What makes or breaks a rare earths junior?

Competition in the junior rare earths industry shows no sign of abating, with 2013 registering record numbers of developers looking for a stake in the sector. Laura Syrett discusses what separates the wheat from the chaff when it comes to picking projects with a chance of succeeding.

As the global rare earths industry moves towards the end of what has been another torrid year for the market, the number of junior miners in the sector is greater than ever. According to the online commodities database Technology Metals Research, rare earths mining is now the focus of more than 300 exploration companies with projects as far apart as Africa, Australia, North America, Greenland and Kyrgyzstan.

Behind this growth in exploration are a series of signals from China indicating that both its mineral production and exports will continue to decline, combined with predictions of market growth based on an anticipated boom in demand for rare earth magnets.

But as prices continue to buckle under downward pressure from weakening demand and excess production capacity, particularly for light rare earths such as cerium and lanthanum, explorers are finding it increasingly difficult to justify their projects and secure the necessary investment to develop them.

Molycorp and Lynas

The junior sector’s financial tribulations have not been helped by a flow of discouraging news from the two front runners in the rare earths business; US-based Molycorp and Australia’s Lynas Corp.

Although both of these companies have now successfully achieved their targeted phase one capacities of 19,050 tpa and 11,000 tpa respectively, each has experienced costly problems which delayed production, with Molycorp in particular raising concerns about its cash position as a result of unsustainable debt obligations and falling rare earths prices.

In the view of Dudley Kingsnorth, professor at the Curtin University Graduate School of Business in Western Australia, the rare earths exploration industry needs Molycorp and Lynas to turn out success stories for investors to see rare earths as a viable opportunity.

“When you consider that there are over 300 rare earths juniors out there, and that perhaps only four or five of these will make it into production, the chances of succeeding are only marginally better than 1%,” Kingsnorth told IM.

“Investors need to see Molycorp and Lynas make a return on their capital investments and start generating steady, positive cash flow,” he said, “otherwise financiers won’t put their money into new projects.”

Project credentials

According to Kingsnorth and other commentators from both the mining and financial sectors, there are certain key credentials junior mining companies need to have in place if they are to make it into production.

“Offtake agreements are the most important thing for a rare earths junior to secure, as this demonstrates a customer’s confidence that a project will be able to deliver a secure supply of rare earths in the future,” Kingsnorth said.

“In addition, companies need to have agreements for proven technology and an economic deposit,” he added.

Hunter Hillcoat, a London-based analyst for Investec, agrees: “Offtake agreements are (...) becoming important,” Hillcoat told IM, “as this provides mining companies with guaranteed customers for mined material at a minimum price, which reassures investors.”

Other commentators hold a different view about what financiers prioritise when it comes to choosing projects to invest in.

“Above all, good management and credible corporate strategies are the main thing investors will look for,” said Katya Kuznetsova, director of capital markets for PricewaterhouseCoopers at a recent mining finance conference in London.

Kuznetsova agreed with Hillcoat, however, that underlying project quality and customer buy-in are also fundamental to success, and urged companies to demonstrate that their projects are robust, with good infrastructure, efficient cost-management and, where possible, have secure offtake agreements in place.

In the view of Catherine Raw, co-head of BlackRock Inc’s $7bn World Mining Fund, in the current financial climate, miners also need to show that they are being responsible with shareholder dollars.

“Institutional shareholders still feel that managements need to prove to them that, over the long term, the discipline associated with capital allocation is there,” Raw said.
Rare earths

Offtakes

While assembling all of the assets investors reputedly look for is a tough ask for junior miners in what has arguably been the most difficult climate for mining companies in a decade, Kingsnorth says that some companies are proving more successful than others in laying the foundations necessary for success – particularly when it comes to securing offtakes.

Australia-based Alkane Resources, which is developing the Dubbo zirconia and rare earths project (DZP) in Toongi, New South Wales, is ahead of the pack when it comes to establishing itself as a viable rare earths producer of the future, Kingsnorth says.

"Alkane has the advantage of being able to produce rare earths and zircon as co-products, and already has an agreement with Japan’s Shin-Etsu to buy its production" Kingsnorth explains.

The company signed a memorandum of understanding (MoU) in July 2012 with Shin-Etsu Chemical Co. Through this arrangement, Shin-Etsu will have priority to purchase processed rare earths at commercial prices via an initial five-year offtake agreement.

Alkane hopes to sell the remaining separated rare earths to other companies with which it has been discussing offtake arrangements.

Importantly, Kingsnorth adds, the DZP also benefits from favourable grade and rare earths distribution in terms of light and heavy minerals.

Approximately 90% of the light rare earth revenue is slated to come from neodymium and praseodymium sales, while 95% of the heavy rare earth revenue will be generated by dysprosium, terbium and yttrium, Alkane estimates.

According to Alkane’s definitive feasibility study for the DZP project released in April 2013, the Dubbo mine is expected to process 1m tpa of zirconia and rare earths ore over a period of at least 70 years, with development scheduled for early 2014.

"Despite the negative sentiment directed at the rare earths industry over the last 12 months, the industry has underlying strength and significant growth potential," the company says.

"However it is also a diverse business that has divergent levels of growth that are not uniform for all the specific rare earth metals. This can create difficult market conditions with demand strong for some and significant oversupply for others," it adds.

Alkane points to Industrial Mineral Company of Australia (IMCOA) estimates for growth rates ranging from 10% to 15% for neodymium, praseodymium and dysprosium-containing magnets, and 6% to 8% growth for phosphors, which use yttrium and terbium, which Alkane believes will drive the rare earth market in the next few years.

Selling the story

According to William Middleton, analyst for London-based Somercourt Investments Ltd, junior resource companies also need to have a credible "story" that investors are willing to buy into.

"Companies need a good story that acts as a kind of hook to get investors interested," Middleton told IM.

"The problem that many face is being able to differentiate themselves from all the other companies out there, which are probably saying the same things," he added.

While recent figures for commodity financing suggest that Canada’s TSX-Venture Exchange and London’s AIM market will remain the exchanges of choice for junior firms to "sell" their stories, CEO of Canada-based Avalon Rare Metals, Don Bubar, says that Germany’s Frankfurt Exchange is a particularly receptive market for rare earths.

Avalon, which has a German language option on its website, "has been doing investor relations in Frankfurt for about five years now," Bubar told IM.

"It’s a pretty good place to market a story like [Avalon’s]," he explains, adding: "Lots of investors here are interested in the rare earths business, including many retail investors, so it’s a good place to work on our investor relations and drum up media interest [in the Avalon project]."

Avalon’s flagship project is the Nechalacho heavy rare earths project in Thor Lake, 100km south-east of Yellowknife in Canada’s Northwest Territories.

The company released the results of its feasibility study on the property in April this year, which outlined an initial mine life of 20 years, supported by a measured and indicated resource of 69.1m tonnes grading at 1.64% total rare earths.

Bubar adds that the company has made significant headway with environmental permitting and pilot testing over the summer months, and is now looking to top up its present cash reserves of Canadian dollar (C) $9m ($8.6m*) as it proceeds with the development of Nechalacho.

Avalon already has an offtake agreement with an undisclosed Asian buyer for Nechalacho’s enriched zircon concentrate, which is made up of a combination of 80% zirconium, tantalum and niobium and 20% rare earths.

However, Bubar is concerned that the company may be selling itself short by offloading a zircon concentrate that also contains unseparated valuable heavy rare earths.

"We are looking at alternatives to our present arrangement and investigating a mixed alkali cracking process to unlock some of the [rare earths] value in our zirconia ore," he explained.

Although Avalon is yet to secure an offtake agreement for its rare earths production – something Bubar hints is more likely to happen once it has figured out how to separate its heavy rare earths from Nechalacho ore – the company is confident of its position in the industry.

"We’ve got the attention of the important players out there who need a secure supply of rare earths (…) and we have demonstrated that we have a management team committed to building a viable rare earths business," he says.

Securing proven processing technology has been highlighted by experts as one of the most important milestones for a junior rare earths company seeking to enter production.
Strategic relationships

Rare earths are relatively unique in the mining industry in that, owing to the complexity of processing and marketing the minerals in a Chinese-dominated market, having some form of supportive partnership is almost indispensable at an early stage in the development process.

According to Arafura Resources, an Australia-based junior which is developing the Nolans rare earths project in the country’s Northern Territory, the benefits of having downstream input into new ‘Western’ projects should not be underestimated.

“[During the late 2000s] we had been building business relationships with a number of Japanese, Chinese and European parties, whose interest was in watching and, in some instances, modest participation in, the ongoing development of our Nolans project,” Arafura’s CEO, Gavin Lockyer, told IM.

“This was long before the spectacular rise in rare earth prices during 2010-2011 and the emergence of a great number of exploration prospects for rare earths around the world,” he added.

The Nolans project is underpinned by the Nolans Bore rare earths deposit, which hosts 1.217m tonnes rare earths grading at 2.6% rare earth oxides, in addition to significant phosphate and uranium resources.

Arafura’s efforts to establish a profile in the global rare earths space attracted the attention of the East China Minerals Exploration and Development Bureau (ECE) and, in early 2009, ECE approached the company regarding an initial investment of A$22.9m ($22m) for a major shareholding in Arafura of 24.86%.

“At the time, the investment was the first by this Chinese entity into an Australian-listed rare earths company,” Lockyer says.

“ECE was looking for opportunities to expand their exploration reach into other countries and the Northern Territory Government had been exploring business opportunities to attract foreign investment and Arafura was part of this process,” he explained.

Arafura’s relationship with ECE has seen the size of the Chinese shareholding fluctuate between 2009 and 2013, but the Bureau’s funding has continued to trickle in.

“ECE’s most recent investment – A$10m to return its shareholding to its initial level – was in October 2012. This would not have happened unless ECE was confident in Arafura’s direction, management ability, and the quality of our Nolans Bore asset,” Lockyer says.

ECE has also provided Arafura with access to key Chinese experts in the rare earths supply chain, building on the relationships the company established prior to 2009. “This includes current producers, processing experts, financiers, and policy makers,” according to Lockyer.

This led to the signing of an MoU with Shanghai Stock Exchange-listed Shenghe Resources, a Chinese company which was allocated about 4.5% of the total Chinese rare earths export quota for 2013.

Although the MoU is presently non-binding, Lockyer says that both companies are committed to building a definitive framework agreement for the future.

“Arafura and the Nolans project represent an opportunity for Shenghe to expand its rare earths business internationally and Arafura’s long-standing relationship with ECE could mitigate some of the risks inherent in Shenghe partnering with a non-Chinese rare earths company,” Lockyer says.

“I expect the relationship with ECE to remain strong and focused as we work to optimise the Nolans project’s capital and operating costs, and look to secure financing for the operation. As to how that exactly translates is not something I can spell out right now,” he added.

In addition, Arafura has a letter of intent with Germany’s ThyssenKrupp, signed in August 2011, which Lockyer says is the basis for long-term cooperation for project financing arrangements and a pricing framework for the sale and distribution of rare earth products, and an MoU with a South Korean partner on similar terms.

China’s rare earth rumours

While the junior industry is making every effort to secure the credentials deemed necessary to make their projects a success, there remains a tacit understanding that, ultimately, the future of the industry comes down to China, and how its national rare earths policy develops.

Recent rumours that the Chinese government is planning to create a national stockpile of rare earths caused a temporary turnaround in rare earths prices in September and reinvigorated shares in junior rare earths companies.

But at the time of going to press, no official announcement on Chinese stockpiling had materialised, and mineral prices had started to backtrack on their September gains.

According to some experts, the industry needs to be cautious about making predictions based on Chinese policies, which often emerge from nowhere and can have unforeseen consequences.

“It is important to differentiate between intentional stockpiling and an incidental build-up of inventory as a result of overcapacity,” Gareth Hatch, founding principal of Technology Metals Research told IM.

“There is lots of lanthanum and cerium still on the shelf, because demand for these light rare earths has been so weak,” he explained.

Hatch dismissed conspiracy theories that the Chinese government’s decision to reduce domestic rare earths production was designed to manipulate prices.

“There are a number of pragmatic reasons why China would decide to do this,” he said.

“Unsustainable environmental practices used by illegal rare earths producers have led to genuine environmental concerns, and there are also tax revenue benefits to be had by shifting large volumes of production into the hands of sanctioned rare earths producers.”

“Furthermore, China’s export quotas discriminate against international buyers, but if the government can show that it is also reducing supplies to domestic consumers, it will take some of the international pressure off [the Chinese government],” he added.

Dan McGroarty of the American Resource Policy Network also believes that China is serious about regulating its rare earths industry, not least because the government has repeatedly indicated its determination to crack down on smuggling.

“If China wants to control the rare earths sector, they can’t have an open pipeline of rare earths being smuggled out of the country,” McGroarty told IM.

“I think that they are serious about reducing the amount of rare earths on the market, but it’s not an easy thing to do,” he said.

“You can find stories back as far as 2010 about the Chinese government authorising crackdowns, usually couched in environmental terms, and this has made people skeptical about whether or not it is actually happening,” he explained.

McGroarty is also prepared to give credibility to the recent rumours surrounding China’s rare earths policy.

“I’ve seen some indications that the Chinese government is planning some ambitious stockpiling,” he said.

He also said it was “possible” that the China was looking to influence global rare earth prices.

It is arguable, he says, that with the pricing power China ultimately has, that the government is trying to raise the gate for entry into the market for new producers: “But,” he adds, “this is a possibility, and by no means a certainty”.

“Conversions made October 2013