

ALKANE RESOURCES Ltd

2013 Annual General Meeting



MULTI-COMMODITY MINER EXPLORER
www.alkane.com.au

PERTH
17 October 2013

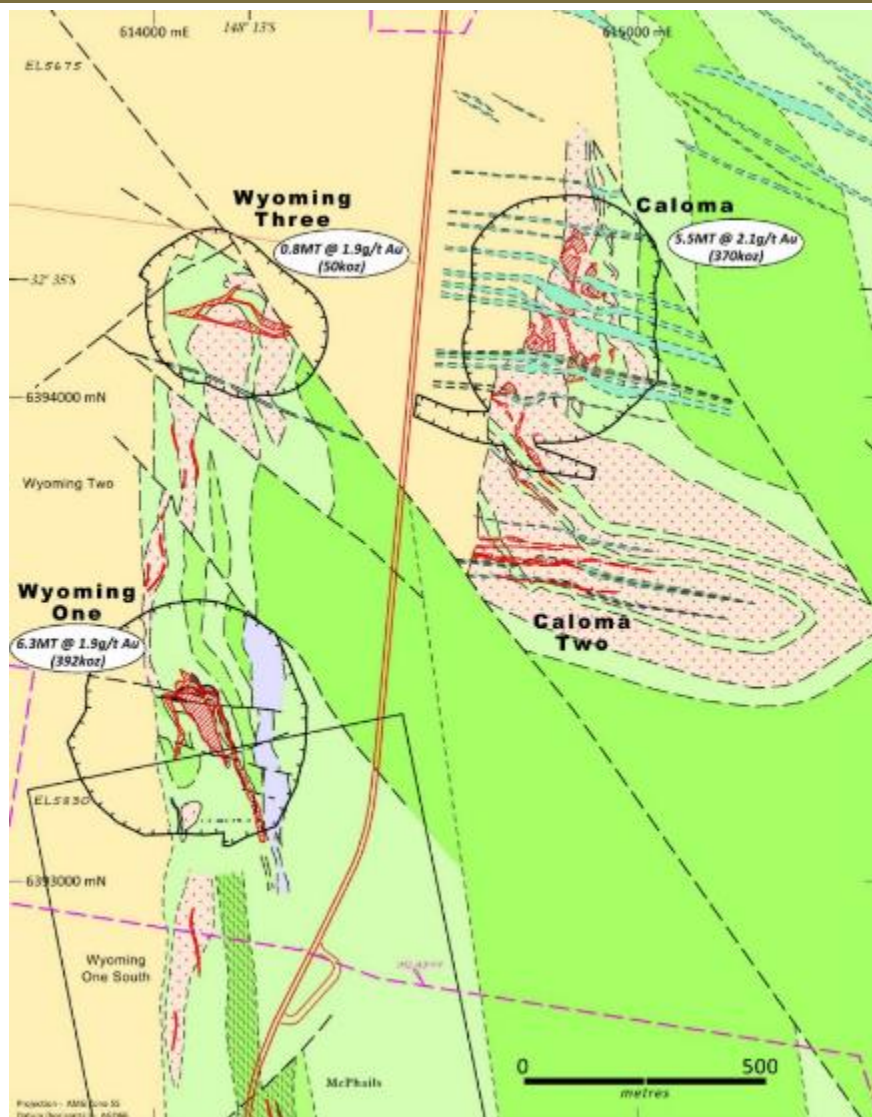
- Listed on ASX since 1969, also listed on OTCQX (US)
- Market cap \$140M
- 6,100 shareholders (85% Australian)
- Multi commodity explorer, miner and developer focused on Central West of NSW
- Active in region for more than 20 years
- Developed Peak Hill Gold Mine in 1996, operated to 2005
- Tomingley Gold Mine construction nearing completion, first gold production early 2014
- World-class Dubbo Zirconia Project (DZP) feasibility completed; environmental assessment and financing in progress
- Successful ongoing exploration



Base case statistics

- Project approval by NSW Department of Planning and Infrastructure late July 2012. Mining Lease approved February 2013
- Resource – 12.6 Mt @ 2.0g/t (812,000oz)
- CAPEX – A\$107M
- Throughput – 1.0Mtpa
- Head Grade – 2.00g/t
- Recoveries – 93%
- Gold Production – 400,000oz over base case life
- C3 Cash operating costs – ~\$1,000/oz
- EBITDA - \$150M (spot at \$1,400/oz)
- Life – 7.5years (targeting +10 years)
- Mine method – open cut & underground
- Caloma Two resource estimate
- Commissioning anticipated early 2014

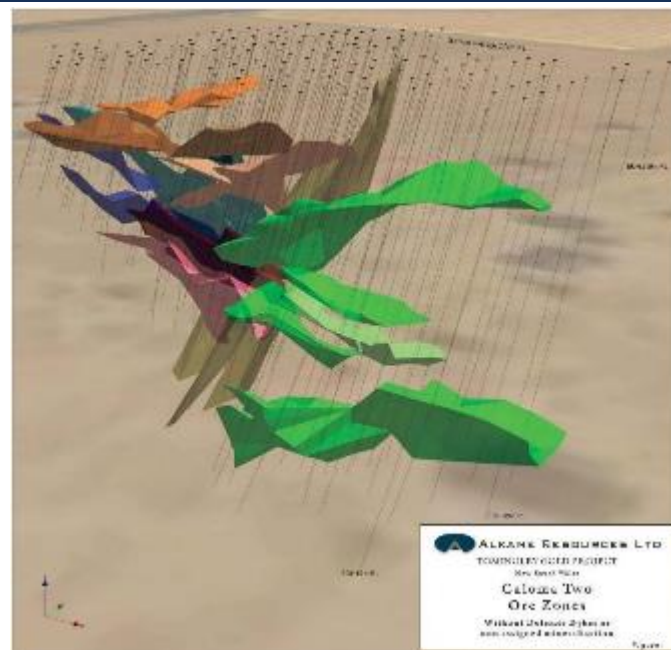




Additional Resource Potential

- Caloma Two open pit and underground
(Recent drill intercept 9m @ 110g/t Au)
- Expand Wyoming One underground
- Caloma underground
- Myalls underground
- Wyoming Two and Three underground
- McLeans

Caloma Two – Geological model





TGP CIL Plant & Gold Drill Sample



The Dubbo Zirconia Project

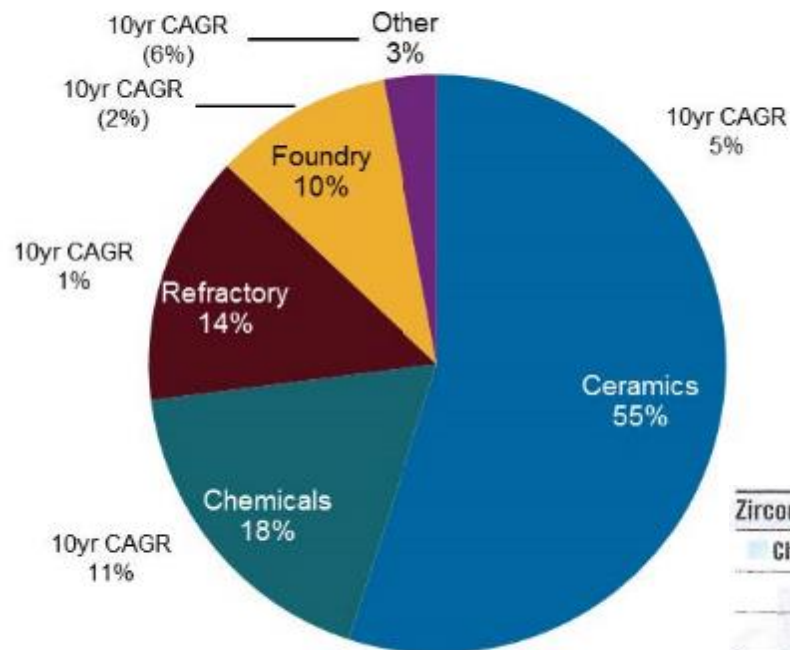
- A very large* polymetallic resource of the metals zirconium (hafnium), niobium (tantalum), yttrium and rare earths
- Important and strategic metal mix, including 25% heavy rare earths
- Open pit life of at least 70 years
- Demonstrated flow sheet with pilot plant and products for market evaluation
- Robust technical and financial feasibility completed
- Strong market interest in products
- Growing and diverse markets

*resource and reserve statement appended

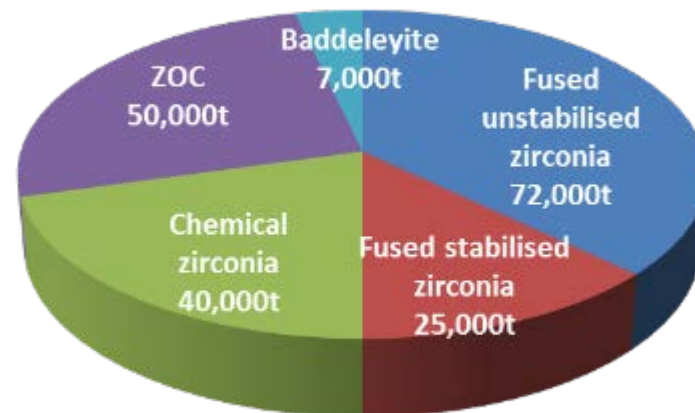




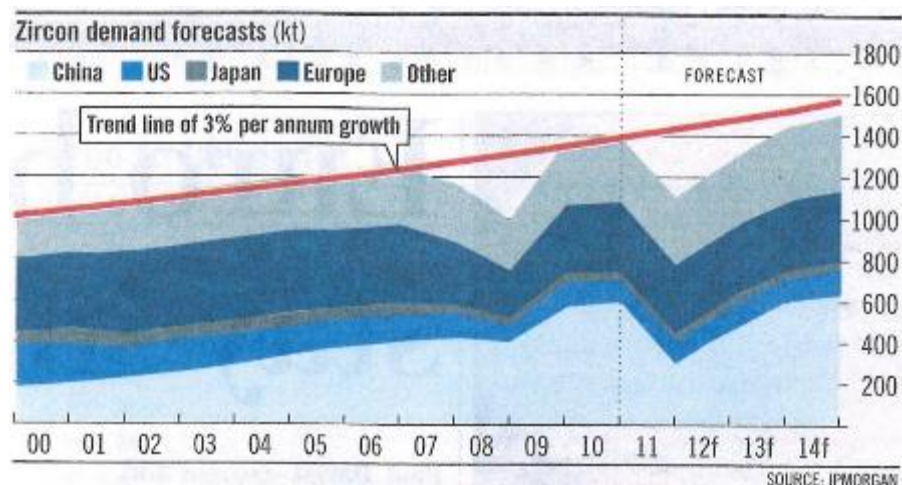
**Zircon Demand by End Use
(2011 – 1.4mt)**

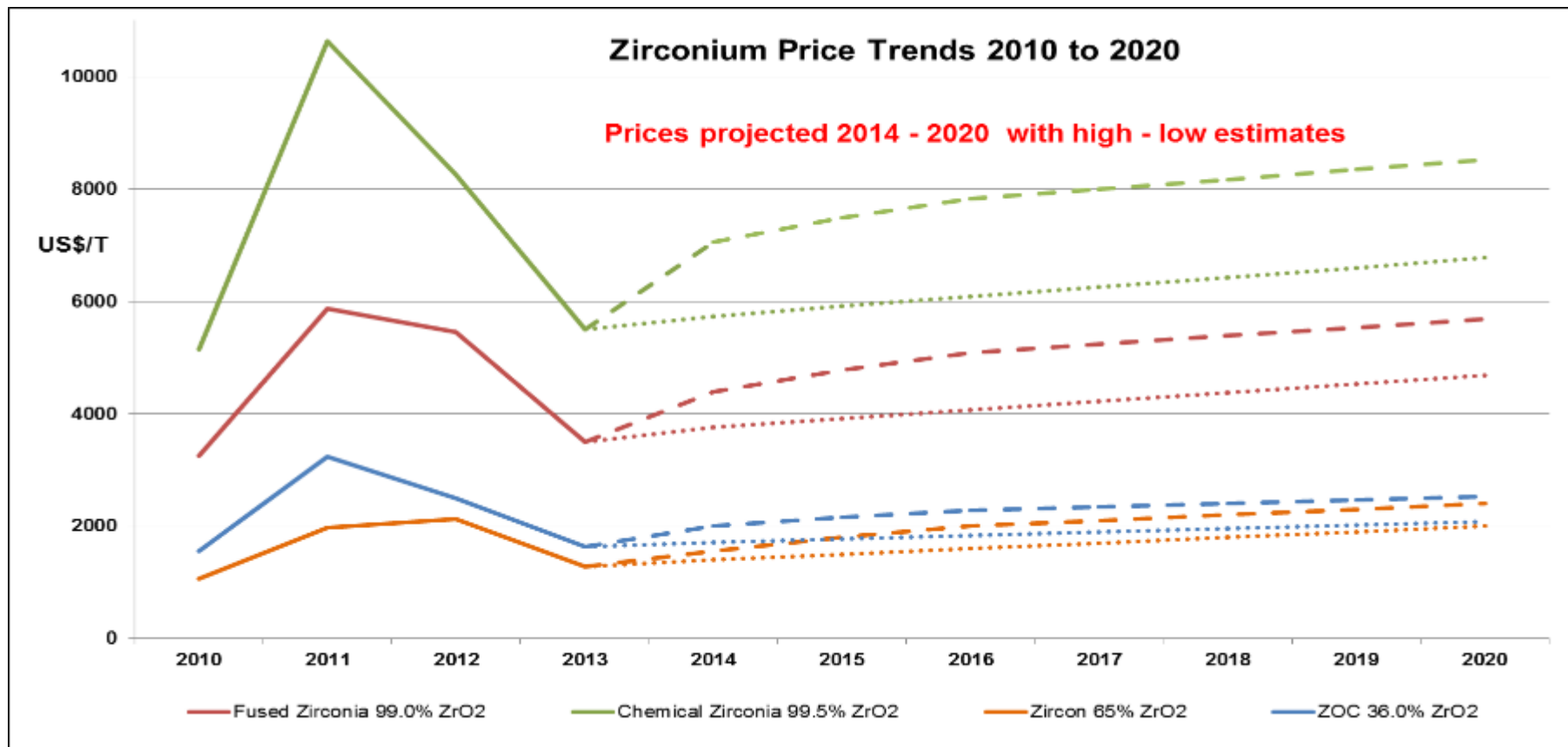


**Zirconium Chemicals Output
(2011 – 194,000t ZrO₂ basis CAGR 10%)**



- Mid 2013 consumer zircon inventories running down
- Market expected to move back into under supply 2015 - 2016
- Prices starting to recover

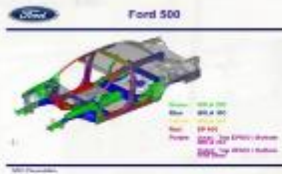




Zirconia and zirconium chemicals market growing at 11% pa

AUSTRALIAN ZIRCONIA LTD
(A SUBSIDIARY OF ALKANE RESOURCES LTD)

APPLICATIONS FOR NIOBIUM MATERIALS



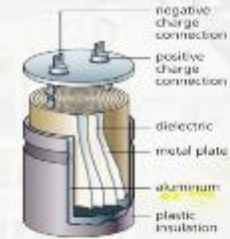
Special Steels – HSLA*

- Weight reduction for fuel efficiency
- Pipelines
- Bridges



Alloys

- turbine blades



Capacitors

- Electric motors
- Mobile electronics



Glass

- Camera lens and TV glass
- Optical glass

Jewellery



Coinage



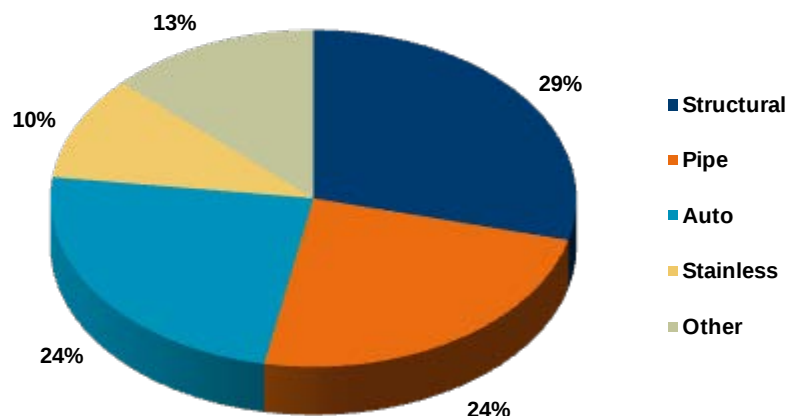
Superconducting Magnets

- Particle accelerators
- Maglev transport
- Magnetic Resonance Imaging



Sources: Ford MC, CBMM, Google Images
* (High Strength Low Alloy)

Current use of ferro-niobium



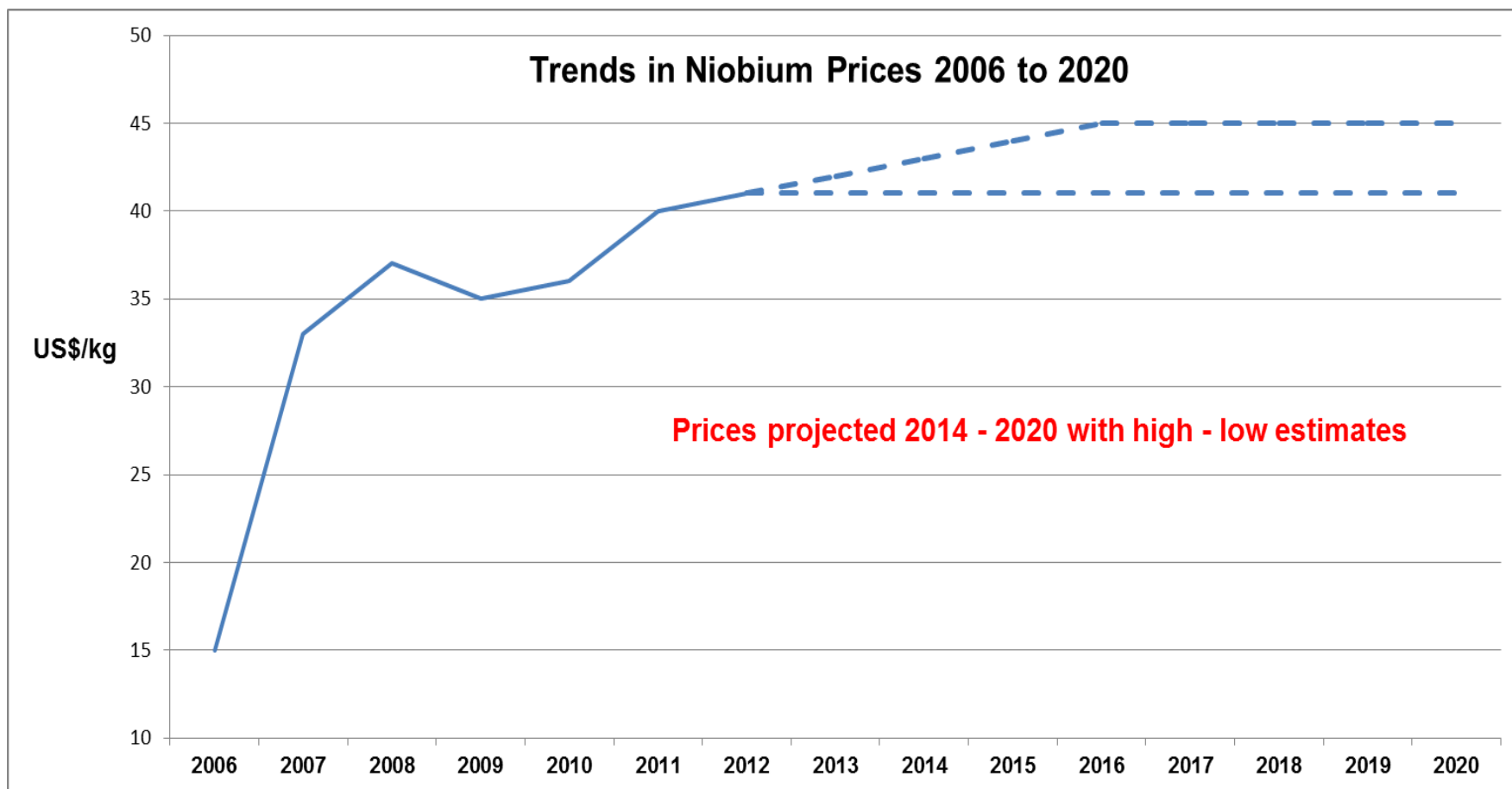
Autos



ØRESUN Bridge



- 90% of Nb used in standard grade ferro-niobium for the production of high strength low alloy (HSLA) steels
- Nb HSLA steels are primarily consumed in structural and pipe, but the auto industry is becoming an increasing consumer
- 80,000t Nb produced in 2012. CBMM in Brazil accounts for 85%



CAGR 10% Demand driven by greater usage in steels of BRIC producers

APPLICATIONS FOR RARE EARTH MATERIALS

Electronics

- Display phosphors (CRT, PDP, LCD)
- Medical imaging phosphors
- Lasers
- Fibre Optics
- Optical temperature sensors

Ceramics

- Capacitors
- Sensors
- Colourants
- Scintillators
- Enamels
- Opacifiers

Glass

- Optical glass
- Polishing compounds
- Thermal control mirrors
- Colourisers / Decolourisers
- Cubic zirconia

Metal Alloys

- Hydrogen storage (NiMH batteries, Fuel cells)
- Superalloys
- Aluminum / Magnesium
- Lighter flints

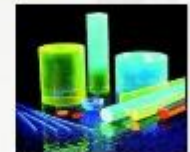
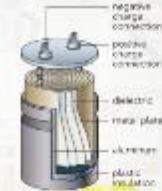
Magnets

- Electric motors
- Disk drives
- Power generation
- Actuators
- Microphones and Speakers
- Magnetic Resonance Imaging (MRI)
- Anti-lock brake systems
- Electric drive & propulsion
- Magnetic storage disk
- Microwave power tubes
- Magnetocaloric alloys
- Magnetostrictive alloys

Other

- Fluorescent lighting
- Water Treatment
- Pigments
- Fertilizer
- Medical Tracers
- Coatings

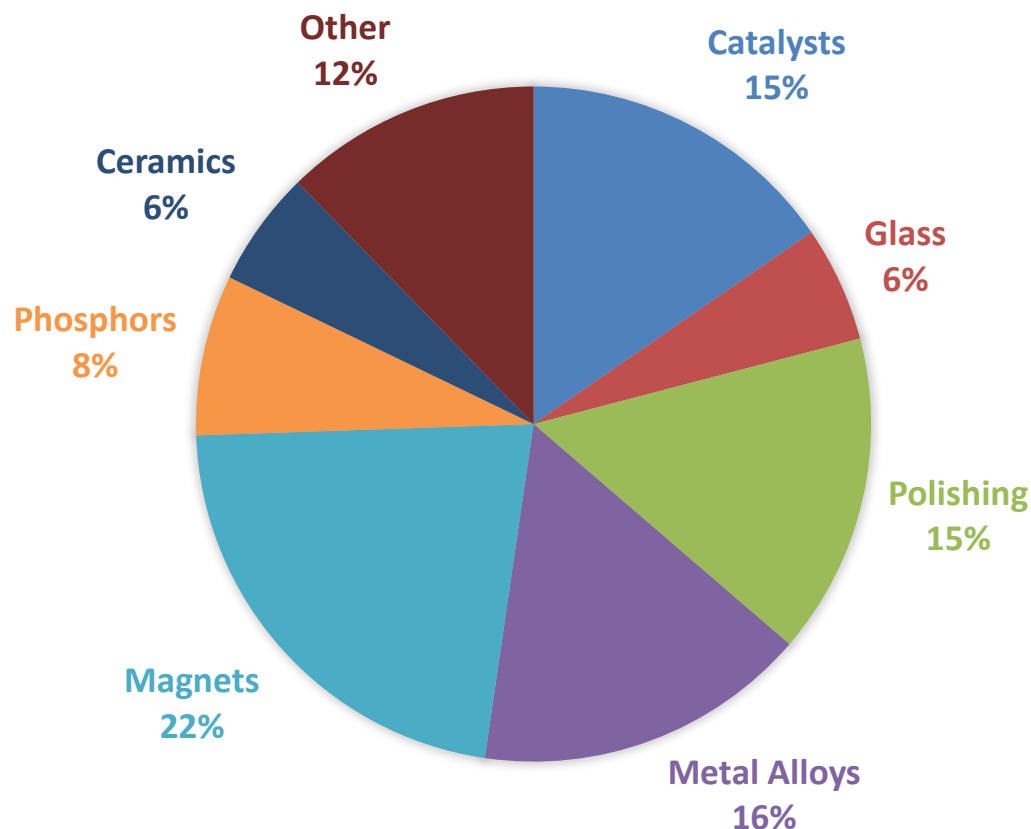
Rare Earths



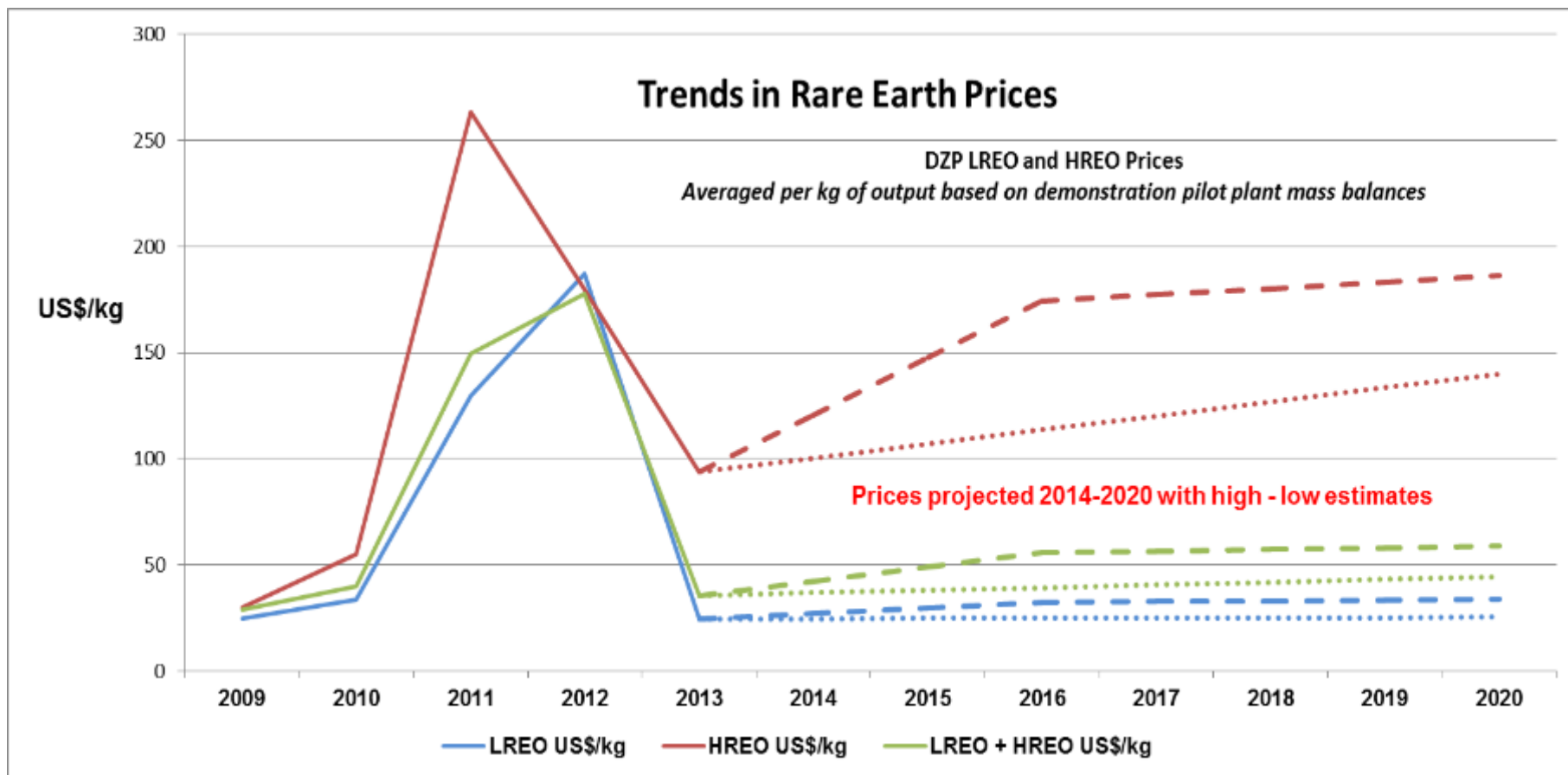
Sources: Google images, GM, Acer

REE 15 elements roughly divided “light” La, Ce, Pr, Nd, Pm, Sm and “heavy” Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu
 Y and Sc are sometimes included with heavy REE

REE DEMAND 2016



- Total REE consumption 2012 115,000t with annual growth estimated at 5-10% to be 162,000t in 2016
- China produces about 90% of world supply and consumed about 65%, with Japan 15% and the US 14%
- The REE industry is “imbalanced” with potential oversupply of light rare earths (Ce & La) and undersupply of heavy rare earths and neodymium
- Nd, Eu, Tb, Dy and Y are considered to be in critical supply through to at least 2020
- Prices for Pr, Nd, Tb, Dy have definitely improved and Y is showing early signs of pickup

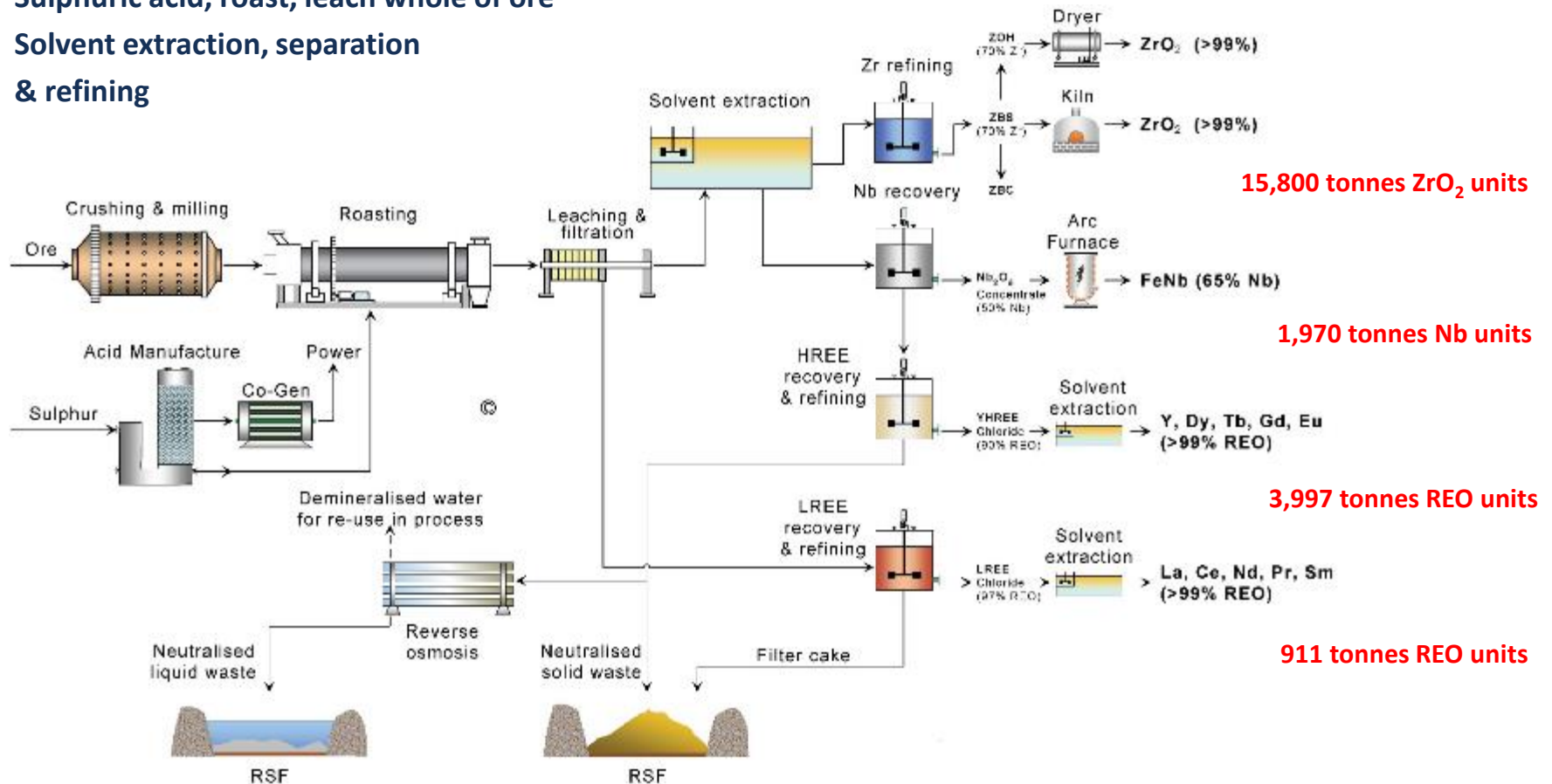


Market imbalanced but overall CAGR 6% - 12% seems likely by 2016

DZP Process Flow Sheet

- Simple open cut mining operation
- Crushing and grinding
- Sulphuric acid, roast, leach whole of ore
- Solvent extraction, separation & refining

1 million tonnes per annum



DZP Demonstration Pilot Plant



DPP Filtration, PLS, SX, Zr and Nb recovery



Y and HREE refining and recovery



Zirconium refining and precipitation



Reverse osmosis and water recycle



AZL MoU's and Agreements to secure 100% of output



Zirconium (Zr)

- Leading chemical company to develop applications and markets in Asia for zirconia produced by DZP
- European manufacturer/trading company to market DZP products in Europe and North America
- Ceramic colours laboratory developed in Perth produce test products for ceramic tile industry

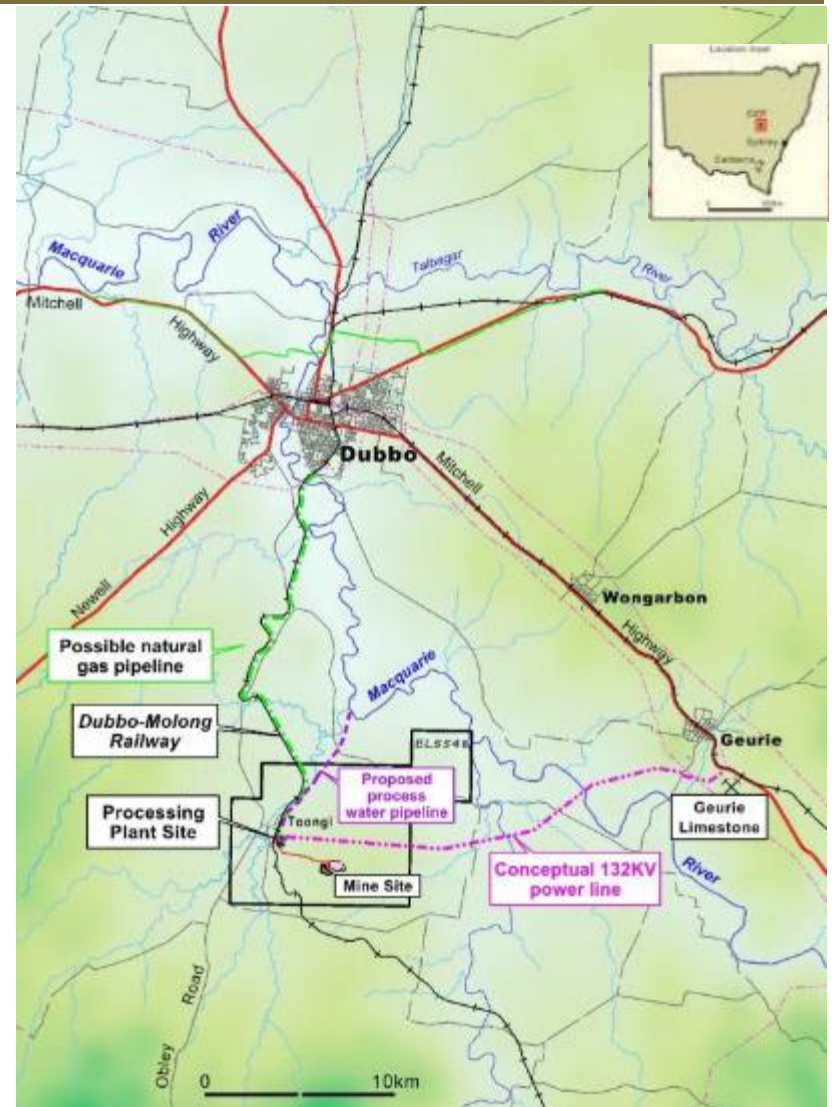
Niobium (Nb)

- JV with European Treibacher Industrie AG to produce and market ferro-niobium
- Test work for tantalum recovery

Light rare earths Heavy rare earths

- Japan's Shin-Etsu Chemical toll treatment JV for separation and sale

- 20km from Dubbo (43,000 pop)
- Access to skilled local labour
- 250 permanent workforce
- Access to State power and gas
- Land and water being secured
- Waste to be stored onsite
- EIS lodged June 2013
- Production expected Q1 2016



Alkane has a 25 year history of sustainable mine management

EIS lodged 28 June and addresses all environmental aspects

Water

- 70% recycle of process water currently achievable
- Limited groundwater aquifers – minimal impact
- Water secured from existing water licences

Transport

- Mixture of rail and road preferred, but rail still has some limitations

Power

- State grid. The sulphuric acid plant will generate (cogen) about 70% of power onsite

Fauna

- Farming/industry co-habitation: Sheep/cattle farming across available farming land
- Endangered species identified and potential impacts mitigated

Naturally occurring radioactive material (NORM)

- Waste salts remain onsite and contains less radioactivity than ore.



- **\$1 billion DZP finance package being arranged by:**
 - Credit Suisse (Australia)
 - Sumitomo Mitsui Banking Corporation
 - Petra Capital
- **Finance sources:**
 - Possible sale of a strategic minority stake in DZP
 - International Government funding (ECA)
 - Commercial debt facility
 - Public equity raising
- **12 months timeline**
- **Coincides with final project approvals, allowing construction to commence in H2 2014.**

DZP Major Milestones

Major Milestones	2013	2014	2015	2016
Environmental Impact Statement				
Project Approval Process		 		
Project Financing Program		 		
EPC / EPCM tender → award				
Detailed design / Long lead orders		  		
CONSTRUCTION			   	
PRODUCTION				   

- **Alkane transformation underway – long term investment opportunity**
- **Development strategy of multi-commodity operations in tight geographic location**
- **Substantial emerging cash flow – ~A\$200 - 275Mpa after 2016**
- **Aspects of upside**
 - Longer mine life at TGP and DZP
 - Higher recoveries from DZP
 - Potential recovery and sale of tantalum, not in DFS
 - Positive outcomes from DZP joint ventures
 - Potential for exploration projects to convert to developments
- **Building capacity to pay dividends**

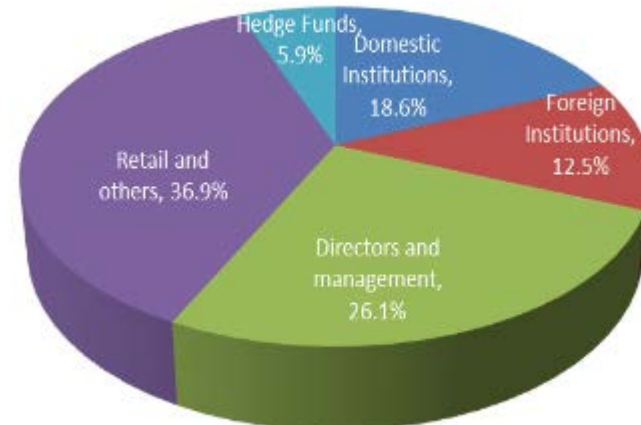
Financial

- Shares – 372,639,000
- Market Capitalisation – A\$140M (16 October 2013)
- Cash & Investments – A\$85M (30 September 2013)
- Debt – nil
- Share turnover – ~0.2M / day current
- 12 Month Low/High – A\$0.25/\$1.05
- Top 20 – 58%
- Codes – ALK (ASX)
– ANLKY (OTCQX)



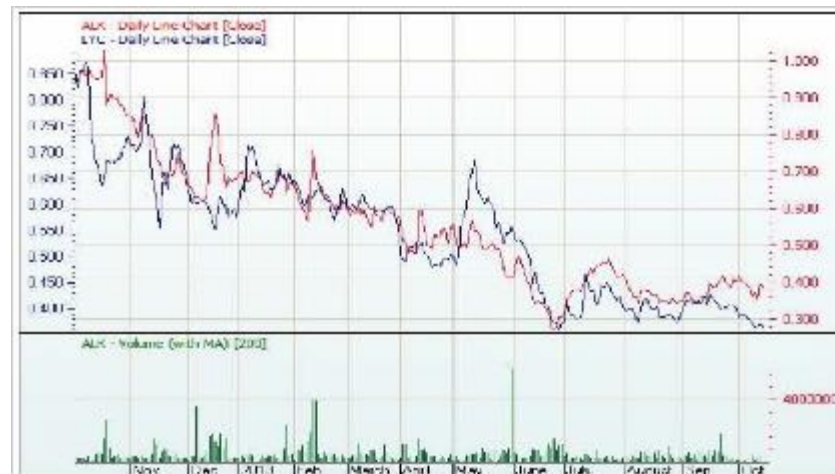
Source: ASX ALK v RRL

Equity



As at 31 August 2013

Major Shareholder: Abbotsleigh (Gandel Metals) – 25%



Source: ASX ALK v LYC

Board

- **John S F Dunlop (Chairman)** BE(Min), MEngSc(Min). Mining engineer
- **D Ian Chalmers (Managing Director)** MSc. Geologist
- **Ian J Gandel (Director)** LLB, BEc. Businessman
- **Anthony D Lethlean (Director)** BAppSc. Geologist/Banker

- **Karen Brown (Joint Company Secretary)** BEc
- **Lindsay Colless (Joint Company Secretary)** CA



Senior Management

- **Michael Ball (Chief Financial Officer)** CA Bcom
- **Nic Earner (Chief Operations Officer)** BEng (Honours)
- **Terry Ransted (Chief Geologist)** BSc .
- **Michael Sutherland (General Manager NSW)** BSc
- **Brendan Ward (Commercial Manager)** LLB, BA
- **Tony Wright (Commercial Manager - retiring)**
- **Henry Kaye (TGP Project Manager)** – Mechanical Engineer
- **Sean Buxton (TGP Operations Manager)** – Mining Engineer

Senior Consultants

- **Fiona Morgan (TGP EPCM – Mintrex)** – Mechanical Engineer
- **Greg Foster (TGP EPCM – Mintrex)** – Mechanical Engineer

- **Steve Gilman (DZP - Consulting Director TZMI)** – Metallurgist
- **Alex Ryan (DZP - Senior Consultant TZMI)** – Metallurgical Eng
- **Alister MacDonald (DZP - Marketing TCMS)** - Ceramic Engineer

- **Natalie Chapman (Corporate Communications Manager)**
- **Westbrook Financial Services (Media Advisors)**

Disclaimer

This presentation contains certain forward looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geosciences.

Competent Person

The information in this presentation that relates to mineral exploration, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) 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 Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.



Dubbo Zirconia Project – Mineral Resources

Toongi Deposit	Tonnage (Mt)	ZrO ₂ (%)	HfO ₂ (%)	Nb ₂ O ₅ (%)	Ta ₂ O ₅ (%)	Y ₂ O ₃ (%)	REO (%)	U ₃ O ₈ (%)
Measured	35.70	1.96	0.04	0.46	0.03	0.14	0.75	0.014
Inferred	37.50	1.96	0.04	0.46	0.03	0.14	0.75	0.014
Total	73.20	1.96	0.04	0.46	0.03	0.14	0.75	0.014

These Mineral Resources are based upon information compiled by Mr Terry Ransted MAusIMM (Principal, Multi Metal Consultants Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the 2004 Annual Report.

Dubbo Zirconia Project – Ore Reserves

Toongi Deposit	Tonnage (Mt)	ZrO ₂ (%)	HfO ₂ (%)	Nb ₂ O ₅ (%)	Ta ₂ O ₅ (%)	Y ₂ O ₃ (%)	REO (%)
Proved	8.07	1.91	0.04	0.46	0.03	0.14	0.75
Probable	27.86	1.93	0.04	0.46	0.03	0.14	0.74
Total	35.93	1.93	0.04	0.46	0.03	0.14	0.74

These Ore Reserves are based upon information compiled by Mr Terry Ransted MAusIMM (Alkane Chief Geologist) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The reserves were calculated at a 1.5% combined ZrO₂+Nb₂O₅+Y₂O₃+REO cut off using costs and revenues defined in the notes in ASX Announcement of 16 November 2011. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Wellington – Galwadgere – Mineral Resources

DEPOSIT 0.5% Cu cut off	Tonnage (t)	MEASURED Grade (% Cu)	Grade (g/t)	Tonnage (t)	INDICATED Grade (% Cu)	Grade (g/t)
Galwadgere	-	-		2,090,000	0.99	0.3

These Mineral Resources are based upon information compiled by Mr Terry Ransted MAusIMM (Principal, Multi Metal Consultants Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the 2005 Annual Report

Tomingley (TGP) – Mineral Resources

DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		
Top Cut	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Gold
2.5x2.5x5.0m model	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	(koz)
Wyoming One	2,316,550	2.2	890,340	2.2	3,117,350	1.7	6,324,240	1.9	392.4
Wyoming Three	642,470	2.0	63,225	2.0	102,820	1.3	808,510	1.9	49.9
Caloma	2,690,530	2.3	567,860	2.1	2,194,490	1.9	5,452,870	2.1	369.4
Total	5,649,550	2.2	1,521,420	2.1	5,414,660	1.8	12,585,630	2.0	811.7

These Mineral Resources are based upon information compiled by Mr Richard Lewis MAusIMM (Lewis Mineral Resource Consulting Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Richard Lewis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology are given in the ASX Reports dated 25 March 2009, 2 October 2010 and 29 March 2012.

Tomingley (TGP) – Ore Reserves

DEPOSIT	PROVED		PROBABLE		TOTAL		
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Ounces
	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	
Wyoming One	1,700,000	1.6	200,000	1.3	1,900,000	1.6	94,500
Wyoming Three	500,000	1.6	0	0.0	500,000	1.6	28,100
Caloma	1,100,000	2.3	100,000	1.7	1,200,000	2.2	86,500
Total	3,300,000	1.8	300,000	1.5	3,600,000	1.8	209,100

These Ore Reserves are based upon information compiled under the guidance of Mr Dean Basile MAusIMM (Mining One Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Reserves and Resources are estimated at an effective A\$1,540 per ounce gold price. Dean Basile consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Peak Hill – Mineral Resources

DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		
0.5g/t gold cut off	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	k Ounces
	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	
Proprietary			9,440,000	1.35	1,830,000	0.98	11,270,000	1.29	467.4
3.0g/t gold cut off	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	k Ounces
	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	(t)	(g/t)	
Proprietary P					810,000	4.40	810,000	4.40	114.6

These Mineral Resources are based upon information compiled by Mr Terry Ransted MAusIMM (Principal, Multi Metal Consultants Pty Ltd) who is a competent person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The full details of methodology were given in the 2004 Annual Report.