

**QUARTERLY REVIEW TO 31 MARCH 2024**

**19 April 2024**

**KEY FEATURES**

- Iluka maintained a disciplined approach in Q1 with zircon/rutile/synthetic rutile (Z/R/SR) production of 87kt
  - 24kt of zircon sand, with the Narngulu mineral separation plant offline for ~6 weeks as planned to manage inventory levels
  - 13kt of zircon-in-concentrate (ZIC), with production recognised upon sale (guided ZIC sale volumes for full year are 40kt)
  - 37kt of synthetic rutile, with SR2 kiln restarted late January following a major maintenance outage. SR1 kiln remains offline, as planned
- Q1 2024 Z/R/SR sales of 106kt
  - 48kt of zircon sand (premium and standard grade) sales, double the volume of Q4 2023, as noted in the full year results, and 11kt of ZIC. The increased weighting of sand in the sales mix reflects tighter market conditions for premium grade sand when compared to lower quality grades and concentrates in general
  - 37kt of synthetic rutile sales, with one shipment slipping from late March to early April due to timing of ship's arrival at berth
- Iluka continues to experience steady interest in its zircon sand offering, with sales contracts for zircon sand in Q2 currently exceeding Q1 sand volumes
- The Q1 weighted average zircon sand price declined ~2% compared to Q4 2023 to US\$1,873/t, as previously communicated. Prices for Q2 volumes have increased modestly on Q1 levels
- Indications of a recovery in the titanium pigment market continue with evidence of volume and price growth in the sector

PHYSICAL AND FINANCIAL SUMMARY	Q1 23	Q4 23	Q1 24	Q1 24 vs Q4 23	Q1 24 vs Q1 23
<b>PRODUCTION</b> kt				%	%
Zircon sand	59.3	54.7	24.2	(55.8)	(59.2)
ZIC <sup>1</sup>	-	30.2	13.0	(57.0)	n/a
Rutile <sup>2</sup>	8.0	11.6	12.2	5.2	52.5
Synthetic rutile	83.6	8.1	37.2	359.3	(55.5)
<b>Z/R/SR production</b>	<b>150.9</b>	<b>104.6</b>	<b>86.6</b>	<b>(17.2)</b>	<b>(42.6)</b>
Ilmenite	152.3	35.2	69.0	96.0	(54.7)
<b>SALES</b> kt					
Zircon sand	42.0	23.5	48.3	105.5	15.0
ZIC <sup>1</sup>	-	29.6	10.9	(63.2)	n/a
Rutile	11.6	14.2	9.2	(35.2)	(20.7)
Synthetic rutile	48.0	67.2	37.3	(44.5)	(22.3)
<b>Z/R/SR sales</b>	<b>101.6</b>	<b>134.4</b>	<b>105.7</b>	<b>(21.4)</b>	<b>4.0</b>
Ilmenite	41.8	25.9	35.1	35.5	(16.0)
<b>REVENUE</b> A\$ million					
Z/R/SR revenue	238	283	247	(12.7)	3.7
Ilmenite and other revenue	19	22	21	(1.4)	14.3
<b>Mineral sands revenue</b>	<b>257</b>	<b>305</b>	<b>268</b>	<b>(11.9)</b>	<b>4.4</b>
AUD:USD cents	68	65	66	0.5	(3.7)

<sup>1</sup> Production of ZIC is recognised on sale. ZIC sales include small amounts of lower grade zircon products processed by third parties.

<sup>2</sup> Rutile sales and production volumes include the lower value titanium dioxide product, HYTI, that typically has a titanium dioxide content of 70-90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%.

### Australian Operations

The Jacinth-Ambrosia mine in South Australia produced 64kt of heavy mineral concentrate (HMC), down from 91kt in Q4 2023. Mined ore grade was lower in Q1, in line with the planned mining sequence. Jacinth-Ambrosia HM grade over 2024 is, on average, expected to be broadly in line with Q1.

In Western Australia, the Cataby mine produced 152kt of HMC, up from 112kt in the previous quarter. Mined ore grade was higher, combined with an increase in ore treated volumes following the commissioning of a new mining unit in December 2023, with the second additional new mining unit planned to be commissioned in April 2024. These units are expected to increase ore processing rates and deliver an associated increase in material fed to Cataby's wet concentrator plant.

The Narngulu mineral separation plant in Western Australia was offline for ~6 weeks, restarting mid-February. The plant processed predominantly Jacinth-Ambrosia material, as planned, producing 37kt of zircon (including ZIC) and 12kt of rutile.

SR2 was restarted in late January as planned following a major maintenance outage, producing 37kt. Synthetic rutile from SR2 services the ~200ktpa of long term contracts Iluka has in place.

Iluka's synthetic rutile swing production asset, SR1, is expected to remain offline in 2024 until demand for additional synthetic rutile is supported by market conditions.

ILUKA MINERAL SANDS PRODUCTION	Q1 23	Q4 23	Q1 24	Q1 24 vs Q4 23	Q1 24 vs Q1 23
	kt	kt	kt	%	
<b>ZIRCON SAND</b>					
Jacinth-Ambrosia / Mid west WA	59.3	39.0	20.6	(47.2)	(65.3)
Cataby/South west WA	-	15.7	3.6	(77.1)	n/a
<b>Total zircon</b>	<b>59.3</b>	<b>54.7</b>	<b>24.2</b>	<b>(55.8)</b>	<b>(59.2)</b>
<b>ZIC<sup>3</sup></b>					
Jacinth-Ambrosia / Mid west WA	-	28.9	6.9	(76.1)	n/a
Cataby/South west WA	-	1.3	6.1	369.2	n/a
<b>Total ZIC</b>	<b>-</b>	<b>30.2</b>	<b>13.0</b>	<b>(57.0)</b>	<b>n/a</b>
<b>RUTILE</b>					
Jacinth-Ambrosia / Mid west WA	8.0	1.3	4.7	261.5	(41.3)
Cataby/South west WA	-	10.3	7.5	(27.2)	n/a
<b>Total rutile</b>	<b>8.0</b>	<b>11.6</b>	<b>12.2</b>	<b>5.2</b>	<b>52.5</b>
<b>Synthetic rutile (WA)</b>	<b>83.6</b>	<b>8.1</b>	<b>37.2</b>	<b>359.3</b>	<b>(55.5)</b>
<b>TOTAL Z/R/SR</b>	<b>150.9</b>	<b>104.6</b>	<b>86.6</b>	<b>(17.2)</b>	<b>(42.6)</b>
<b>ILMENITE</b>					
Jacinth-Ambrosia / Mid west WA	34.3	16.1	12.2	(24.2)	(64.4)
Cataby/South west WA	118.0	19.1	56.8	197.4	(51.9)
<b>Total ilmenite</b>	<b>152.3</b>	<b>35.2</b>	<b>69.0</b>	<b>96.0</b>	<b>(54.7)</b>

<sup>3</sup> Iluka's zircon production figures include volumes of zircon attributable to external processing arrangements.

### Zircon

Zircon sand sales in Q1 2024 were 48kt, more than double the previous quarter. Total sales, including ZIC, were 59kt. The increased weighting of sand in the sales mix reflects tighter market conditions for premium grade sand when compared to lower quality grades and concentrates in general.

Iluka's view is that demand continues to reflect underlying consumption as customers remain reluctant to re-stock.

In China, the government continues to introduce measures to stimulate domestic consumption and prioritise the completion of apartments in the property sector. Demand for ceramic tiles continues to be subdued, while other major market segments – fused zirconia, zirconium chemicals, refractories and foundries – remain relatively stable.

In Europe, sentiment has improved. Ceramic manufacturers have resumed production after the holiday season buoyed by lower energy prices and a hiatus of cheaper imports of finished goods (due to increased freight rates through the Red Sea).

In India, the production of tiles and foundry products continues to grow despite lower tile export volumes. Industrial production in the US remains stable.

As expected and previously communicated, the realised zircon price (premium and standard) declined ~2% compared to Q4 2023. Prices for Q2 volumes have increased modestly on Q1 levels, with outcomes varying by product and/or region. Steady interest in premium grade zircon sand has continued in Q2 and contracted sales to date for zircon sand exceed Q1 volumes (excluding ZIC).

### Titanium Dioxide Feedstocks

Q1 2024 sales of synthetic rutile were 37 kt, with one shipment slipping from late March to early April due to late arrival of the vessel. Volumes were in line with take or pay contractual agreements. Rutile sales volumes in Q1 were 3kt, in line with expectations.

The titanium dioxide market appears to have 'turned the corner'. Customers are reporting better seasonal demand, which has further depleted pigment inventories. As a result, pigment producers are increasing operating rates in anticipation of continued demand recovery heading into the seasonally stronger northern hemisphere spring paint and coatings season. Recent commentary by pigment producers points to a double digit increase in titanium pigment volumes in Q2, on top of strong volumes in Q1. Pigment prices have followed the stronger demand trends, with several increases announced by major producers effectively beginning in early Q2.

Demand from welding was slower than expected, mainly due to a pause in major project work ahead of India's April elections and slower construction.

The Q1 rutile price was US\$1,828 per tonne (noting that Iluka's sales of rutile are almost exclusively to the welding market) and synthetic rutile price was ~US\$1,282 per tonne (reflecting timing of shipments to different customers). Overall Iluka's feedstock market prices are steady, and industry production levels are generally matching demand.

## PROJECT UPDATES

Updates on selected projects for the quarter are detailed below.

### Execute

#### Eneabba, Western Australia



Iluka is building Australia's first fully integrated refinery for the production of separated rare earth oxides at Eneabba, Western Australia.<sup>4</sup>

This is taking place via a strategic partnership between Iluka and the Australian Government, including a \$1.25 billion non-recourse loan to Iluka under the Critical Minerals Facility administered by Export Finance Australia.

Refinery site bulk earth works and ground improvement activities were completed in 2023. The new camp is currently being commissioned with central facilities and the initial 302 rooms. A further 60 room expansion is ready to commence. The upgrade of the main mine access road is complete and water bore and pipework upgrades are underway.

Long lead procurement packages have been awarded including the roasting kiln, solvent exchange agitators, ion exchange system, spiral heat exchangers and boilers. Negotiations are underway on tenders for other major engineered packages and detailed earthworks. Significant tender preparation, delivery and review activity is underway on the balance of procurement and contract packages.

Capital guidance for the project is \$1.7-1.8 billion. As indicated at the full year results, the updated capital guidance requires further funding arrangements to be implemented, and discussions with the Commonwealth continue in relation to those funding arrangements.

#### Balranald, New South Wales



Balranald is a rutile-rich critical minerals development located in the Riverina district of south western New South Wales. Owing to its relative depth, Iluka is developing Balranald via a novel, internally developed, remotely operated underground mining technology.

A final investment decision was approved in February 2023.

Engineering and procurement activities continue to progress. On site, construction of the access road is progressing well, as is provision of enabling infrastructure. The construction camp is expected to be available for use from May 2024.

The project remains on track for commissioning in H2 2025.

### Definitive Feasibility Study (DFS)

#### Wimmera, Victoria



The Wimmera development involves the mining and beneficiation of a fine grained heavy mineral sands ore body in Western Victoria for the potential long term supply of rare earths and zircon.

A preliminary feasibility study (PFS) was completed in early 2023 and Iluka's Board approved \$30 million funding for a DFS in February 2023. This was accompanied by the declaration of an Ore Reserve for the WIM 100 deposit in respect of the rare earths within the deposit.<sup>5</sup>

A significant field development program commenced in Q1. The program includes additional resource drilling, geotechnical test pits, cultural heritage test pits, and further hydrogeological investigations.

Environmental approvals processes are progressing, alongside process engineering and mine design.

In parallel, Iluka is continuing the process design of the zircon purification process, with the goal of demonstrating commercial viability via a demonstration plant. Zircon revenue has not yet been accounted for in Wimmera's Ore Reserve.

Iluka has a range of projects at various stages of development. For more detail on projects please refer to Iluka's website [iluka.com/operations-resource-development/resource-development](https://iluka.com/operations-resource-development/resource-development)

<sup>4</sup> For further information refer Iluka ASX release, *Eneabba Rare Earths Refinery – Final Investment Decision*, 3 April 2022.

<sup>5</sup> For further information refer Iluka ASX release, *Revised Wimmera Ore Reserve and Mineral Resource Update*, 22 February 2023.

## EXPLORATION

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Expenditure on exploration and evaluation in Q1 2024 was \$3.8 million. Drilling completed during the quarter utilised a combination of air core and sonic techniques.

In Australia, 16,161 metres of drilling was completed, comprising resource evaluation activities at various sites in the Murray Basin and at Cataby in Western Australia.

In the US, sonic drilling continued in South Carolina and Georgia, focused on delineating areas where high value mineral assemblage are at or close to surface.

Target generation work has continued in Australia and the US in line with Iluka's exploration strategy, with plans to further test specific targets. Iluka applied for new tenure over additional prospective regions in Australia. Exploration on these properties will commence subject to necessary approvals. The company continues to review rare earths exploration opportunities, including those presented by third parties.

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

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## APPENDIX 1 – MINING AND PRODUCTION PHYSICAL DATA

Physicals Data 3 months to 31 March 2024	Jacinth-Ambrosia / Mid west	Cataby / South west	Group Total
<b>Mining</b>			
Overburden Moved kbcm	1,159	4,742	5,901
Ore Mined kt	2,504	2,679	5,183
Ore Fed/Treated kt	2,504	2,603	5,107
Ore Treated Grade HM %	2.8%	6.4%	4.6%
VHM Treated Grade %	2.6%	5.5%	4.1%
<b>Concentrating</b>			
HMC Produced kt	64.1	170.3	234.5
VHM Produced kt	58.6	136.8	195.4
VHM in HMC Assemblage %	91.3%	80.3%	83.3%
Zircon	59.6%	10.8%	24.1%
Rutile	9.9%	5.9%	7.0%
Ilmenite	21.8%	63.6%	52.2%
HMC Processed kt	51.0	55.7	106.7
<b>Finished Product<sup>8</sup> kt</b>			
Zircon	27.5	9.7	37.2
Rutile	4.7	7.5	12.2
Ilmenite (saleable/upgradeable)	12.2	56.8	69.0
Synthetic Rutile	-	37.2	37.2

### Explanatory comments on terminology

**Overburden moved** (bank cubic metres) refers to material moved to enable mining of an ore body.

**Ore mined** (thousands of tonnes) refers to material moved containing heavy mineral ore. For Cataby/ South West this refers to ore treated.

**Ore Fed/Treated (thousands of tonnes)** refers material processed through the mining units for Cataby/ South West.

**Ore Treated Grade HM %** refers to percentage of heavy mineral (HM).

**VHM Treated Grade %** refers to percentage of valuable heavy mineral (VHM) - titanium dioxide (rutile and ilmenite), and zircon found in a deposit.

**Concentrating** refers to the production of heavy mineral concentrate (HMC) through a wet concentrating process at the mine site, which is then transported for final processing into finished product at the company's Australian mineral processing plant.

**HMC produced** refers to HMC, which includes the valuable heavy mineral concentrate (zircon, rutile, ilmenite) as well as other non-valuable heavy minerals (gangue).

**VHM produced** refers to an estimate of valuable heavy mineral in heavy mineral concentrate expected to be processed.

**VHM produced and the VHM assemblage** - provided to enable an indication of the valuable heavy mineral component in HMC.

**HMC processed** provides an indication of material emanating from each mining operation to be processed.

**Finished product** is provided as an indication of the finished production (zircon, rutile, ilmenite) attributable to the VHM in HMC production streams from the various mining operations. Finished product levels are subject to recovery factors which can vary. The difference between the VHM produced and finished product reflects the recovery level by operation, as well as processing of finished material/concentrate in inventory. Ultimate finished product production (rutile, ilmenite, and zircon) is subject to recovery loss at the processing stage – this may be in the order of 10 per cent.

**Ilmenite** is produced for sale or as a feedstock for synthetic rutile production.

Typically, 1 tonne of upgradeable ilmenite will produce between 0.56 to 0.60 tonnes of SR. Iluka also purchases external ilmenite for its synthetic rutile production process.

<sup>8</sup> Finished product includes material from heavy mineral concentrate (HMC) initially processed in prior periods.

## APPENDIX 2 – WEIGHTED AVERAGE RECEIVED PRICES



The following table provides weighted average received prices for Iluka's main products. Iluka's Annual Report, available at [www.iluka.com](http://www.iluka.com) contains further historical mineral sands price information.

	FY 23	Q4 23	Q1 24
<i>US\$/tonne FOB</i>			
Zircon premium and standard	2,066	2,045 <sup>1</sup>	1,873
Zircon (all products, including zircon in concentrate) <sup>2</sup>	1,849	1,658	1,753
Rutile (excluding HYTI) <sup>3,4</sup>	1,887	1,871	1,828
Synthetic rutile	1,258	1,241	1,282

### Notes:

1. The weighted average realised price in Q4 2023 benefitted from a reversal of accruals of US\$120/t.
2. Zircon prices reflect the weighted average price for zircon premium, zircon standard and zircon-in-concentrate. The prices for each product vary considerably, as does the mix of such products sold period to period.
3. Rutile prices will vary quarter-on-quarter depending on the end market to which the product is supplied (e.g. pigment or welding). Post the demerger of Sierra Rutile Limited in H2 2022, rutile sales are a smaller contributor to Iluka's revenue.
4. HYTI is a lower value titanium dioxide product that typically has a titanium dioxide content of 70 to 90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%.

APPENDIX 3 – PRODUCTION SUMMARIES

