ALKANE RESOURCES LTD

Company Insight
the intelligent market update

Alkane Resources Ltd

Highlights of interview....

- **Explains importance of MOU sales offtake for Dubbo Zirconia Project**
- **Explains zirconium oxychloride JV**
- **Confidence for more MOUs on attractive terms**
- **Explains supply/demand & price strength for products**
- **Explains expansion options for DZP**
- **Possible funding options for DZP**

Date of lodgement:
27 May 2011

Title:
"Company Insight - Explains MOU & Potential for Further Contracts"

Record of interview:

companyinsight.net.au
Alkane Resources Ltd (ASX code: ALK; market cap of ~$500m) recently announced that its subsidiary, Australian Zirconia Ltd (AZL), had signed an MOU with a leading chemical company and a leading trading company to produce zirconium oxychloride (ZOC). How important is this for advancing your Dubbo Zirconia Project (Alkane 100%)?

Managing Director, Ian Chalmers
It's very important. Basically this deal takes all our base case production of zirconium. More importantly, it sets us up to go for the expanded 1 million tonnes per annum case. It is also a very good commercial deal for us and gets us into partnership with a company that has been involved in the downstream zirconium business for many years. It will grow from there and it is an extremely positive step forward.

companyinsight.net.au
At current prices, the ZOC production is forecast to generate revenues of US$50-70 million per annum, which is equal to 12% to 17% of projected annual revenue on your 1 million tonnes per annum of ore case. Can you give an update on progress with potential MOUs for the remaining products planned to be produced at the 1mtpa case, which would provide the remaining 83% to 88% revenue?

Ian Chalmers
Those additional MOUs are progressing very well. We have a number of discussions ongoing which would cover all output for the 1 mtpa case including the remaining zirconium production. One of the key objectives we've had from early on was not just to rush into any arrangement, but to ensure that we can get the best possible deal for the Dubbo Zirconia Project and set it up for many years of profitable production.

companyinsight.net.au
A new joint venture facility will be established to produce ZOC using zirconium chemical intermediate feed from the Dubbo Zirconia Project. The facility is planned to produce 15,000 to 20,000 tpa ZOC which will require about 50% of the 1 million tpa development case. Is the 1 mtpa case now likely to be the base case scenario? Potential production is not resource constrained at the Dubbo Zirconia Project – what is the likelihood of planning to move above the 1 mtpa case?

Ian Chalmers
Yes, 1 mtpa is now our likely development case. It's an interesting question about whether we can go beyond that and certainly we are considering doing that. When we look at the volumes being discussed with the potential MOUs, it does look like we could even push it up to 1.5 mtpa. It's a bit difficult to give a firm answer at this time, but the interest in our products is certainly strong and you're correct that the project is not resource constrained. The issue will be the project footprint and associated environmental impacts rather than the resource or marketing of the products. So, initially we will move forward with the 1 mtpa case and then look at expanding sometime in the future.

companyinsight.net.au
Can you give a general update on the markets and prices for your products planned at the Dubbo Zirconia Project?

Ian Chalmers
It's a very interesting market at the moment. Obviously the rare earths sector continues to get a lot of publicity. The spot prices for rare earths in China are just amazing, but we don't believe that is sustainable in the long term once more producers come on line. However, more positive news is that the zirconium market is very strong as well. Our predictions a year ago for the zircon market have occurred, but even faster and more dramatically than we anticipated. So all the downstream zirconium product prices have escalated and are up roughly 3 times the prices of the middle of last year. That has really altered our thinking about how we develop the project.

There is also a growing demand for niobium in special steels after the dip caused by the global financial crisis. So it's all very positive on the product prices and we're optimistic about the next 5 or so years. Prices would have to come back very significantly for the project to become unviable – and we don't see that happening.

companyinsight.net.au
What are the major risks in affecting this very tight demand/supply balance?

Ian Chalmers
Overall we don't see any major risks, but one of the harder areas to predict is pricing in the rare earths sector. When Lynas and Molycorp are fully on stream in a couple of years the light rare earth market should return to some sort of balance. The heavy rare earths sector is different though because China's resources are running down and there are not many other heavy rare earths projects in an advanced stage at the moment. So that is good for us and heavy rare earth prices are likely to continue to go up.

Zirconium prices will be governed by zircon supply and we believe that zircon supply will stabilize at around 1.5 mtpa whereas demand will continue to grow and could be 2.0 mtpa by 2020. We can't see any new major zircon supply coming on line that will change this large developing shortfall. Even if zircon prices stabilize at the end of 2011 levels, the zirconium product demand will remain strong with predicted growth rates up around 10% per year.

Niobium production is dominated by CBMM in Brazil which, even though they have a large production facility, consistently fulfils about 90% of the world's demand. That gives stability to the niobium supply and price.

companyinsight.net.au
You've stated that the ZOC joint venture will allow customers to become strategically independent of the zircon supply chain, and reduce reliance on China's dominant ZOC supply position. Can you explain this in more detail? Can you also explain the strategic importance of the Dubbo Zirconia Project to potential customers around the world?

Ian Chalmers
China currently supplies around 90% of the world's ZOC. The problem they have is they rely on imported zircon to produce the ZOC and the growing shortfall of zircon supply is restricting production of ZOC and other downstream products in China. This also means that as the price of zircon increases, the availability of downstream product diminishes and prices have escalated dramatically.

We tell the investment community and customers that we are not reliant on zircon because we already have an abundance of zirconium in our very large resource that can supply the market for hundreds of years. That's why we are getting significant interest from countries such as Japan, Europe and the U.S. for the DZP's zirconium products and specifically for the ZOC output as many end users adopted ZOC as the primary feed many years ago on the basis of cheap and apparently unlimited supply from China.

companyinsight.net.au
What is the process and requirements to sign a binding sales off-take agreement with your MOU partners?

Ian Chalmers
It's a staged process and depends on each individual customer's requirements and existing supply agreements. The key step is a commitment for Alkane to proceed to project development. That will involve establishing finance for the project and also gaining development consent from the New South Wales Government. Some of our customers won't sign a binding off-take agreement until we have committed to developing the project. While other customers won't commit before we commence developing the project.

companyinsight.net.au
Can you give more detail on the ZOC plant – including aspects of the technical process, the potential for upsizing the plant, the suitability of the zirconium chemical intermediate feed from the Dubbo Zirconia Project, possible locations and possible equity shares?

Ian Chalmers
The production of ZOC is quite well understood, but still requires a significant technical input to produce high purity product that attracts the premium price. We are working with people who understand the technical process very well.

The DZP already produces high quality intermediate zirconium chemicals and these can be used to produce ZOC by dissolving the product in hydrochloric acid and the re-precipitating the zirconium as ZOC, eliminating all unwanted impurities. This step produces a very high purity product which can then be directly used for other end use applications such as catalytic and electronic grade zirconias. Our partners in the proposed ZOC JV have already produced a high purity ZOC test sample from a DZP zirconium chemical.

As hydrochloric acid is used in the conversion process into ZOC, the availability of acid will be a large factor in determining the location of the JV plant. In some chemical plants around the world, hydrochloric acid is a waste material, so if we can get it for next to nothing that will be a big advantage and the operation will be very economic. We will look all around the world for a location and we believe there are opportunities in Asia, Europe and the U.S. and we're certainly not ruling out Australia.

Scaling it up beyond 15-20,000 tonnes per annum of ZOC production wouldn't be an issue. That ultimately depends on marketing and the quality of the material. Fortunately, the intermediate material we have given to our MOU partner is readily converted into high purity ZOC. They haven't had any technical issues and clearly that was an important step in them entering into the MOU.

Issues such as location and how the feasibility study proceeds will determine the ultimate structure of the joint venture entity. We are working on the basis that we will have a majority equity share in the joint venture.

companyinsight.net.au
Presumably, the good news flowing from the Dubbo Zirconia Project puts you in a strong position to fund the development of the project? What options are you considering?

Ian Chalmers
The news flow from the project will be on new MOUs in the short term and also the finalization of the Definitive Feasibility Study. We anticipate having the DFS completed by mid July or thereabouts.

In the meantime we have been having discussions on financing the project. There are a number of ways to do this. One option could be a debt facility with a normal commercial bank or a government agency that are very keen to secure metal supply for the companies in their countries. The other option is equity and fortunately the Alkane share price has appreciated to a level where that alternative is more viable than 12 months ago.

Also some of the potential off-take partners we are dealing with are genuinely large companies with big balance sheets and they might provide finance by investing directly in the project, through the subsidiary Australian Zirconia Ltd. We are only considering a minority interest because the net present value of the project would potentially be significant on current estimations, and 10-15% would be the maximum equity we would consider selling.

companyinsight.net.au
There has been some adverse publicity regarding radiation at Lynas' Mt Weld rare earth project and the separation plant in Malaysia. Can you comment on that and how this might affect the momentum with the Dubbo Zirconia Project?

Ian Chalmers
It's very difficult for me to comment specifically on the Lynas situation other than to say that emotion in these matters often overtakes the facts and I think the facts have got lost in an emotive issue here. It has been exacerbated by the nuclear accident in Japan.

It is important to restate that the Dubbo Zirconia Project has a low level of uranium and thorium in the deposit. All rare metal - rare earth projects have some degree of radioactive material and it is how this material is processed or concentrated that determines the level of concern. Our process does not produce a mineral concentrate or chemical concentrate that contains uranium or thorium at a level that would be of concern. We remove the small amount of uranium during the refining of the zirconium product and it remains in solution, not in any concentrated solid form. We neutralize that solution with limestone before it goes into the waste storage area and this reduces the uranium content by approximately 50% - so it is less concentrated than naturally occurs in the orebody.

The thorium is similarly dealt with as part of the refining of the niobium and rare earth products.

companyinsight.net.au
Can you summarise future key objectives and a timetable to first production at the Dubbo Zirconia Project?

Ian Chalmers
The DFS is scheduled for completion in July. That will still focus on the 400,000 tonne per annum base case so that we can get the DFS out as soon as possible, but it will have the expanded 1mtpa case included as an option. If the 1mtpa case stacks up, as we now expect it will, we will immediately initiate a more in depth study of the change in detail required to confirm the viability of the expanded project. That will take us another 3 or 4 months, but will not impact on the overall project development timetable.

We will also push on with the financing and get indicative proposals in place by the end of the year. We also have to complete the environmental assessment, which is underway. Fortunately we have just completed an environmental assessment for the Tomingley Gold Project and a lot of that information is relevant to the Dubbo Zirconia Project, as they are only 50km apart. We hope to have the environmental assessment lodged by the end of the year and we are then allowing for six months for the approvals process to be considered by the NSW State Government. We aim to commence construction of the project in the second half of 2012 and then be in production late 2013 or early 2014.

companyinsight.net.au
Thank you Ian.

To read past Company Insights please visit companyinsight.net.au