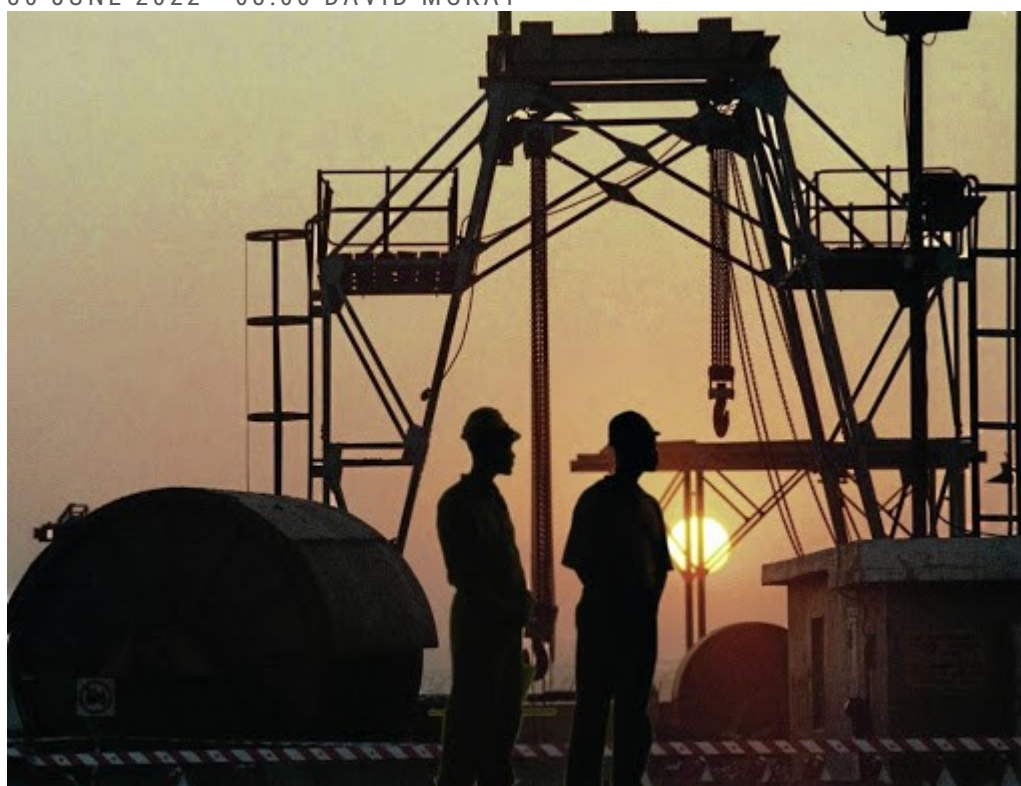


Why junior miners are best placed to exploit SA's mineral wealth

Junior miners – rather than exploration companies – are best placed to exploit SA's mineral wealth

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Picture: SOWETAN

The government's ambition to have the country comprise roughly 5% of world minerals exploration spend is a forlorn hope, according to mining industry experts.

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How, they say, is it possible to entertain this lofty ambition when the government takes years to grant a prospecting licence? Only 90 days are needed for Botswana to grant a similar licence.

That's why Botswana is feted for its emergent copper belt. It has attracted nearly \$800m in new foreign investment, while a few clicks south of the border, in the Northern Cape, huge tracts of prospective land remain

untouched by modern geological study. Only a handful of companies plan to prospect virgin ground. One is Southern Palladium, a platinum group metals (PGMs) company working in North West. Canada's Platinum Group Metals, a firm that wants to build a palladium mine in Limpopo, is another.

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That's the bad news. The good news is there are some companies working on "fresh" mineral projects. In fact, SA's grassroots mining sector has been quietly growing, encouraged by the recovery in metal and mineral prices since 2015. It's important to recognise, however, that these are not exploration firms but junior miners – companies with near cash options on previously mined ground.

"A lot of people complain about there being no exploration in SA, but I'm not sure why we need to do it because there are so many old ore bodies lying around with access development that can just be mined," says Jan Nelson, CEO of Big Tree Copper. "You can do it clever and you can do it short term," he says.

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Big Tree Copper is producing about 100t a month of copper cathode – the most basic of copper products – from rock tailings at Nababeep, situated in the far west of the Northern Cape. The plan is to list the company on AltX in October once its reverse-takeover by another copper junior with adjacent, and larger, resources called SHiP is complete. SHiP's backer is Shirley Hayes, a self-styled mining entrepreneur with no corporate stripes but with shovel-loads of enterprise.

We're not saying be like cowboys and don't derisk, we're saying: 'Why don't you derisk in a different way?'

Jan Nelson, CEO of Big Tree Copper

Hayes will be executive chair of the combined company, to be renamed Copper360, while Nelson will be its CEO. It aims to raise R200m-R300m through the IPO to finance production growth to 6,000t a year of copper cathode. It's worth noting that Coronation has already ploughed a sum into Big Tree Copper on the proviso Nelson list it and pay a 30% post-tax dividend.

The investment premise behind Copper360 is unusual for SA, says Nelson, formerly CEO of Pan African Resources and a Harmony Gold executive. "Junior miners try to emulate big mining company models. There's a big pre-feasibility study, and then a big feasibility study, and R100m later, you're still not sure whether the study says you can or not.

"We're not saying be like cowboys and don't derisk, we're saying: 'Why don't you derisk in a different way?'"

In his view, SA's junior miners appear to make every attempt to deter institutional investors. "If I ask you to invest in our company and it gives you a 500% return, but in three years the company is done and doesn't exist more, would you take that? I would," says Nelson. And so would Coronation, it seems.

"Junior mining companies try to exist forever and hopefully break even. I think that's why the institutions turn away," says Nelson. "So, if you don't come with a different proposition, you will hear the same music all the time."

That's fine for brownfields developers with relatively low capital ramp-ups such as Copper360. But exploration firms, due to the nature of their capital demands, have to demonstrate that the years of investment are mirrored by years of returns. For that, local money managers won't run a bet on a hole in the ground, says Stefano Marani, CEO of Renergen, which is drilling the plains of Virginia in the Free State for helium.

"We haven't received a single cent from SA. We got all our money from the US. The US government can see the value of our project, but Cape Town [asset managers] cannot," Marani said at the Junior Indaba conference in Joburg in June.

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Investment support for Renergen's exploration also came from Robert Friedland, one of the few mining entrepreneurs to attempt a mine build from scratch in SA. Friedland recently took a 4.35% stake in Renergen with an option to go to 25%.

His company, Ivanhoe Mines, is building Platreef, a \$500m-\$600m project in the northern limb of the Bushveld Complex, about 10km from Mokopane. It's expected to produce about 590,000oz of PGMs, as well as nickel and copper byproducts, based on an updated feasibility study completed in February.

The shares trade in Toronto, however. He didn't take a local listing; in fact, many junior and exploration companies operating in SA don't. Johan Odendaal, MD of Southern Palladium, which took a secondary inward listing on the JSE on June 9, said Reserve Bank pressure was perhaps the only reason to list.

George Bennett, a veteran mining development entrepreneur, has listed three companies in his life, none of them in SA. Asked why, he simply declines to comment. "Let's leave it at that," he says. Still, Bennett's latest company — Rainbow Rare Earths — is another of the junior miners investors might want to take notice of.

Listed in London, the company is hoping to extract the rare earth minerals neodymium and praseodymium, collectively known as NdPr. NdPr are source elements required for the manufacture of magnets supplied to hi-tech weaponry as well as wind turbine generation and, more recently, electric vehicles (EVs).

As with Nelson's proposed Copper360, Rainbow Rare Earths' "deposits" are above ground, held in waste residue stacks in Phalaborwa near where petrochemical company Sasol used to produce phosphoric acid. In making the acid, gypsum residues were created, says Bennett. Extracting the rare earths is not mining but a chemical process.

The assets ended up in the hands of Bosveld Phosphates. It was the beneficiary of a Competition Commission ruling about 10 years ago, which asked Sasol to dispatch certain businesses in industries where it held unfair market dominance. Unfortunately, Bosveld wasn't able to develop the assets, partly owing to the collapse of the phosphate market.

Rainbow Rare Earths did a deal with Bosveld as it recognised EV demand would catalyse NdPr markets. And it has. Prices for the minerals – which aren't "rare" but difficult to extract – are 80% higher this year.

Why this tangent on arcane gypsum stack provenance? Well, it's an indication of how SA's junior mining sector is placed to exploit the country's extraordinary mineral legacy. Provenance is also pretty important to buyers of NdPr, it turns out. China controls about 80% of rare earth production and 95% of the downstreaming process, even magnet production. That's an important geopolitical risk for the US and European economies, hence the Biden administration's public pledge to mine allies for minerals for US utilities to conduct the processing.

Despite the minerals price hike, shares in Rainbow Rare Earths are only 5% higher in the past 12 months. Compare this to the 205% gain in shares of American Rare Earths, another NdPr wannabe, but listed in Australia.

We believe that Rainbow is the best risk-adjusted return profile of any NdPr developer due to location, infrastructure in place, the already treated nature of the mineralisation and Rainbow's plant-building management team

Sprott Equity Research

Primary hard rock extraction of rare earths can take \$600m to \$1bn in investment, but the chemical processes required to liberate NdPr that exist in "cracked" form in the gypsum implies a lower capital bill for Rainbow Rare Earths' Phalaborwa project.

Bennett won't speculate on the capital outlay required. "I've learnt not to put numbers out in the market," he says. But he thinks they'll be about two years between the firm's imminent feasibility study to production. "Normally that process could take five to 10 years."

According to Sprott Equity Research, an offshoot of the global investment manager, Rainbow Rare Earths is in the pound seats. "Stepping back, we believe that Rainbow is the best risk-adjusted return profile of any NdPr developer due to location, infrastructure in place, the already treated nature of the mineralisation and Rainbow's plant-building management team," it says.

The granddaddy of SA's new mineral plays, however, is Orion Minerals. Listed in Australia, with a secondary inward listing on the JSE, the company is refurbishing copper and zinc assets in the Northern Cape that were previously mined by steelmaker Iscor before its demerger.

At the time of writing, Orion shares were voluntarily halted ahead of a capital raising. This is likely to relate to Orion's announcement in January that it would rescope its initial R5bn Prieska copper-zinc project, lowering production but accelerating the project at half the initial capital cost.

While investors like Orion's project, they want less risk. Under the accelerated production scenario, the Prieska copper-zinc project represents a 22% uplift in attributable value to Orion shareholders, equal to 99c a share, according to Simon Hudson-Peacock, an analyst for S2 Research.

He has a target price on Orion shares — down about 32% in the past 12 months — of R1.16 a share, which compares to a current price of 26c.