

ALKANE RESOURCES

RESOURCESTOCKS

DUBBO – THE NEXT RARE EARTH PROVINCE

Diversified Australian junior Alkane Resources has hit paydirt with a world-first, world-class zirconia and rare earths project in central New South Wales.

HAVING EXPERIENCED moderate success with gold, diamond and nickel ventures since opening its doors in 1969, the potentially mammoth open pit Dubbo mining operation could well secure Alkane's rise beyond mid-tier level over the next century.

The Dubbo operation is based on one of the world's largest in-ground resources – almost 73 million tonnes – of zirconium, hafnium, niobium, tantalum, yttrium and other rare earth elements.

It was first discovered in 1988, although serious evaluation did not start until 1999. By 2002, a feasibility study had been completed, but a financial hurdle arose in construction of a large-scale demonstration pilot plant needed to optimise the project's novel processing technology and produce marketable samples for potential downstream customers.

In 2006 Alkane received a \$3.29 million Commercial Ready AusIndustry grant from the federal government based on the project's innovation and potential to be a significant export earner for Australia. The plant was constructed the following year and trials began in 2008, at a feed rate of 60 kilograms of ore an hour to output 1.3 tonnes of zirconium product and 300kg of niobium product to date.

An yttrium-heavy rare earth circuit has been added to the plant and a light rare earth circuit will be operating later this year.

"It is quite unusual for mining companies to be in the running for these sorts of awards because we do not tend to specialise so much in innovation to extract metals, as we do in using well-developed processes," Alkane Resources managing director Ian Chalmers told *RESOURCESTOCKS*.

"To convince quite a learned panel of people not associated with Dubbo, or even familiar with its suite of metals, the project has a mix of innovation, commercial potential and the ability to do something real for Australia was a big tick of approval for us."

Chalmers describes Dubbo as the "first of the next generation" of rare metals and rare earth projects.

"It's not a pure rare earth deposit like Lynas's Mt Weld project in WA or Molycorp's Mountain Pass project in California," he said.

"We have something that contains rare metals as well, making us quite unique in the marketplace. Dubbo is the first of its kind in the world.

"There are other known similar deposits, which have been deemed uneconomic because the operators couldn't produce a flowsheet that worked.

"We have something we know works – we have the chemistry working well, which we can use to extract metals from the ore into a marketable form. Nobody has ever done that before with a complex mix like Dubbo."

With a base case model targeting 400,000t of ore a year (up 200,000t on the back of an expanding zirconium market) over a minimum 200-year mine life and a revenue of around \$US130 million per year (dependant on individual product pricings) from markets in Europe, Japan and North America, the hard work now is to secure end-users to include in the definitive feasibility study due by June 2011.

"Existing world production of the suite of metals we will be mining is currently derived from a number of separate sources," Chalmers said.

"Our project will be a unique combination capable of providing all these metals as a variety of products into rapidly-expanding electronics, ceramics, catalyst, phosphor, specialty glass and metal alloy markets.

"We have a number of companies in the larger markets, each with an interest in at least one of those products and a select few wanting all four.

"We're seeing as many companies as we can over the next six months, moving towards memorandums of understanding and letters of intent, the volumes and revenues of which will be fed into the DFS."

The difference between these metals and gold or base metals is Alkane can't sign off on a feasibility study until it has companies to buy its products. Marketing also forms an integral part of what the company

"We have something that contains rare metals as well, making us quite unique in the marketplace. Dubbo is the first of its kind in the world."

IAN CHALMERS
ALKANE RESOURCES

does and almost equals what it puts into development and production.

If anyone knows about effort, it would be Chalmers and his small team of experts, who are pouring their collective talents into the budding \$90 million Tomingley gold project, 400km northwest of Sydney, in parallel with their work on Dubbo.

Boasting modest recovery of around 400,000 ounces of gold at an average feed grade of 1.8 grams per tonne with six years open pit life and another two years of underground mining at around 4gpt, Tomingley is also near the end of its feasibility study and should eventually take its place as Alkane's cash cow alongside its larger company-maker.

"The Tomingley study should wrap up in October and Dubbo's is scheduled for completion by mid-2011 so you can see how close the two projects are running," Chalmers said.

"It certainly makes life interesting for us. Tomingley is not in the same league as Dubbo – it could be a good steady source of income with a reasonable operating margin if the Australian gold price continues to improve."

There is also potential to extend the project with additional resources. The company is confident Tomingley has substantial exploration potential.

While the immediate focus is the development of the Caloma, Wyoming One and Wyoming Three deposits, numerous other targets remain to be evaluated.

"We have commenced a technical review of the Caloma underground prospect, the Caloma Two deposit, which has to be drilled out, and the historic underground Myall United mine close by and hopefully we can begin testing them in 2011.

"So while the Tomingley base case does not look fantastic, the upside is good. I think we will end up with a 10 or 12-year life if we can move things forward within the next 12 months."

Somewhere in its hectic schedule, Chalmers said his team will also focus on four other exploration projects – the Cudal gold prospect, 25km west of Orange; the Wellington Galwadgere copper deposit, near the town of the same name; the Bodangora copper-gold targets, 25km north of the Wellington project; and the Orange Joint Venture with Newmont Mining, which hosts the promising McPhillamys copper-gold discovery.

In July, Alkane announced a maiden resource estimate at McPhillamys of 2.96Moz of gold



and 60,000t of copper, with further drilling expected to significantly expand the resource.

"We tend not to talk about these much, as they fall down our list of priorities, but they are all first-class opportunities which could progress towards development," he said.

"Our goal is to have three or more diversified projects in central New South Wales within the next five years, with one operations management office in Orange or Dubbo overseeing them all. "We have always classified ourselves as a multi-commodity company with a very tight geographic focus.

"Everything we do is in a very finite area in central New South Wales because we believe it is one of the great unexplored regions of Australia with enormous potential.

"I think we are finally starting to get some recognition in the marketplace on the back of our activities there. Earlier this year, we were trading at 30c per share, with a market capitalisation of \$70 million which didn't value even one of our assets.

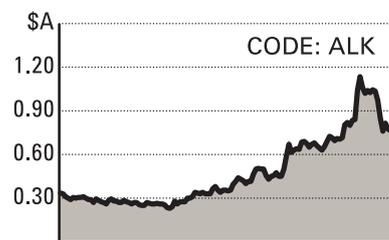
"Then suddenly, on the back of the Chinese interest in rare earths, our share price had doubled and our market cap skyrocketed.

"I am absolutely convinced that it is still not an accurate reflection of the range of assets we have, but I am also very confident that we are on the cusp of something very big with Dubbo which will transform Alkane in a way that will realise our true worth."

– **Imelda Cotton**

Drilling being carried out on the McPhillamys copper-gold prospect

ALKANE RESOURCES AT A GLANCE



6 months ending November 1, 2010

HEAD OFFICE

129 Edward Street
Perth WA 6000
Australia
Tel: +61 8 9227 5677
Fax: +61 8 9227 8178
Email: mail@alkane.com.au
Web: www.alkane.com.au

DIRECTORS

John Dunlop, Ian Chalmers,
Ian Gandel, Anthony Lethlean

MARKET CAPITALISATION

\$A188 million (at press time)

QUOTED SHARES ON ISSUE

249,028,158

MAJOR SHAREHOLDERS

Abbotsleigh Pty Ltd 28.45%
Merrill Lynch (Australia) Nominees Pty Ltd 5.11%
ANZ Nominees Limited 3.50%
HSBC Custody Nominees 3.26%