

# INVESTOR PRESENTATION

BRUCE GRIFFIN  
EXECUTIVE CHAIR

July 2024

ASX: SFX

[www.sheffieldresources.com.au](http://www.sheffieldresources.com.au)



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## Summary information in relation to Sheffield

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## Information regarding the South Atlantic Project

All information in this presentation relating to the South Atlantic Project has been sourced from Rio Grande Mineração S/A (RGM). The information in this announcement that relates to the Retiro and Bujuru Exploration Targets is based on information compiled under the guidance of Mr Greg Jones, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Jones is an employee of IHC Mining and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This presentation should be read in conjunction with the Company's announcement "\$30m Share Placement And Entitlement Issue To Advance Sheffield Growth Strategy" dated 28 February 2023 which contains relevant exploration results for RGM reported in compliance with the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore Reserves (**JORC Code**). Nothing has come to the attention of Sheffield that causes it to question the accuracy or reliability of the information provided by RGM. Nothing in this presentation can be relied on as implying that there has been no change to any information relating to the South Atlantic Project since the date of this presentation, or as a representation as to future matters in relation to RGM and its projects.

## Industry data

Certain market and industry data used in connection with or referenced in this document, including in relation to other companies in Sheffield's peer group, may have been obtained from public filings, research, surveys or studies made or conducted by third parties, including as published in industry-specific or general publications. Neither Sheffield or their respective representatives have independently verified any such market or industry data.

## Compliance Statements

This presentation should be read in conjunction with the following announcements by the Company: "KMS Bankable Feasibility Study Presentation" dated 24 March 2022, "Thunderbird Ore Reserve Update" dated 24 March 2022, "Thunderbird BFS, Results, Financing and Project Update" dated 24 March 2022, "Thunderbird Final Investment Decision" and "Final Investment Decision – Presentation" dated 10 October 2022 and "Mineral Resource and Ore Reserve Statement" dated 24 September 2019 (**the Primary Announcements**). Information in this document in relation to Mineral Resources, Ore Reserves and metallurgy and process design has previously been reported in the Primary Announcements. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of the 24 September 2019 Thunderbird Mineral Resource and Ore Reserve Statement and the 24 March 2022 Thunderbird Ore Reserve Update, that all material assumptions and technical parameters underpinning the estimates with regards to the Company in the relevant market announcement continue to apply and have not materially changed. The Company confirms that all material assumptions underpinning any production target and any forecast financial information derived from any production target that is disclosed in this announcement continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings are presented and have not been materially modified from the original market announcements.

## Estimates of Mineral Resources and Ore Reserves and Exploration Results

This document and the Primary Announcements contain estimates of Ore Reserves and Mineral Resources and information that relates to exploration results. The Company confirms that all material assumptions underpinning any production target and any forecast financial information derived from any production target that is disclosed in this presentation continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings are presented and have not been materially modified from the original market announcements. It is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the JORC Code. Investors outside Australia should note that while exploration results, mineral resources and ore reserves estimates of Sheffield in this presentation comply with the JORC Code, they may not comply with the relevant guidelines in other countries and, in particular, do not comply with (i) National Instrument 43-101 (Standards of Disclosure for Mineral Projects) of the Canadian Securities Administrators; or (ii) Industry Guide 7, which governs disclosures of mineral reserves in registration statements filed with the US Securities and Exchange Commission (SEC). Information contained in this presentation describing mineral deposits may not be comparable to similar information made public by companies subject to the reporting and disclosure requirements of Canadian or US securities laws.

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A number of figures, amounts, percentages, estimates, calculations of value and fractions in this document are subject to the effect of rounding. Accordingly, the actual calculation of these figures may differ from the figures set out in this document. All currency amounts are in Australian Dollars (\$) or A\$) unless otherwise stated.

## Future performance, forward-looking statements and key risks

This document contains certain "forward-looking statements". Forward-looking statements can generally be identified by the use of forward looking words such as "forecast", "likely", "believe", "future", "project", "opinion", "guidance", "should", "could", "target", "propose", "to be", "foresee", "aim", "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", "indicative" and "guidance", and other similar words and expressions, which may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production dates, expected costs or production outputs for the Company, based on (among other things) its estimates of future production of the Thunderbird Mineral Sands Mine and the future operation of Sheffield and the Thunderbird Project.

To the extent that this document contains forward-looking information (including forward-looking statements, opinions or estimates), the forward-looking information is subject to a number of risk factors, including those generally associated with the mineral sands industry. Any such forward-looking statement also inherently involves known and unknown risks, uncertainties and other factors that may cause actual results, performance and achievements to be materially greater or less than estimated. These factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations, general economic and share market conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development (including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves), changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, geological and geotechnical events, and environmental issues, and the recruitment and retention of key personnel.

# CONTENTS

1. Corporate Overview
2. Thunderbird Mineral Sands Mine
3. South Atlantic Project



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# CORPORATE OVERVIEW

## SHEFFIELD RESOURCES

- Mineral Sands production and development
- Targeting **advanced projects** with potential to unlock value by applying Sheffield's mineral sands and commercial experience
- Generating **growing cash returns**
- Corporate Management and Capital Allocation

50%

### KIMBERLEY MINERAL SANDS

#### Production

- ▶ Thunderbird Mine
- ▶ **Stage 1 in production; ramp up underway**
- ▶ **Positive Operating Cash Flow expected in September 2024 Quarter**

#### Growth

- ▶ Thunderbird Stage 2, incremental NPV<sub>8</sub> of **\$548m<sup>1</sup>**
- ▶ Additional zones of mineralisation along a 120 km trend

20% Option

### SOUTH ATLANTIC

#### Growth

- ▶ Rio Grande Do Sul Brazil
- ▶ Exploration Target ranging between 500 to 720Mt at 3.2 to 4.0% HM<sup>2</sup>
- ▶ HM comprises sulfate ilmenite and zircon
- ▶ Option Agreement executed with US\$2.5m contributed to fund de-risking activities

10%

### EASTERN MINERALS

#### Growth

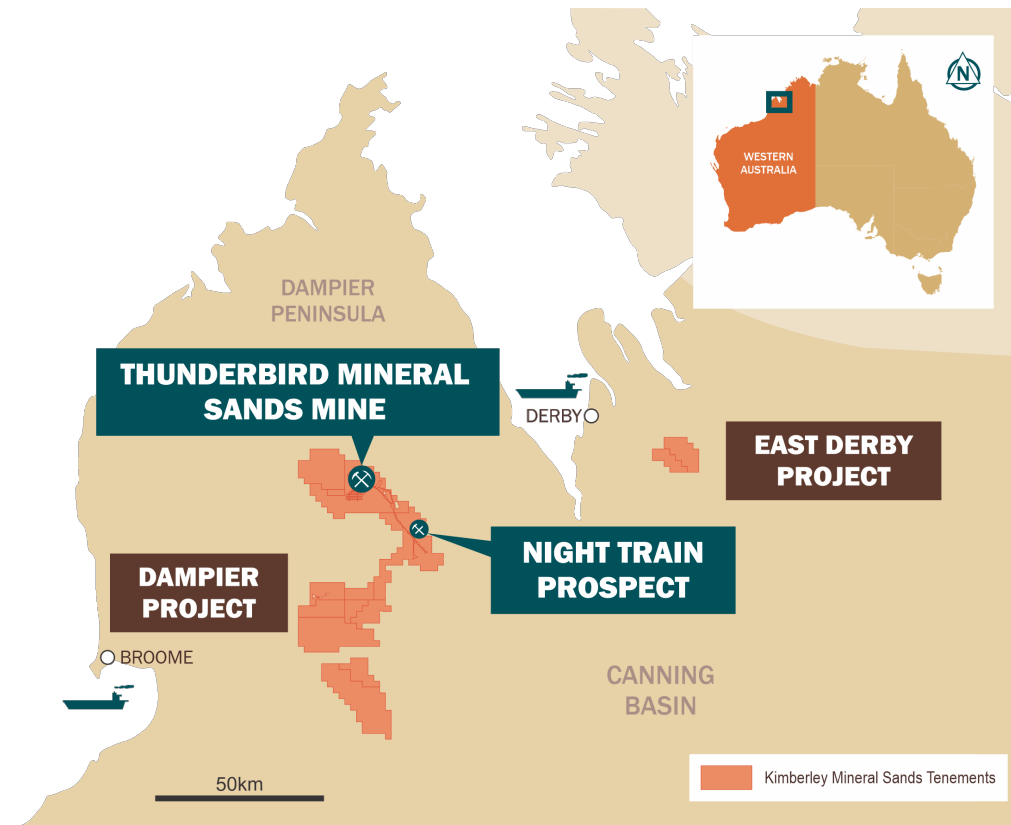
- ▶ 10% interest in Capital Metals (AIM:CMET) the owner of the Eastern Mineral Sands Project in Sri Lanka

Reference:

1. The material assumptions and other matters required by LR 5.16 and 5.17 in respect of this financial forecast based on a production target are set out in the Primary Announcements. The Company confirms that all material assumptions underpinning any production target and any forecast financial information derived from any production target that is disclosed in this presentation continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings are presented and have not been materially modified from the Primary Announcements.
2. The potential quantity and grade of the Exploration Target is conceptual in nature, as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. (Low-grade cut-off above 1.0% HM; High-grade cut-off above 2.0%HM). HM – heavy mineral, VHM – valuable heavy mineral, THM – total heavy mineral (same as HM).

# CORPORATE OVERVIEW

## SHARE PRICE INFORMATION



## CAPITAL STRUCTURE<sup>1</sup>

Item	Unit	Value
Ordinary Shares	#m	393
Share Price	A\$/sh	0.31
<b>Market Capitalisation</b>	<b>A\$m</b>	<b>122</b>
Cash Balance <sup>2</sup>	A\$m	10
Debt Balance	A\$m	-
<b>Enterprise Value</b>	<b>A\$m</b>	<b>112</b>

## MAJOR SHAREHOLDERS

Name	% Holding
Yansteel	9.9%
Yovich & Co	8.0%
BlackRock	6.4%
Other Institutions	10.4%

## BROKER COVERAGE & RESEARCH



1. Data quoted as of 25 July 2024. All other metrics as otherwise denoted.  
 2. 30 June 2024 (unaudited)

# THUNDERBIRD

MINERAL SANDS MINE



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# THUNDERBIRD MINE



**MINE  
JULY 2024**



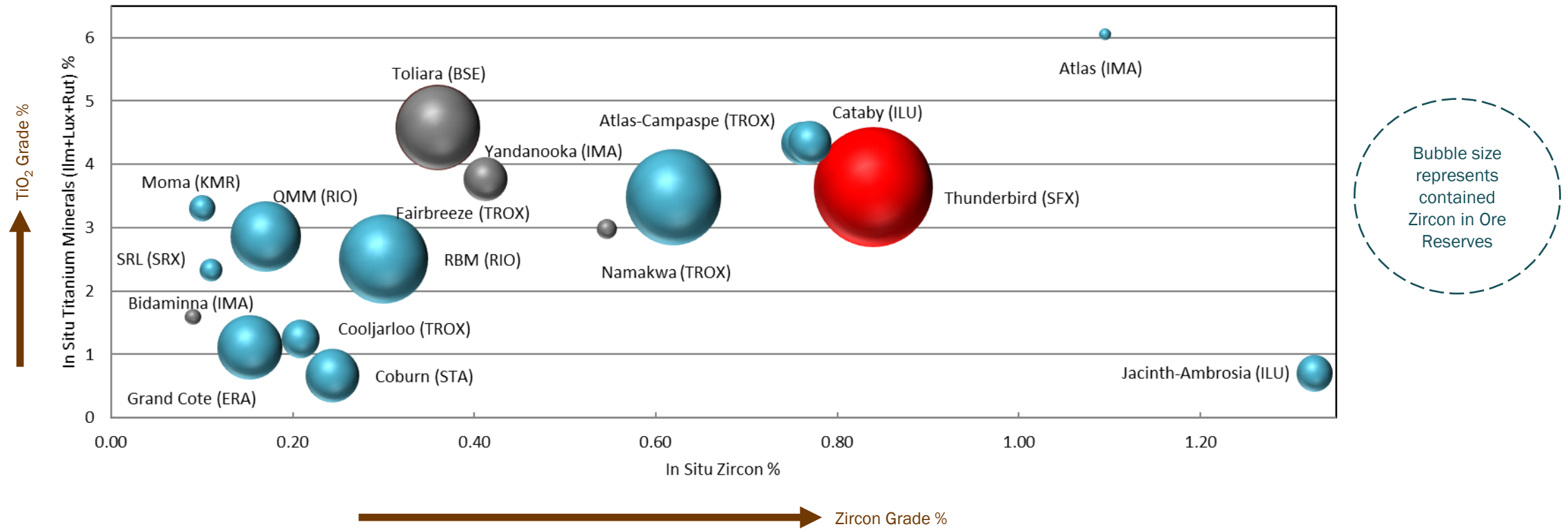
**BULK PRODUCT SHIPMENT  
JULY 2024**



**PROCESS PLANT AND PRODUCT  
STOCKPILES JULY 2024**

# THUNDERBIRD – THE WORLD’S LARGEST ZIRCON RESERVES ... STRATEGICALLY SIGNIFICANT ASSET IN A LOW-RISK JURISDICTION

CONTAINED ZIRCON IN ORE RESERVES AND GRADE FOR SELECTED MINERAL SANDS DEPOSITS 1,2,3



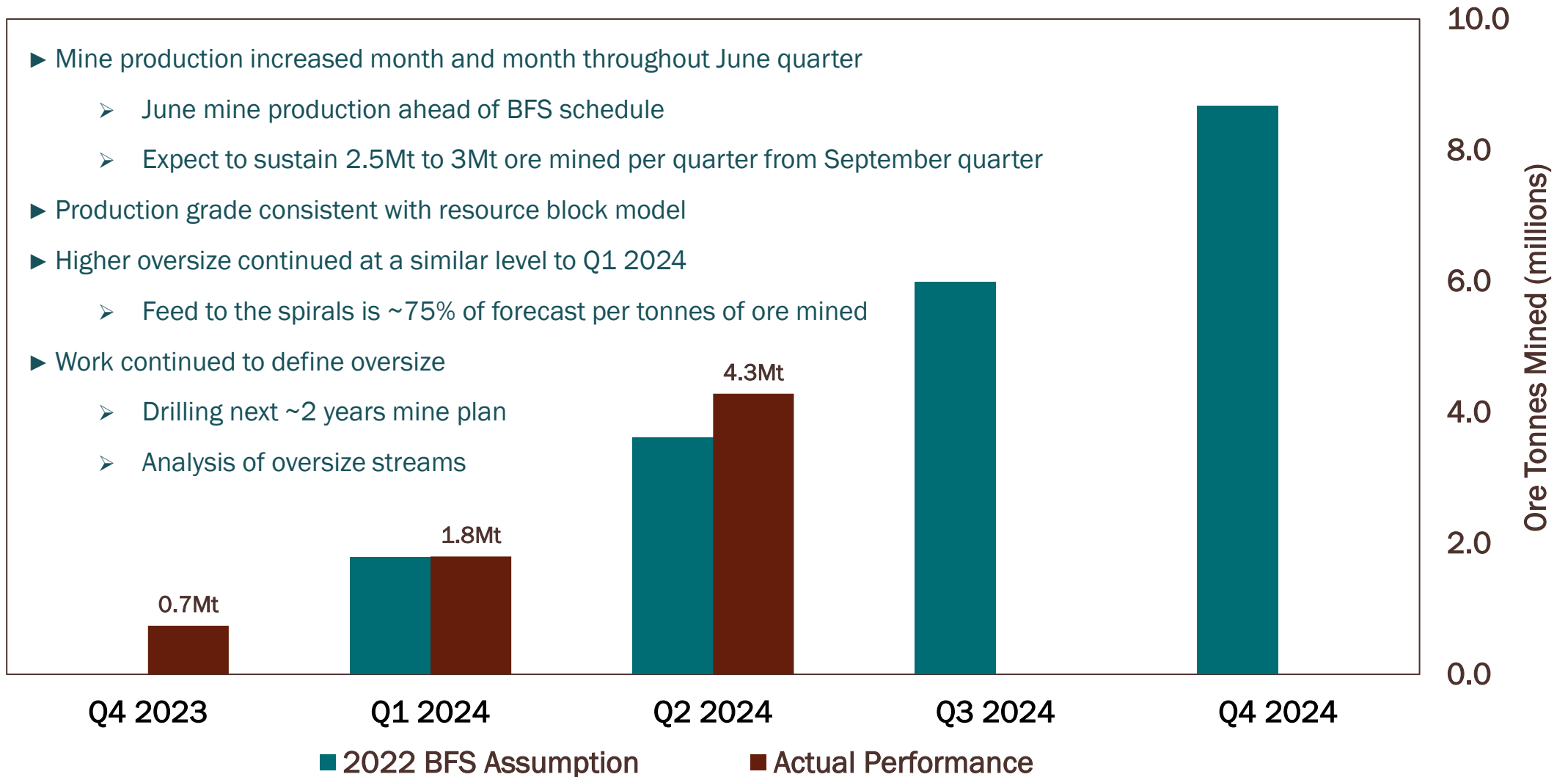
Bubble size represents contained Zircon in Ore Reserves

Note:

1. Thunderbird Ore Reserve as published on the ASX on 24 March 2022. Thunderbird Ore Reserves ranked against latest published Ore Reserves of current mineral sands operations and projects under investigation globally. Accordingly, for the operating projects, no account is made for any volumes of product already produced
2. Blue bubbles are operating mines, grey bubbles are Ore Reserves reported but the project is not operating
3. Data compiled by Sheffield from public sources, refer to the Appendix on Page 24. This analysis does not illustrate the variance in product value between rutile, leucoxene and ilmenite

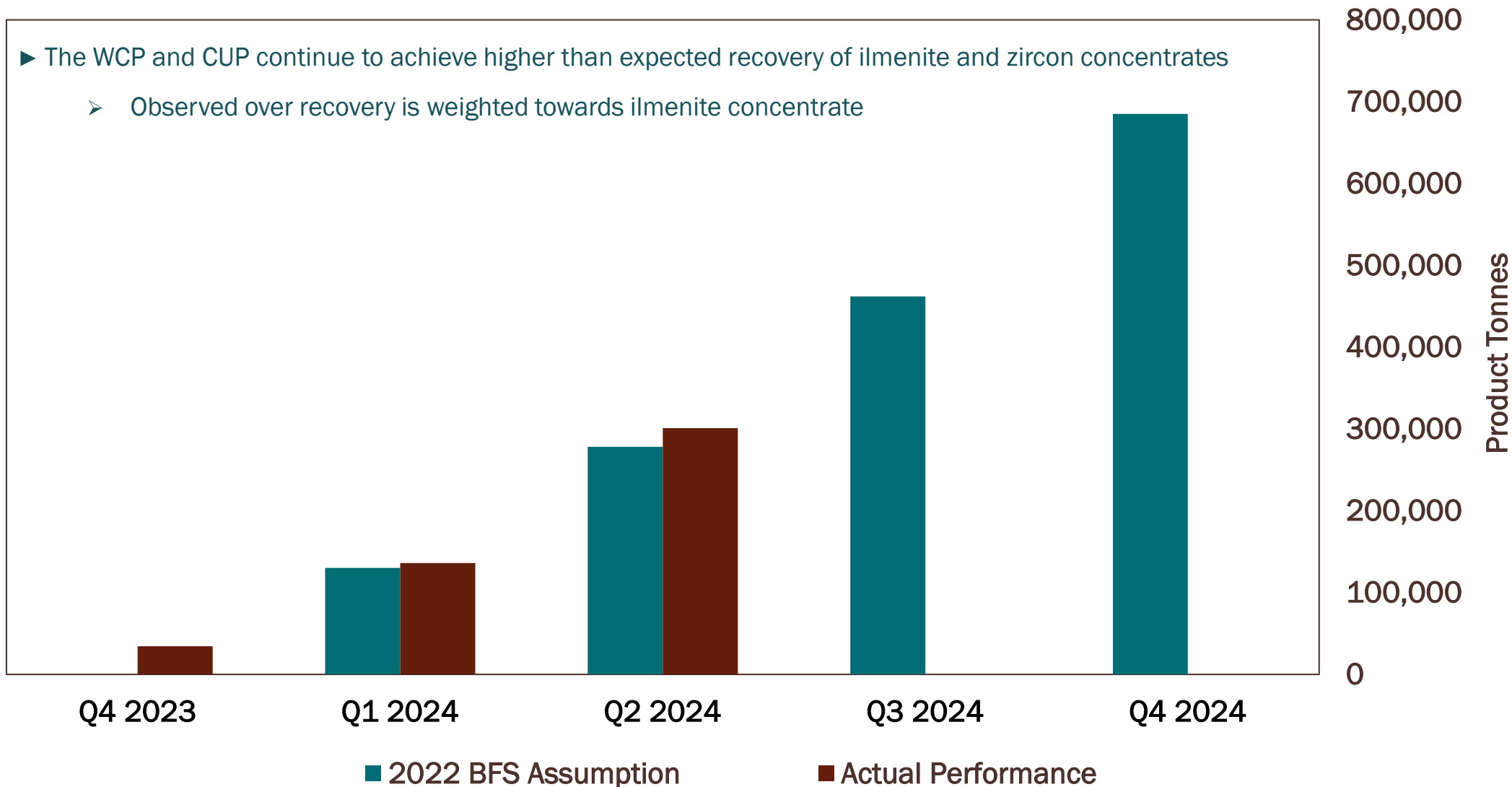


# CUMULATIVE ORE PRODUCTION: ACTUAL vs 2022 BFS ASSUMPTIONS

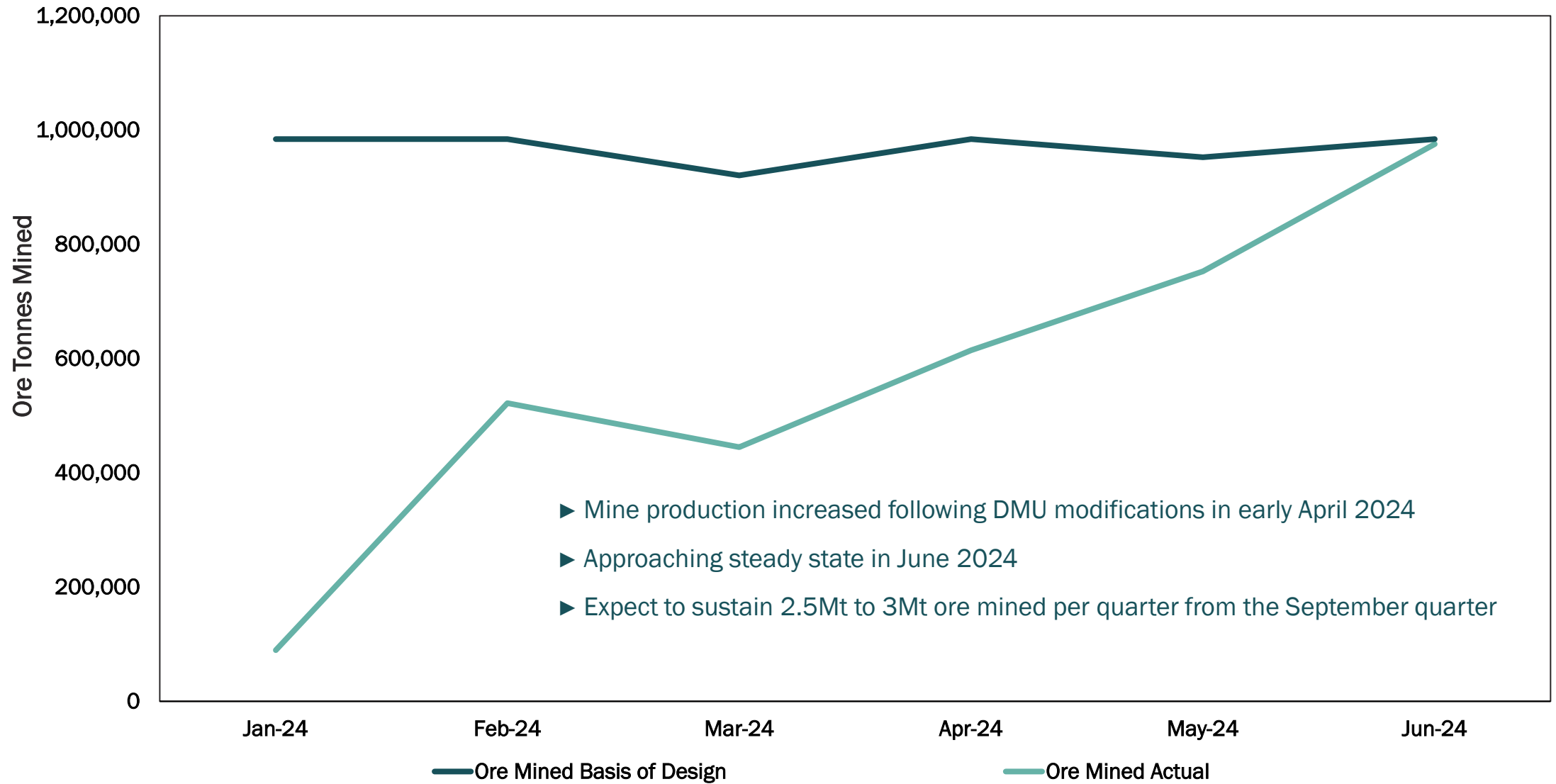


Reference:  
 1. ASX Announcement: "Thunderbird BFS Results, Financing And Project Update" dated 24 March 2022

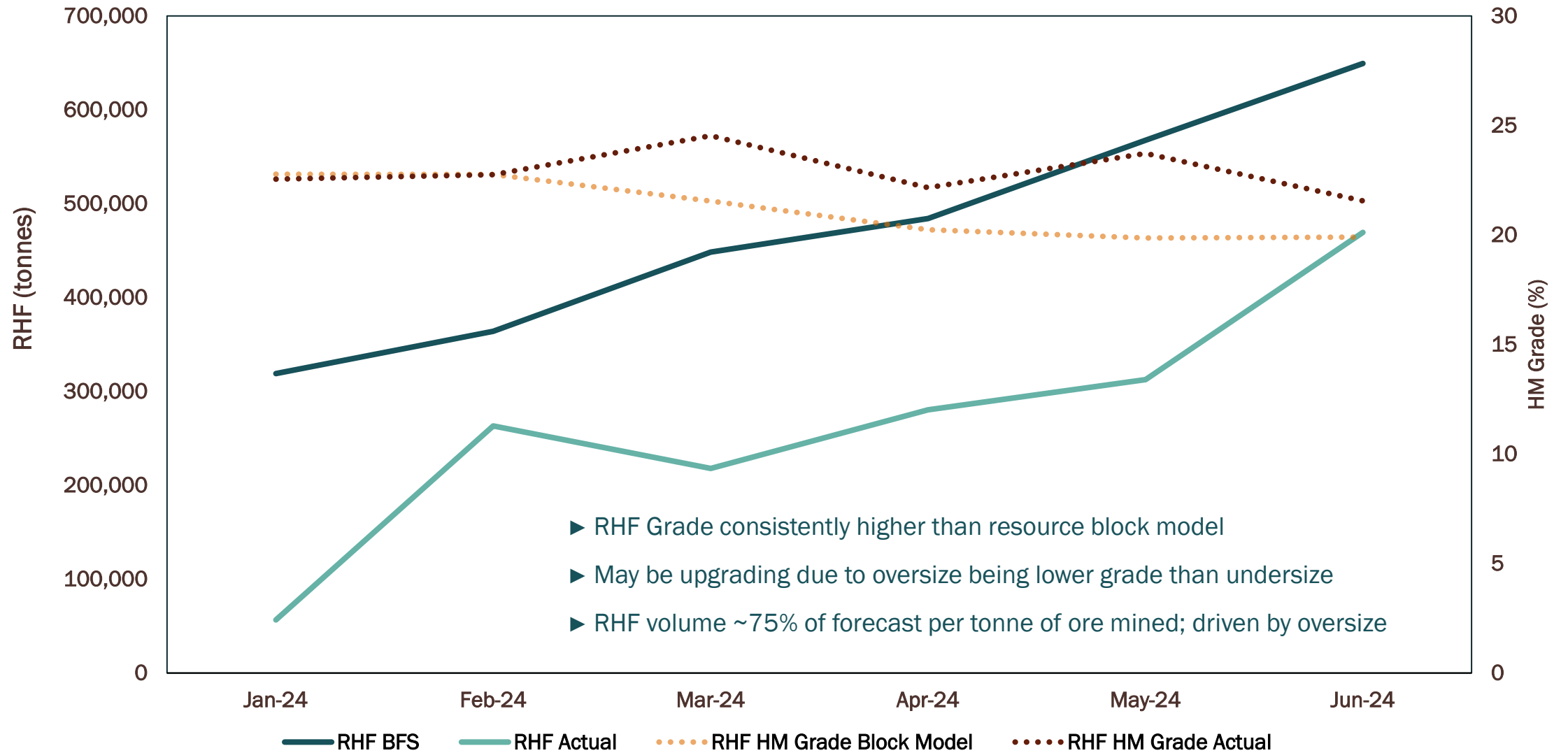
# CUMULATIVE PRODUCT VOLUME: ACTUAL vs 2022 BFS ASSUMPTIONS



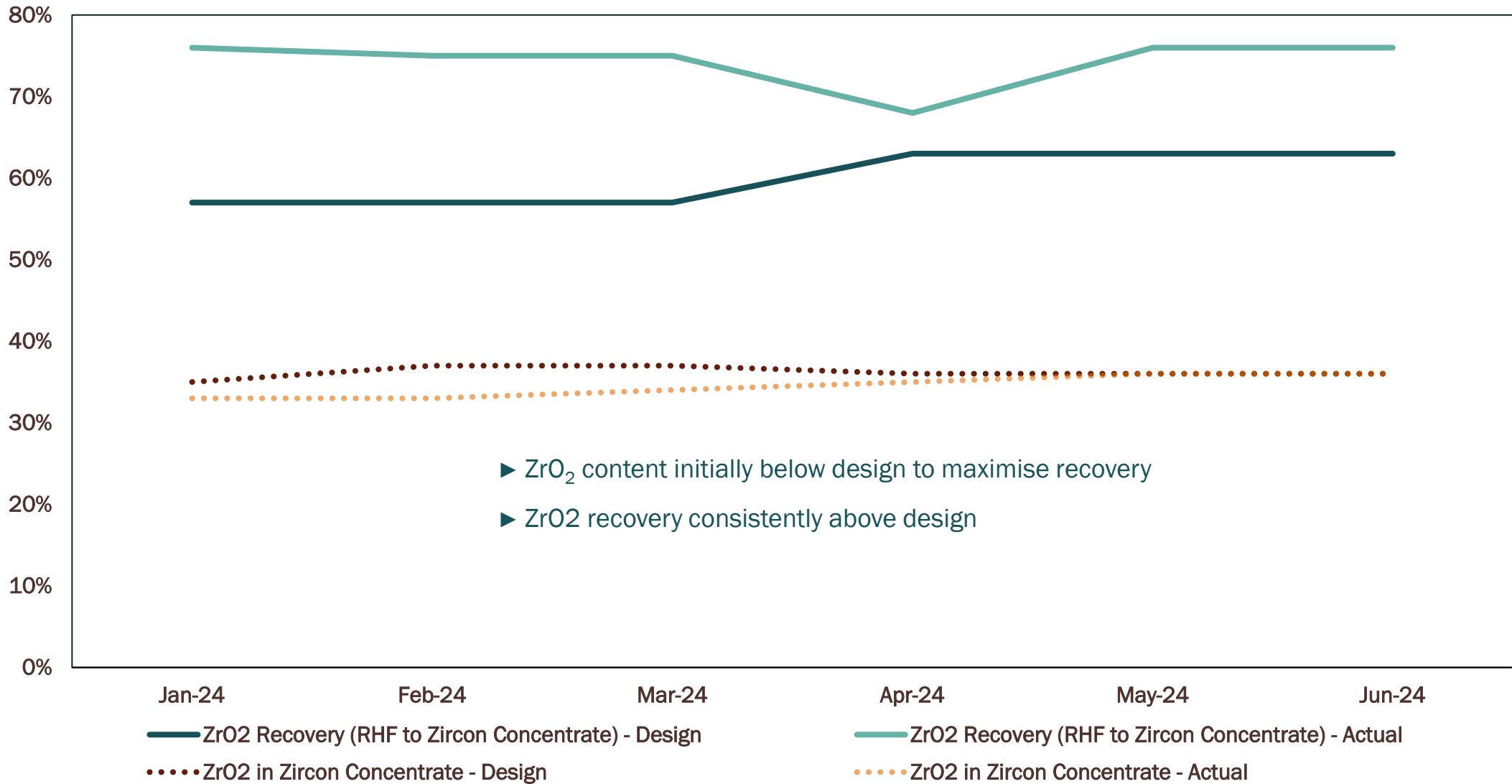
# MINE THROUGHPUT



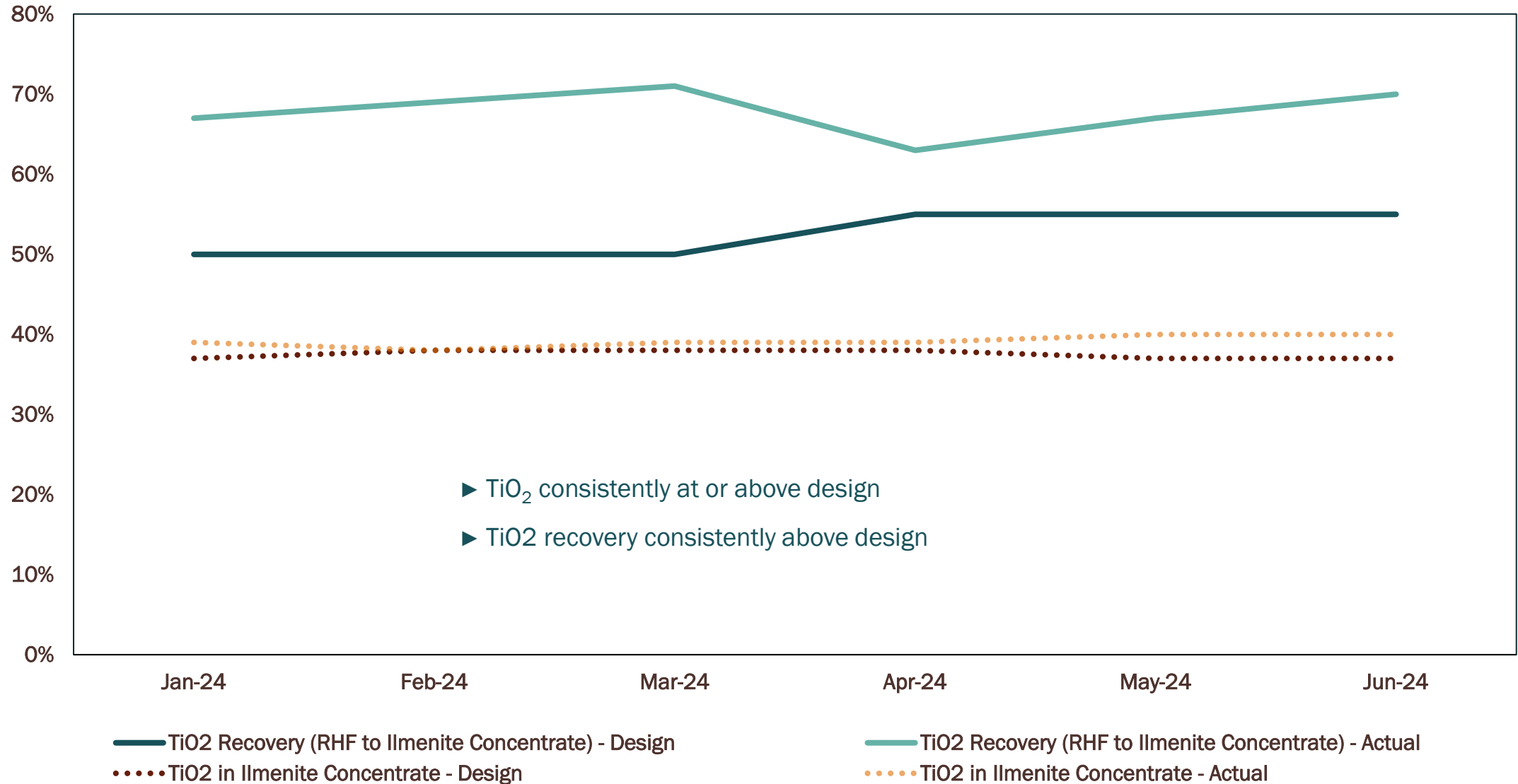
# WCP (ROUGHER HEAD FEED) THROUGHPUT AND GRADE



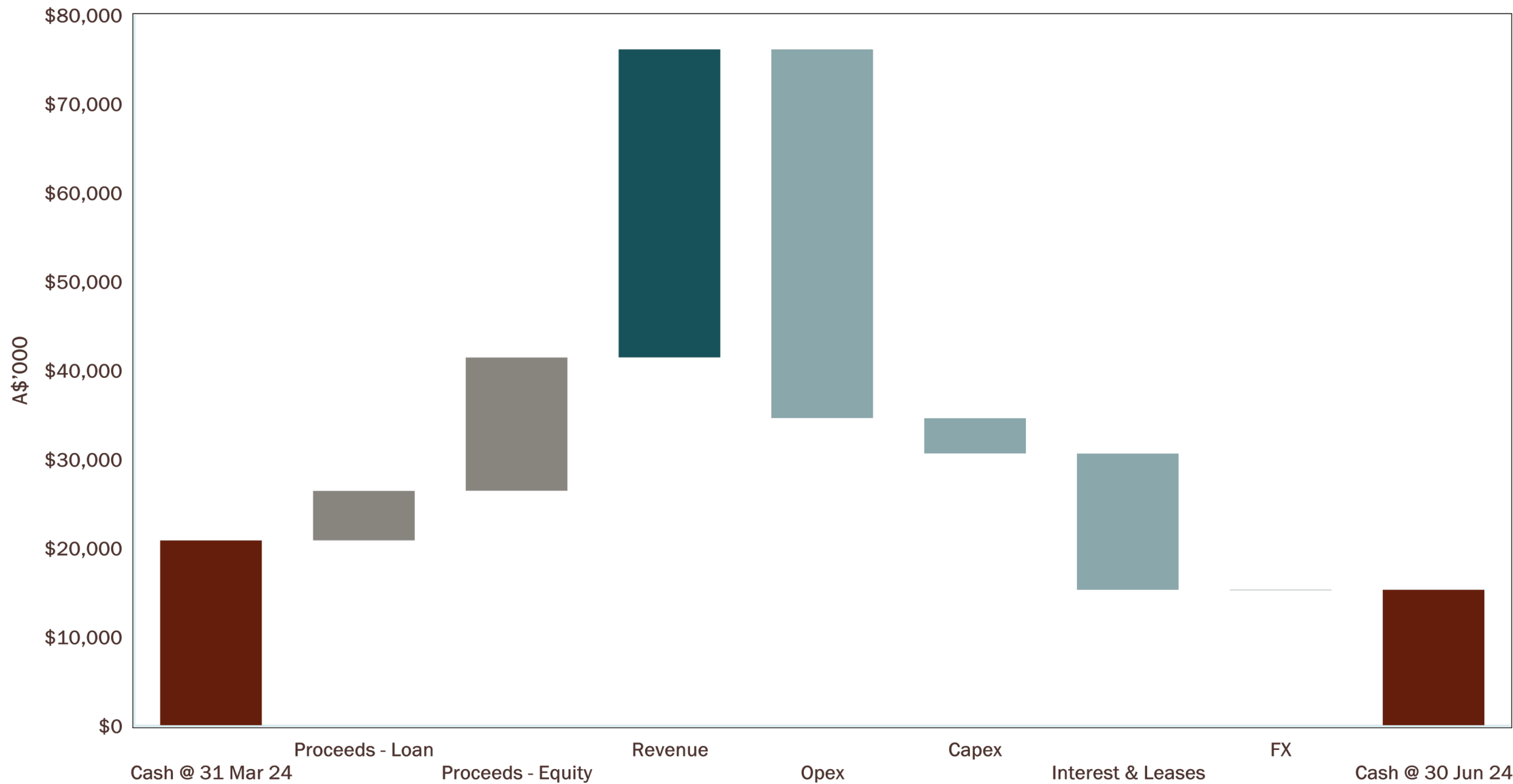
# PROCESS PLANT RECOVERY AND GRADE - ZIRCON



# PROCESS PLANT RECOVERY AND GRADE - ILMENITE



# THUNDERBIRD Q4 2024 CASHFLOW (100% BASIS)



## STAGE 2 ADDS SIGNIFICANT VALUE

- Double mining capacity
- 50% increase in final products
- Mine life increased from 33 to 36 years – all from existing reserves
- Capex \$258m (2022 real)
- Post Tax NPV<sub>g</sub> A\$548m (\$274m SFX 50% share)<sup>1</sup>
- Post Tax IRR 27%<sup>1</sup>
- March 2022 BFS assumed execution in 2026/27 with production in 2028
- Scope and timing to be optimized post Stage 1 start up



Reference:

1. ASX Announcement: "Thunderbird Final Investment Decision" 7 October 2022 and "Thunderbird BFS Results, Financing And Project Update" dated 24 March 2022

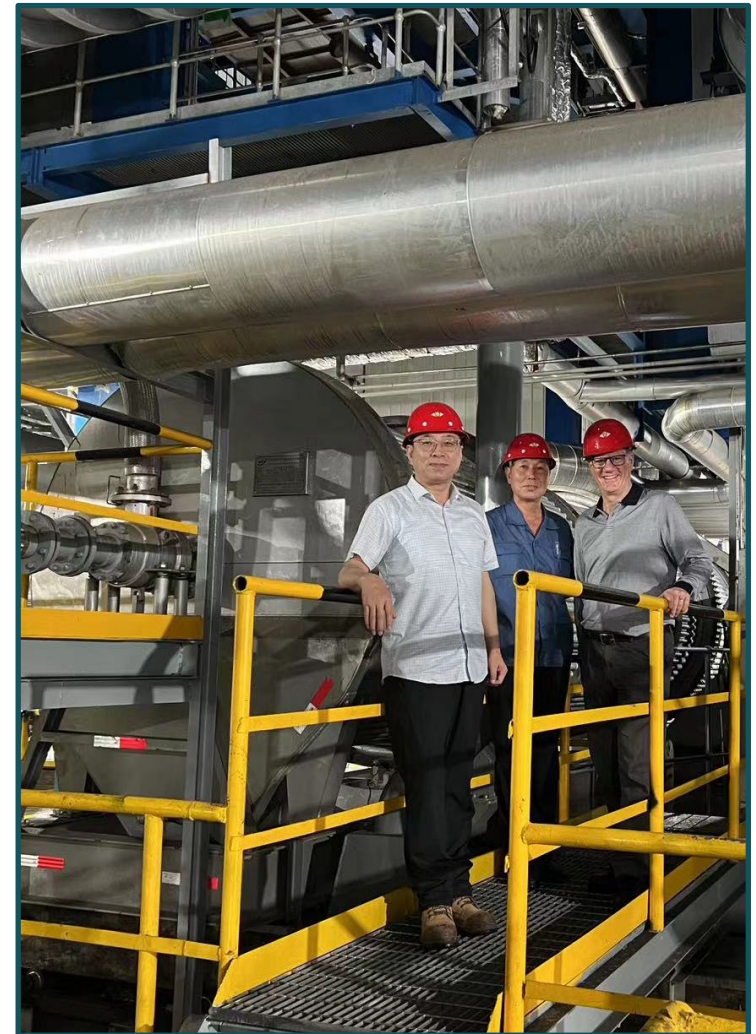


# LEVERAGING YANSTEEL DOWNSTREAM CAPABILITY

- Thunderbird is a 50/50 JV with Yansteel, part of Tangshan Yanshan Iron & Steel, a privately owned Chinese steel manufacturer
- Yansteel's integrated smelter complex in China operational
- Yansteel designed the plant to process ilmenite feedstock from various global sources including Australia (Thunderbird)
- Feed preparation plant (FPP) includes fluidised bed roasters and magnetic separation



Yansteel Director Mr Cui (right) & Mr Griffin (July 2023 Yansteel site visit)  
Source: Yansteel



KMS Directors Mr Mo (far left) and Mr Griffin (far right)  
visiting Yansteel operations

Source: Yansteel

# OUR ESG APPROACH



## ENVIRONMENTAL

- ▶ Full State and Federal environmental approvals
- ▶ Progressive mine rehabilitation throughout mine life
- ▶ Practices aligned with Equator Principles - Addressing the Climate Change challenge



## SOCIAL

- ▶ Native Title Agreement with Traditional Owners in place
- ▶ 27% Aboriginal employee base as of December 2023
- ▶ Focus on Kimberley residential employment – 85% locally employed
- ▶ Over \$70m in local expenditure to date with >A\$750m across mine life
- ▶ Tax contributions totalling >A\$1B over mine life



## GOVERNANCE

- ▶ Growing Kimberley workforce >25% female
- ▶ Committed to Board and management diversity
- ▶ Strong safety culture >1 million hours worked LTI free
- ▶ Compliance with ASX Corporate Governance Principles and Recommendations



# THUNDERBIRD MINERAL SANDS MINE

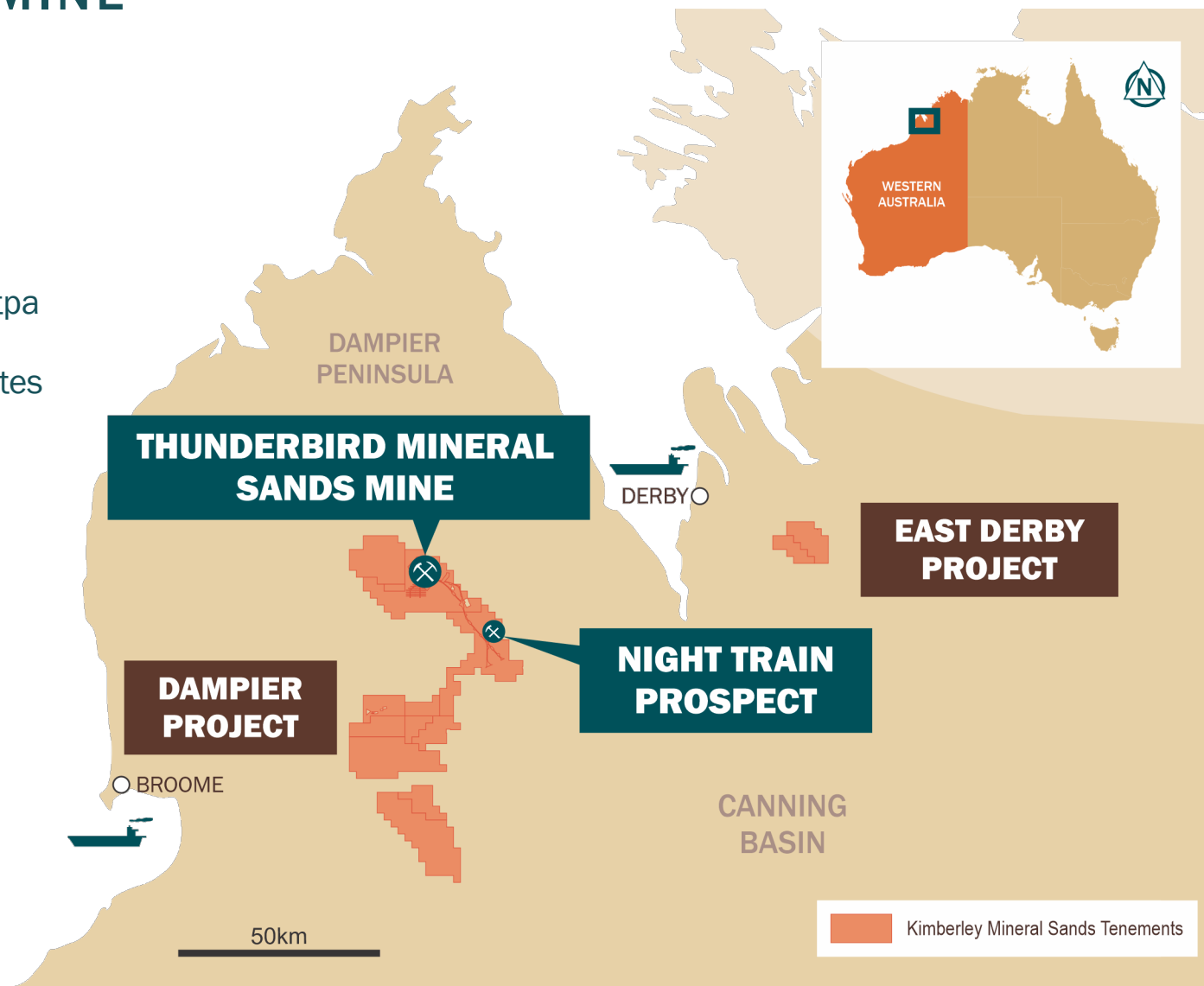
- World's largest high grade zircon reserve, in a low-risk jurisdiction
- 50/50 JV with Yansteel
- Stage 1 nearing nameplate mining capacity of 10 to 12 mtpa
- Ramping up to 1.1mt of zircon and ilmenite rich concentrates
- Operating cashflow positive from September 2024 quarter
- JV Project Finance of ~A\$325m

## Orion US\$110m

- First scheduled repayment June 2025
- Half yearly repayment profile
- Loan tenor through to Dec 2028

## NAIF A\$160m

- First scheduled repayment Dec 2027
- Half yearly repayment profile
- Loan tenor through to Dec 2033



# SOUTH ATLANTIC PROJECT



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# SOUTH ATLANTIC PROJECT OVERVIEW

- Invested US\$2.5 million to earn an **option to acquire a 20% interest** by paying a further US\$12.5 million
- Located **Southeast Brazil** (Rio Grande do Sul)
- Continuous sequence of dunes and beach sands extending for 80km split into deposits
- **Exploration target** for Retiro and Bujuru of 500 to 720Mt @ 3.2 to 4.0% HM<sup>1</sup>
- Heavy mineral grades of 3 - 10%, low slimes (<5%) and 2 - 10m thick
- **10,000m drilling campaign** commenced Q1 2024
- PFS commenced in Q4 2023 – delivery Q3-2024
- Excellent existing infrastructure; ports, roads, power
- Established industrial area – high quality workforce
- High quality local partner



**PANNED HEAVY MINERAL  
FEBRUARY 2024**



**DRILLING ACTIVITIES  
FEBRUARY 2024**

Reference:

1. See ASX Announcement: "\$30m Share Placement and Entitlement Issue To Advance Sheffield Growth Strategy" of 28 February 2023.

# SUMMARY



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# SHEFFIELD RESOURCES

Assembling a portfolio of global mineral sands development and production assets to generate cash returns and growth

CORE ASSET	THUNDERBIRD GROWTH	SOUTH ATLANTIC	FUTURE GROWTH
<p><b>Thunderbird Mineral Sands Mine (50% interest)</b></p> <ul style="list-style-type: none"> <li>▶ <b>Stage 1 in production; ramp up underway</b></li> <li>▶ <b>Positive Operating Cash Flow expected in September 2024 Quarter</b></li> </ul>	<p><b>Enhance Thunderbird through</b></p> <ul style="list-style-type: none"> <li>▶ Thunderbird Stage 2, incremental NPV<sub>g</sub> of \$548m<sup>1</sup></li> <li>▶ Additional zones of mineralisation along a 120 km trend</li> </ul>	<p><b>South Atlantic Option</b></p> <ul style="list-style-type: none"> <li>▶ Exploration Target ranging between 500 to 720Mt at 3.2 to 4.0% HM<sup>2</sup></li> <li>▶ Exploration Targets comprising sulfate ilmenite and zircon</li> <li>▶ Option Agreement executed with US\$2.5m contributed to fund de-risking activities</li> </ul>	<p><b>Review of other quality mineral sands opportunities</b></p> <ul style="list-style-type: none"> <li>▶ Targeting advanced projects with potential to unlock value by applying Sheffield's mineral sands and funding experience</li> <li>▶ 10% interest in Capital Metals (AIM:CMET) the owner of the Eastern Mineral Sands Project in Sri Lanka</li> </ul>

Reference:

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# APPENDIX: ADDITIONAL PEER INFORMATION

Company	Exchange Ticker & Company Material Reference	Date	Mine/Project	Reserves					
				Proved		Probable		Total	
				Mt	% THM	Mt	% THM	Mt	% THM
Kenmare Resources Plc	(LSE: KMR) 2022 Annual Report	4 April 2024	Moma	80	3.5%	1,349	3.1%	1,429	3.2%
Strandline Resources Ltd	(ASX: STA) 2019 Reserve Statement	16 April 2019	Coburn	106	1.10%	417	1.12%	523	1.11%
Eramet SA	(EPA: ERA) 2023 Universal Filing	17 April 2024	Grande Cote	1,155	1.43%	72	1.43%	1,227	1.43%
Tronox Inc.	(NYSE: TROX) 2023 Annual Report	21 February 2024	Namakwa	121	7.2%	545	5.7%	666	5.9%
			Fairbreeze	187	5.6%	15	3.9%	202	5.5%
			Cooljarloo	177	1.7%	130	2.0%	307	1.8%
			Atlas-Campaspe	107	6.0%	-	-	107	6.0%
Rio Tinto Ltd	(ASX: RIO) 2023 Annual Report	21 February 2024	RBM	485	1.5% <sup>1</sup>	702	3.1% <sup>1</sup>	1,187	2.5% <sup>1</sup>
			QMM	212	3.4% <sup>1</sup>	87	3.0% <sup>1</sup>	299	3.3% <sup>1</sup>
Base Resources Ltd	(ASX: BSE) 2023 Reserve Statement	11 August 2023	Toliara	433	6.9%	474	5.3%	904	6.1%
Iluka Resources Ltd	(ASX: ILU) 2023 Reserve Statement	21 February 2024	Jacinth Ambrosia	42	2.6%	2	2.3%	44	2.6%
			Cataby	64	6.8%	43	7.2%	106	7.0%
Image Resources NL	(ASX: IMA) December 2022 Atlas Ore Reserve Update	21 December 2022	Atlas	4.5	10.6%	0.9	2.1%	5.4	9.2%
	(ASX: IMA) Pre-Feasibility Study Results – Bidamina Mineral Sands Project	27 June 2023	Bidamina			123	1.8%	123	1.8%
Sierra Rutile Ltd	(ASX: SRX) 2023 Annual Report	28 March 2024	Sierra Rutile	116	2.4%	88	2.4%	204	2.4%