

ALKANE TO JOINT VENTURE DUBBO ZIRCONIA PROJECT WITH MAJOR CHINESE ZIRCONIA COMPANY

Alkane Exploration Ltd, through wholly owned subsidiary, Australian Zirconia Ltd, has signed a joint venture agreement with Astron Limited to facilitate the development of the Dubbo Zirconia Project (DZP), 20km south of Dubbo, New South Wales.

The DZP is one of the largest resources of its type in the world and is capable of supplying the current world demand for zirconia/zirconium chemicals as well as niobium/tantalum and yttrium/rare earth products for hundreds of years.

Astron Ltd has agreed to fund the Final Development Plan to completion, including the construction and operation of the Demonstration Pilot Plant within 12 months, which will entitle it to a 50 per cent interest in the Dubbo Zirconia Project.

The Final Development Plan will provide an update to the Definitive Feasibility Study completed in September 2002, including assessment of all environmental, social and infrastructure aspects, enabling Alkane and Astron to commit to commercial development.

The joint venture agreement comes after the Japanese metals group KMI, comprising Itochu Corporation and Kawatetsu Mining Company Ltd, decided not to exercise its option to acquire an interest in the project in December last year.

A factor contributing to the termination of the KMI venture was the considerable investment due to increased capital costs from greater complexity of the processing plant to achieve high quality high value products.

Advantages of the joint venture with Astron are that Astron will provide funding and contribute technology and technical knowhow for processing as well as access to markets for the finished products.

Astron currently supplies 25 per cent of world demand for zirconia and operates substantial production facilities in China where it has become one of the world's leading low cost zirconia and zirconium chemical producers.

According to Mr Ian Chalmers, Technical Director, Alkane Exploration, the value of the deal was in Astron's technological expertise as well as providing an established customer base comprising end users of zirconia in its various forms.

"By combining with Astron we expect to have product on the market more quickly and with less capital outlay than might otherwise have been required," Mr Chalmers said.

"This deal is completely different from the former one with KMI as this is not a cash deal but one which is focused on the transfer of technology and accessing established markets. These are difficult to quantify in cash terms."

The estimated size of the total resource is 73.2 million tonnes comprising a measured resource of 35.7 million tonnes and an inferred resource of 37.5 million tonnes grading 1.96% ZrO₂, 0.46% Nb₂O₅, 0.03% Ta₂O₅, 0.14% Y₂O₃ and 0.75% total rare earth oxides.

The initial project concept is for a basic throughput of 200,000 tonnes of ore per year to produce 3,000 tonnes of zirconium, 600 tonnes of niobium and tantalum and 1,200 tonnes of yttrium-rare earth products.

Zirconia and zirconium chemicals are used in production of electronics, catalysts, advanced ceramics and other fast growing high-tech applications.

Niobium and tantalum are used in a wide range of specialty alloy applications, from mobile phones to jet engine turbines, while yttria-rare earths are used as phosphors in television and computer screens, specialty glasses, catalysts and other electronic devices.

The zirconia and zirconium chemicals industry has experienced growth rates of around 5 per cent per annum over the last ten years and is expected to continue to grow at or above this level in the future.

The commercialisation of solid oxide fuel cells has the potential to generate a significant increase in the demand for zirconia.

Alkane successfully operated its own mini-pilot plant for processing zirconia from Dubbo, confirming the viability of the zirconium and niobium-tantalum recovery circuit and generating several kilograms of zirconium and niobium products which have met with positive responses from potential customers

Alkane will combine components of this process with Aston's technology for processing Dubbo zirconia on a larger scale.

In addition to the DZP, Alkane operates the nearby Peak Hill gold mine and is continuing to advance the Wyoming Prospect, 12km north of Peak Hill, with drilling results during the first half of 2003 confirming the existence of a significant gold resource.

Astron is an ASX-listed company (ASX Code: ATR) which has a zirconium, and related advanced materials, processing operation in Shenyang Lianoning Province, China, and which for the year to June 2003 generated revenue of A\$81.4 million and profit after tax of A\$6.24 million (before extraordinary items).

ISSUED FOR : **ALKANE EXPLORATION LTD**
FOR FURTHER
INFORMATION : **IAN CHALMERS, DIRECTOR, ALKANE EXPLORATION LTD, TEL: 08 9328 9411**
www.alkane.com.au

ISSUED BY : **WESTBROOK COMMUNICATIONS**
CONTACT : **REBECCA HALL TEL (02) 9231 0922 MOBILE 0428 514 510**

This release can be downloaded from www.westbrookfin.com.au