
THUNDERBIRD PROCESS PLANT COMMISSIONING UNDERWAY

HIGHLIGHTS

- Process plant commissioning activities are underway, with forecast total project expenditure within the original \$484m FID budget
- Dry Mining Unit (DMU) mobilised to Thunderbird site ahead of planned installation
- LNG storage tanks commissioned with power station commissioning underway
- First ore production on track for Q4 2023
- First delivery of mineral sands products to customers remains on target for Q1 2024

Sheffield Resources Limited (“Sheffield” or “the Company”) (ASX: SFX) is pleased to announce that commissioning of its 50% owned Thunderbird Mineral Sands Project (**Thunderbird**) in northern Western Australia is well underway, with water and air services fully commissioned, mine stripping and process plant commissioning progressing to schedule.

The Dry Mining Unit (DMU), constructed by Piacentini & Son, was mobilised to site last week, and site assembly and installation is in progress. Waste mining activities continue to advance ahead of commencement of ore mining, with planned commissioning and start up of the DMU and concurrent introduction of ore into the process plant scheduled during the December quarter. First customer shipment remains on track for Q1 2024.

Commissioning of valves, instrumentation and electrical systems at the Wet Concentrate Plant and Concentrate Upgrade Plant is substantively complete. Water systems, including testing and discharge into the tailings storage facility are also complete. The thickener is fully commissioned as are flocculant systems, water service areas, storage tanks and ponds.

First fills of LNG storage tanks are now complete and LNG systems energised. The power generation system commissioning is now underway, with progressive testing and commissioning of the power generation units.

Sheffield Resources Executive Chair, Mr Bruce Griffin said, “*With commissioning activities well underway at Thunderbird, we are on track to deliver first ore production during the next quarter. Our expenditure forecast remains within our original FID budget of \$484m, which is an outstanding achievement and a credit to the Kimberley Mineral Sands team and contractors associated with the Thunderbird Project. We look forward to announcing first production in the forthcoming quarter and forecast first shipment of product in Q1 2024.*”

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

ENDS

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Image 1 & 2: Thunderbird Wet Concentrate Plant & Concentrate Upgrade Plant overview





Image 3 & 4: Overview of Power Station (above) & LNG Storage infrastructure (below)





Image 5 & 6: Dry Mining Unit arrival at Thunderbird ahead on installation





Image 7 & 8: Waste stripping in progress at Thunderbird



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 forecast to commence in late 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.

Construction of a 500ktpa integrated titanium dioxide processing facility including a titanium slag smelter has commenced by the company. This complex 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 Bojuru 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%.