ALKANE RESOURCES LTD

Company Insight
the intelligent market update

Alkane Resources Ltd Date of Lodgement: 26/9/11

Title: "Company Insight – Explains Impressive Financials (NPV of $1.2 billion) & Upside for DZP"

Highlights of Interview

- **Clarifies capital cost for Dubbo Zirconia Project.**
- **Explains many options to fund the project and limit Alkane's equity funding.**
- **Explains main financials for the project.**
- **Explains how it might optimise the project.**
- **Outlines strength of product markets.**
- **Environmental and development approvals the most difficult schedule to predict.**
- **Timetable to first production.**

Record of interview:

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Alkane Resources Ltd (ASX code: ALK; market cap of ~$400m) announced on 19 September the results of its Definitive Feasibility Study (DFS) for its Dubbo Zirconia Project (DZP - Alkane 100%) near Dubbo, New South Wales. Although the project returns seem very impressive, the capital cost for the 1,000,000 tonne per annum (tpa) of ore is $893 million. How confident are you that you can fund that? What are the options?

Managing Director, Ian Chalmers
I think we should start by clarifying that capital cost which seemed to generate some incorrect media comment. In the $890 million total capex figure there is $140 million in contingency. We could potentially take $140 million off that total if we manage it correctly and when we get final tender pricing. We believe we were being very conservative with the contingency.

These current estimates also include an acid plant, a revised rare earth recovery circuit and much larger residue storage facilities which weren't factored into the previous "back of the envelope assessment".

So the capital cost is not as big as implied by the market and the overall large returns of the project ignored.

Over the last year we've had numerous discussions with investments banks, commercial banks, equity partners and off-take partners - and despite the current world financial condition those groups have remained very positive because the DZP is a good investment. I think investors should also remember that the Project won't be at financing stage until the middle of next year by which time I hope we are over this current uncertainty.

How do we fund the project? We've had a great deal of interest and there are five distinct options. The first option is to sell a minority interest in the holding company Australian Zirconia Ltd at multiples of the NPV of the 1Mtpa case to strategic stake holders. We might sell 10% and break that up to three or four parties but it won't be a straight 10% of the NPV of $1.2 billion and an escalation factor will be used.

Some of the potential off-take partners are financially strong companies and they might provide some debt finance as part of off-take arrangements. There are also international governments that are concerned about securing supply for the products DZP will produce, such as the rare earths and zirconium. Recent transactions involving a Japanese/Korean consortium and a Chinese consortium purchase of 30% CBMM (the world's largest niobium producer based in Brazil) for just under US$4 billion, indicates the concern about secure metal supply. Governments now appear to be prepared to put up funding facilities for strategic metal supply.

Then we also have the option of securing normal commercial debt and/or equity through Alkane. Overall I think we will see a combination of those five options to fund the project. We don't see the equity funding through Alkane as being a major component of the $750 million in capital. Hopefully we will be able to limit our equity requirement but this will depend on the structure of the total package and the market conditions at the time.

All in all, I believe it will be very achievable to secure the funding for the capital at the time the project proceeds towards development.

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The 400,000 tpa of ore case gives an NPV of $181 million, while the 1Mtpa of ore case gives an NPV of $1,207 million. Given the markets are extremely strong for your products, despite the world debt crisis, wouldn't you be significantly leaning towards developing the 1Mtpa of ore case?

Ian Chalmers
Certainly. That's what we outlined in the announcement last week. We're moving ahead with adjusting the feasibility data for the 1Mtpa case, and I believe the project will be developed at that scale. The global demand for these metals is being driven by expanding energy efficiency and emission minimisation legislation, and desire in Japan, Europe and the US to source metal supply external to China. There have been concerted efforts by many governments to shore up their strategic metal resources and there is even a Congressional hearing underway in the US at present examining their supply chain.

Ongoing internal consumption within China maintains the demand pressure even when financial conditions elsewhere are depressed. We therefore believe the prices for our products will stay strong in the long term and that's what influenced us to move to the expanded operation.

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Can you reiterate the main financials and assumptions for the 1Mtpa of ore case? Importantly, what is the payback time on the capital invested?

Ian Chalmers
Revenue for the project is around $500 million per annum based on conservative pricing. Operating costs are around $200 million per annum, which results in a margin of $300 million a year on a project which has an open-ended life. Over an initial 20 years that will give AZL cash flow (EBITDA) of ~$6 billion and an after tax NPV of A$1.2 billion.

That is a substantial project and will have an extremely big impact on the market capitalization and growth of Alkane.

The $750 million capital cost will be paid back in less than four years – again, that shows how attractive and robust the DZP is.

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Alkane has a reputation of being very thorough and conservative in its approach to exploring and analysing its projects. How much flexibility is there potentially in the capital cost estimates? How might you optimize the project overall?

Ian Chalmers
I can comment a little more on the capital costs. When you get budget pricing rather than tender pricing for projects the natural instinct of the vendor is to give a higher price initially, but bring that down once the tender process occurs. So we believe there may be capital savings at the development stage. We anticipate other possible reduction through water recycling and hence reducing the substantial cost for evaporation ponds required for the liquid residue storage facility.

Importantly we have also costed the project on Australian materials supply and local personnel and contractors. It is possible that we could save on capital items acquired from overseas, but that is not a preferred option.

We can potentially bring down operating costs for consumables like sulphuric acid, hydrochloric acid and limestone with further discussion with local suppliers. We believe we there are options to simplify the processing, also get better recoveries and we're reviewing these as part of the current program. There are other more indefinite possibilities such as in the primary filter cake we will have around 200tpa of tantalum oxide for the 1Mtpa case and if we can recover even half of that, it will add to the revenues.

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Prices for your planned products have been very much stronger throughout 2011 and particularly compared with early 2010. Why is this? Can you give a general update on markets and the likelihood this scenario will continue?

Ian Chalmers
In general we'll be producing three types of metal products, zirconium, niobium and rare earths and for the DFS we have assumed flat, long term average prices that are regarded as very conservative.

Rare earths are in big demand worldwide because they are used in green energy projects – for example wind turbines require significant amounts of rare earth magnets. Hybrid and electric vehicles are significant consumers of many rare earths through magnets, batteries and special glass. Energy efficient lighting products use yttrium and terbium. On top of that, China produces around 95% of the world's rare earths and it a couple of years ago made the decision to focus on value adding internally which resulted in export quotas – so that takes a large amount of rare earths out of the international market.

When Molycorp (U.S.) and Lynas bring their projects on stream light rare earths could return to demand/supply balance. While there has been some commentary about rare earth prices in recent

days and there have been some recorded small decreases, we have seen no real evidence of any long term downward trend and prices are still well above the average of the Q2 2011. So prices might come back a bit from current levels with Molycorp and Lynas in full production, but we have priced that into our financial model by assuming US$30/kg for the light concentrate against the Q2 average of US$114/kg.

However, we don't believe prices for heavy rare earths will come down and believe they will remain strong or even stronger for the long term and will remain well above the prices that we used in our DFS. As with the light concentrate, we have assumed US$68/kg against the Q2 average of US$168/kg

Most zirconium products are based on zircon supplied by mineral sands operations. Zircon supply has become very tight and will remain so for the foreseeable future. There are no new significant zircon projects coming on stream and you only have to look at Iluka's share price for evidence of that. Demand remains strong driven by the urbanization program in China and zircon prices have sky-rocketed. We can't see that supply/demand balance changing for at least until 2025, if then. Operating costs in China have also increased such as power, chemicals, labour and new environmental laws.

There has been some stockpile selling in the current quarter and the zircon price was flat at about US$2,300/t but the market analysts are forecasting that the price will be above US$2,500/t before the end of this year, and probably be above US$3,000/t by the end of 2012. So we expect zirconium prices to at least remain at current levels for the short term, but more likely increase as we move into 2012. Again, we used conservative pricing in our financial model.

Niobium also is in strong demand and it is mainly used in the special steels industry. We believe prices for niobium will remain consistent because the main supplier, CBMM in Brazil, has consistently produced at about 85% of world demand and has maintained price stability.

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For how long could you produce ore from the project at a rate of 1Mtpa? Is an expansion above this rate possible?

Ian Chalmers
The JORC Resource goes down to 100 metres vertically. At a production rate of 1Mtpa of ore, that resource would support an open pit operation for 80 years. There is no doubt in my mind that the resource will continue down for several hundred metres based on the known geology and we could open pit mine that to 300 metres, giving an operating life of at least 200 years. We're not resource constrained in any way!

An expansion beyond 1Mtpa is always a possibility, but there are other issues to take into account such as the market demand and eventually new projects that might be developed. The short answer is it is certainly a possibility, but we need to focus on the primary project at this stage.

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Can you give an update on the MOUs completed for product off-take and the progress on additional MOUs?

Ian Chalmers
We've announced three MOUs for the zirconium output covering more than 100% of zirconium production for the 1Mtpa of ore case. Obviously MOUs have to be converted into formal off-take agreements and that's something we expect will happen over the next 6-8 months.

We think we're pretty close to signing an MOU for niobium, which will cover 100% output from the 1Mtpa case.

The situation for rare earths is a bit more complex. We can sell the two types of concentrate we will produce. I've tried to be a little more proactive to generate more revenue from those two concentrates by potentially entering into joint venture or toll treating arrangements with non-Chinese producers. This arrangement would see them separate the metals from the concentrates, take what they want and give us back the material they don't need, for us to sell to existing potential customers. We hope to have something finalized by the end of the year.

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You mentioned in the ASX announcement on 19 September that the Environmental Assessment (EA) and development approval remains the most difficult schedule to predict. Is this unique to the Dubbo Zirconia Project or is it just part of the usual machinations of dealing in Australia's mining industry?

Ian Chalmers
It's definitely the latter – part of dealing with the normal permitting required in the Australian mining industry. In New South Wales, the permitting requirements have become more complex because of the public conflict between the agricultural industry and coal and coal seam gas operations. That has had a flow on impact to other mining projects such as Alkane's, despite our operations being much smaller and less environmental impact. The government departments appear to be doing a lot more analysis when they assess projects and that is causing a delay in the approvals process. That is a bit frustrating at present for us because we have a relatively small, simple project like Tomingley, currently caught up in this bureaucratic system.

So while we will be able to use some of the base line data generated for Tomingley for the DZP as they are relatively close, we are not sure what additional requirements may be imposed.

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Are there any major issues across the project, including processing and planned mining method?

Ian Chalmers
I don't believe so, apart from some concern with the development timetable which is covered later. As a mine it will be a simple quarrying operation and that is straightforward. The 1Mtpa case will have a small waste to ore ratio of around 0.5 to 1. There is little grade control required because the mineralization is uniform throughout the resource.

The process plant should be very robust. We've run the demonstration plant for 3 years and it will be for 4 years by the time we finish operating it. We've looked for all sorts of flaws and glitches and remain comfortable we have a very robust process.

We hope we have adequately and publicly explained any issues dealing with the uranium and thorium content of the ore, and highlight the differences between the DZP and most other rare earth projects which generally produce an upfront mineral concentrate, which of course focuses these metals. As part of the EA we are doing a thorough audit of the flow sheet, including residues, to present to the authorities when completed.

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Finally, what is the timetable to first production?

Ian Chalmers
We have always set ourselves development timetable targets but the DZP is unique in the world today and that sometimes throws up unusual challenges. An example of this is the interaction of the flow sheet we have developed and the resulting end products. We have tried to minimize this impact by the extensive distribution of samples to the customers for their feedback. This iterative process is part of the reason that the project timetable has extended out several months from what the target was two

years ago. That is why we will continue to operate the DPP into next year to ensure 100% off-take sales at the best possible prices.

However, the critical issue is the approvals process and we have a fair bit of work to do to put the Environmental Assessment documents together. We hope to complete that by the end of the March quarter next year and normally we would expect it to take around 6 months for it to be approved. In the current circumstances I am unsure about the length of time to achieve both goals.

We have financing to put together, but as I explained earlier, we are extremely confident about positive and attractive outcomes with that. We expect financing plans to be completed in the first half of next year.

After that, we will have an 18-24 month construction period for the 1Mtpa project and therefore first production should be achieved in 2014. Again we will assess what procedures we can activate early to accelerate that process.

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Thank you Ian.