



Shifting sands

BY ANTHONY FENSOM

Australia's mineral sands miners are on the march, with new stock market listings and production spurring growth. For an industry often overlooked by analysts and investors, the increased activity reflects a positive long-term outlook amid the need for new supply.

'MINERAL SANDS, SUCH as zircon, are a key critical mineral for the 21st century, with abundant opportunities for new projects and discoveries in Australia,' says Neil McIntyre, CEO of mineral and silica sands miner Diatreme Resources.

Australia is currently ranked as the world's largest producer of rutile and the second-largest producer of zircon, also boasting the largest recoverable resources of rutile and zircon, according to Geoscience Australia.

STOCK MARKET LISTINGS

On the stock market, Victorian heavy mineral sands (HMS) and rare earths company ACDC Metals went public on 17 January in an \$8-million initial public offering (IPO).

Funds from the IPO will be used to acquire interests in the Goschen Central project, the Douglas project and the Watchem project, located on the eastern edge of Victoria's Murray Basin, and considered prospective for HMS and rare earth elements.

ACDC's listing followed the 9 January float of Chris Ellison-backed VHM Limited, which raised \$30 million in its IPO. The company's flagship Goschen project in north-western Victoria boasts both a 'substantial' rare earth deposit and an accompanying mineral sands resource. It aims to produce critical minerals, including rare earths, zircon and titanium.

VHM Managing Director Graham Howard says the company was 'already at an advanced stage of development', with a 'clear pathway mapped to producer status, with the team currently developing detailed engineering designs prior to construction of the Goschen project mine'.

The new listings may encourage other prospective mineral sands miners to also brave the bourse, with

the Australian stock exchange following the US market higher in early 2023 after a rocky 2022.

NEW PRODUCTION

Christmas came early for Perth-based Strandline Resources, which announced on 20 December its first shipment of heavy mineral concentrate (HMC) from its Coburn mineral sands project in Western Australia.

Comprising around 6500 tonnes of HMC, Strandline's first shipment formed part of the ore commissioning and ramp up of Coburn's wet concentration plant, with a second shipment targeted for January 2023.

'Achieving production and cash flow is a major milestone for Strandline and sets us up for our next chapter of strong growth,' says Strandline Managing Director Luke Graham.

'We are now preparing for a second shipment while also completing construction and commissioning of the [Mineral Separation Plant], which will, in turn, drive further increases in cash flow.'

Also eyeing new production was Sheffield Resources, which announced in October 2022 a final investment decision to proceed with stage one of its Thunderbird mineral sands project in Western Australia.

A joint venture between Sheffield and China's Yansteel, the \$484-million Thunderbird project is described by the Perth-based miner as having the world's 'largest high-grade zircon reserve, in a low-risk jurisdiction'.

Thunderbird could produce around 3.5 per cent of global ilmenite supply and 6.5 per cent of global zircon supply, according to Sheffield.

Bruce Griffin, Sheffield's Chair, says first production is on track for the first quarter of 2024, adding that it is 'fully funded and set to deliver \$695 million in net present value' to Sheffield's shareholders over its 36-year life'.

In January 2023, the company announced that site construction at Thunderbird was 66 per cent complete, with major concrete and civil earthworks nearing completion, and regulatory approval granted for the use of both the Port of Broome and the Port of Derby.

Perth-based miner Image Resources reached the milestone of one million tonnes of HMC production at its Boonanarring project near Perth during the September quarter of 2022.

With the final HMC shipment from the mine expected in July or August 2023, Image Resources plans to relocate mining and processing to its nearby Atlas project, with production expected to commence from the fourth quarter of 2023.

A third project, Bidamina, is currently subject to a feasibility study, while the company has also acquired new heavy minerals tenements, Eneabba and the McCalls project, as part of its growth strategy.

Meanwhile, in November 2022, Astro Resources announced positive steps towards commercialising its Governor Broome mineral sands project in Western Australia after identifying high-value HMS assemblage for its Jack Track deposit.

In Western Australia's Eucla Basin, Diatreme Resources' 'shovel ready' Cyclone zircon project remains on track for development, with the company seeking a partner to advance Cyclone towards production.

'Cyclone is well positioned to benefit from the structural deficit in zircon supply,' Diatreme's McIntyre says.

'We're confident of finding a suitable development partner to take this project towards production, rewarding our shareholders and adding to Australia's supply of high-grade zircon.'

On the east coast, Astron Corporation updated in December the estimated mineral resource for its Donald project, located 300 kilometres west of Melbourne.

The project, described as 'an advanced, globally significant critical minerals project', has an estimated mineral resource of 525 million tonnes at four per cent heavy minerals, with first output projected for 2025.

PRICE RISES

Major producer Iluka Resources reported on 28 October 2022 a weighted average zircon price of US\$2038 per tonne in the third quarter 2022 for premium and standard sand, up 10 per cent compared to the first half of 2022.

Its fourth-quarter 2022 zircon sales volumes were fully contracted, with Iluka expected to maintain current prices for a further six months to provide stability to customers.

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'Zircon demand from Iluka customers continues to be strong, with sales constrained by production and logistics, despite softness in the Chinese ceramics market and high energy costs impacting tile production in Europe,' Iluka said in its September quarter review.

Iluka also reported a third-quarter 2022 rutile price of US\$1654 per tonne, up 12 per cent compared to the second quarter of 2022, with all its rutile and synthetic rutile sold out for the remainder of the year.

The price rises follow continued projections from market analysts of a growing structural supply deficit.

Market analysts TZMI have projected an increasing supply deficit for zircon through to 2035, with demand increasing by 2.5–3 per cent year-on-year, but production declining by an average of five per cent per annum.

Similarly, global supply for rutile remains tight, with demand exceeding supply and potential supply from likely new projects, according to TZMI.

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Similarly, the United States is the world's second-largest importer of titanium minerals for its defence, aerospace and other industries, with its GDP growth likely to affect the mineral sands outlook.

Yet, regardless of short-term trends, all the signs point to longer-term growth for Australia's mineral sands industry.

'Recent IPOs and new production only highlight the potential for this important but largely unrecognised sector,' says Diatreme's McIntyre.

'We look forward to making our own imprint on Australia's mineral sands production, as the nation taps into the growing global demand and shrinking supply for this critical mineral.'