

PIONEERS OF AN EXCITING NICHE MARKET

A major re-brand of its flagship to reflect its scandium focus and signing two major deals sees Metallica Minerals tapping into a burgeoning market. **Alex Paull** reports

WITH ONE OF THE few exploitable scandium deposits in the world at its disposal in Greenvale, 270km south of Townsville, Metallica Minerals managing director Andrew Gillies is very confident that demand for scandium is real.

“It’s very exciting, and it’s one of those things where we see an enormous advantage for being a first-mover – it’s a highly strategic opportunity that can’t be underestimated,” Gillies said.

“We also see us not only creating this new niche market, but growing into it, so when the world scandium demand grows from 2015 then we could match that quite easily.

“In fact, with our flagship in full operation at 750,000 tonnes per annum, if we really need to match demand for scandium we could actually produce up to 150,000kg scandium oxide per annum.”

Gillies said the company saw enormous opportunity with scandium, which targets two prime sectors: the aluminium alloy sector and the fuel cell sector, both of which require scandium oxide of high purity.

“They love scandium, they just haven’t been able to get any in significant or reliable quantities. As for the emerging fuel cell sector, we think scandium is going to be a part of that future by providing the key components of these more efficient products,” Gillies said of the two sectors.

Metallica completed a scoping study in July which confirmed that not only did the project work on all technical levels, but the economics stacked up nicely with very attractive operating margins.

“It gave a reasonably robust project in terms the internal rate of return and, I might add, it used only a fairly conservative forecast level of scandium production at 40tpa for the first five years,” Gillies said. “We will make more money out of scandium than we will out of nickel, so increasing the scandium component of the plant feed will make a substantial difference to the internal rate of return.”

With a renewed emphasis on scandium, Metallica changed the name of its flagship from NORNICO to SCONI.

“NORNICO had been our core project since we listed in 2004, and it was an acronym for North Queensland nickel cobalt project, so that’s changed quite substantially,” Gillies said.

The focus on scandium was confirmed not long after acquiring the Greenvale and Lucknow projects in early 2010, when high grade scandium was discovered at Lucknow.

“It changed all our thinking towards scandium, with different ore types and a different process flow sheet required, and we have assembled a new world-class team on board, so it was timely to re-name NORNICO as SCONI, with an emphasis on scandium,” Gillies said.

Metallica has also seized the initiative by developing proprietary scandium extraction technology which separates scandium from the other dissolved metals selectively in one process to ensure high purity (>99.9% scandium oxide).

“It’s a very clean and simple pregnant liquor solution with no other rare earth elements, but we’ve also got some novel proprietary technology that separates the scandium and therefore we’re putting our patent

up to protect our commercial interests and competitive advantage – we actually produced ‘four nines’ scandium oxide (99.99% purity),” Gillies said.

Proof of scandium’s significance was justified with the inking of two important agreements with European alloy giant KBM Affilips and major US clean energy company Bloom Energy. Gillies said the two agreements indicated the worldwide demand for scandium, as well as showcasing its many applications.

“The alliance with KBM Affilips was pivotal due to their close involvement with the aerospace industry. They forecast scandium aluminium will likely be used in many components throughout an aircraft,” he said.

“KBM Affilips sees scandium aluminium as a great niche business.

“They will be producing 2 per cent scandium added to aluminium.

“This alloy would be provided to the component manufacturers of aerospace, automobiles and other forms of transport.

“There’s no doubt they’re talking very closely to major companies and leaders in the aerospace industry.”

Similarly, Gillies said, Bloom’s interest was another tick for scandium in a blossoming market.

“We have been talking with Bloom for some time, and for both companies to progress you’ve got to have security of product sale,” Gillies said.

“For them, scandium is a very important ingredient to give them the competitive advantage in terms of their solid oxide fuel cells.”

Metallica and Bloom signed a binding heads of agreement over scandium off take in early October, with Metallica to supply Bloom with



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ANDREW GILLIES
METALLICA MINERALS

up to 30,000kg of scandium oxide per annum, with a provision to increase supply up to 60,000kg scandium oxide per annum.

“We both know that scandium gives them a competitive advantage; and we need to have that off take to show the future financiers of our SCONI project that there’s a genuine current and growing market out there and people are prepared to sign off take for it,” he said.

Gillies believes that signing the two agreements could usher in a whole new metal market.

“All industries at some stage would have been there before, creating something new, more efficient, even the original aluminium industry would have been there, but sooner or later someone had to bite the bullet and build a commercial sized aluminium smelter,” he said.

“We’re doing that and so is Bloom and hopefully KBM Affilips and right through the aerospace industry will commit to using scandium in their aluminium alloys, because the enormous benefits of scandium speaks for themselves.

“These benefits are well known and understood – stronger aluminium alloys, much stronger welds, less heat cracking from welding, its corrosion resistance and significant manufacturing benefits.”

Gillies admits that the issue going forward comes down to scandium off take, which magnifies the importance of the Bloom agreement.

“Obviously, we would probably need 40tpa in scandium off take to kick the project off, but also to get it financed,” Gillies said.

“We’re confident now that it would be substantially more than 40tpa as we had indicated, and with the Bloom announcement we’re talking 30-60t.

“We are obviously looking at the alloy sector, and the alloy sector could be very substantial. In addition to high

purity scandium oxide production, SCONI will be producing an average of around 5000tpa of nickel metal and 700t cobalt.”

Coupled with scandium’s emergence, Metallica is also buoyed by the company’s foothold in the Greenvale region, and as it is based on the historical Greenvale nickel mine, Gillies said, the company was reaping the benefits of the mine’s legacy.

“The mine was constructed around 1972-74 and during that time they built a road network and rail from Townsville to Greenvale, which is about 270km,” Gillies said.

“All the roads are sealed, they are good roads, and we’ve got power, water, limestone and power lines, and the purpose built town of Greenvale, so we’ve got all the essentials.”

He said the site is set to be a major employer for the town, with an estimated 230 people to be employed on commencement and many more during construction.

Cautious of not being seen as a one-trick pony, Gillies said the company’s other prominent heavy mineral sands projects, Gippsland and Weipa, were both showing future promise.

“We’re pushing ahead with the permitting on Weipa; we’re hopeful of a mining lease grant by the end of the first quarter next year, with first production of premium quality zircon and rutile in late 2013,” Gillies said.

“For Gippsland, we’re still looking at our options, completing our due diligence and also talking to potential joint venture partners in terms of the acquisition of that project from Rio Tinto.”

However, Metallica’s focus is the SCONI project and developing the world’s first major, reliable supply of scandium, and it is at the helm of a burgeoning industry and with demand increasing it is poised to make its presence felt in a niche market which is set to explode.

Metallica MD
Andrew Gillies standing at the Greenvale mine site. His vision is for Metallica to become the world’s first major and reliable supplier of scandium.

METALLICA MINERALS AT A GLANCE



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MARKET CAPITALISATION

\$A40.7 million (at press time)

QUOTED SHARES ON ISSUE

140.3 million

MAJOR SHAREHOLDERS

Jien Mining Pty Ltd 18.99%
Victorian Ferries Pty Ltd 12.51%
Golden Breed Pty Ltd 7.33%