The 2019 and 2020 AC drilling was surveyed using RTK_DGPS equipment, however the drill holes surveyed prior to 2019 used GPS or DGPS. The DGPS and GPS located drill holes are considered to have and accuracy of +/- 5m in X/Y which is adequate considering the spatial extent of the WIM style deposits. The RL was taken from a LiDar survey completed by AAM Hatch which had a project vertical design accuracy of 0.5m at one sigma. The eastings and northings were recorded in GDA94 MGA Zone 54. The topographic surface used in the estimation of the WIM100 deposit was generated from the 2005 Airborne Laser Scanning (LiDar) survey completed by AAM Hatch which had a project vertical design accuracy of 0.5m at one sigma. This was supplemented with the SRTM 90m surface to complete areas not covered by the AAM Hatch surface, primarily to the south of 5906700 mN. The surface provides good geomorphological detail and drill hole collar points were projected to this surface to ensure the mineralisation was at a correct position relative to the surface.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drilling targeting the WIM mineralisation was originally completed on widely spaced drill lines several km apart, typically on road verges, with drill holes spaced at about 500m on the lines. This was subsequently infilled to 1 to 2 km spaced drill lines on areas of anomalous or known mineralisation with further infill on a regularised grid spacing to support resource estimation.

Criteria		Commentary
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The drilling at WIM100 is variable but predominantly spaced at about 500m by 250m with some infill to 250m by 250m on areas expected to be scheduled for the initial 10 years of mining. Some closer spaced drilling at 250m by 50m has been completed on the more variable HM grade mineralisation along the eastern margin of the deposit. Drilling around the periphery of the deposit in areas of lower grade mineralisation may be spaced wider at 500m by 500m or 1000m by 500m. Access issues, either social or environmental, meant that there are some gaps in the grid and some holes were required to be offset from the ideal drill grid locations. Given the nature of the WIM style of mineralisation, there is sufficient confidence in the interpreted geometry and grade continuity for the Resource classification that has been applied. This is corroborated using geostatistical analysis – particularly variography.
	Whether sample compositing has been applied.	No compositing was used for assay data however assemblage and mineral quality information was derived from composites of HM sinks.
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.*	No bias has been identified or expected as the vertically orientated drill holes are effectively perpendicular to the horizontal mineralisation of the WIM100 deposit. No sampling bias is noted.
Sample security	*The measures taken to ensure sample security.*	Samples were stored at secure Iluka compounds following transport from the exploration site. The samples received at Iluka's laboratory were compared to the dispatch notes generated from the logged data lodged within the acQuire software. No discrepancies were noted.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits have been conducted of the sampling done on the WIM 100 deposit. However the sampling techniques used were audited for Iluka during exploration over other deposits. A similar assaying process supports Iluka's current mining operations and is a standard method used widely in the exploration for mineral sands. The in-house laboratory undergoes regular inspections by Iluka geology staff.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria		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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Iluka's WIM100 deposit is located approximately 30km south west of Horsham in Western Victoria. The WIM100 deposit is predominantly located within RL 6904, granted on 20 December 2021, with minor extension to the south into EL6966 and to the south west into RLA006906. RLA's 6904, 6905 and 6906 were applied for in respect of areas of expiring license EL4282, originally granted on 30 April 1998. EL4282 remains "live" until the RLAs are determined ensuring continuity of tenure. The tenements are held by Basin Minerals Holdings Pty Ltd, a wholly owned subsidiary of Iluka Resources Limited. **Tenement** — **Status** EL4282 — Expired on 11 February 2019. EL4282 remains 'live' until RL006904, RL006905 and RL006906 are determined. RL006904 — Live - registration date of 20/12/21 (WIM100). RLA006905 — Application in lieu of portion of EL4282 (WIM50). RLA006906 — Application in lieu of portion of EL4282 (WIM50N). EL6966 — Live - registration date of 14/05/2020 (Wimmera East). The tenements predominantly cover privately owned freehold land with some crown land under reserve, road reserves and the Toolondo State Forest which impinges on the very western margin of retention license RLA006905 (WIM50 Deposit). Some potentially sensitive cultural heritage areas have been identified and investigative studies on these areas are in progress. Some ephemeral lakes and wetlands are present in the area which will need consideration from an environmental and social perspective when access for mining is considered. At this point in time, the resource has not been penalized in respect of these areas.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Wimmera Fine Mineral (WIM) deposits were initially investigated by CRA in the 1980s. While the CRA data has assisted in targeting Wimmera style mineralisation, no historical information by CRA or any other company was used in the estimation of the mineral resource estimate for WIM100.

Criteria		Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	The "WIM" style deposits manifest as extensive lobate mineralised zones interpreted to have accumulated in a low energy near/offshore marine setting peripheral to the margin of the Murray Basin geomorphological province. The mineralisation occurs in fine to very fine grained, well sorted, silty sand and is dominantly hosted in lower shore facies of the Lower Loxton-Parilla Sands (LPS). Wimmera HM deposits are typically extensive with strike lengths of 5km to 20 km and widths of 2km to 5km. The mineralisation for WIM100 is between 3m and 20m in thickness and shows good lateral continuity.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	A summary of the data recorded in Iluka's Geology Database for the WIM100 Deposit is tabled below. Metallurgical holes, twinned holes and geotechnical diamond core drill holes were removed from the dataset used for the resource estimation.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Significant intercepts are not presented due to the large number of drill holes and (in the context of the disclosure of the Mineral Resource estimate(s)) is not material. The Competent Person confirms that this exclusion does not detract from the understanding of the Report, on the basis that all relevant drill hole information was used in the estimation of the reported Mineral Resources. All drill holes were drilled vertically with the top of mineralisation intercepted at depths of 8m to 25m downhole. The mineralisation ranges from 3m to 20m in thickness averaging about 9.5m.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *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.*	No weighting or bottom/top cuts were deemed necessary and have not been used in the estimation of mineral resources for the WIM100 deposit. Envelopes defining a +1 HM grade were used to constrain the grade interpolation and the Mineral Resource estimates were reported using a 1% lower HM cut-off grade.

Drill Type	Holes	Metres	Intervals	HM Assays
DDH	16	494.25	1002	445
AirCore	493	18671.8	16858	7987
AirCore_Met	172	4329	-	-
Total	681	23495.05	17860	8432

Criteria		Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were used for reporting the WIM100 Mineral Resource Estimate.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	All holes were drilled vertically which is essentially perpendicular to the horizontally orientated mineralisation so all intercepts represent true widths.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Figures and representative cross sections showing the distribution of drill hole and grade information are presented in the main text of the Release.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Mineral resource estimates are presented which consider the grade distribution and supersede the reporting on exploration results.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Logging of the HM sink includes visually estimating the HM present with the results corroborating the presence of valuable HM mineralisation. This is taken into account when creating the geological and mineralised framework for the block modelling and resource estimation. Composite samples were taken from the HM sink fractions from on the HM determinations. The composited samples generate between 20g and 200g of HM which is then subjected to a process of magnetic and heavy liquid separation followed with XRF, QEMSCAN and laser ablation analysis of the fractions to determine the assemblage and quality of the mineral present. A test pit was dug with in the WIM100 deposit area during 2019. About 500 tonnes of mineralised material was excavated and sent to Iluka's metallurgical test facility at Capel – Western Australia for processing to support assumptions on mineral recovery, quality and isolate HM products for marketability. Material from the test pit was used to pilot the mineral processing techniques to recover separated heavy mineral products (zircon, ilmenite, rare earth concentrate and leucoxene. Zircon recovered from the test pit sample has been retained for validation testing of the Zircon Purification Process (ZPP). Once process conditions have been optimised this material will be refined to demonstrate the quality and marketability of the Wimmera zircons.

Criteria		Commentary
		Geophysical gamma surveys were acquired with downhole logging of 125 AC drill holes over Iluka's Wimmera deposits. The surveys are generally considered qualitative but high gamma responses corroborate the presence of radionuclides associated with the HM. A density factor base on the testing of undisturbed triple tube diamond core provided information to support a formula for the density of the Wimmera resource taking into consideration the slimes and HM content. As with all WIM deposits the effective recovery of the fine grained HM has been considered to be problematic. Also the Uranium and Thorium levels are above the current typical specification for marketable premium zircon (a key value component of the WIM100 deposit) which is also typical of all WIM deposits. As previously mentioned, Iluka is developing an innovative process which testing has shown significantly reduces the contaminants in zircon. Laboratory testing of the process has been undertaken and "scaling up" testing is in progress. Additional 88 drill holes and 88 composites were completed on the WIM100 Deposit during 2022. The results of this drilling and compositing were not available in time for inclusion in the current Mineral Resource estimate but will be included in an updated version of the WIM100 model to be completed to support the DFS. The field logging from the drilling was used to support the geological framework used in the current Mineral Resource estimate.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further drilling and complementary metallurgical testing will be done on the Wimmera mineralisation in a timely manner to support project development. Drill programs designed to support a Measured level of resource confidence are forecast to be done on WIM100 if the project progresses to a DFS level of assessment. Low grade mineralisation is expected to continue to the North but becomes progressively more deeply buried

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

Criteria		Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Logging of AC samples were input directly into a laptop computer using acQuire software with data verification routines enabled. Data was then transferred into Iluka's acQuire Geology Database with further validation routines enabled. Assay data was stored in Iluka's CCLAS laboratory database at the time of analysis and transferred electronically to the acQuire hosted Geology Database. Drill data was reviewed to ensure no duplicate records were present and statistical evaluation was conducted to ensure all results were within acceptable ranges. Datamine Software was used to visually check the grade magnitude and spatial distribution of data was as expected.
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.*	All AC programs were visited by experienced Iluka staff geologists. The Competent Person visited site over the period of 18 to 23 March 2019 and 4 to 8 April 2022 during drilling of AC and diamond core geotechnical programs. All work was being conducted in accordance with Iluka and industry standard practice.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The geological framework for the WIM100 and WIM50 deposits is well understood from many years of exploration by Iluka and other exploration companies. The mineralisation is dominantly confined to the interpreted Lower LPS unit which is tabular and flat lying. At the current drill spacing, the geometry and continuity of the mineralisation is well defined. The density of drilling done by Iluka varies considerably and some assumption of the continuity of mineralisation is made based on the typical continuity of grade for the WIM style deposits. The deposits show consistent and continuous mineralisation over large areas. No alternative interpretations have been considered for WIM100. The valid reportable mineralisation was restricted to that hosted in the LPS unit. HM values at the base and transitional to the underlying Winnambool Formation which are logged with high trash or contaminated with carbonate shell fragments are domained separately and excluded from the resource estimate. Appropriate geological domaining and corresponding flagging of drill data was used to control the mineralisation estimation. No factors are known which might affect the continuity of the geology. There are no indications of post depositional fluvial wash-outs impacting the deposit. Some induration is noted which is recorded in terms of the logged hardness and oversize values and incorporated into the geology block models.

Criteria		Commentary
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.*	This model covers the full extent of drilling conducted by Iluka on the WIM100 deposit within tenure held by Iluka. The WIM100 mineralisation has a north-south strike extent of about 9.5 km, an east-west across strike extent of about 3.5 km. The mineralisation varies from 3 to 20 m in thickness and averages about 9.5m in thickness. The mineralisation is covered by an average thickness of about 15 m of non-mineralised Shepparton Formation and coarse grained LPS with depth to mineralisation varying from about 8 m to 20 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.*	Grade interpolation was done using the Estima Superprocess within Datamine Studio software. Grade estimation was completed using Inverse Distance Cubed which is an Iluka standard and is deemed appropriate for this style of mineralisation. Mineralogy composite identifier and Hardness values were interpolated using Nearest Neighbour (NN) method. No HM top cut has been used nor deemed necessary. Drill hole sample data were flagged with domain codes corresponding to the geology of the deposit and a +1% HM grade domain. The domains were imprinted on the model from 3-dimensional surfaces generated from the geological and mineralisation interpretations. A primary search dimension of 375m across strike by 700m along strike by 3m RL (X*Y*Z) was used for all assay data with limitations placed on the minimum and maximum number of samples used to inform model cells. Successive search volume factors of 2 and 7 were adopted to interpolate grade in areas of lower data density. An increased vertical search distance of 5m was used to interpolate the composite data. In the event that a cell still remained uniformed, a domain average value was applied and the cell would be excluded from the resource estimate.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Inverse Distance Squared and Nearest Neighbour comparison estimates were carried out with very similar grade distribution as the Inverse Distance Cubed results.
	The assumptions made regarding recovery of by-products.	No by-products were considered as part of the resource estimates for Iluka's Wimmera deposits.
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	Deleterious minerals (trash minerals) were identified as part of the mineralogical composites. Various mineral quality attributes are also included in the grade interpolation which inform the marketability of the Wimmera HM. The zircon contains elevated uranium and thorium which is typical for all the fine grained WIM deposits and renders a high portion unsalable or of low value. Iluka has carried out metallurgical testing and developed a process to remove deleterious contaminants from the zircon.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The drill spacing over WIM100 was dominantly 500m x 250 m at the time of resource estimation and a parent cell of 125m x 250m was adopted. Sub-celling of 2 x 2 x 10 (X/Y/Z) was used to improved volume resolution along domain boundaries.

Criteria		Commentary
	Any assumptions behind modelling of selective mining units. *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available*	(see nested table and text below)

Axis	Model Origin	Model Extent	Cell Dimensions	Number of Cells	Sub celling
X	582,575	588,700	125	49	2
Y	5,905,80	5,916,67	125	87	2
Z	115	180	1	65	10

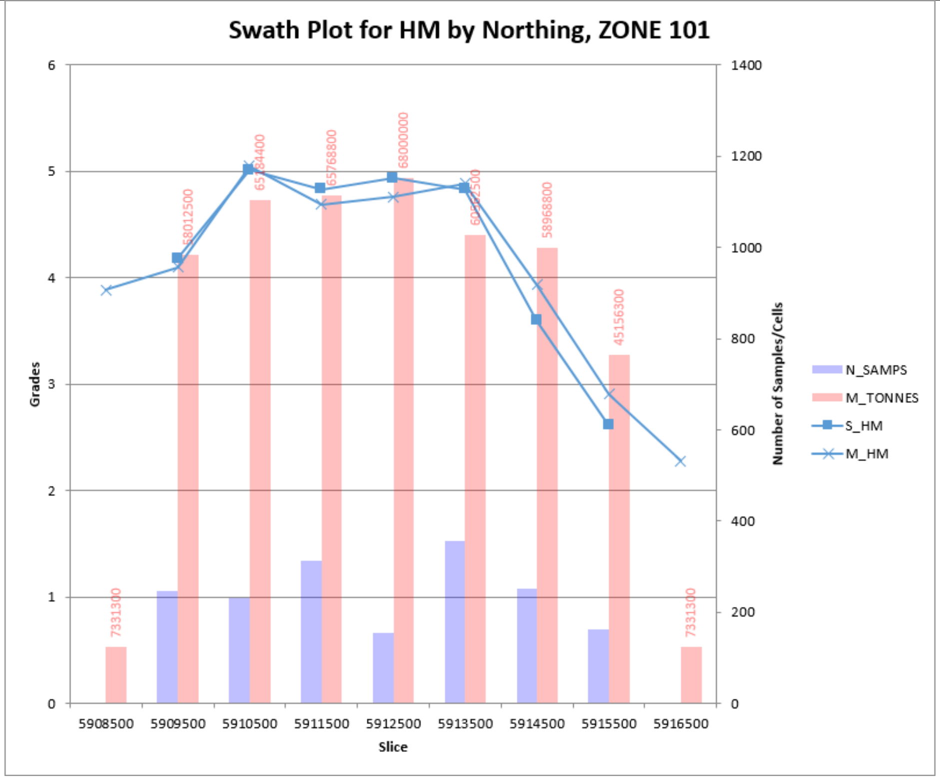
Based on the material type and mineralisation geomorphology it is assumed that a form of open cut mining such as truck and shovel or dredging would be employed.

No correlations or assumptions were used in this resource estimation.

Appropriate geological domaining and corresponding flagging of drill data and model cells was used to control the grade interpolation. Closed wireframes outlining the extent of +1% HM grade was used to constrain the extent of mineralisation.

A top cut was not deemed necessary for HM assays following evaluation of statistics and consideration of the extent and consistency of the sample grades.

Validation of the grade interpolation was done for all Iluka’s Wimmera deposits by comparing model statistics to sample statistics and a visual comparison of drill to model grades using Datamine Studio Software. Swath plots comparing the sample grades to the model grades were done for the WIM100 deposit, an example of which is presented below as shown below.

Criteria		Commentary
		 Given no mining has taken place no reconciliation data is available.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A nominal cut-off grade of 1.0 per cent HM was chosen for reporting the Mineral Resource for WIM100. A 1.0 per cent HM cut-off is considered appropriate for a deposit of this magnitude and contained valuable HM assemblage to represent an inventory of the contained mineralisation.
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. Where this is the case, this should be*	Mining at WIM100 is likely to be by open cut mining using suitable excavation machinery or dredging. The geometry of the deposit makes it amenable to bulk open cut mining methods currently employed in other open cut mines operated by Iluka and in other mineral sands mines with similar geomorphology. The unconsolidated nature of the sediments allow for a range of options to be considered including the use of scrapers, large scale truck and shovel, dredging or dozer trap.

Criteria		Commentary
	reported with an explanation of the basis of the mining assumptions made.	
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. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The metallurgical assumptions are based on mineralogical data and comprehensive testing of a number of bulk samples (including the test pit sample) collected from WIM 100 between 2015 to 2019. This has included detailed analysis of recovery and the quality of various marketable mineral species. Iluka has also developed a process that is expected to remove contaminants from the zircon that currently restricts the saleability of zircon in all the fine grained WIM style HM deposits and has historically economically constrained the development of the WIM deposits.
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. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Iluka has completed the following studies, principally in the context of the WIM100 deposit, but which will also provide a knowledge base for possible development of the adjacent WIM50 and WIM50 North deposits: • baseline ecological (flora and fauna) assessment • vegetation offset requirements assessment • baseline groundwater assessment • baseline surface water assessment • baseline noise assessment • baseline vibration assessment • desktop and standard (non-intrusive) cultural heritage assessment Studies underway are: • baseline soil assessment • baseline radiation assessment • targeted ecological assessment • targeted field based cultural heritage assessment The studies were initiated with the expectation that metallurgical test work, currently being undertaken will be successful thus providing a rapid progression to mining. No assumptions were made regarding possible waste and process streams in the estimation of the WIM100 Mineral Resource.
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.*	An in situ dry bulk density, based on testing of 127 samples selected from undisturbed triple tube diamond core acquired in early 2022, has been developed by Iluka. The density formula comprises a regression formula taking into account the Slime and HM content which impact on the insitu dry density. Sections of high quality core varying in length from 20 cm to 50 cm were selected for

Criteria		Commentary
	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. *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	testing. The core was carefully measured for length and diameter, then double bagged in plastic bags ensuring no loss of material. The samples were then analysed at Iluka's Narngulu laboratory for wet weight and dry weight (after drying at 105^{O}C for 24hours). The samples were then analysed for HM and Slimes using Iluka's standard HM determination method. The formula results in a deposit average dry density of about 1.6t/m^3 for the fine grained mineralised LPS. This is about 6% lower than the 1.7t/m^3 density applied in the previous estimate for WIM100. The density is slightly lower than that espoused for the estimates of other Wimmera style HM deposits and may be slightly conservative. Iluka's standard bulk density which is appropriate for high clay and coarse grained sedimentary material was applied to the Shepparton Formation and coarse grained LPS.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie 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.*	In consideration of the JORC Code Classification of Measured, Indicated or Inferred, the following aspects were considered: • the drill hole spacing; • the quality of sample data as demonstrated by supporting QA/QC; • level of supporting mineralogical data; • confidence in the style of mineralisation under consideration; and • continuity of grade within the geological framework as assessed both visually and geostatistically. The QA/QC data associated with the WIM100 samples demonstrate sound data integrity which is suitable to for resource estimation. Where drilling is <1000*500 m spacing and there is supporting assemblage data an Indicated Classification was assigned. If the drill spacing is >1,000 by 500 m and/or there is limited supporting assemblage data an Inferred Classification was assigned. Variography suggests a Measured Classification will be applicable when the drill spacing is ~250 m by 500 m (X/Y) or closer and there is a commensurate level of supporting mineralogical composite data. It is expected the additional drilling and compositing data collated during 2022 but not available at the time of this resource estimate will support a Measured classification in areas with an appropriate data density. It is the view of the Competent Person that the frequency and integrity of data, and the resource estimation methodology are appropriate for this style of mineralisation and the Resource Classification applied.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Internal review processes within Iluka assisted in the estimation of the WIM100 Mineral Resource. An external review was undertaken by Snowden Optiro Consultants which corroborated the Mineral Resource estimate for WIM100.

Criteria		Commentary
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. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *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.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	No geostatistical process was done (such as kriging or conditional simulation) for the resource estimation of WIM100. Variography was undertaken on the HM grade distribution to determine the optimal sample spacing to support the JORC classification assigned. Validation of the model against drill grades by visual assessment, swathe plot and statistical comparison supports the integrity of the resource estimates for the WIM100 deposit. This statement refers to global estimates for the WIM100 HM deposit. No reconciliation data is available as the WIM100 deposit is not in production.

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	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The Mineral Resource estimate is based on an updated resource model completed in October 2022 by Iluka Resources (Iluka). The resource model named "mdwim100_q322" was compiled by Iluka resource development geologists and reviewed and approved by the company's Competent Person (CP) for Mineral Resources. The updated Mineral Resource estimate was used as the basis for the conversion to an Ore Reserve. The Ore Reserves were compiled by Iluka mine planning engineers and reviewed and approved by the company's CP for Ore Reserves. 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.*	The CP has visited the site. No additional site issues were found that could impact the Ore Reserves.
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.*	A Prefeasibility Study (PFS) was completed in 2022. Funding for a Definitive Feasibility Study (DFS) has been approved by the Iluka Board with DFS activities commencing in Q2 2023. The PFS incorporates technically achievable mine plans that have formed the basis of detailed financial modelling showing positive results for key metrics including NPV, IRR and payback period. Modifying factors considered include current and projected costs and product revenues, processing recoveries based on detailed test work and a mining recovery factor to account for ore loss associated with dredge mining.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	As there are multiple saleable products, cut-off grades vary depending on the overall HM grade and individual assemblage of each block in the Mineral Resource model. Cut-off parameter calculations performed by the pit optimisation software incorporate revenue, operating costs, recoveries and other modifying factors. Blocks included in the Ore Reserve are economic to mine and process based on these calculations.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource*	Pit optimisations were conducted by Iluka mine planning engineers using Minemax industry standard mine planning software. Localised areas of the deposits were excluded due to proximity

Criteria		Commentary
	to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). *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.* *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* *The mining dilution factors used.* *The mining recovery factors used.* *Any minimum mining widths used.* *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* *The infrastructure requirements of the selected mining methods.*	to existing infrastructure, surface water catchments with associated archaeological or environmental constraints. The Mineral Resource was converted to an Ore Reserve using the results of the pit optimisations to inform detailed, practical and economic pit designs appropriate for the selected mining methods. The mining method selected for overburden is truck and shovel. This method has been used successfully at nearby historic Iluka mines, Douglas and Echo. Mining costs were derived from contract rates at existing Iluka operations. Dredge mining is the selected as the ore mining method following a detailed study considering multiple options. A conventional wheel suction dredge is considered suitable as the deposit lies largely below the groundwater table and the geology is amenable due to low oversize or induration. Dredging has been successfully used at competitor Murray Basin mine sites for a number of years. The ore will be pumped to a mining unit plant (MUP), located at the project's processing plant, where oversize material is removed before the sand and fines components of the ore are subject to further processing. The overall slope applied in the pit optimisations and pit designs was 35 degrees. This is based on geotechnical investigations and slope stability assessments completed during the PFS. A mining recovery factor of 98.5% was applied in the pit optimisations to account for ore spillage remaining in the pond following dredge clean-up cycles. Planned dilution due to pit design practicalities is estimated to be 4%. The dredge mining front (pond width) has been designed at 400m wide based on operational practicalities, including mining advance rates and infrastructure and services management. Inferred Mineral Resources are not included in the Ore Reserve, however a small proportion of Inferred Mineral Resource has been used for internal mine planning purposes to inform mining studies. This Inferred Mineral Resource is not a material contributor to the financial viability of the Project. Infrastructure requirements are typical for a dredging operation and include power, pumping and piping for ore slurry transportation as well as provision for landing stations for maintenance and access purposes.

Criteria		Commentary
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* *Whether the metallurgical process is well-tested technology or novel in nature.* *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* *Any assumptions or allowances made for deleterious elements.* *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.* *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	The Ore Reserve is based on wet ore mining using a wheel suction dredge, followed by oversize and slimes removal via a combination of screens and cyclones. The ore is then subject to a bulk flotation process, followed by a rare earth flotation process to produce a rare earth concentrate. Wet high intensity magnetic separation then separates magnetic and non-magnetic components of the rare earth flotation reject stream. Further flotation separation circuits produce sulphate ilmenite, chloride ilmenite and HyTi90 products. Rare earth concentrate will be transported to Iluka's Eneabba rare earth refinery, through which saleable rare earth oxides will be produced. A zircon-rich stream is also generated and stockpiled, with end-use subject to technology developments. The Eneabba rare earth refinery is currently under development, with commissioning scheduled for 2025. Due to the fine-grained heavy mineral, flotation technology has been developed and applied at WIM100 to provide improved separation performance over conventional mineral sands separation techniques. Flotation, although new to minerals sands, is commonly applied in other commodities so study work has focused on adapting existing technology and establishing the chemical regimes required. Iluka's test work specific to WIM100 ore supports the view that this method is considered a low risk of impacting the Ore Reserves. Other processing steps such as screening, cyclonic and wet high intensity magnetic separation are well-tested and used successfully in Iluka's current operations. Overall recoveries for saleable products are shown below. **Mineral Species / Rare Earth Oxide** — **Overall Recovery** Ilmenite — 79.2% Rutile — 61.1% Non Mag Leucoxene — 61.1% Neodymium — 76.6% Praseodymium — 75.8% Terbium — 69.5% Dysprosium — 70.9% Variability samples representing the different ore types have been tested for flow sheet validation, product specifications and recoveries, using a mixture of bench and pilot scale testing.

Criteria		Commentary
		A mixture of drill hole composites, selective drill hole locations for bulk samples (5t each) and the test pit bulk sample (500t), have informed process design and outcomes. These are considered to provide a representative sample of the deposit. The mineral products (and pricing) that form the basis of the Ore Reserve (sulphate ilmenite, chloride ilmenite, HyTi90 and rare earth oxides), are based on the specifications of products achieved in the testwork. As is common at most mineral sands operations, REO and other HM concentrates produced at site may potentially contain levels of radiation above occupational exposure limits. Management plans will be in place to ensure health risks to employees are managed appropriately.
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.*	An Environmental Effects Statement (EES) is required for submission to the Victorian state government Minister for Planning and the project will require a range of regulatory approvals at state and federal level. Studies are underway which will address all approval requirements. Test work has shown that mining waste material is not considered acid-forming or potentially acid forming. Direct return backfill to the pit void is the preferred method of waste material management to minimise operating cost and expedite progressive rehabilitation. Oversize and sand tailings are planned to be progressively returned to the pit void, with fine tailings assumed to be returned to the void at completion of ore mining. Accelerated mechanical consolidation (AMC) will be used to dewater fine tailings contained in off path tailings storage cells. Progressive rehabilitation and timely return to final land use is planned.
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.*	A proposed location for plant and infrastructure has been identified and is appropriate in size. The WIM 100 deposit is located adjacent to the Natimuk-Hamilton road, connecting the site with nearby regional towns of Hamilton and Horsham, with significant connecting road infrastructure to various port and rail facilities (e.g. Port of Portland, Port of Melbourne, Geelong Port, Wimmera Intermodal Freight Terminal) for product transportation. Power is planned to be extended approximately 5 km from the existing network grid and water will be provided to site primarily from the Rocklands Reservoir via an extension of the existing Rocklands-Douglas pipeline near Iluka's Douglas mine site. The majority of the workforce is assumed to come from Horsham and surrounding areas. Negotiations are ongoing with landowners to access the required land.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.*	The capital cost estimate has been prepared in accordance with Iluka, AusIMM and AACE guideline. The estimate is derived from a combination of Iluka inputs and specialist engineering, construction and mining consultant inputs developed during the PFS.

Criteria		Commentary
	Allowances made for the content of deleterious elements. *The source of exchange rates used in the study.* *Derivation of transportation charges.* *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* *The allowances made for royalties payable, both Government and private*	The operating cost estimate has been derived from PFDs and mass balances developed for the mineral processing facilities; existing mining and supply contracts; and dredge mining assessments. Accuracy of capital and operating cost estimates is considered to be -15% to +45%. The foreign exchange rate used was estimated internally by Iluka in Q3 2022. Transport and logistics costs derived from detailed logistics study undertaken as part of the PFS. Penalties for failure to meet specification have been included in the financial model, where applicable, as a discount to product price. Victorian State Royalty applied to the mineral sands products and the rare earth concentrate transported to Eneabba rare earth refinery.
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.* *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	The Ore Reserve was estimated using internal Iluka long-term price forecasts (some of which are confidential and commercially sensitive) for the mineral sands products, as well as Adamas price forecasts for the rare earth oxide product. The internally derived commodity price assumptions are established by monitoring supply and demand on an ongoing basis. Price assumptions are benchmarked against commercially available price forecasts by industry observers. Revenue factors are used to establish pit sensitivities and to test for robustness of the Ore Reserve.
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.* *A customer and competitor analysis along with the identification of likely market windows for the product.* *Price and volume forecasts and the basis for these forecasts.* *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	Rare earths and mineral sands market analysis is conducted using data from various industry bodies and experts, independent research and Iluka's assessment of trade data. Iluka has established contractual agreements with customers which reflect the pricing forecasts adopted for mineral sands products. The detail of these contracts is commercially sensitive and not disclosed. Product undergoes customer testing and acceptance prior to executing a supply contract. Ongoing provision of product must be in accordance with the agreed contractual specifications. Iluka customers are provided with reports in accordance with customer and product specifications. Global demand for rare earth metals and oxides continues to grow year-on-year fueled by strong growth in permanent magnet and electric motor applications. The demand for Rare Earth Oxides (REO) stems from the strong growth in industrial applications such as electric vehicles and wind turbines.
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.*	Macro-economic assumptions used in the economic analysis of the mineral sands reserves such as foreign exchange, inflation and discount rates have been internally generated and determined through detailed analysis by Iluka and benchmarked against external sources where applicable.

Criteria		Commentary
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Sensitivity analysis is undertaken on key economic assumptions such as costs and price to ensure the reserves are robust. Changes in product prices and costs have the potential to increase or decrease the total Ore Reserve. Cashflows from the optimised Ore Reserve on current assumptions produce a finically viable project.
Social	*The status of agreements with key stakeholders and matters leading to social licence to operate.*	Regular engagement and consultation with regulators and the community is embedded in the EES process.
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.* *The status of material legal agreements and marketing arrangements.* *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.*	No identifiable naturally occurring risks have been identified to impact the Ore Reserves. There are no known risks to the Ore Reserves due to any material legal or marketing arrangements. Whilst there are Victorian and Commonwealth government regulatory approvals required for the project that are yet to be granted, based on Iluka's detailed assessments and previous experience with similar projects there is reasonable grounds to expect that these will be in place before the project is executed. Studies required to gain the necessary State and Commonwealth government approvals have commenced.
Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.* *Whether the result appropriately 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).*	Indicated Mineral Resources are converted to Probable Ore Reserves. Inferred Mineral Resources are not included in the reported Ore Reserve. The results reflect the Competent Person's view of the deposit. None of the Probable Ore Reserves have been derived from Measured Mineral Resources.
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	The WIM100 Ore Reserve estimate has not been reviewed externally, however detailed internal reviews of optimisation input parameters, assumptions and proposed mining methods have been undertaken. External Ore Reserve process audits have taken place on other Ore Reserves Iluka reports with no significant issues previously raised.
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*	Iluka has considerable experience in reconciliation of its Mineral Resources and Ore Reserves. Actual results generally indicate very good agreement with the geological model and close reconciliation with product tonnes, ore tonnes and heavy mineral head grade. The risk of not

Criteria		Commentary
	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. *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.* *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.* *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	achieving good physical Ore Reserve reconciliation is considered to be low. This is indicative of a robust estimation process. Mining methods selected are typical for mineral sands and have been demonstrated in various other mineral sand operations. Processing via flotation is atypical for mineral sands, however it is widely and successfully used in other commodities. Iluka's test work specific to WIM100 ore supports the view that this method is considered a low risk of impacting the Ore Reserves. No mining of the WIM100 mineralisation has taken place to date so no reconciliation is available.