

Quarterly newsletter - February 2015



Copi North Heavy Mineral Sands Prospect.

Dear Shareholder and Broken Hill Prospecting Supporter,

Broken Hill Prospecting Ltd ('BPL') has made significant headway since the new heavy mineral sand (HMS) projects were granted in late 2014. Located south of Broken Hill in western NSW, the Company's five new Exploration Licences include numerous HMS prospects. The tenements contain titanium and zirconium mineral sand deposits and provide excellent synergy to BPL's large cobalt-pyrite (sulphuric acid) deposits and advance BPL's transition towards a substantial minerals producer.

A Joint Venture to evaluate and mine HMS in two tenements has commenced and this will provide \$2m funding for drilling and feasibility studies at two significant targets, Copi North and Magic. Funds raised through placements in late 2014 (\$441,800) will contribute to exploration at BPL's other HMS prospects.

This newsletter details recent events and BPL's work plans during 2015. It also provides some industry news relevant to the Company's projects.

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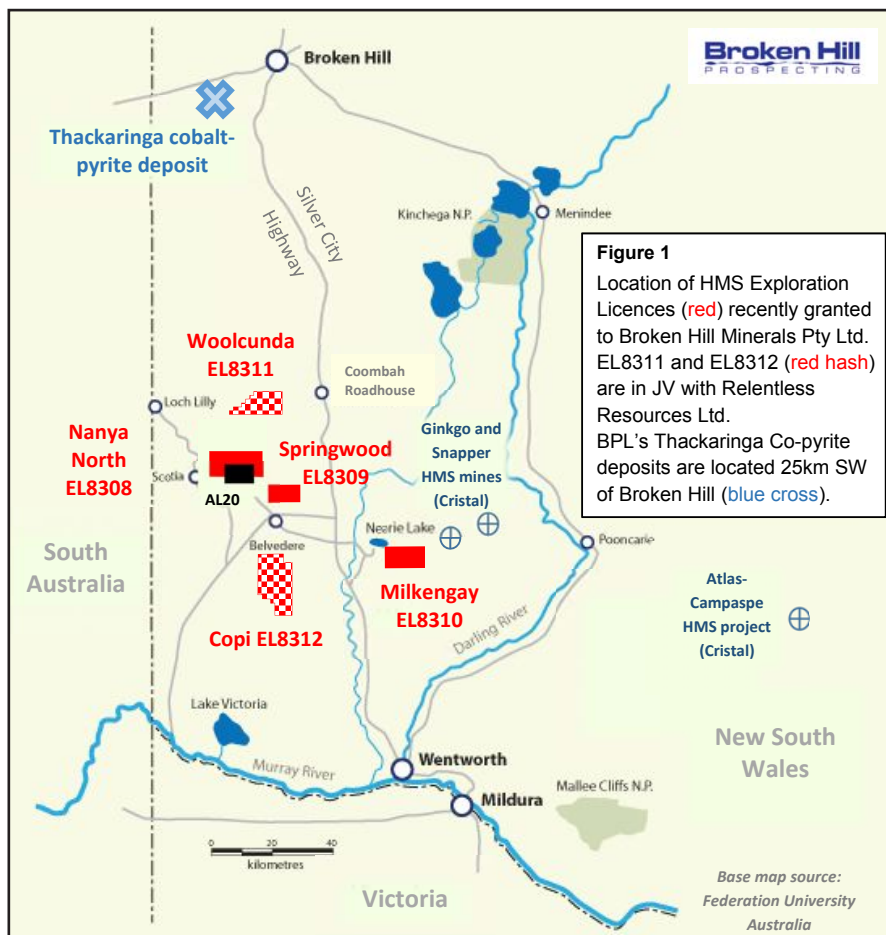
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BPL's Promising New HMS Projects

In October 2014 Broken Hill Minerals Pty Ltd (a 100% owned subsidiary of BPL) was granted five Exploration Licences (Map) to explore for heavy mineral sand ('HMS') deposits in the extensive Murray Basin south of Broken Hill and north of Wentworth in Western NSW. The Company plans to establish a foothold in the HMS industry where emerging technology is making significant advances in processing and recovery of titanium (Ti) and zirconium (Zr) minerals (ilmenite, leucoxene, rutile and zircon) from HMS deposits.

Broken Hill Minerals Pty Ltd (BHM) is seeking to define an initial resource of HMS with high content of heavy minerals relative to other nearby deposits and operations. This could provide the basis for a low-cost, small footprint mining operation with higher grade feed than nearby operating mines (Cristal's Ginkgo and Snapper mines and Murray Zircon's Mindarie mine) which have average HMS grades of between 3.6% HM and 3.9% HM.

BPL's Promising New HMS Cont.



Goldman Sachs - TiO2 and Zr Prices to Firm

US investment bank Goldman Sachs expects that heavy mineral sand could start to recover after the 2013 downturn. In a recent research report on fertiliser and mineral sands markets Goldman Sachs predicted gains for TiO₂ and zircon prices. The bank forecasted growth for zircon consumption, with demand increasing by 3.8% in 2014 and another 3.8% in 2015 (to 1.28m tonnes). According to their Titanium Dioxide Report inventories of titanium dioxide feed stock are being gradually worked down.

Cristal Gets Approval for New HMS Mine

Late last year Cristal was granted State and Federal Government approval for its \$200 million Atlas-Campaspe project. Cristal currently operates two mines in NSW (Ginkgo and Snapper, map) and the new project reflects the confidence that Cristal has for future HMS mining in NSW.

Atlas-Campaspe is located about 400km south east of Broken Hill. Because of its remote location infrastructure support has been a major issue for development. Cristal plans to freight heavy mineral concentrate by road to Ivanhoe (175km) and then by rail to Cristal's processing plant at Broken Hill (300km).

An \$8 million Feasibility Study has been completed. The project includes the deep but high-grade Atlas deposit which has a reported Resource of 11Mt of 15.4% of contained heavy mineral which will be concentrated and processed into ilmenite, leucosene, zircon and rutile end products. The planned mine has a potential life of 20 years and will employ about 300 workers in the construction phase, and another 200 during operation.

Clearly Cristal's HMS operations provide useful analogies for BHM's future plans.

Joint Venture with Relentless Resources

BHM and Relentless Resources Limited (RRL) have formed a Joint Venture to evaluate HMS deposits in two of the five tenements (EL8311 'Woolcunda' and EL8312 'Copi') and will evaluate both the Copi North and Magic HMS strandline prospects.

Relentless Resources Limited, an unlisted Australian mining investment company, will

contribute staged payments totaling \$2 million for a 50% participating interest in the tenements. Planned work will include drill testing, scoping and feasibility studies. In February the Joint Venture intends to commence drill testing at both Copi North and Magic to determine grade and distribution of HMS along strike trends of more than 10km.

Some Facts on Titanium

Australia has the world's largest deposits of the titanium minerals ilmenite and rutile. We extract and refine titanium, but don't process it in large quantities. It is used in jewellery and bicycles, 3D printing and heavy industrial parts, but 95% is used in an oxide form as the pure white colour crucial in products from paint to cosmetics.

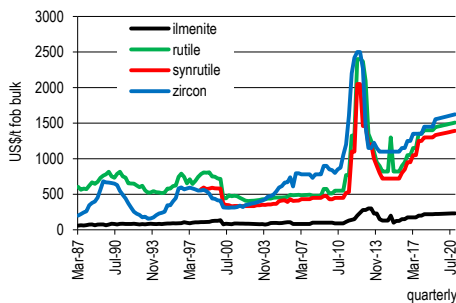
Titanium's strength-to-weight ratio, corrosion resistance and

biocompatibility make it perfect for aerospace, medical and sport applications but processing is costly and inefficient.

The CSIRO are developing a new process to convert titanium minerals into metal using a chemical rather than the common metallurgical method. It uses far lower energy intensity and has less waste than the traditional method.

Demand for HMS Expected to Grow

A TiO₂ feedstock demand lift of 4% in 2015, driven mostly by Chinese growth, is forecast in Iluka's January review. Iluka noted that zircon demand is recovering from 2012 lows in Europe and China and is expected to grow by 6% in 2015. They also report a surplus mine-supply capacity (mostly with Iluka and Rio Tinto).



Iluka has signalled that in 2015 it will close mining operations in the US which will reduce output by ~35ktpa of zircon and 200ktpa of ilmenite. Several major projects such as Kwale, Grande Cote and Moma expanded mine-capacity in 2014 but these have suffered commissioning issues and are yet to achieve expected production.

BPL believes that 2015 will be an exciting year for new HMS projects as Ti and Zr output reduces and demand grows.

Mineral sands prices, historical & forecast.

(Source: TZMI, UBS Research)

Iluka's HMS Production Dropped in 2014

Australian based Iluka Resources Ltd, a major global producer of zircon and the largest producer of the high-grade titanium dioxide products (rutile and synthetic rutile) reported a 15% decline in total mineral sands production in 2014. Total production of 900,200t (compared with 1.055mt in 2013) included an increase in zircon and

rutile production, offset by cessation of synthetic rutile production following closure of kilns.

Iluka's sales into China were slightly higher in 2014 despite some softening in the ceramics sector in the latter part of the year. This was due to property market factors and tile manufacturers idling plants earlier than usual.

Cobalt Investment Opportunities Shine

In a recent report on cobalt investment opportunities the Wall Street Daily considered that rising cobalt prices are expected as cobalt supply and demand issues kick in during the next few years. The feature noted that about 40% of current cobalt demand comes from the battery industry for products such as smartphones, laptops/notebooks, and electric cars and that cobalt demand from the battery industry alone could rise 17% from 2013 levels. It also noted that the next biggest use of the metal (19%) is for superalloys like those used in jet engines and wind turbines and production of these is also undertaking rapid growth.

The strife-torn Democratic Republic of the Congo supplies ~60% of the world's cobalt and the two biggest miners of cobalt there are Freeport McMoRan and Lundin Mining.

Roughly 43% of cobalt refining is located in China so any disruption in the Congo or China will definitely affect supply to battery megafactories, namely LG Chem, Tesla/Panasonic and Foxconn Technology.

The business intelligence firm CRU Group considers that the cobalt market will be in a deficit by 2017 and CRU's senior consultant Panos Kotseras wrote in December that; "The cobalt market is expected to become tight due to a combination of robust demand and absence of a concrete project pipeline." CRU predicted a global shortage in 2017, the year Tesla's 'Gigafactory' is expected to commence battery production. BPL believes that growing demand for cobalt and uncertainty of supply from mines in the DR Congo will soon focus attention on BPL's large cobalt pyrite deposits.

Changes to Ownership of Cristal

TASNEE (National Industrialisation Company, Saudi Arabia) a shareholder in Cristal, has acquired another 13% stake in the company which is the world's second largest producer of titanium dioxide. The move forms part of TASNEE's strategy to increase its equity in subsidiaries and was completed in late 2014. It values Cristal at US\$3.7 billion.

Cristal operates two heavy mineral sand mines south of Broken Hill (Ginkgo and Snapper, map) and is planning to develop a third (Atlas-Campaspe). TASNEE is the second largest industrial company in Saudi Arabia with interests in petrochemicals as well as a wide range of other businesses such as chemicals, plastics and engineering.

Ebola Affects TiO₂ Production in West Africa

Sierra Rutile Ltd is one of the world's largest HMS producers with most of its production from mines in Sierra Leone. The company produced 114,163t of rutile in 2014, short of its plan of 120,000t. None of the company's staff have contacted Ebola, but production was affected by measures put in place to combat the deadly disease, including some supply chain disruptions and higher costs for some locally-sourced products and services. These are likely to continue to affect operations in 2015.



Ebola virus.

More Cobalt Required for Chinese Batteries

Boston-Power has received \$290m from the Chinese government to build new battery factories. The investment will allow Boston-Power to grow its Liyang facility fivefold by 2016 and expand its Tianjin facility. Boston-Power produces lithium-cobalt batteries, the same battery chemistry in notebook cells and those to be produced by Tesla's planned US 'gigafactory'.

The increased battery production will go part way to addressing the \$35 billion Chinese electric vehicle market which is likely to see significant battery supply constraints over the next 3-5 years.

In other news, Apple's planned 'Apple Watch' is likely to be powered using state-of-the-art battery technology for

mobile devices, lithium-ion batteries with cobalt-oxide electrodes. This battery technology dwarfs its rivals in performance.



Apple watch.

Interest in Thackaringa Cobalt Deposits

BPL has received considerable interest in the Company's large deposits of pyrite-cobalt near Broken Hill. Numerous investors, mining companies and industrial groups have recognized the growing demand for reliable cobalt supply for new generation battery and energy storage as well as superalloy industries. In addition, co-product sulphuric acid produced from processing the cobalt-pyrite could provide long-term supply for new mineral processing and phosphate fertiliser businesses.

The Company is continuing to seek investment from substantial mining and industrial groups to progress the project which could become a world-class cobalt producer.

Co Crystals may Revolutionise O₂ Storage

Recent research by the University of Sydney and the University of Southern Denmark has identified a cobalt compound that acts as both a sensor, and a 'container' for oxygen and which can be used to bind, store and transport oxygen.

The material can absorb and release oxygen many times without losing the ability to absorb and store the gas. When

the substance is saturated with oxygen, it can be compared to an oxygen tank, containing pure oxygen under pressure. Because it can absorb and release oxygen many times, the cobalt material has the potential to revolutionise life-changing applications such as fuel cells, medical breathing machines, mountain climbing, space travel, firefighting and scuba diving where bulky and cumbersome oxygen tanks

are required.

For example, scuba divers could use the material to filter and concentrate oxygen from surrounding water (or air) and just a few grains contain enough oxygen for one breath. A small, simple mask made from the oxygen-packed cobalt material which can repeatedly replenish its oxygen supply could soon replace cumbersome oxygen tanks.

Comment

BPL's progress with HMS projects is a terrific step forward for the Company. Capital, recently raised through share placements, together with funding via the Relentless JV for two of BHM's five HMS projects will allow fast track assessment. This is an outstanding achievement considering the poor investment market for some junior mining companies.

Titanium, zirconium and cobalt are all essential metals for developing technologies and emerging high-tech

industries. Supply and demand dynamics caused by increasing urbanisation as well as rising awareness of environmental issues will underpin the growing importance of these essential metals.

The Company's assessment of HMS prospects south of Broken Hill is off to a sound start with substantial drilling and assessment of top priority prospects planned in the next few weeks. In the next newsletter I look

forward to reporting the results from this work.

Yours faithfully

Ian Pringle
Managing Director

Competent Person Statement

Exploration activities and results contained in this letter are based on information compiled by Dr Ian Pringle, a Member of the Australasian Institute of Mining and Metallurgy. Dr Pringle is the Managing Director of Broken Hill Prospecting Ltd and also a Director of Ian J Pringle & Associates Pty Ltd, a consultancy company in minerals exploration. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Dr Pringle has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.

For further information contact

Dr Ian Pringle, Managing Director, Broken Hill Prospecting Ltd +61 408 548 767
Australian media - Alan Deans, Partner, Last Word Corporate Communications +61 427 490 992

Broken Hill
PROSPECTING
ARBN: 003 453 503

Level 14, 52 Phillip Street, Sydney NSW 2000
Box 3486 GPO, Sydney NSW 2001

P: +61 2 9252 5300 F: +61 2 9252 8400 E: info@bhpl.biz W: www.bhpl.biz