
PRODUCTION RAMP-UP AT THUNDERBIRD

Sheffield Resources Limited (“Sheffield” or “the Company”) (ASX: SFX) is pleased to advise that Kimberley Mineral Sands (KMS) continues to ramp up production and product shipments from its Thunderbird Mineral Sands Mine (Thunderbird) in Western Australia.

For the current quarter to date, Thunderbird has achieved mine production totalling approximately 1,350,000 tonnes, a significant step change from the previous quarter and monthly mine production of approximately 750,000 tonnes during May 2024, consistent with the ramp up schedule toward an annualised ore mining rate of 10 million tonnes per annum as contained within the 2022 Bankable Feasibility Study (“BFS”) (refer ASX Announcement dated 24 March 2022 “KMS Bankable Feasibility Study Presentation”). Modifications to the Dry Mining Unit, successfully undertaken early in the current quarter, have enabled sustained improved availability and production performance.

The increase in mine production has resulted in increased production of concentrates with approximately 65,000 tonnes of ilmenite produced in the quarter to date, and approximately 37,000 tonnes in the current month of May. Production of zircon concentrate totalled 20,000 tonnes for the quarter to date, with approximately 12,000 tonnes produced during the current month of May.

Observed oversize material continued to be higher than planned and consistent with the March quarter at approximately 30% of mined ore volume. As a result of the additional oversize, approximately 75% of the expected spiral feed is being delivered to the Wet Concentrator Plant (WCP). The WCP and Concentrate Upgrade Plant (CUP) continue to perform strongly, with higher than design recovery of ilmenite concentrate and zircon concentrate respectively from the ore fed to the WCP spirals, with the over recovery weighted towards ilmenite concentrate. An infill drilling program of the near term mine plan has commenced, with analysis of observed oversize streams and identification of remediation measures continuing.

As Thunderbird advances toward nameplate production capacity and consistent production, additional costs have been incurred, associated with inconsistent mining rates primarily due to observed oversize material. Coupled with this, scope changes to mining and logistics contracts, including wider inflationary cost pressures as observed throughout the mining sector within Western Australia, have resulted in cost increases relative to BFS assumptions. Consequently, KMS expects near term cash operating costs to range between \$55m – \$60m per quarter. During FY25, a range of targeted programs including the transition to in-pit tailings disposal are expected to deliver reductions in the Thunderbird cost structure.

Having recently fully drawn the available loan facilities from third party lenders, KMS is funded to sustain the ramp up at Thunderbird. Additionally, if required, Sheffield is capable of providing KMS with sufficient working capital alongside our 50/50 joint venture partner Yansteel.

Thunderbird product shipments for the June quarter to date have continued to grow, including approximately 55,000 tonnes of ilmenite concentrate dispatched to joint venture partner, Yansteel, with loading of approximately 30,000 tonnes of ilmenite concentrate currently underway. Regular bulk product shipments, via the Port of Broome, are expected throughout the remainder of the June quarter.

Observed zircon concentrate pricing achievement is trending at ~10% lower than the previous quarter, as offtake customers continue to refine their production processes to maximise recovery and quality of zircon, TiO₂ minerals as well as ongoing pressure on monazite prices. KMS expects such pricing to

continue throughput the current quarter, reflecting marginal discounting of a new product in the market. Ilmenite concentrate is sold under a five year fixed price contract arrangement to Yansteel.

Beyond Thunderbird, Sheffield continues to advance its activities within the mineral sands sector. The Rio Grande do Sul region in Brazil, where the Company maintains an option over the South Atlantic Project via its investment in Rio Grande Minerales (RGM), has recently been impacted by significant flooding and rain events. Exploration drilling activities have been impacted, as regional infrastructure, logistics routes and personnel management activities have been impeded by the flooding events. RGM personnel have been assisting the local communities with aid and assistance following these extreme weather events. During April, the scheduled site visit by representatives of IBAMA, the national environmental regulator, was successfully completed as RGM continues to advance the Retiro Installation Licence (LI) application.

A further update on the current RGM drilling program, engineering studies, and permitting activities, including any proposed program changes, will be provided within the June 2024 quarterly report.

Sheffield is also continuing to advance negotiations with Capital Metals Plc (AIM: CMET), the owner of the Eastern Minerals Project in Sri Lanka, regarding a potential acquisition by the Company of an interest in the Eastern Minerals Project. Whilst due diligence and associated activities are well advanced and continuing, there can be no guarantee that the Company will be able to conclude an agreement with CMET on terms acceptable to the Company.

Sheffield Resources Executive Chair, Mr Bruce Griffin said, *“The ramp up of activities at Thunderbird is progressing very well and the significant step change in production and shipment achievements during this quarter demonstrate that we are moving forward toward nameplate capacity in line with our original plans. Whilst we have observed cost pressure and near term pressure on realised zircon concentrate pricing, Thunderbird remains a world class mineral sands asset capable of solid production and cost performance across many decades to come”.*

This ASX announcement has been authorised for release by the Company’s Board of Directors.

ENDS

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ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited is focused on assembling a portfolio of global mineral sands development and production assets to generate cash returns and growth.

Our core asset is our 50% investment in Kimberley Mineral Sands Pty Ltd (KMS), the owner of the world class Thunderbird Mineral Sands Project under development in north-west Western Australia.

Additionally, Sheffield executed a binding agreement in February 2023, providing the Company with an option to acquire up to an initial 20% interest in the South Atlantic Mineral Sands Project in Brazil.

KIMBERLEY MINERAL SANDS

Kimberley Mineral Sands Pty Ltd, (KMS) is a 50:50 Joint Venture between Sheffield and Yansteel. The joint venture owns and is developing the Thunderbird Mineral Sands Project and adjacent tenements on the Dampier Peninsula.

KMS is governed by a four person Board of Directors with Sheffield and Yansteel each nominating two directors. Key Joint Venture decisions require unanimous approval of both shareholders. KMS operates as a standalone entity with its own management and employees.

THUNDERBIRD MINERAL SANDS

The Thunderbird Mineral Sands Project ("Thunderbird") is one of the largest and highest grade mineral sands discoveries in the last 30 years. The 2022 KMS Bankable Feasibility Study shows Thunderbird is a technically low risk Project, that generates strong cash margins from globally significant levels of production over a decades long mine-life.

With operations commencing October 2023, Thunderbird is expected to generate a high-quality suite of mineral sands concentrate products suited to market requirements. These products include a zircon concentrate and a magnetic concentrate that contains a high quality ilmenite suitable smelting into chloride slag or for manufacturing titanium dioxide pigment.

Thunderbird is located in one of the world's most attractive mining investment jurisdictions and is well placed to deliver long term, secure supply of high quality products to a range of potential customers.

ABOUT YANSTEEL

Yansteel is a wholly-owned subsidiary of Tangshan Yanshan Iron & Steel Co., Ltd, a privately owned steel manufacturer headquartered in Hebei, China producing approximately 10mt per annum of steel products and has annual revenues of ~A\$6bn.

Yansteel's 500ktpa integrated titanium dioxide processing facility, which includes a titanium slag smelter, will consume the magnetic concentrate from Stage 1 of the Thunderbird Mineral Sands Project under a take or pay offtake agreement.

SOUTH ATLANTIC PROJECT

The South Atlantic Project is located in south east Brazil. Four main deposits have been identified within the project area: Retiro, Estreito, Capao do Meio and Bujuru with Exploration Targets developed for the Retiro and Bujuru deposits. The combined Exploration Target for Retiro and Bujuru is estimated between 500 and 720 Mt of material at an average grade of 4.0% to 3.2% HM.

The tenements are held by RGM. Sheffield entered into an option agreement with RGM in February 2023 with Sheffield to provide US\$2.5m to fund project related activities over an 18 month period and earn an option to acquire up to 20% of RGM with the payment of a further US\$12.5m (US\$15.0m in total) to acquire a 20% interest. Should Sheffield elect to exercise the option, subject to various conditions being satisfied, including project financing being obtained and all funds required for project construction being secured, Sheffield may exercise a further options to increase its interest in RGM up to 80%.