

# JERVOIS MINING LIMITED



## CHAIRMAN'S ADDRESS 2009 FOR 45<sup>th</sup> ANNUAL MEETING OF SHAREHOLDERS

This Company was first listed on the Adelaide Stock Exchange in 1963. We therefore remain a South Australian company and are generally supervised by ASX Adelaide. In its early days, the Company produced 'copper cement' derived from acid treatment of copper oxide ores from the Jervois Ranges.

In an interesting year, the Company easily survived the Global Financial Crisis with only a minor adjustment to operations at Bullabulling Gold and managed to retain and add to its important tenements and its operating team.

### **The Nyngan (Gilgai) Scandium Project**

This has now become our most significant development project. At this location the Company has identified a significant resource of the light element scandium, currently used worldwide in small quantities (up to 3 tonnes  $\text{Sc}_2\text{O}_3$  per annum). The present uses include aluminium alloys, artificial daylight and lasers. The element also provides a useful light-weight shield against radiation in space. Scandium oxide ( $\text{Sc}_2\text{O}_3$ ) of 99.9% purity has a reported value of about US\$1200 to US\$1400 per kilogram.

Military uses are shrouded in mystery as you would expect. In the last 6 months, interest in the Company's scandium resource has greatly intensified, driven by the potentially 'green' energy benefits of power generation from Solid Oxide Fuel Cells (SOFC's). We are told that a SOFC containing scandium stabilised zirconium, whilst more expensive than alternatives, it operates at a significantly lower (and hence safer) temperature and greater efficiency than other types of fuel cells. As is obvious, a domestic power supply from a gas fed fuel cell to power a household has to be totally safe.

The scandium resource at Nyngan contains a resource of 12,012,000 tonnes (measured and indicated) at 261 ppm Sc (5040 tonnes of scandium oxide) but was found to be extremely difficult to treat due to its highly refractory nature. Following an idea developed previously for treatment of nickel laterites by a well known North American mining and technology company, a successful method of turning the scandium into a condition soluble in water was achieved by the Company metallurgical consultant, Dr Mal Jansen. The next step, solvent extraction, should be routine using known processes and chemicals but will be tested and finalised by a well known scientific organisation by February 2010. Shareholders should understand that it is not in their interests for technical information to be released that would be valuable to competitors.

Negotiations continue with several groups for mine development and the common objective is the production of up to 30 tonnes of  $\text{Sc}_2\text{O}_3$  per annum by 2012. If America is included, we are told the

U.S. market could take 50 tonnes on its own. The apparent lack of impurities in the Company's scandium resource is a positive aspect, we are advised.

#### **Summervale: Nickel/Cobalt in Laterite**

This property is also located near Nyngan, NSW and was acquired this year as an extension to the Company's exploration tenement at Westlynn; where a previous explorer (Anaconda – now Minara) had identified, by drilling, a reported indicated resource of 16 million tonnes at a grade of 0.83% nickel and 0.06% cobalt.

During May this year some exploratory drilling was carried out at Summervale and was followed up by further drilling in September 2009. These results have been reported routinely to the market. At this stage, the property is lightly drilled and there is evidence that the nickel mineralisation is not easily located by following the magnetic signature of the underlying rock. It is of significance that the two holes which have the strongest mineralisation are nearly 2 kms apart (ie SV39 and SV44) with some indication of continuity as evidenced by SV1, SV4 and SV6. Intercepted grades so far for nickel are around 1% which we now regard as the minimum exploration target until such times that a metallurgical breakthrough is effected to allow the treatment of lower grade nickel laterites. Such a process could come from anywhere around the mining/processing world. Jervois' metallurgical consultants, Dr Jansen in Sydney and Dr Bryn Harris in Canada are working on a process using hydrochloric acid that may provide the breakthrough all so desperately seek. Other overseas groups are trying hard also.

#### **Gold Production: Bullabulling Heap Leach**

Gold production for the year was 1479 fine ounces sold for \$1,724,434 – loss-making for the year. We often get asked '*why continue with this operation*'? The answer is that Bullabulling contains '400,000 ounces plus' resource established by Resolute Resources some 10 years ago. This is still virtually untouched by Jervois. The overall gold grade is low (1.4g/t) but it will ultimately be mined ; especially now that new and expanded treatment options are happening in the area. In general 'Mining Leases' are valuable because they can be used (ie mined). If Jervois stopped operations, and was forced to retreat to Exploration Licences as an alternative tenement option, the geological package becomes much less attractive. The heap leach operation outlined as attached is actually 'cash' positive at present due to increased gold production (approaching 7 kg/month) from higher ore treatment rates and similar percentage gold recoveries.

The mine exports relatively low value gold loaded carbon for further treatment to Carbon Management Solutions in Kalgoorlie where the carbon is stripped of its gold content and smelted under the supervision of Brinks Security, who then deliver the 'dore' bar to AGR Matthey in Perth for refining (and payment directly into the Company's bank account 4 days later).

#### **Young, NSW: Nickel/Cobalt in Laterite**

The Company has historically reported its indicated and inferred resource in this area based on a cut-off grade of 0.5% nickel, which yielded overall 167 million tonnes at grades of 0.72% nickel and 0.07% cobalt. After Ravensthorpe, a cut-off grade of 0.5% nickel is no longer considered relevant unless/until a major breakthrough in nickel laterite technology is achieved. For this property we

have reverted to an 0.8% nickel cut-off grade which reduced the indicated and inferred resource/mineralisation tonnes to 58 million tonnes @ 0.99% nickel and 0.07% cobalt. There are new technologies on the market that would, if implemented, allow selective mining of better grade rock during any systematic mining operation.

### **Metallurgy**

Process development testwork continued during the year with Metcon Laboratories in Sydney (Brookvale). If funding becomes available, the Company will also participate in a continuous mini-pilot plant scale metal chloride hydrolysis trial in Montreal, Canada. The objective is to attempt to recover most of the hydrochloric acid used for nickel/cobalt dissolution. During the year, a process modelling report was received from Arithmetek Inc. of Canada which provided an updated baseline 'Aspen' flowsheet, mass and energy balance as well as energy plus reagent costs estimates for the Young nickel laterite atmospheric chloride leach process. The participants believe that their pilot testing facilities are the most advanced of any of their type in the world.

### **Joint Venture Partners**

Following the exit of China Railways Resource Group Ltd there has been significant interest from two more groups, now known to be from Hong Kong or mainland China. These parties, as far as is known, can operate independently of PRC and seem to be thoroughly professional in approach. The Board believes that this approach is the most practical way forward for Jervois in any future Chinese negotiation.

### **Bunnawarra, WA (New Age Exploration Ltd earning 40%, Jervois Mining Ltd earning 40% also)**

The right to earn equity in this gold and rare earth prospect flowed from the Deed of Termination and Release signed with New Age Exploration Limited. The somewhat crude attempt by China to restrict exports of rare earth products recently caused some alarm worldwide ; so the Jervois foray into 'rare earths' was timely. In a recent drilling programme, drill hole BADAC 33 returned anomalous results for rare earths from two composite samples. Above average abundances for the 'light' rare earths cerium (Ce), lanthanum (La) and the element Yttrium (Y) warrant further testing for total rare earths in the sample. As a consequence, further assaying for total rare earths (both 'light' and 'heavy') will be carried out. Further drilling will follow if the assay results warrant such action. It will be no surprise to shareholders to hear that a supply of rare earths is critical to certain future communications and military industries. Japanese companies in particular seek to become independent of Chinese supply. They are not alone!

### **Consolidation of Gold and Uranium Tenements**

To secure its right to earn 40% of Bunnawarra on 16 March 2009, Jervois signed off on a Deed of Termination and Release over a previous joint venture with New Age Exploration Limited (NAE) dating back to 6 June 2006.

A Deed of Assignment, Assumption, Consent and Variation has been entered into with NAE and Redfeather Holdings Pty Ltd over the base metal rare earth and gold prospect called 'Bunnawarra'. Under the terms of this JV, JRV and NAE will have the right to ultimately earn 80% of the Bunnawarra prospect and will jointly meet the commitments pursuant to the Redfeather JV.

## **Terms and Conditions**

JRV took back the NAE equity in gold and uranium tenements at Bullabulling South and Lake Barlee, Nalbarra etc and reimbursed NAE about 50% of its exploration costs (ie. \$300,000). NAE was reimbursed 50% of its exploration expenditure at Bunnawarra (\$70,000). NAE will get a royalty of 2% of gross gold sales from Bullabulling and \$2 per pound of any uranium (U<sub>3</sub>O<sub>8</sub>) sales. NAE was offered and accepted a placement of 200 million JRV shares @ \$0.004 and paid \$800,000. JRV was offered and accepted 6 million shares in NAE @ \$0.13 (\$780,000) to bring its equity in NAE to approximately 16%. The investments have been successful for both companies based on recent share prices of \$0.006 for Jervois and \$0.20 for NAE.

## **New Acquisition by the Company of Goldpride Pty Ltd**

The above company was the beneficial owner of six (6) mining tenements near Bullabulling where Jervois operates a gold mine and a further six (6) mining tenements with potential for uranium occurrences that dovetail with tenements presently owned by Jervois. These tenements were independently valued and the preferred valuation placed on these tenements was \$1.54 million. A further eight (8) tenements recommended by Goldpride Pty Ltd, but not included in the above valuation, were assigned directly to Jervois Mining Limited, who became the applicant. These latter tenements are located 'on strike' five kilometres north of our Bullabulling mine site. The Company issued 125 million new shares for the 30,006 shares on issue in Goldpride Pty Ltd thus acquiring the company and its tenements.

## **Newcrest Joint Venture: Forest Reefs, NSW (NOL 80%, JRV 20%)**

During the year, the joint venturers completed one diamond drill hole to 915.8 metres. The drill core showed strongly altered Forest Reefs Volcanics beneath a thin tertiary basalt cap. Unfortunately the mineralisation encountered was uneconomic. Three (3) two metre intervals and one four metre interval yielded gold grades from 1.55 g/t to 6.81 g/t. These may represent an extension of known gold reef systems in the area, which were extensively drilled by Jervois many years ago.

## **Diamond Exploration – WA (E70/3560 and E70/3568; pending)**

In anticipation of the predicted worldwide shortage of gem quality diamonds, caused largely by a dearth of new discoveries, in December 2008 Jervois Mining applied for two exploration tenements in the Margaret River area of Western Australia. The tenements were selected on the advice of JRV Board member Professor Ken Collerson using a new model for diamond exploration.

An important aspect of Collerson's model is the role played by the African Superplume, a major upwelling that originates at a depth of about 2800 km immediately above the Earth's core. Kimberlite, one of the mantle melts that contains diamonds, and is associated with this mantle plume, appears to have transported more than 70% of the world's diamonds. Not only do superplume kimberlites occur in Africa and South America, but recent research has shown that 380 million years ago, the rich Russian diamond fields also lay over the African mantle anomaly.

From an Australian exploration perspective, when Australia was part of the Gondwanan Supercontinent, SW Western Australia was also located over the African Superplume. In fact, the basalts in the Bunbury area are a manifestation of magmatism associated with this plume.

To test the exploration model, Professor Collerson and Mr Derek Foster conducted a technical appraisal of the above tenement and found immediate support for the conceptual target.

Field work and exploration drilling is planned for 2010.

### **Uranium Exploration – WA**

**Nalbarra South Exploration Licence 59/1264**

**Lake Barlee West Exploration Licence 77/1332 – 3**

**Lake Giles Exploration Licence 77/1345**

Field work was carried out on all tenements and the outcome will be reported shortly. The first draft of the Independent Geologist's Report for the proposed IPO is being reviewed. There are reports of Japan's increasing interest in 'grass roots' uranium prospects and WA shows potential, now that the ban on uranium mining has been lifted.

### **Fund Raising**

The Company raised \$1,713,000 before costs from a one-for-five issue in January 2009. Amid the most appalling financial turmoil seen since the 1930's, a 32% acceptance rate was very encouraging. The resultant shortfall was easy to place to mostly existing shareholders or former shareholders and all profited or had the opportunity to take a strong profit.

On 2 April 2009 (at an EGM) shareholders voted almost unanimously to give Directors the right to place a further 500 million shares over a 3 month period. In the circumstances, 33.8% of the possible 500 million shares were placed at \$0.004.

### **EGM called on 2 April 2009 : Pursuant to Section 249D**

An attempt to change the whole Board failed, having been rejected by shareholders. A subsequent challenge to the proxy count was dismissed by His Honour Justice Goldberg with costs awarded in favour of Jervois. These costs remain unpaid.

### **Changes to the Board and Company Secretary**

On 29 December 2008, Ms Melanie Leydin resigned as a Director. Mr John Neill was appointed as temporary Company Secretary and two new Directors were appointed – Professor Ken Collerson and Mr Derek Foster.

On 1 May 2009, Mr Neill retired as Company Secretary. The Board appreciated the services of Mr Neill in difficult circumstances and we wish him well in his retirement.

Mr Roger Fairlam was simultaneously appointed Company Secretary and the Board looks forward to working with Mr Fairlam in his new capacity.

## Change of Company Auditor

Under Section 324DA – 324DD of the Corporations Act, a person who has played a significant role in the audit of a listed entity for 5 successive financial years, cannot be re-engaged to play a significant role in the audit of the listed entity for at least another 2 successive financial years.

The Company's current auditor, Ian Riley, has been the Company's auditor for in excess of 5 successive financial years and has therefore agreed to retire from office.

The Company has decided to appoint MSI RAGG WEIR as the Company's auditors with effect from the end of the Annual General Meeting. A notice of nomination of MSI RAGG WEIR and consent to act as auditors of the Company is enclosed (Annexure 1) with the Notice of Meeting in accordance with Section 328B(3) of the Corporations Act. Without limitation, Section 327B of the Corporations Act is relevant to this resolution.

Mr Ian Riley has provided auditing services to the Company for many years and the Board wishes to acknowledge his constructive role on behalf of the Company and all shareholders.

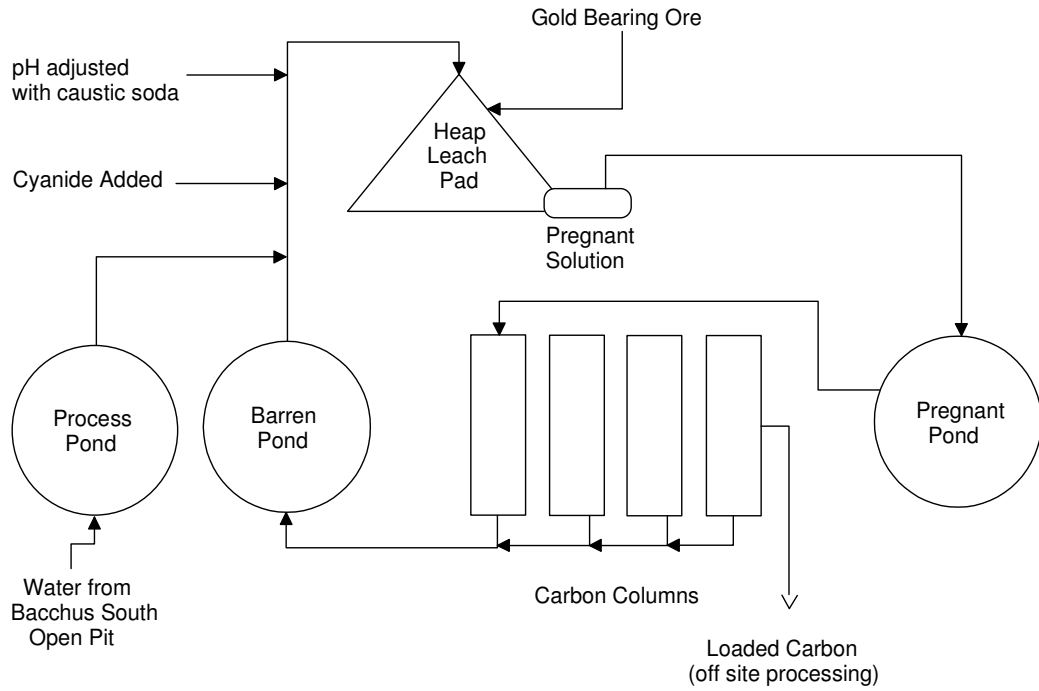


Duncan Pursell

25 November 2009

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by D.C. Pursell who is a Member of the Australasian Institute of Mining and Metallurgy. D.C. Pursell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. D.C. Pursell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## BULLABULLING HEAP LEACH OPERATION



PROCESS DIAGRAM

Figure 4