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LP LATEST COMPANY NEWS

News and Commentary

TD GBM Resources signs co-operation agreement with China's Jiangxi Centre Mining - 16/1/2015

GBM Resources (ASX:GBZ) has signed a co-operation agreement with Chinese state-owned enterprise Jiangxi Centre Mining Co. Limited to accelerate mineral exploration and development in Australia.

For the complete story, see:

http://www.proactiveinvestors.com.au/companies/news/60145/gbm-resources-signs-co-operation-agreement-with-chinas-jiangxi-centre-mining-60145.html

HeraldOnline - Syrah Resources Successfully Produces Battery Anode from Coated Spherical Graphite - 13/1/2015

During Q4 2014, Syrah Resources (Syrah) (ASX:SYR) successfully produced uncoated battery grade spherical graphite, using natural flake graphite from its Balama Graphite & Vanadium Project in Mozambique.

For the complete story, see:

http://www.heraldonline.com/2015/01/13/6700209/syrah-resources-successfully-produces.html?sp=/100/773/385/

Proactives investor - NioCorp in for another transformational year as Elk Creek progress advances - 12/1/2015

NioCorp (CVE:NB) (OTCQX:NIOBF) distinguishes itself from other mining developers in that it is already far advanced in its 2015 game plan, which will transition the company to the financing stage of its flagship niobium project.

For the complete story, see:

http://www.proactiveinvestors.com/companies/news/59190/niocorp-in-for-another-transformational-year-as-elk-creek-progress-advances-59190.html

Proactives Investor - ASX200 makes gains, but this graphite play jumped 22.2% - 8/1/2015

Australian stocks have started the week on a positive note with the ASX200 up 14.4 points, or 0.3%, to 5,450.3 with energy stocks taking the lead.

For the complete story, see:

http://www.proactiveinvestors.com.au/companies/news/59896/asx200-makes-gains-but-this-graphite-play-jumped-222-59896.html

Energy Digital - Why Storage Matters - 3/1/2015

Solar panels require sunlight, wind turbines require wind, hydroelectric requires flowing water and so on. Unfortunately, not all of these are always readily available.

For the complete story see:

http://www.energydigital.com/renewables/3746/Why-Storage-Matters

Acquisdata: Up to date business intelligence reports covering developments in the world's fastest growing industries www.acquisdata.com

Media Releases

REED Resources - AusNet testing new battery system to curb power outages in summer - 7/1/2015

Victoria's biggest energy supplier, AusNet, has begun trialling an electricity storage system it hopes will help prevent blackouts during hot summer days when demand is at its peak.

A one-megawatt grid energy storage system, made up of batteries housed inside four shipping containers in a lot in Thomastown in Melbourne's north, will be trialled over the next two years.

At full power the batteries can provide one hour of electricity to up to 300 homes.AusNet said the project would cost $5 million and was the first trial of this type and scale in Australia. The batteries could be relocated to areas where additional power demand was expected and could assist AusNet in better managing demand.

In January last year Victoria suffered through one of its worst heatwaves on record, with many homes across the state losing power due to faults and overloading. If electricity demand outstrips supply, providers often opt to deliberately cut power in some areas, known as "load shedding", to reduce pressure.

Jonathan Geddes from AusNet Services said they were testing whether the system could supply enough energy on hot days.

"This is an Australian first trial using a network battery to provide additional support into the electricity grid to manage the network stresses of the peak demand days," he said.

"We hope it will offset or delay network investment which is good news for customers.

"We believe in the future we'll be able to relocate the batteries to power lines that are constrained on peak demand days to guarantee that customers receive safe and reliable power without upgrading the local power lines."

Dr Roger Dargaville from the Melbourne Energy Institute at the University of Melbourne said this type of system could eventually make it cheaper for consumers.

"Energy storage is a really interesting development in the energy system," he said.

"As the cost of storage comes down and electricity goes up – if we hit that crossover point - then storage is really likely to take over.

"The system is ripe for revolution. We've built a system that is catering towards just one or two high peak demand days but ... average demand is actually declining."

"If we can work out a way to smooth those peaks or supply energy through storage and minimise the amount of generation we need, then we can develop a cheaper system for everyone.

But Dr Dargaville said the trial would not have much effect on the current energy capacity.

"One megawatt is tiny – this is very much a pilot project," he said.

"We have to upsize this many, many times over and you would need 100 times, 1,000 times more than this in the system to have it make a real difference."

http://www.abc.net.au/news/2015-01-07/ausnet-trialling-new-system-to-curb-power-outages-on-hot-days/6004454

REED Resources - Revenue from Grid-Scale Energy Storage is Expected to Total More than $68 Billion from 2014-2024 - 6/1/2015

The market is moving quickly across a number of innovative technologies, report concludes

A recent report from Navigant Research analyzes the global market for utility-scale energy storage for both bulk an ancillary service applications.

As distributed, renewable power generation resources multiply and grid operators seek ways to balance loads across the system using an increasingly diverse range of assets, the demand for grid-scale energy storage is rising. The grid-scale energy storage market has developed in a disjointed fashion over the last several years, but now there are signals that the market is poised for significant expansion. Click to tweet: According to a recent report from Navigant Research, worldwide revenue from energy storage for the grid and ancillary services is expected to total $68.5 billion from 2014 through 2024.

“Developing energy storage that is viable for grid applications has been a goal of vendors and grid operators for a number of years,” says Anissa Dehamna, senior research analyst with Navigant Research. “Recently a number of factors, including the falling price for lithium-ion battery systems, have begun to converge to bring that goal close to fruition.”

Although incumbent pumped storage remains the dominant technology, in terms of installed capacity, the market has started moving quickly, according to the report, across a number of technologies including lithium ion, power-to-gas, flow battery, and compressed air systems. In total, Navigant Research estimates that 362.8 megawatts (MW) of projects have been announced in the 2013-2014 period, with an almost equal distribution between North America (103.3 MW), Asia Pacific (100.5 MW), and Western Europe (91.1 MW).

The report, “Energy Storage for the Grid and Ancillary Services,” analyzes the global market for utility-scale energy storage for both bulk an ancillary service applications. Specifically, the markets analyzed in this report are: grid asset optimization, wind integration, solar integration, arbitrage, T&D upgrade deferral, frequency regulation, voltage support, spinning reserve, electric supply reserve capacity, and load following. The report provides an analysis of the market issues, opportunities, and market challenges, associated with utility scale storage. Global market forecasts for power capacity, energy capacity, and revenue, broken out by both segment and region, extend through 2024. The report also examines the key technologies related to utility-scale energy storage, as well as the competitive landscape. An Executive Summary of the report is available for free download on the Navigant Research website.

http://www.navigantresearch.com/newsroom/revenue-from-grid-scale-energy-storage-is-expected-to-total-more-than-68-billion-from-2014-2024?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+NavigantResearchNewsroom+%28Navigant+Research+%C2%BB+Newsroom%29

TNG Ltd - 2017 Vanadium Industry Global and China Market Forecasts - 1/12/2014

The Global and China Vanadium Industry Report, 2014-2017 research of 85 pages says world's recoverable vanadium reserves so far have been recorded at 14 million tons, mainly found in China, Russia, South Africa and other countries. In 2013, roughly 151,000 tons of vanadium (V2O5 Equivalent) was produced worldwide, up 11% year on year. The global vanadium consumption increased at an AAGR of 6.7% during the period 2001-2013, of which, the iron and steel industry as the biggest consumer accounted for more than 90% in 2013, followed by vanadium-titanium alloy and chemical industry. Complete report is available at http://www.rnrmarketresearch.com/global-and-china-vanadium-industry-report-2014-2017-market-report.html .

China, the world's largest vanadium-producing country with a capacity of over 100 kt/a, contributed 57% to the world's vanadium (V2O5 Equivalent) production in 2013. It also has the fastest-growing and highest consumption of vanadium products in the world, with vanadium (V2O5 Equivalent) consumption rising from 5.3 kilotons to 57 kilotons in 2001-2013 (an AAGR of 22% or so) as a result of promotion and use of vanadium-containing high-strength deformed steel bars grade III and grade IV.

This vanadium industry research with 2017 forecasts provides data and information on vanadium ore resources and output, demand and price of vanadium products in the world; Vanadium ore resources and supply & demand, price, import & export of vanadium products in China; Profile, operation, vanadium business and others of four global manufacturers (Atlantic Ltd, Highveld Steel and Vanadium Corporation, EVRAZ and American Vanadium Corp) of vanadium products as well as profile, operation, vanadium business and others of eight Chinese manufacturers (Pangang Group Vanadium Titanium & Resources, Hebei Iron & Steel, Xining Special Steel, Guangdong Boxin Investing & Holdings, Shanghai Dingli Technology Development, Sichuan Mingxing Electric Power, Chengdu Tianxing Instrument And Meter and Zhejiang Hailiang) of vanadium products. Order a copy of this research at http://www.rnrmarketresearch.com/contacts/purchase?rname=246379 .

China's vanadium industry is highly concentrated in Pangang Group Vanadium Titanium & Resources Co., Ltd., Hebei Iron & Steel Group Co., Ltd. and other big steelmakers since most of the early vanadium ore investors such as Xining Special Steel Co., Ltd., Zhejiang Hailiang Co., Ltd. and Shanghai Dingli Technology Development (Group) Co., Ltd. haven't entered substantial production yet.

Pangang Group Vanadium Titanium & Resources as China's largest vanadium production enterprise now boasts a production capacity of 20 kt/a vanadium product (V2O5 Equivalent). Besides, it is the only high-vanadium ferroalloy (FeV80) manufacturer there. In the first half of 2014, the company's vanadium products reaped RMB1.61 billion in revenue, down 4.8% year on year.

Hebei Iron & Steel is one of the largest vanadium-titanium production bases in China. It now has six vanadium-nitrogen alloy production lines, with products exported to more than 10 countries and regions, representing an approximately 8% share in global vanadium market. The company's revenue from vanadium products in the first half of 2014 was RMB388 million, up 2.4% year on year.

Partial list of data and information charts provided in Global and China Vanadium Industry Report, 2014-2017 research include:

Utilization Ways for Major Vanadium Resources in the World

Vanadium Industry Chain

Proportion of Global Vanadium Reserves (by Country)

Proportion of Global Recoverable Vanadium Reserves (by Country)

Proportion of Global Vanadium Production (by Country/Region), 2013

Proportion of Global Vanadium Production (by Different Raw Materials), 2013

Cash Cost Curve of Global Vanadium (by Different Raw Materials), 2013

Global Vanadium Production (by Country/Region), 2001-2013

Changes in Global Vanadium Product Inventory, 2011-2013

Proportion of Global Vanadium Consumption (by Country/Region), 2013

Proportion of Global Vanadium Consumption (by Applications), 2013

Global Vanadium Consumption (by Country/Region), 2001-2013

Average Price of V2O5 (Content ≥98%) in Europe, 2003-2014

Average Price of Ferrovanadium (Content 70-80%) in Europe, 2003-2014

Average Price of Ferrovanadium (Content 70-80%) in Pittsburgh Depot, USA, 2013-2014

Distribution of Vanadium Ore Resources in China

Vanadium (V2O5 Equivalent) Output in China, 2001-2013

Consumption of Vanadium Products (V2O5 Equivalent) in China, 2001-2013

Consumption Structure of Vanadium (by Sector) in China, 2013

Comparison of China with Other Major Powers in Iron & Steel Products' Consumption of Vanadium

Average Price of Vanadium (Content ≥99.5%) in China, 2005-2014

Average Price of Vanadium-Nitrogen Alloy in China, 2011-2014

Import Volume and Value of Vanadium Pentoxide (V2O5) in China, 2011-2014

Export Volume and Value of Vanadium Pentoxide (V2O5) in China, 2011-2014

China's Export Volume and Value of Vanadium Pentoxide (V2O5) to Top 10 Export Destinations, 2014

Ferrovanadium (by Differed Content of Vanadium) Export Volume of China, 2011-2014

Gross Margin of Key Vanadium Manufacturers in China, 2009-2014

Vanadium (V2O5 Equivalent) Output in China, 2013-2017E

Iron & Steel Products' Consumption of Vanadium (by Country/Region) Worldwide, 2001-2020E

Explore more reports on the chemicals market at

http://www.rnrmarketresearch.com/reports/materialschemicals/chemicals and other research by Research In China at http://www.rnrmarketresearch.com/publisher/Research-In-China.html .

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http://www.prnewswire.com/news-releases/2017-vanadium-industry-global-and-china-market-forecasts-284292451.html

Reportal: a vast archive of corporate documents from listed companies around the world www.reportaldata.com

Latest Research

Laser-induced breakdown spectroscopy (LIBS) technique for the determination of the chemical composition of complex inorganic materials

Łukasz Łazarek ; Arkadiusz J. Antończak ; Michał R. Wójcik ; Paweł E. Kozioł ; Bogusz Stępak ; Krzysztof M. Abramski

Abstract:

Laser-induced breakdown spectroscopy (LIBS) is a fast, fully optical method, that needs little or no sample preparation. In this technique qualitative and quantitative analysis is based on comparison. The determination of composition is generally based on the construction of a calibration curve namely the LIBS signal versus the concentration of the analyte. Typically, to calibrate the system, certified reference materials with known elemental composition are used. Nevertheless, such samples due to differences in the overall composition with respect to the used complex inorganic materials can influence significantly on the accuracy. There are also some intermediate factors which can cause imprecision in measurements, such as optical absorption, surface structure, thermal conductivity etc. This paper presents the calibration procedure performed with especially prepared pellets from the tested materials, which composition was previously defined. We also proposed methods of post-processing which allowed for mitigation of the matrix effects and for a reliable and accurate analysis. This technique was implemented for determination of trace elements in industrial copper concentrates standardized by conventional atomic absorption spectroscopy with a flame atomizer. A series of copper flotation concentrate samples was analyzed for contents of three elements, that is silver, cobalt and

vanadium. It has been shown that the described technique can be used to qualitative and quantitative analyses of complex inorganic materials, such as copper flotation concentrate.

(http://proceedings.spiedigitallibrary.org.virtual.anu.edu.au/proceeding.aspx?articleid=1900400)

The Industry

What is Vanadium?

Vanadium is soft, but adds strength and hardness when alloyed with other metals such as iron to produce high strength steel which has structural applications for gas and oil drilling platforms, pipelines, tools steel, armour plate, sections of the motor vehicle industry and the aircraft industry as well as for reinforcing bars in high-rise building and construction. Non-steel uses include welding and in alloys used in nuclear engineering and superconductors. Vanadium chemicals and catalysts are used in the manufacture of sulphuric acid and the desulphurisation of sour gas and oil. Vanadium compounds also have potential to be used in fuel cells.

Only 29 per cent of the world's production of vanadium is derived as primary production from mining and processing of magnetite ores while about 56 per cent is recovered from slag as a by-product of steel making and about 15 per cent is recovered from waste ash and oil residues.

Australia's EDR of vanadium amounts to about 2.5 million tonne which make up about 15 per cent of the world's resources. Most of Australia's EDR is hosted in mafic/ultramafic intrusions with a minor proportion in sandstone hosted uranium deposits. Considerable additional resources occur in weathered oil shale deposits near Julia Creek in north Queensland.

Vanadium was produced at Windimurra mine (Western Australia) in 2002 and 2003. Vanadium exploration activity in recent years has been largely directed at mafic/ultramafic intrusions and to the upgrading of known resources. Recent resource and exploration drilling has been undertaken at Speedway Dome, Unaly Hill, and Victory Bore in Western Australia, Mount Peake in the Northern Territory and at the Hawkwood deposit in Queensland.

Vanadium is associated with some mafic/ultramafic rocks which are described in Archean and Proterozoic Resource Packages.

Prices for Vanadium

Vanadium prices have fluctuated during the past decade, with sharp rises and equally sharp declines over short periods.

Over the last three years (2009 to 2011) prices have ranged as low as below $US20 per kg to almost as high as $US35 per kg.

(Source: Geoscience Australia website: http://www.ga.gov.au)

Leading Companies

Atlantic Limited – (ASX: ATI)

Atlantic is the 100% owner of Midwest Vanadium Pty Ltd, the Windimurra vanadium project. The Windimurra project is a world scale vanadium and haematite iron ore project that is currently in production and is expected to reach full capacity of 6,300 tonnes per annum of contained vanadium in 2013.

The Company is also pursuing bauxite development opportunities in Vietnam.

Atlantic will continue to build upon this foundation to examine further opportunities to develop a portfolio of diversified world class resources projects.

Windimurra Vanadium Project

Atlantic acquired 100% of the Windimurra Vanadium Project in 2010. After achieving first production in January 2012, Atlantic is now accelerating towards full production of 6,300 tonnes per annum of contained vanadium in the first calendar quarter of 2013.

Independent research by CPM shows that the Project will be a lowest quartile cash cost vanadium producer as a result of the following:

the attractive transaction metrics negotiated by Atlantic that fundamentally restructure the capital base of Midwest Vanadium Pty Ltd (MVPL) and deliver the benefit of over $500 million of prior capital expenditure for a net present value of $68 million of retained debt;

consolidation of ownership that will streamline the management of the Project under the control of one group;

the acquisition of the crushing and beneficiation plant that will deliver material long-term cost savings;

identification of the haematite by-product revenue stream opportunity, thereby releasing significant further cash credits for the Project, driving costs into the lowest quartile; and

Renegotiation of key supply contracts.

New selective mining opportunities that have the potential to release further material cost savings.

Windimurra production is expected to meet about 7% of world demand, and it is expected global demand growth will require the equivalent of a "new Windimurra" to come on stream almost every year. Windimurra will also have the advantage of being one of the world's low cost vanadium producers.

Australian vanadium sold to consumers in the US is subject to a Free Trade Agreement while vanadium producers from China, South Africa and Russia are subject to anti-dumping duties of between 3.5% and 100%.

Location

The Windimurra Vanadium Project is located approximately 600 kilometres north of Perth and 80 kilometres by road from Mount Magnet in Western Australia.

The Windimurra deposit lies within the eastern flank of the large (greater than2,000km²) Windimurra intruded layered gabbro complex, which is part of the regional Murchison granite-greenstone province.

Development Plan

Following completion of the acquisition of the Project, MVPL began preparations for the recommencement of construction at the Project. This is targeted to begin in early calendar 2011 with a view to achieving first production in mid 2011.

At completion, MVPL completed the acquisition of the existing accommodation camp at the Project site, providing enhanced flexibility to manage the construction and commissioning the Project in the months ahead.

MVPL has now engaged PinC Group Pty Ltd (PinC), an experienced and well resourced project management and project services group, to work with MVPL management to oversee all aspects of construction completion, including developing MVPL's contracting strategy and monitoring the work of individual construction contractors following appointment.

PinC recently completed the successful Utah Point expansion project for the Port Hedland Port Authority and Atlantic is delighted with the early stage discipline and processes that PinC bring to the Project.

Key construction contracts are defined into three distinct work streams:

Structural, mechanical and piping;

Electrical and instrumentation; and

Civil work.

MVPL has made further progress on the implementation of its strategy to monetise the stockpile of haematite at Windimurra and the approximately 1 million tonnes per annum of haematite produced by the Project once it is operational. In particular, constructive discussions have been held with the logistic supply chain partners required to deliver the product into the seaborne world market.

MVPL is also focused on building the management team at Windimurra and a dedicated MVPL recruitment resource has been appointed to oversee this important component of the Project.

Geological Studies

Mineral Resources

The inherited mineral resource base of the project, was based on a mineral resource estimate from a 6 kilometre identified strike length and reported in December 2008. The total resource was 176.59 million tonnes at 0.46% V2O5, using a lower cut-off of 0.275% V2O5.

To improve the geological knowledge of the targeted start-up mining area (a cutback of the exiting pit) an infill reverse circulation drilling program of 3,400 metres was undertaken between November 2010 and January 2011. The drilling allowed better definition of grade distribution within the stacked flow packages; the identification of enriched grade zones (greater than 0.52% V2O5); definition of the weathering and hence beneficiation recovery profiles; and the extension of the known resource base down to a depth of 150 metres (previously identified to 90 metres).

Based on the drilling results, a revised global mineral resource estimate was compiled to JORC compliance standards and was released in March 2011, resulting in a 19% increase in the mineral resource base of the project to 209.97 million tonnes at 0.47% V2O5, using a lower cut-off of 0.275% V2O5.

Mineral Resources – Windimurra Vanadium Project (lower cut-off of 0.275% V2O5)

December 2008 March 2011 Tonnes (Mt) V2O5% Tonnes (V) V% Tonnes (Mt) V2O5% Tonnes (V) V% Measured 46.68 0.48 126,000 0.27 49.90 0.46 124,700 0.25 Indicated 70.73 0.47 183,000 0.26 100.28 0.47 260,700 0.26 Inferred 59.18 0.44 148,000 0.25 59.79 0.48 161,400 0.27 TOTAL 176.59 0.46 457,900 0.26 209.97 0.47 546,800 0.26

Ore Reserves

The inherited ore reserve base of the project, on the successful completion of the project acquisition by Atlantic Ltd in September 2010, was based on an ore reserve estimate from an identified 3.7 kilometres core of the 6 kilometres resource base reported in December 2008. The total ore reserve was 97.8 million tonnes at 0.46% V2O5, using a lower cut-off of 0.275% V2O5. The life of mine was 24 years based on 4 million tonnes per annum feed rates.

A new ore reserve study was undertaken in 2011, using the improved mineral resource position and also using the techniques of up to four (4) selective mining grade bins dependant of weathering profile, with interim stockpiling and reclaim of the lower grade proportions, to further optimise the mine schedule and to improve the head grade. The results of the study confirmed that a 10% increase in head grade was achieved using these techniques for the first 10 years of the operation, from the 2008 position of 0.47% V2O5 to 0.51% V2O5. The pit designs were also extended to a depth of 150 metres where viable, and were optimally sequenced to ensure optimal selectively mined grades were supplied to the plant in priority of grade distributions.

The new ore reserve position resulted in a 30% increase from that reported in 2008, due to the underlying improved mineral resource base and the use of the above selective mining sequencing techniques. The life of mine was also extended to 28 years based on 4 million tonnes per annum feed rates.

December 2008 Ore Reserves (Global lower cut-off of 0.275% V2O5)

Classification Tonnes (Mt) Grade V2O5 % Tonnes (V) Grade V % Proven 40.7 0.47 105,800 0.26 Probable 57.1 0.47 148,500 0.26 TOTAL 97.8 0.47 243,300 0.26

May 2011 Ore Reserves (Variable lower cut-off dependant of weathering state; Oxide= 0.34% V2O5; Transitional = 0.32% V2O5; Fresh = 0.27% V2O5)

Classification

Tonnes (Mt) Grade V2O5 % Tonnes (V) Grade V % Proven 49.3 0.46 128,200 0.26 Probable 78.3 0.47 206,000 0.26 TOTAL 127.6 0.47 334,200 0.26

The revised pit design comprises up to 7 stages, over a strike length of 4.3 kilometres, for a life of mine of 28 years, to a maximum depth of 155 metres.

Exploration

The acquisition of the Windimurra project included a package of 100% owned mining and exploration tenements covering a total strike length of 27 kilometres of prospective ground for titano-vanadium, and magnetite based iron ore-style mineralization. The current mineral resource base on which the Windimurra Vanadium mine and processing facility is being commissioned is located on the northern 6 kilometre corridor within this. Of this 6 kilometre strike that has been drilled, the current open-pit mine design extracts an inner 4.2 kilometres. This leaves an extensive 21 kilometre strike package unexplored to the south.

A high resolution aero-magnetic response survey was undertaken over the ground in 2007, with further detailed fill-in lines undertaken in 2008. The responses showed that the high magnetic gabbros associated with the lower layered sequence of Shepherd’s Discordant Zone, which hosts the titano-vanadium horizon at Windimurra, extends through the acquired southerly tenement holdings.

Exploration of the region has had a chequered and limited history, with several companies undertaking low level reconnaissance surveys (Hawkstone Minerals and Ferrovanadium Corp in the 1970’s and early 1980’s; an Alcoa Australia and BHP Minerals Joint Venture in the mid 1980’s and Precious Metals Australia in 1989). All exploration and resource development works were undertaken within the northern 6 kilometre strike length that now forms the Windimurra Vanadium mine.

Atlantic initiated the first exploration on this greenfields ground in January 2011, via 5 traverse lines of reverse circulation drilling, 5 kilometres apart, across the high magnetic signature. This scout drill program was not designed nor intended to return a quantifiable mineral resource, but to be used as a tool in confirming

the overall geological setting and weathering states, and to return an understanding into the broad V205, Fe and TiO2 grade distributions within the belt. As such, it was designed as a preliminary stepping stone in the development of a future targeted strategy for these tenements.

The scout program was successful in confirming the continuous presence of the main vanadium-magneto horizon as expressed in the Shepherd's Discordant Zone (SDZ) at Windimurra, for the strike length of the southerly tenement holdings. Widths of mineralization and grades of vanadium bearing units were comparable to Windimurra for the first 9 kilometres south of the proposed current life of mine pit design, and then reduced to approximately half the width by the southern extent was reached, whilst the vanadium grade was maintained. A second peripheral vanadium-magneto horizon was located some 400 metres west of the main SDZ. This unit had an average of 7 metres and an identified strike length of 4.7 kilometres, in the southern section of the tenement holdings.

Atlantic is committed to future systematic further exploration of this highly prospective southern extension of the known Windimurra deposit. Future programs will include follow up exploration and definition of resources based on the previously identified 0.80% V2O5 outcropping massive magnetite hosted beds that outcrop, as well as specialized steel market ore products within the belt.

Competent Person Statement

Mineral Resources and Exploration Activities

The information in this report relating to exploration activities and mineral resources is based on information compiled by Colin J S Arthur, who is a Chartered Geologist, Member of The Australasian Institute of Mining and Metallurgy and Fellow of the Geology Society of London. Mr Arthur was, until 20 September 2012, a full-time employee of Midwest Vanadium Pty Ltd in the capacity of Chief Geologist.

Mr Arthur has over 26 years experience in this style of mineralization and the type of deposit under consideration and related mining method and project evaluation. He has sufficient experience which is relevant to the style of mineralization and to the activity which he has undertaken. He is therefore qualified as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Arthur consents to the inclusion of this report in the form and context in which it appears.

Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by Quinton de Klerk, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr de Klerk is a Director and Principal of Cube Consulting Pty Ltd (CUBE).

Mr de Klerk has sufficient experience which is relevant to the activity that 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'. Mr de Klerk consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

(http://atlanticltd.com.au/projects/windimurra)

PRODUCTION & SALES REPORT MONTH OF OCTOBER 2014

Windimurra Operations

Production of vanadium at Windimurra has been suspended since February following a major fire in the beneficiation plant.

The damage to the beneficiation plant was extensive and further detailed structural engineering demonstrated that the most cost and time effective option for the rebuild of the area was to demolish the existing structure and rebuild the plant from its foundations.

Demolition work in the beneficiation area and the front end engineering and design work for the beneficiation plant rebuild have been completed.

In early October, Atlantic awarded the design and construct EPC contract for the plant rebuild to Primero Group.

Primero Group has extensive knowledge of the Windimurra project and has previously provided successful construction services to the Company.

Primero has now mobilised to site, established its construction infrastructure at Windimurra and commenced foundation works. In parallel with this site based work, the detailed final design work is continuing in Perth.

Fabrication of steel and plate work for the rebuild is underway at local workshops in and around Perth. This fabrication work has been sub-contracted to a number of specialist fabricators to expedite the work and facilitate the rebuild in the shortest possible time frame.

Orders for other critical components such as pumps and valves have now been placed, and long lead time items ordered early in the schedule continue to be delivered as expected.

Atlantic expects that reconstruction of the beneficiation plant will be completed in an industry leading time frame of just over one year from the date of the fire.

Insurance

The Company holds comprehensive industrial special risks insurance that covers both the material damage to the beneficiation plant as a result of the fire and the related business interruption. The Company's insurers have granted indemnity for the fire and late in October, Atlantic was advised that a further progress payment from the insurers of $13 million would be made. This progress payment has now been received, bringing the total insurance proceeds received to date to $63 million.

Production and Sales

There was no production or sales of vanadium in October.

Iron Ore

During the month, the Company continued discussions with prospective customers for its iron ore products, with particular emphasis on niche market opportunities for MVPL's high titanium furnace protection iron ore lump product. Due to the current low market prices for iron ore products, the Company chose to make no iron ore sales during the month.

Business Review

As previously announced, the Company concluded a thorough review of its business, encompassing a review of the mine plan, the crushing, milling and beneficiation (CMB) circuit and the refinery in July. This review was based on the Company's commissioning and operating experience over the last two years, with particular emphasis on the CMB circuit. The business review demonstrated that following implementation of new process plant flow sheet changes and the rebuild of the fire damaged beneficiation plant, the Windimurra project is expected to produce approximately 4,800 –5,200 tonnes per annum of contained vanadium at steady state. As part of this review, the Company has also developed a plan to right-size the business to take into account these steady state production levels.

Notwithstanding that the expected steady state production levels are lower than was previously envisaged for the Windimurra project, the business review demonstrates a long-term sustainable future for the business.

Discussions with Stakeholders

To fund the proposed capital expenditure and working capital to implement the proposed process improvements identified as part of the business review, the Company will require additional funding. Atlantic is currently in discussions with its stakeholders regarding this additional funding as well as an appropriate longer term capital structure for the business.

Extension of Forbearance

The Company and its wholly-owned subsidiary MVPL has now entered into a new forbearance and support agreement with the holders of a majority of MVPL's senior secured notes to extend the existing standstill arrangements that ended on 14 November 2014 until 15 December 2014.

In conjunction with this new forbearance agreement, MVPL also agreed to related amendments to the existing

$29.7 million secured loan facility agreement with Atlantic's largest shareholder Droxford International Limited (Droxford) to extend the maturity date of that facility until 15 December 2014.

Under the forbearance agreement, the senior secured note holders have agreed to continue the existing standstill arrangements in relation to certain events of default which have occurred under MVPL's indenture, including MVPL's failure to deposit funds in its interest reserve account and pay the February and August interest payments on its senior secured notes until 15 December 2014.

The forbearance is subject to, among other things, there being no further events of default under MVPL's indenture or the Droxford facility during the term of the forbearance agreement. Under the forbearance agreement, the note holders have also agreed with MVPL to continue to use their good faith efforts to negotiate and execute a definitive agreement among MVPL and the supporting note holders to affect a solvent restructuring of MVPL.

These arrangements provide further time for the Company to continue discussions with its stakeholders regarding approval for the additional funding required to implement the Company's new business plan as well as an appropriate longer term capital structure for the business. MVPL will shortly commence a related consent process to implement technical indenture amendments agreed as part of the new forbearance agreement, including amendments that will allow the Company to incur up to an additional $10 million in permitted indebtedness if a restructuring agreement is executed among MVPL and the supporting note holders. This consent process is expected to conclude in December.

ASX Suspension

Following the fire in the beneficiation plant on 4 February, the Company requested a voluntary suspension in the trading of its securities. Atlantic believes that it is appropriate for the suspension in the trading of the Company's securities to remain in place given that the Company is in discussions regarding a longer term restructure of the business.

(http://atlanticltd.com.au/upload/documents/InvestorRelations/asx/141119MonthlyProductionandSalesReport.pdf)

Reed Resources Ltd – (ASX: RDR)

Reed Resources Ltd (ASX: RDR, OTC: RDRUY) is a Western Australian minerals project developer. Reed's projects include:

Mount Marion: High-grade lithium project located 40km south of Kalgoorlie in JV with Mineral Resources Limited (ASX: MIN)(RDR 70% - MIN 30%). Reed Resources is planning to capitalise on growth in the energy storage market by producing high purity LiOH via a proprietary process flowsheet from ore sourced from the Company's jointly owned Mt Marion Lithium deposit. The downstream process route shows potential to operate at lowest quartile costs for LiOH.

Barrambie: the Barrambie deposit is one of the world's highest grade hard rock titanium deposits. Reed is currently investigating the potential to use a proprietary acid leach process to produce high purity TiO2, V2O5 and Fe2O3.

Mount Finnerty: Iron ore as well as a nickel option with Barranco Resources NL.

Reed Resources' American Depositary Receipts (ADR's) trade under the code RDRUY (CUSIP Number: 758254106). Each Reed Resources ADR is equivalent to 10 ordinary shares of Reed Resources as traded on the ASX. The Bank of New York Mellon is the depository bank.

REED RESOURCES LTD QUARTERLY ACTIVITIES REPORT – 29 October 2014

QUARTERLY ACTIVITIES REPORT

Mt Marion Lithium Project

☐ Production of lithium hydroxide catholyte from semi-pilot plant in USA continues.

☐ Long-run trial confirms potential to deliver lowest-quartile operating costs as indicated in the Pre-feasibility Study 2012.

☐ Downstream partner selection commenced under management of senior lithium industry Executive Mr Michael Tamlin.

Barrambie Titanium Project

☐ Successful continuous production of high-purity titanium dioxide via a proprietary hydrometallurgical process.

☐ Results confirm potential to deliver lowest-quartile operating costs as indicated in Scoping Study

(2013).

☐ Sedgman and Snowden Mining Industry Consultants commenced a Pre-feasibility Study.

☐ Mr D. Michael Spratt, former COO of Minproc, engaged to manage the study.

Mt Finnerty Project

☐ EIS Co-funded diamond drilling approved for December Q 2014.

Lake Johnston Project

☐ New geophysical target identified beneath historic nickel sulphide intersection.

☐ Diamond Drilling commenced in October 2014.

Corporate

□ 24M shares bought back and cancelled following Shareholder Approval at EGM.

□ Cash and restricted access term deposits $11.7 million.

MT MARION LITHIUM PROJECT

(Reed 70%, Mineral Resources Limited 30%)

During the quarter Reed Industrial Minerals Pty Ltd (RIM) continued to advance the Mt Marion Lithium Project (Mt Marion) with the successful continuous production of lithium hydroxide (LiOH) catholyte from a semi-pilot plant in the USA. RIM is owned 70:30 by Reed Resources Ltd and leading mining services provider Mineral Resources Limited (MRL). MRL fund and operate the project through their subsidiary, Process Minerals International Pty Ltd.

The semi-pilot plant was commissioned in March 2014 and continues to demonstrate the successful scale up RIM's proprietary hydrometallurgical flowsheet including the purification and electrolysis of lithium chloride solutions, which can be obtained from either mineral or brine feedstocks.

The electrolysis process is similar to the Chlor-Alkali process used to produce caustic soda (sodium hydroxide) and hydrochloric acid

(http://www.reedresources.com/reports/570-quarterly-activities-report-141029.pdf)

Extracts from Annual Report 2013

Meekatharra Gold Project

(Reed 100%)

The Meekatharra Gold Project ("Project") is situated in Western Australia's prolific Meekatharra – Wydgee Greenstone Belt which is host to a number of multimillion ounce deposits, including Mt Magnet (8 Moz) and Tuckabiana (1 Moz).

In 2011 GMK Exploration Pty Ltd ("GMKE"), a wholly owned subsidiary of Reed, acquired one of the most fertile contiguous packages of land in this greenstone belt. It has a strike of 110km, covering approximately 800 square kilometres and has produced in excess of 4.5 Moz of gold during the course of its history.

Strategically located in the centre of the project area is the Group's 3 million tonne per annum Bluebird CIL processing plant. Co-located at Bluebird is support infrastructure including administration offices, workshops, laboratories, power station and a 190 room accommodation village, all of which have an estimated replacement cost in excess of $100 million.

Strategy

The Project comprises numerous open pit and underground deposits across four primary project areas which include Yaloginda, Paddys Flat, Reedys and Meekatharra North. In line with the Group's corporate objectives of minimising risk whilst achieving an acceptable financial return, the Project was designed to be executed in three Stages:

a) Stage 1: Recommence Operations – planned as a low risk development option involving mining of shallow free milling Yaloginda ore bodies in what was envisaged to be a 21 month development and production plan;

b) Stage 2: Operational Expansion – planned to exploit the remaining 618,000 ounces of Reserves and see the focus expand from open pit to both open pit and higher grade underground production at Paddy's Flat to the north and Reedys to the south in addition to continuing operations at Yaloginda; and

c) Stage 3: Increase Life of Mine – conversion of remaining Resource ounces to Reserves through advanced targeting and exploration techniques and the identification of new Resources and Reserves with the ultimate aim of delivering a sustainable 10 year mine life.

(http://www.reedresources.com/reports/485-reed-resources-annual-report-2013.pdf)

TNG Limited – (ASX: TNG)

Western Australia.

TNG's main focus is the evaluation and development of its 100%-owned Mount Peake Vanadium-Titanium-Iron Project, located in the highly prospective Arunta Geological Province some 80km north-east of Alice Springs in the Northern Territory. Discovered by TNG in early 2008, the Mount Peake Project comprises a current JORC Indicated Resource of 140Mt grading 0.3% V205, 9% Ti02 and 35% Fe, making it one of the largest of the known vanadium projects in Australia.

Work carried out by TNG to date has enabled the Company to establish an Exploration Target1 of 500-700Mt grading 0.2-0.4% V205 and 25-35% Fe in addition to the JORC resource, potentially making the Mount Peake Vanadium Project one of the largest vanadium deposits in the world.

A preliminary Scoping Study carried out by Snowden Mining Industry Consultants in 2009 demonstrated positive economics based on the Inferred Resource, and a revised final Scoping Study is due to be released in early 2011.

This Study is expected to confirm that the current JORC resource can underpin a robust long-life operation based on the use of a revolutionary hydrometallurgical process developed jointly by TNG and Perth-based Metallurgical consultants (METS) which enables all three products – Vanadium, Titanium and Iron – to be economically extracted.

The project is strategically located close to existing infrastructure, including the Alice Springs-Darwin Railway, Stuart Highway and the new LPG pipeline, 20km to its east.

Vanadium is a "miracle metal" which is used to impart strength, hardness and water resistance to steel, in the manufacture of titanium alloys used in jet engines, airframes and other high-end specialty materials, and in the chemical industry, notably in batteries, plastic, glass and pigments.

Steel accounts for over 85% of vanadium demand, with consumption predicted to increase at similar rates to the growth of the global steel industry – driven by the rapid expansion of the Chinese economy and growing per capita use and intensity of use of steel in the BRIC economies (Brazil, Russia, India and China).

While its focus is the Mount Peake Project, TNG also has a broad range of exploration projects in the Northern Territory ranging from advanced projects with existing resources, to green fields exploration. Its tenements include exposure to a wide range of commodities including gold, lead, zinc, nickel and copper.

These include the 100%-owned Manbarrum Zinc-Lead-Silver Project, located 70km north-east of Kununurra. The Manbarrum tenements cover a 52km strike length of identified zinc-lead-silver mineralisation of the Mississippi Valley Type (MVT) including a 36 million tonne resource inventory of combined zinc, lead and silver resources.

TNG's other assets include a 20% free-carried interest in the Cawse Extended Project, convertible to a 2% net smelter return, which is located adjacent to the Cawse Nickel-Cobalt Operation in Western Australia.

TNG is listed on the Australian Securities Exchange (Ticker: TNG) and also on several European Bourses including Frankfurt.

Extracts from TNG Annual Report 2013

Highlights – Year in Review

Mount Peake Vanadium-Titanium-Iron Project (NT)

• Updated Resource completed for Mount Peake Project following successful drilling program – 120Mt or 74%of total Resource of 160Mt now classified as

Measured Resource status.

• Internal technical review of July 2012 Mount PeakePre-Feasibility Study identifies a significant under-estimation of the value of iron oxidemineralisation. A corresponding revision to the financial model lead to:

- 15% increase in life-of-mine (LOM) revenues fromA$11.8 billion to A$13.6 billion;

- 40% increase in Net Present Value (NPV8%) fromA$1.884 billion to A$2.646 billion; and

- 22% increase in pre-tax IRR from 31.8% to 38.7%.

Metallurgical optimisation work reduces forecast OPEXby A$20/tonne or up to A$50M per annum, with the combination of reduced OPEX and the lower Australian Dollar exchange rate providing an enhancement to overall project economics.

Management of Mount Peake DFS transferred in-house after the Company's DFS contractor, ArcconMining Services, appointed a voluntary administrator.

Completion of the DFS has been deferred untilQ1 2014.

Notice of Intent (NOI) submitted to the Northern Territory Government, marking a key step inthe approvals process leading towards project development. Final EIS expected to be completed by Q2 2014. Mining Agreement progressing with Traditional Owners.

Heads of Agreement signed with Darwin Ports Corporation to negotiate the use of land and port facilities at East Arm Wharf and with Rail operator Genesee and Wyoming to commence a logistical transport study.

Major Project status awarded by Northern Territory Government.

Tivan® Hydrometallurgical Process

MOU signed with leading European international engineering and metallurgical technology group for discussions regarding commercial development of IVAN®. Advanced metallurgical test work programming progress.

The definitive pilot plant with CSIRO will commence when all results are available.

Patent for TIVAN® registered in Australia, Canada, China, Europe, Russia, USA, Malaysia, Singapore and Vietnam.

Other Projects

Very encouraging results were received from diamond drilling at Mt Hardy Copper-Gold Project in the Northern Territory, during the year, including several high-grade copper, base metal and gold intersections.

Drilling intersected broad zones of polymetallicmineralisation indicating the potential for a largepolymetallic system at depth. TNG considers that securing a joint venture partner is the best way to progress this project, enabling it to continue to focus on its flagship Mount Peake Project. Discussions have commenced on potential farm-in joint venture for this project.

A binding Term Sheet was signed with Legacy Iron Ore(ASX: LCY) to sell the company's Manbarrum Zinc-Lead-Silver Project in the Northern Territory for $5M, including a $2M cash payment on completion of a 60-day due diligence period and other conditions precedent.

Farm-in and Joint Venture agreement signed with Rio Tinto Exploration for the Melville Island bauxite license.

Corporate

$1.5M share placement completed to sophisticated investors with a further $1.2 million raised through a well-supported Share Purchase Plan. Directors considering placement of the shortfall of $2.3M.

$3.2M Research & Development refund claim lodged under the Federal Government's R&D tax incentive scheme for the 2012/2013 financial year.

Strategic expenditure reductions implemented covering both remuneration, corporate and administrative project reviews, including a reduction in fees and salaries for Directors, management and staff and reductions in supplier contracts.

Further cost savings implemented following the transfer of management of the Mount Peake DFSin-house and decision to defer completion untilQ1 2014.

Alternative exploration and development scenarios under consideration for all projects, with the changes designed to streamline TNG's operations in the current market.

Appointment of experienced mining executive Mr Michael Evans as a Non-Executive Director

(http://clients2.weblink.com.au/clients/tngltd/article.asp?asx=TNG&view=6653626)

MARCH 2014 QUARTER A STANDOUT FOR TNG WITH MAJOR DEVELOPMENTS ON A NUMBER OF FRONTS

Long-term strategic agreement signed with major Korean industrial company, WOOJIN, encompassing off-take, marketing and assistance with financing.

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Technical review to assess the merits of locating the TIVAN processing plant for Mount Peake ore in Malaysia highlights a significant boost to the project economics, including:

a reduction in capital costs of A$43 million;

a reduction in operating costs of A$2 per tonne;

an increase in net annual cash flow from A$395 million to A$420 million; an increase in Net Present Value (NPV8%) from A$2.6 billion to A$2.8 billion; and

an increase in pre-tax IRR from 38% to 43%.

Projected financial outcomes are further enhanced by the effect of the falling AUD exchange rate - at an exchange rate of $0.90, NPV increases to A$3.3 billion and the IRR to 44.3%.

International consulting firm ENVIRON engaged to act as advisor for the Mount Peake project in Malaysia.

New drilling programme commenced at Mount Peake with the aims of testing the aquifer for future mine development and testing the resource potential of recently identified magnetic targets. Results from initial holes show significant widths of magnetite gabbro similar to that which hosts the Mount Peake resource to the west.

Definitive Feasibility Study progressing.

TIVAN® HYDROMETALLURGICAL PROCESS

Despatch of Magnetic concentrates to CSIRO for final downstream Leaching and Solvent Extraction testwork production in progress to complete the commercialisation of the TIVAN Process.

Acid regeneration/recycling testwork progressing well in Europe, with outcomes in-line with or better than expectations.

OTHER PROJECTS

TNG to drill promising Legune iron ore discovery in NT following re-structure of Joint Venture arrangement with Teng Fei Mining.

Expansion of tenure in the highly prospective Roper River Iron Ore Province following acquisition of two additional tenements.

CORPORATE

Appointment of international vanadium expert, Paul Vollant, as General Manager, Business Development. Mr Vollant has held former roles with Noble Group and Element Group and has joined the TNG executive team to establish key trading and marketing platforms for Mount Peake ore.

Appointment of Michael Evans as Acting Chairman of the Company following the resignation of Jianrong Xu as Chairman. Mr Xu will remain as a Non-Executive Director.

Completion of $700,000 share placement, representing additional commitments received following the share placement completed in October 2013.

Major new research reports published by Hardman & Co and Breakaway Research, with the Breakaway report providing an indicative value for TNG of $0.28/share, contingent on successfully attracting an equity partner to fund and develop Mount Peake.

Cash reserves of $5.45M at Quarter-end.

(http://www.tngltd.com.au/images/tngltd---haphoophee.pdf)

CO rsrhrl : Syrah Resources Limited

IN ibasicm : Basic Materials/Resources | imet : Mining/Quarrying

NS ciprof : Industry Profile | ccat : Corporate/Industrial News

RE austr : Australia | china : China | melb : Melbourne | usa : United States | victor : Victoria (Australia) | waustr : Western Australia | hebei : Hebei | apacz : Asia Pacific | asiaz : Asia | ausnz : Australia/Oceania | bric : BRICS Countries | chinaz : Greater China | devgcoz : Emerging Market Countries | dvpcoz : Developing Economies | easiaz : Eastern Asia | namz : North America

PUB Acquisdata

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