



SheffieldResources
LIMITED

Welcome 2020 Annual General Meeting



15 December 2020

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LIMITED

Thunderbird – From JV to FID

Shareholder Presentation



15 December 2020

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Notice and Disclaimer

IMPORTANT: You must read the following in conjunction with this document.

Summary information in relation to Sheffield

This document contains summary information about Sheffield Resources Limited (ACN 125 811 083) (Company or Sheffield), its subsidiaries and their activities which is current as at the date of this document, unless otherwise indicated. The information in this document remains subject to change without notice, and Sheffield is not responsible for updating, nor does it undertake to update, it. This document should be read in conjunction with Sheffield's periodic and continuous disclosure announcements lodged with the Australian Securities Exchange (ASX), which are available at <http://www.sheffieldresources.com.au/irm/content/asx-announcements1.aspx?RID=398> or www.asx.com.au.

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

Information and documentation which forms the basis of the Thunderbird Bankable Feasibility Study (BFS) and Bankable Feasibility Study Update (BFSU) in relation to Mineral Resources, Ore Reserves and metallurgy and process design has previously been reported as detailed below. 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 July 2016 Thunderbird Mineral Resources and the July 2019 Thunderbird Ore Reserve, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. In the case of the announcement entitled "BFS Update Materially Improves Project Economics" dated 31 July 2019, 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 contains estimates of Sheffield's Ore Reserve and Mineral Resources and information that relates to exploration results.

The Mineral Resources and Ore Reserves of Sheffield have been extracted from Sheffield's ASX releases:

"BFS UPDATE MATERIALLY IMPROVES PROJECT ECONOMICS" 31 July 2019

"THUNDERBIRD ORE RESERVE UPDATE" 31 July 2019

"HIGH GRADE MAIDEN MINERAL RESOURCE AT NIGHT TRAIN" 31 January 2019

"MINERAL RESOURCE AND ORE RESERVE STATEMENT" 3 October 2018

"THUNDERBIRD ORE RESERVE UPDATE" 16 March 2017

"SHEFFIELD DOUBLES MEASURED MINERAL RESOURCE AT THUNDERBIRD" 5 July 2016

The exploration results have been extracted from Sheffield's ASX releases:

"NEW LARGE HIGH GRADE DISCOVERY SOUTH OF THUNDERBIRD" 13 November 2018

"EXCEPTIONAL RESULTS CONFIRM MAJOR DISCOVERY AT NIGHT TRAIN" 9 October 2018

A copy of these announcements is available at <http://www.sheffieldresources.com.au/irm/content/asx-announcements1.aspx?RID=398> or www.asx.com.au.

Bankable Feasibility Study ("BFS")

This document contains information that relates to a Bankable Feasibility Study. This information was extracted from the following ASX releases by Sheffield:

"THUNDERBIRD BFS DELIVERS OUTSTANDING RESULTS" 24 March, 2017

Other Extracted Information

In addition to those ASX releases referred to above, this document contains information extracted from the following ASX releases:

"TRANSFORMATIONAL THUNDERBIRD JOINT VENTURE" 11 August 2020

"QUARTERLY ACTIVITIES REPORT" and "QUARTERLY CASHFLOW REPORT" 13 October 2020

"NATIVE TITLE AGREEMENT SIGNED BY TRADITIONAL OWNERS" 1 November 2018

"MINING LEASE GRANTED OVER THUNDERBIRD MINERAL SANDS PROJECT" 26 September 2018

"FEDERAL ENVIRONMENTAL APPROVAL GRANTED FOR THUNDERBIRD" 28 September 2018

"STATE MINISTER FOR ENVIRONMENT APPROVES THUNDERBIRD MINERAL SANDS PROJECT" 13 August 2018

"GRANT OF MISCELLANEOUS LICENCES" 27 June 2018

"EPA COMMENDS APPROVAL OF THUNDERBIRD" 9 October 2017

"THUNDERBIRD PROJECT AND JOINT VENTURE UPDATE" 16 September 2020

"ADDITIONAL BINDING ZIRCON CONCENTRATE OFFTAKE AGREEMENT SIGNED" 22 July 2019

"SHEFFIELD SIGNS TAURUS DEBT FACILITY AND EPC CONTRACT" 12 November 2018

"NAIF APPROVES LOAN FACILITIES TOTALLING A\$95M" 19 September 2018

"NATIVE TITLE UPDATE: SHEFFIELD SIGNS CO-EXISTENCE AGREEMENT" 10 September 2018

"MAIDEN BINDING ILMENITE OFFTAKE AGREEMENT" 21 June 2018

"SHEFFIELD ANNOUNCES EPC PREFERRED CONTRACTOR" 19 October 2017

"SHEFFIELD SIGNS MAIDEN BINDING OFFTAKE AGREEMENT" 12 September 2017

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 estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Notice and Disclaimer



Not financial product advice

This document does not constitute, and is not intended to constitute, investment or financial product advice (nor tax, accounting or legal advice). This document should not be relied upon as advice to investors or potential investors and has been prepared without taking account of any person's individual investment objectives, financial situation or particular needs. Any investment decision should be made based solely upon appropriate due diligence. Before making an investment decision, prospective investors should consider the appropriateness of the information having regard to their own investment objectives, financial situation and needs and seek legal, accounting and taxation advice appropriate to their jurisdiction. Recipients of this document are advised to consult their own professional advisers. An investment in any listed company, including Sheffield, is subject to significant risks, both known and unknown and including (without limitation) risks of loss of income and capital. A number of risks are beyond the control of Sheffield.

Effect of rounding

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.

Financial data

All currency amounts are in Australian Dollars (\$ or A\$) unless otherwise stated.

Future performance, forward-looking statements and key risks

This document is to be read in conjunction with the information contained in Appendices and the ASX:SFX announcements on BFS Update and the Ore Reserve Update of 31 July 2019.

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 Project 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.

Any forward-looking statements are also based on assumptions and contingencies which are subject to change without notice and which may ultimately prove to be materially incorrect, as are statements about market and industry trends, which are based on interpretations of current market conditions. Investors should consider the forward-looking statements contained in this document in light of those disclosures and not place reliance on such statements. The forward-looking statements in this document are not guarantees or predictions of future performance and may involve significant elements of subjective judgment, assumptions as to future events that may not be correct, known and unknown risks, uncertainties and other factors, many of which are outside the control of Sheffield. As a result, there can be no assurance that actual outcomes will not materially differ from these forward-looking statements. The forward-looking statements are based on information available to Sheffield as at the date of this document. Except as required by law or regulation, Sheffield undertakes no obligation to provide any additional or updated information or update any forward-looking statements, whether as a result of new information, future events or results or otherwise.

Indications of, and guidance on, future performance are also forward-looking statements, and include statements in this document regarding anticipated mine life, expected or indicative costs, indicative revenues, indicative production outputs and anticipated production dates. To the maximum extent permitted by law, Sheffield, and its respective directors, officers, employees, advisers, agents and intermediaries (together, "Relevant Parties") disclaim any obligation or undertaking to release any updates or revisions to the information to reflect any change in expectations or assumptions, or any change in events, conditions or circumstances on which any such information or statement is based. Nothing in this document will, under any circumstances (including by reason of this document remaining available and not being superseded or replaced by any other document or publication with respect to Sheffield or the subject matter of this document), create an implication that there has been no change in the affairs of Sheffield since the date of this document.

To the maximum extent permitted by law, the Relevant Parties make no representation or warranty (express or implied) as to the fairness, accuracy, reliability, currency, reasonableness or completeness of the contents of this document or any other information (whether written or verbal) that the Relevant Parties otherwise provide to the recipient. The recipient may not rely on the contents of the document or any information in it in making any decision to invest or acquire an interest in the Thunderbird Project. To the maximum extent permitted by law, the Relevant Parties are not liable for any direct, indirect or consequential loss or damage suffered (whether foreseeable or not) by any person (whether arising from negligence or otherwise) as a result of relying on this document or the information in it, any errors therein or omissions therefrom, or any other written or oral communications transmitted to the recipient in the course of its evaluation of the Thunderbird Project, or otherwise in connection with this document or the information in it.

Investment risk

As noted above, an investment in Sheffield securities is subject to investment and other known and unknown risks, a number of which are beyond the control of Sheffield. Sheffield (nor its related bodies corporate) does not guarantee any particular rate of return or the performance of the Company or the Thunderbird Project, nor does it guarantee the repayment of capital from Sheffield or any particular tax treatment. Prospective investors should make their own enquiries and investigations regarding all information in this document, including but not limited to the assumptions, uncertainties and contingencies which may affect future operations of Sheffield and the Thunderbird Project and the impact that different future outcomes may have on Sheffield and the Thunderbird Project.

Not an Offer

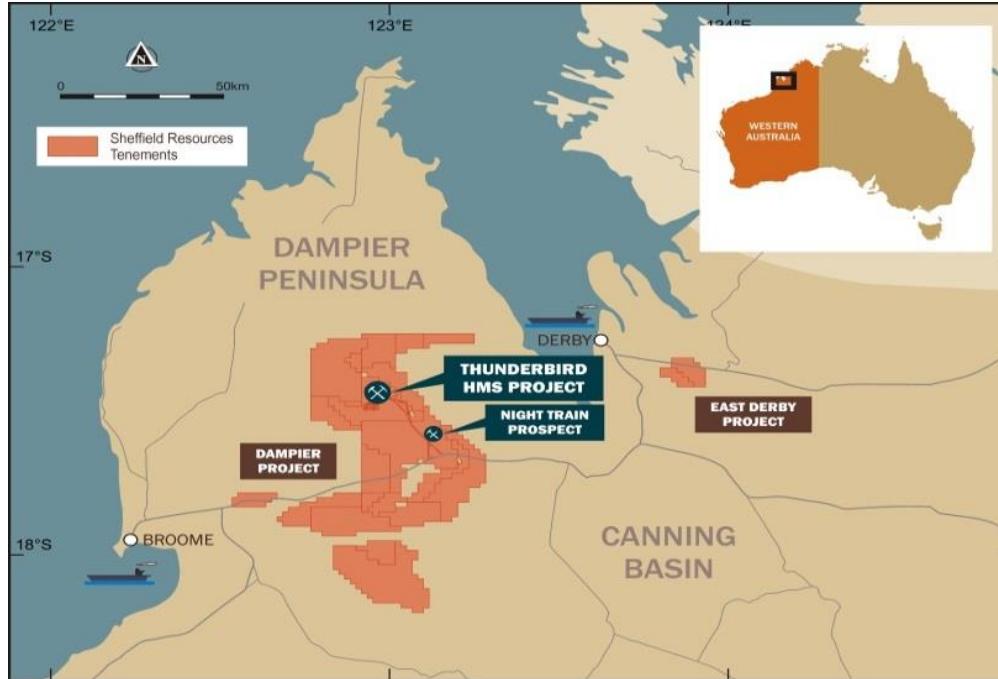
This document is for information purposes only and does not constitute or form any part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for, any securities in the Company in any jurisdiction. This document and its contents must not be distributed, transmitted or viewed by any person in any jurisdiction where the distribution, transmission or viewing of this document would be unlawful under the securities or other laws of that or any other jurisdiction.

Yansteel Joint Venture

Project Update

Market Opportunity

Pathway to FID



Thunderbird Joint Venture

- Non-binding term sheet signed in August 2020¹
- 50/50 joint venture with Yansteel for the Thunderbird Project
- Yansteel to contribute A\$130.1m in equity to acquire its 50% interest
- Formal Joint Venture Agreements on track for execution in Q4 2020
- FIRB application submitted in August

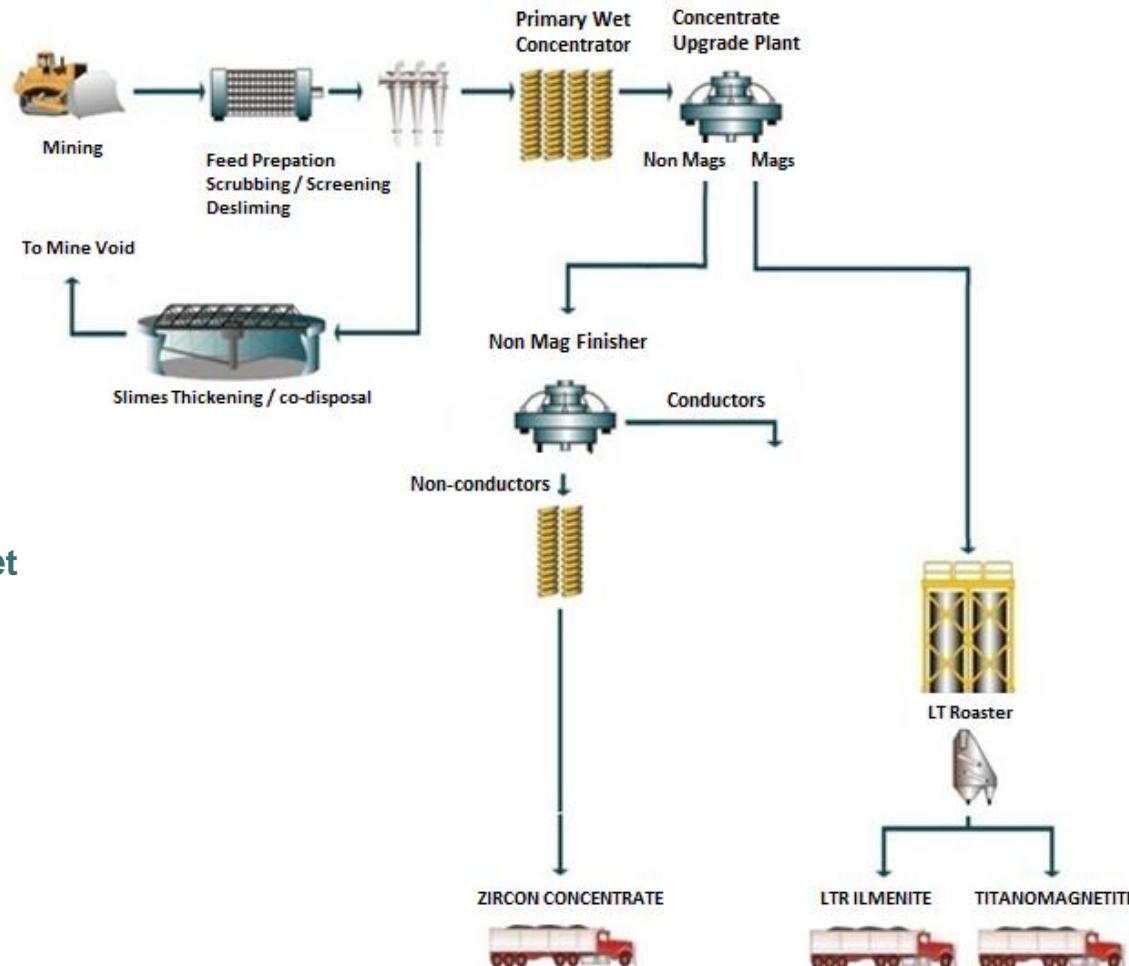
Placement¹

- Yansteel paid A\$12.9m for 9.9% of Sheffield in a placement completed on 12 August 2020
- The shares were issued at a 131% premium

Offtake¹

- Market price, life of mine, take or pay, for 100% of the Stage 1 LTR Ilmenite
- First right of refusal at market price for 100% of ilmenite from subsequent expansions

Thunderbird – Simplified flowsheet¹



Flow sheet agreed within Joint Venture Term Sheet

Non-mag concentrate

- Removes zircon MSP from BFS and BFSU

LTR Ilmenite

- Ilmenite circuit from BFS flowsheet (excluding IDP)

Thunderbird – Yansteel equity to fill funding gap

Process capital expected to be lower with simplified flowsheet

- + Cost of reintroduction of LTR off set by
- Simplified ilmenite circuit
- Removal of zircon MSP

JV BFS will update project capital and operating costs (including non process elements)

Overall project capital is expected to be similar to the BFSU

Yansteel equity expected to be sufficient for Phase 1

- A\$130m of JV equity from Yansteel + A\$13m from placement = A\$143m
- Debt funding previously secured through the Taurus and NAIF facilities to be reconfirmed¹

Option	Project Capital A\$m	Total Funding A\$m	Ungearied	
			NPV ₈ Post Tax A\$m	IRR Post Tax
BFS	463 ²	579 ²	620 ²	21%
BFSU	392 ³	478 ³	980 ³	30%
JV BFS	LTR Ilmenite + Non-Mag Concentrate	TBC	TBC	TBC

Reference:

1. ASX Announcement "Sheffield Signs Taurus Debt Facility and EPC Contract" 12 November 2018
2. ASX Announcement "Thunderbird BFS Delivers Outstanding Results" 24 March 2017
3. ASX Announcement "BFS Update Materially Improves Project Economics" 31 July 2019

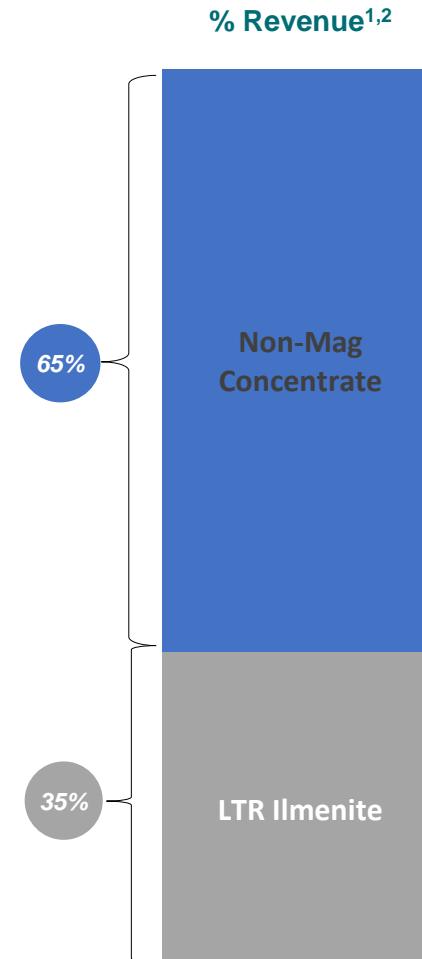
Thunderbird – Attractive product mix

- **LTR Ilmenite**

- 315,000 tonnes per annum in Phase 1
- Suitable for TiO₂ slag or sulphate pigment feedstock
- 53% TiO₂ and low in key contaminants
- 100% binding offtake with Yansteel

- **Non-Magnetic Concentrate**

- 200,000 tonnes per annum in Phase 1
- 38% ZrO₂, 12% TiO₂
- ~40% of zircon recoverable as premium with standard processing
- Offtake discussions underway with processors

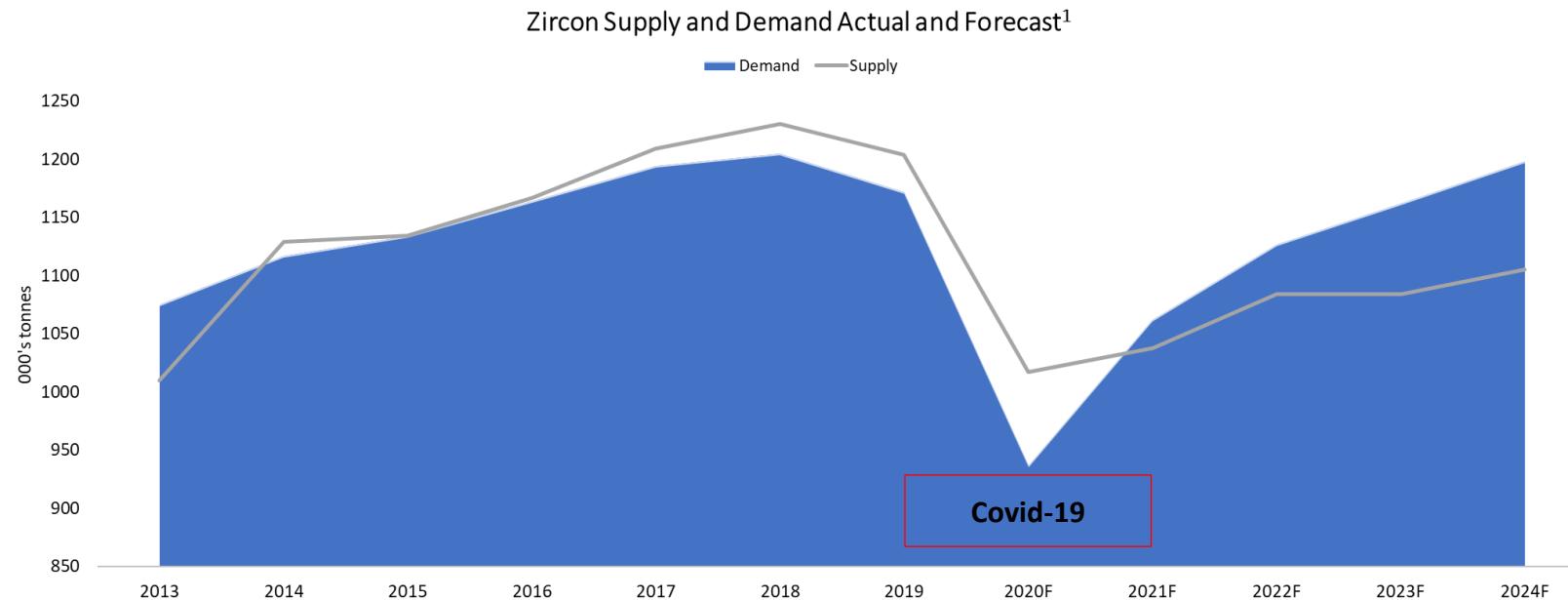


Note:

1. Based on the Thunderbird Financial Model
2. Excludes revenue from titanomagnetite sales

Thunderbird – Aligned with emerging zircon supply gap

Zircon supply gap forecast from 2021/22 onwards



Observations

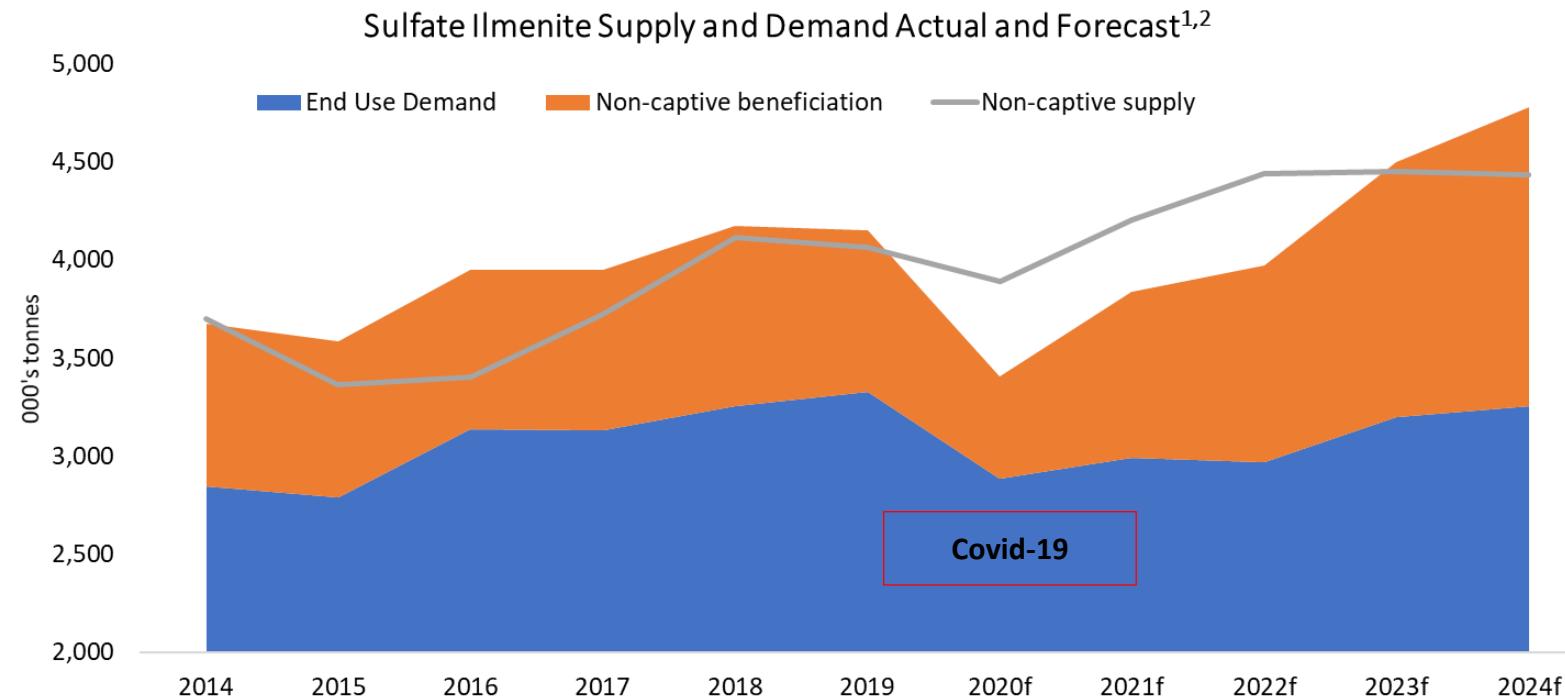
- Covid-19 impacted demand significantly during 2020
- Major suppliers have adjusted 2020 supply to match reduced demand
- This supply response eased the pressure on price
- Supply deficit forecast from late 2021 onwards
- Ore reserve depletion and jurisdictional risks
- Mid-term shortfall is supply not demand driven

Note:

1. Sourced from TZMI and Sheffield estimates

Thunderbird – New ilmenite supply is required

New non-captive projects need to meet non-captive demand



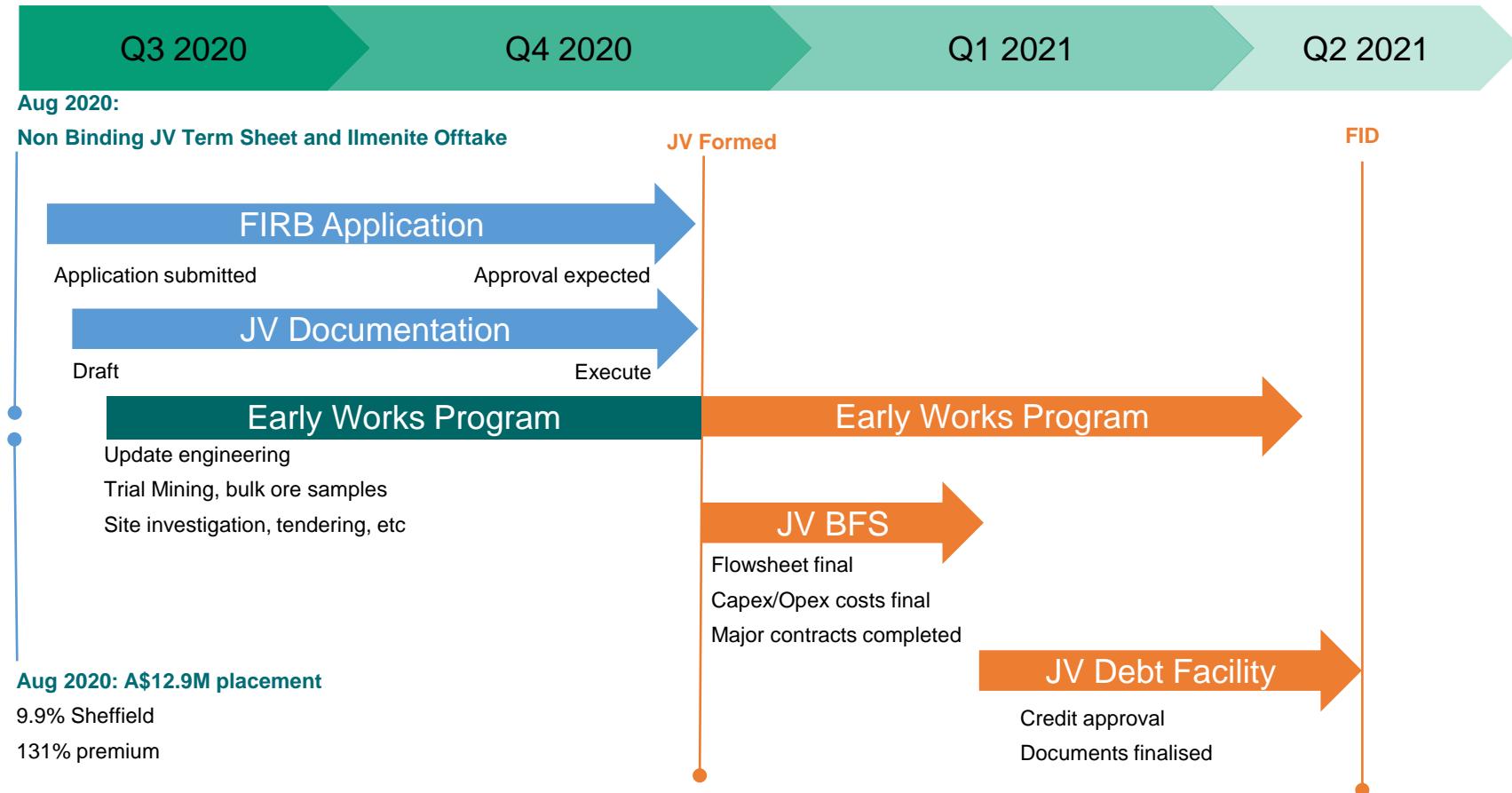
Observations

- Sulfate ilmenite demand remains strong – recent updates suggest stronger than forecast demand post COVID
- Sulfate pigment provides solid demand base
- Chloride slag demand forecast to grow strongly – new Chinese smelters to supply chloride pigment plants
- Non-captive supply deficit emerges from 2023 unless new projects are developed

Note:

1. End Use includes Sulfate Pigment and Other Sectors that consume sulfate ilmenite without upgrading to slag
2. Sourced from TZMI May 2020

Pathway from Joint Venture to FID



Note:

1. All timelines are estimated and subject to further study and confirmation

Summary

- Yansteel Joint Venture Agreements on track for execution in Q4
- FIRB application submitted in August
- Thunderbird targeted to be a large, long life zircon/ilmenite producer
- Overall project capital is expected to be similar to the BFSU
- Yansteel project equity + reconfirmed debt expected to fulfil funding required
- Australia is a very stable mining jurisdiction
- Thunderbird is fully permitted
- Global zircon supply gap from 2021/2022
- New ilmenite supply required to meet rising pigment and chloride slag demand
- Pathway to FID with target to commence construction during 2021 dry season

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