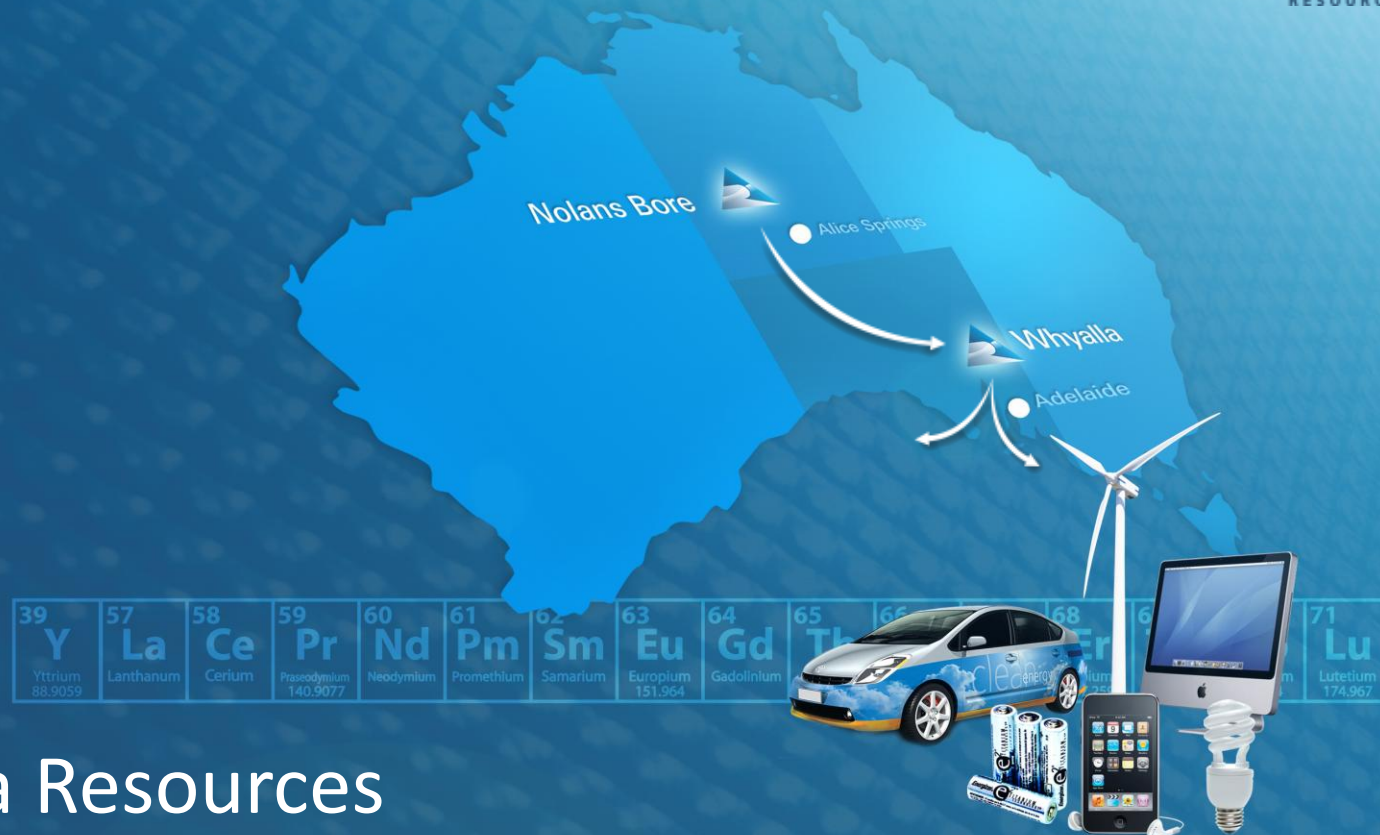


ARAFURA ADDING VALUE IN AUSTRALIA
TO PRODUCE RARE EARTHS
FOR USERS WORLDWIDE



Arafura Resources

Investorium.tv

Neil Graham GM - Operations

12th December 2011

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The information in this presentation that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Richard Brescianini BSc(Hons). Mr Brescianini is a Member of the Australian Institute of Geoscientists and he 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 (The JORC Code)”. Mr Brescianini consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

Mr Brescianini is a full-time employee of Arafura Resources.

Introduction to Arafura

Corporate Summary

- Australian Public Company – formed 1997
- Listed on ASX in 2003 (code ARU)
- Nolans Project for Rare Earths
- Own technology developed
- **Bankable Feasibility Study due H2 2012**
- **Project Financing sought by end 2012**
- **First production by end 2014 subject to BFS**

- **Our Vision: ‘To be the recognised leading producer of rare earths for users worldwide’**
- **‘All Australian’ Business Model – mining, chemical processing and own technology to produce rare earth oxides**

As at 5 December 2011

Market Statistics

Share price	A\$0.52
52 Week High / Low	A\$1.59 / A\$0.445
Shares on issue	368 million
Market capitalisation	~A\$191 million
Options on issue	~22.6 million

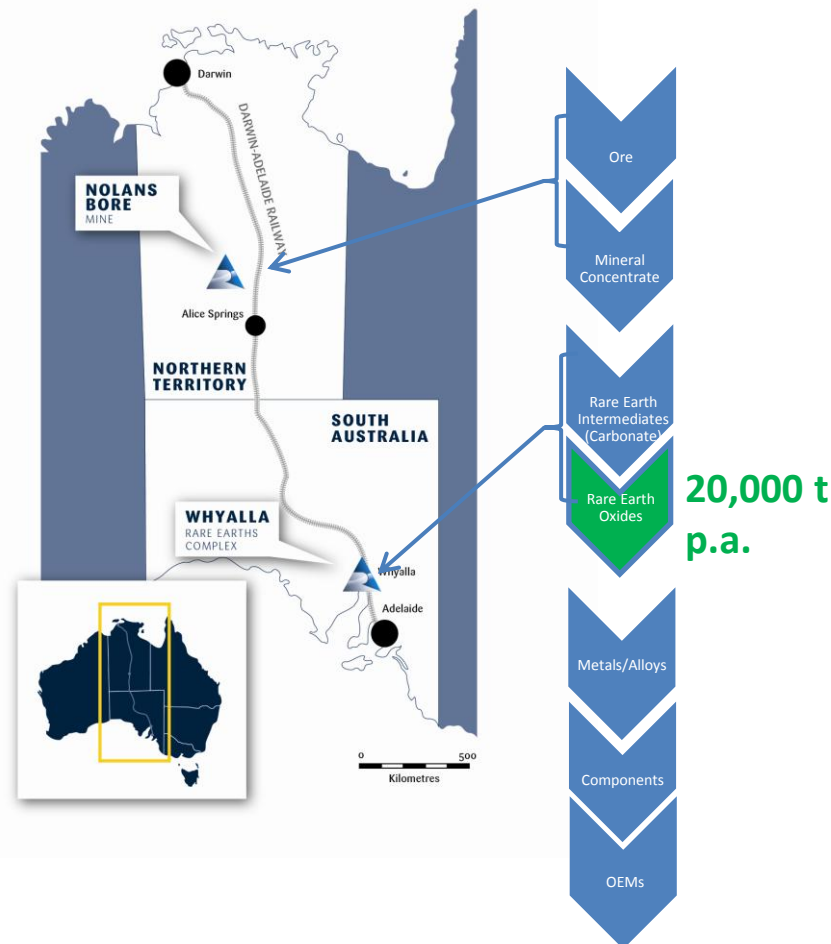
Balance Sheet

Debt	- nil
Cash	~A\$45 million (25 Nov 2011)

Top shareholders

JP Morgan Nominees ¹	31.2%
ECE ²	17.5%
Board & Management	2.5%

1. Substantial German-based shareholding amongst many shareholders
2. East China Mineral Exploration & Development Bureau



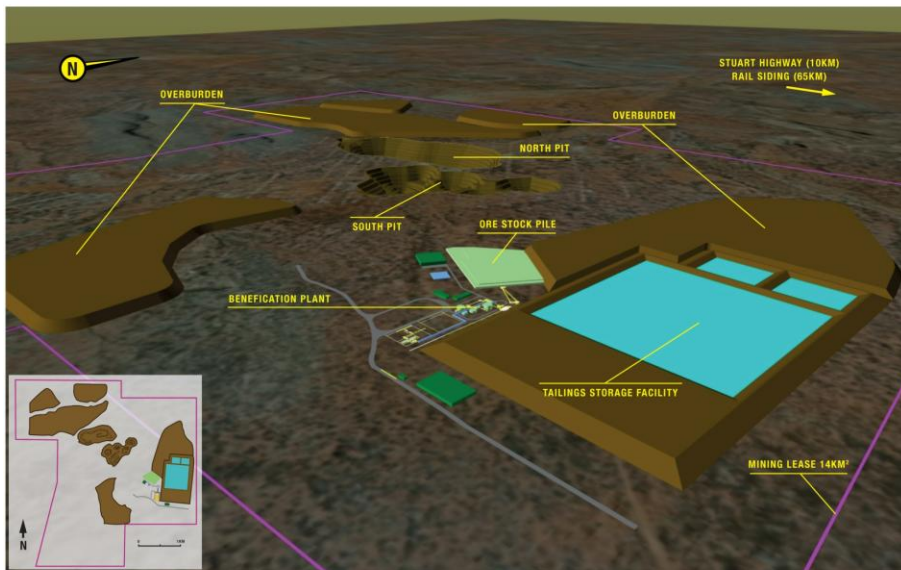
Nolans Project

Nolans Project is world scale and strategically significant

- One of only three well advanced large scale projects
- Australia – low sovereign risk and world class regulatory environment
- Excellent locations; Nolans mine is remote, but not isolated, and is close to infrastructure; Whyalla is a long-standing and well established industrial city



NOLANS BORE MINE LAYOUT
ARTIST'S IMPRESSION

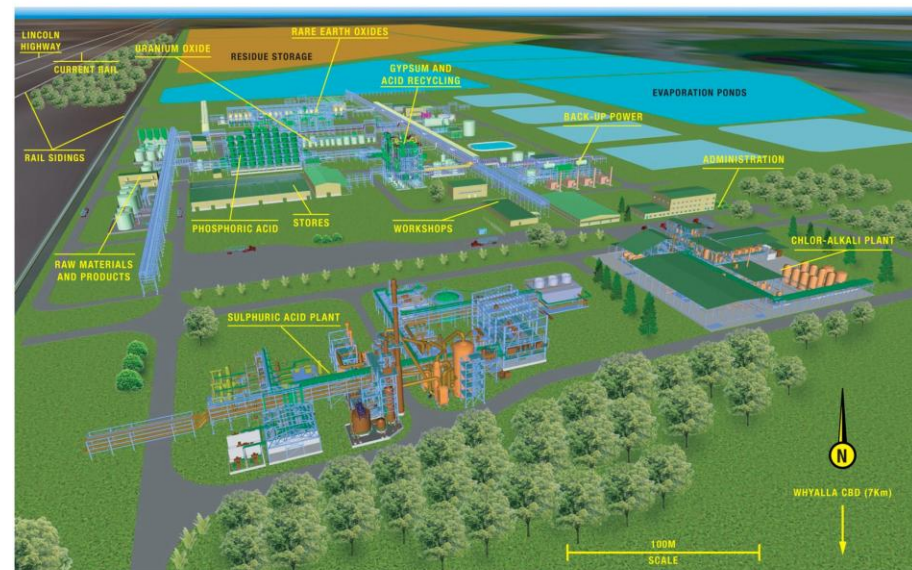


Version 1 - August 2010

The Nolans Bore Mine and its supporting infrastructure will act as a catalyst for business opportunities throughout Central Australia



ARAFURA RARE EARTHS COMPLEX
ARTIST'S IMPRESSION



Version 1 - August 2010

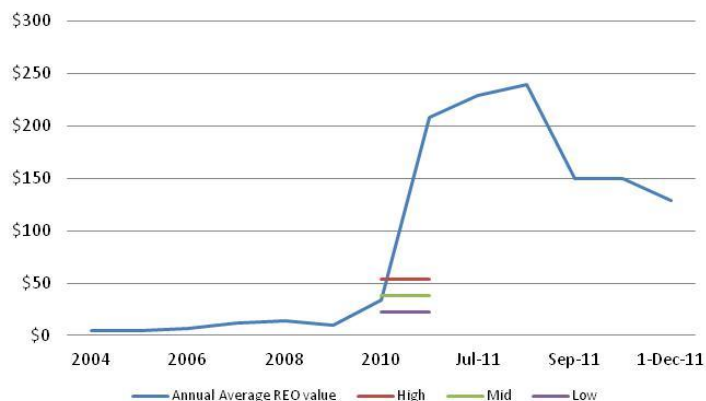
The Whyalla Rare Earths Complex will be a very substantial chemical processing operation by Australian standards

Nolans Project – Globally Significant

High potential value, long life, multiple revenue streams with upside potential

Annual Production	
REO Rare Earths Oxides	20,000 t
Phosphate Product (as P₂O₅)	80,000 t (approximately)
UO₄ Uranium Oxide	150 t
CaSO₄ Gypsum	500,000 t

**Nolans Value 2004 - Dec. 1, 2011
Comparison to
Financial Evaluation Price Levels**



Total resources for Nolans Project

RESOURCES	TONNES ¹ (million)	RARE EARTHS REO %	PHOSPHATE P ₂ O ₅ %	URANIUM U ₃ O ₈ lb/t
Measured	5.1	3.2	13.5	0.57
Indicated	12.3	2.8	13.4	0.43
Inferred	12.8	2.6	12.2	0.40
TOTAL	30.3	2.8	12.9	0.44
CONTAINED METAL		848,000 t	3.9 Mt	13.3 Mlb

1. Using 1% REE cut-off grade

Financial Evaluation October 2010

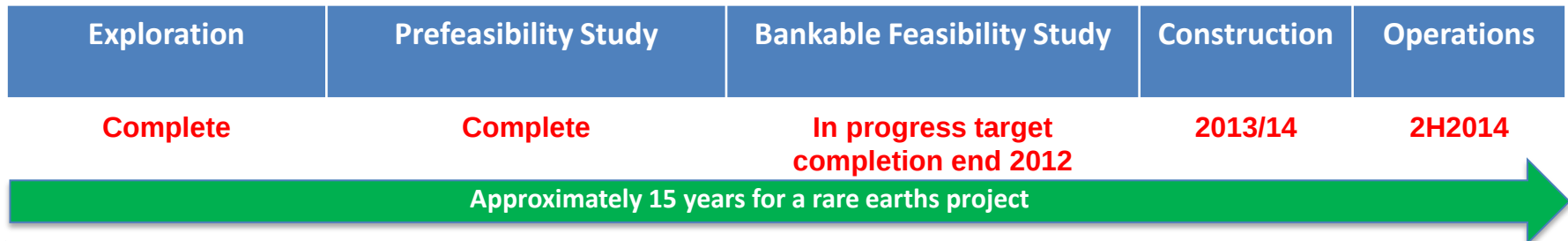
October 2010 Project Economics			
Capital Costs @ 0.95	A\$950 million		
Sales Revenue	US\$		
	Low	Mid	High
Rare earth oxides US\$/kg	\$22.00	\$38.00	\$54.00
Rare earth oxides 20,000t US\$	\$440	\$760	\$1,080
Phosphoric Acid 80,000t US\$1,250/t	\$100		
Gypsum 500,000t US\$25/t	\$12		
Uranium 150t US\$40/lb	\$13		
Total Revenue p.a. US\$M	\$565	\$885	\$1,205
	A\$M		
Total Revenue p.a @ 0.95	\$595	\$932	\$1,268
Annual Operating Expenses @ 0.95	(\$376)		
EBITDA p.a	\$219	\$556	\$892
NPV @ 10% after tax and capital payback	\$1,420	\$4,050	\$6,549
Capital Payback - years	5	4	3

→ **Current price
(1 Dec 2011)
US\$129.04/kg**

Project History and Timeline

Already a long way through a lengthy industry development timeline, one of the few advanced world scale projects

**Current
Status**



- Exploration Began 2000
- Maiden JORC Resource 2003

- Technology Program began 2004
- Prefeasibility study completed 2007

- Current JORC Resource 2008
- Technology piloting 2008/09
- Whyalla site announced 2010
- Technology demonstration 2010 & 2011
- Appointment of specialist engineering contractor 2011 early
- Expanded BFS Rare Earth focus 2011
- First Customer LOI announced in 2011
- Expansion drilling program
- **Complete optimization**
- **Finalize design study**
- **Secure regulatory approvals**
- **Complete sales contracts with target customers**
- **Obtain Project Finance**

At time of completed BFS 2H 2012:

- **Approx 100km of drilling completed at Nolans**
- **Approx total project expenditure \$250M**

Nolans Project Timeline for 2012

	Q1 2012	Q2 2012	Q3 2012	Q4 2012
Drill Program				
Mine Planning				
Technology Demonstration				
- Beneficiation				
- RE Processing				
Study Engineering and Estimating				
- Mine and Beneficiation				
- RE Complex				
Finalise Project Finance				
BFS Report Finalisation				
Regulatory Approvals				
Supply Contracts				
Sales Contracts				
Engineering for Construction Readiness				

Arafura's approach to the Nolans Project

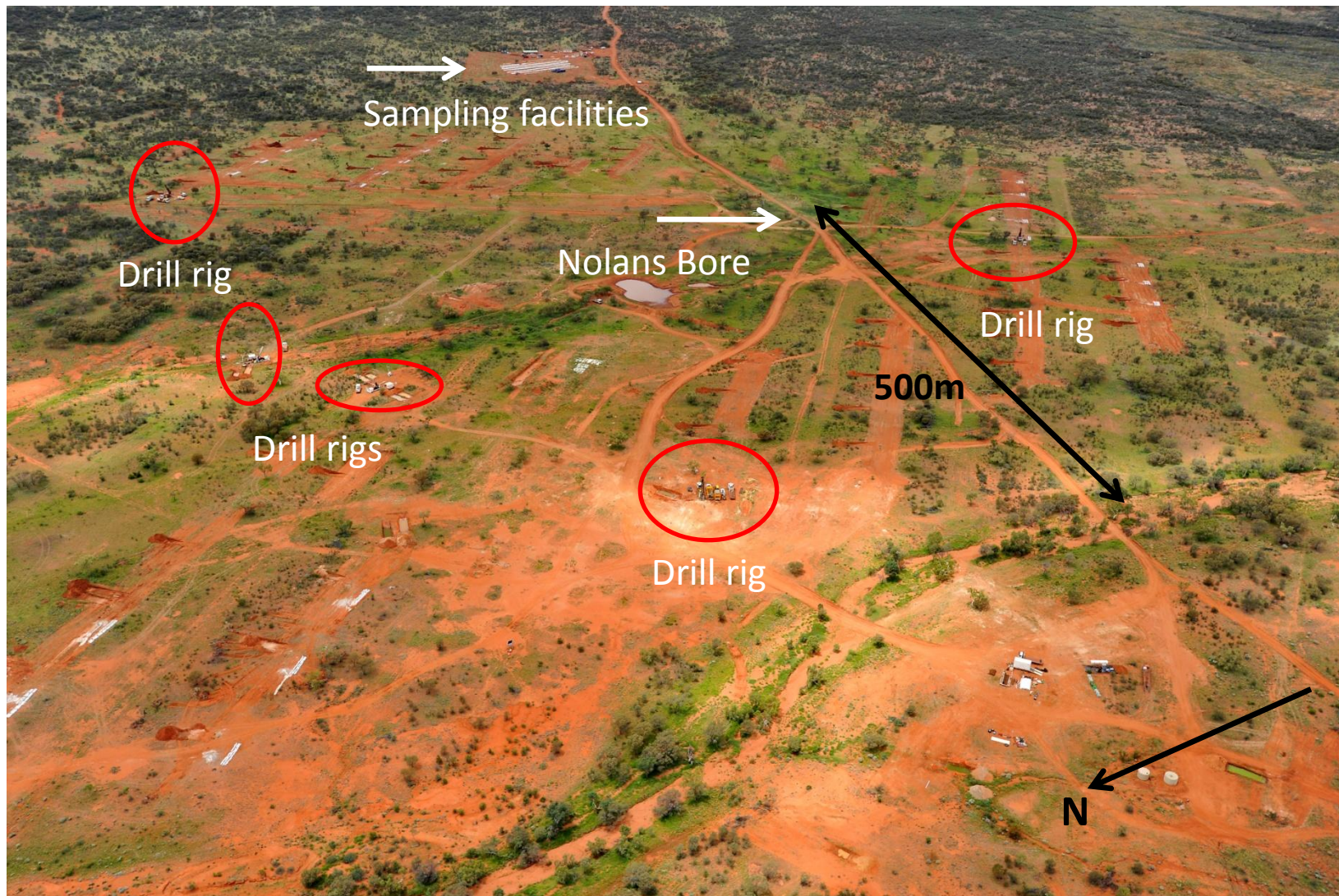


Create value, de-risk and use world class expert assistance.....

- Engage world class experts to assist in all aspects of the Nolans Project
- Focus on value-creating rare earth oxide production in industry chain
- Standard design and low risk co-product plants
- Develop own technology for processing Nolans ore into rare earth oxides
- Demonstration scale trials of technology to de-risk beyond more normal piloting scale
- Minimize capital requirements through simplification
- Improve operability – reduce volumes of raw materials and wastes to manage and reduce operating costs;
- Optimize product quality/mix to maximize margins
- Position for future developments if value-creating, *e.g.* phosphoric acid.

Nolans Bore 2011 Expansion Drilling Program

Major program (52km) - Initial results confirm the presence of additional mineralisation

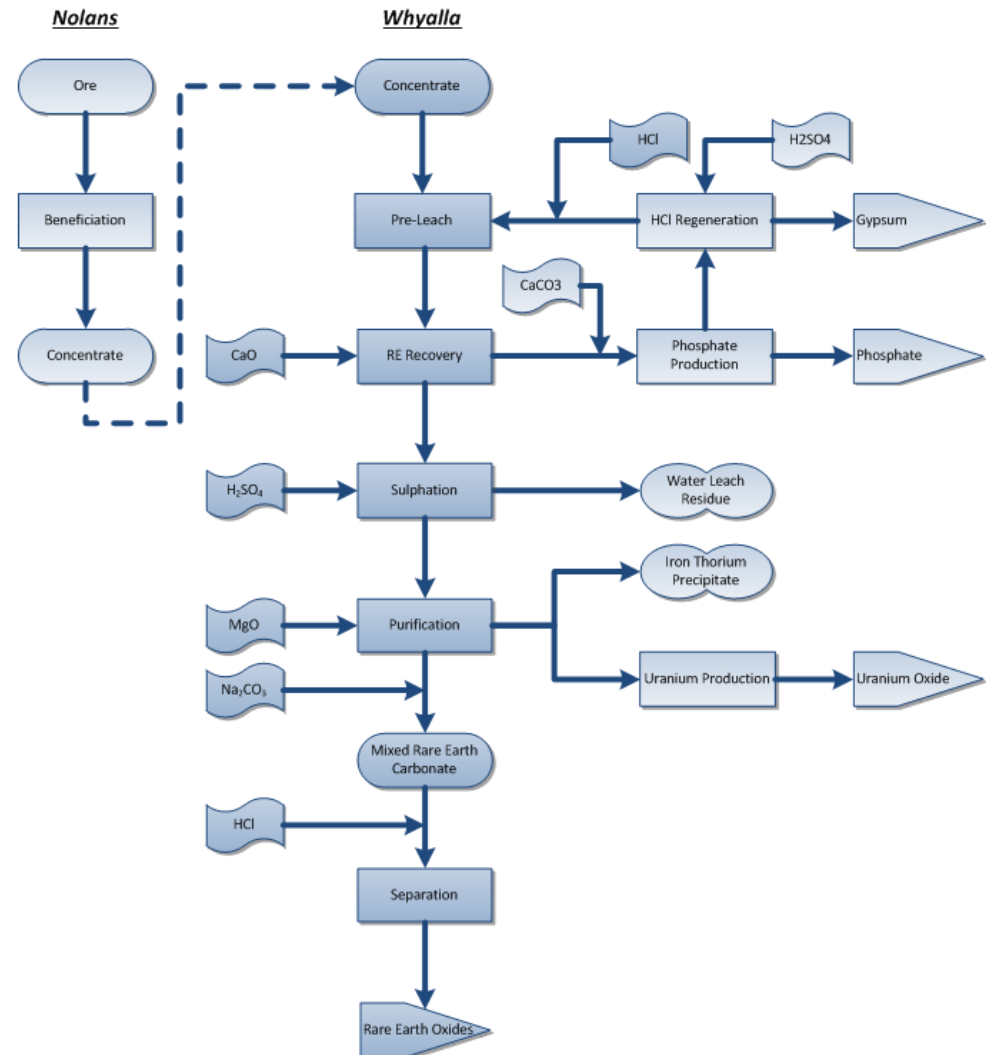


Building a Sustainable Business for the Future

Arafura is 'going the extra mile' to 'get it right' first time and ensure success

Nolans Project Flow Diagram

- Australian developed & proven flow sheet – not reliant on others
- Additional flowsheet demonstration programs at scale are underway to de-risk start up & achieve nameplate capacity quickly – see next slide
- Demonstration programs will also provide potential customers and financiers opportunities to observe and assess our operations for their due diligence.
- Environmental Guidelines of the highest standards have been issued as anticipated. No surprises, most studies completed or well advanced



Demonstration Plant

The flow sheet has been proven at pilot scale and is now undergoing final demonstration



Mixed REO Carbonate Production 2009
ANSTO Sydney



Water Leach Piloting 2009
ANSTO Sydney



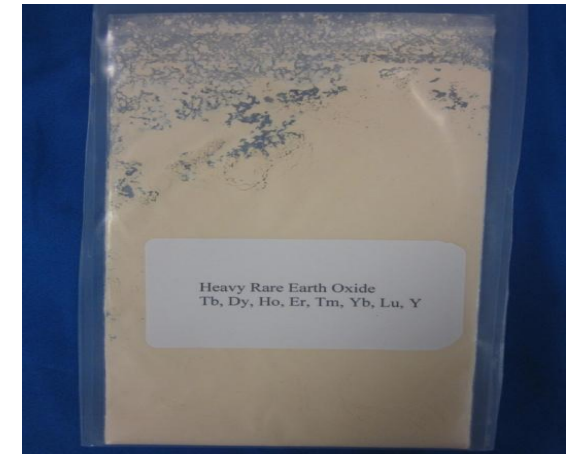
Sulphation Baking 2009
ANSAC Bunbury



Gypsum from HCl Regeneration Demonstration
Plant 2011 ALS-Ammtec Perth



Pre leach Demonstration Plant 2011
ALS-Ammtec Perth

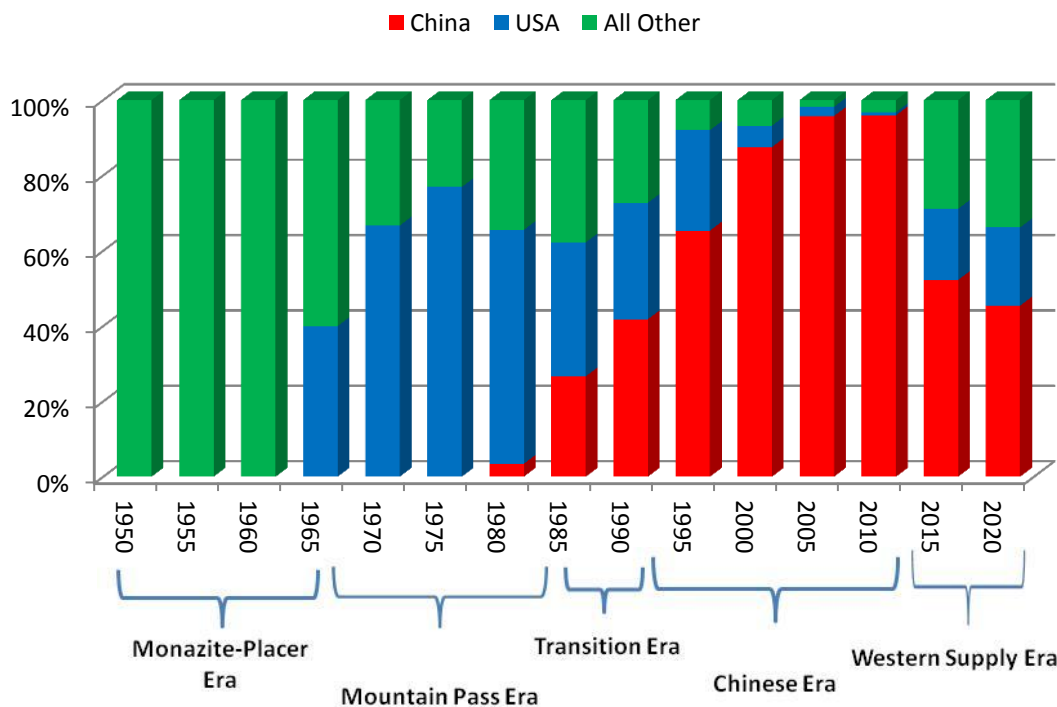


HREO sample produced from Nolans Bore 2010
ANSTO Sydney

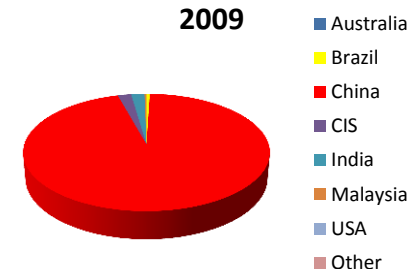
Global Strategic Importance - A New Supply Era

The industry challenge is for the supply side to keep up with demand growth creating an opportunity for a new supply era involving new western suppliers

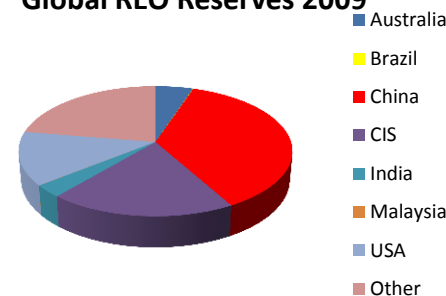
REO Supply by Era



Global REO Production 2009

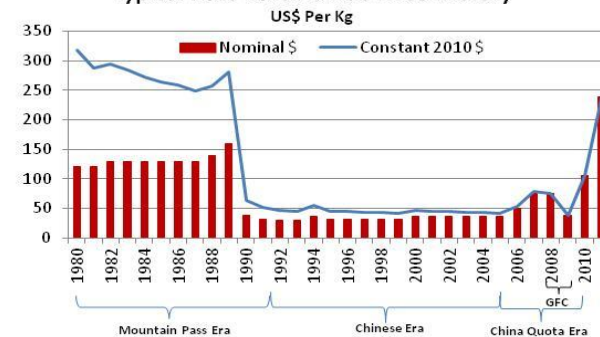


Global REO Reserves 2009



- Geochemistry of each deposit is different
- Unique separation technology for each deposit
- Production is high technology and capital intensive
- Chinese production has reduced and maxed out
- Opportunity for new supply Western sources – few
- ***Great opportunity for Arafura***

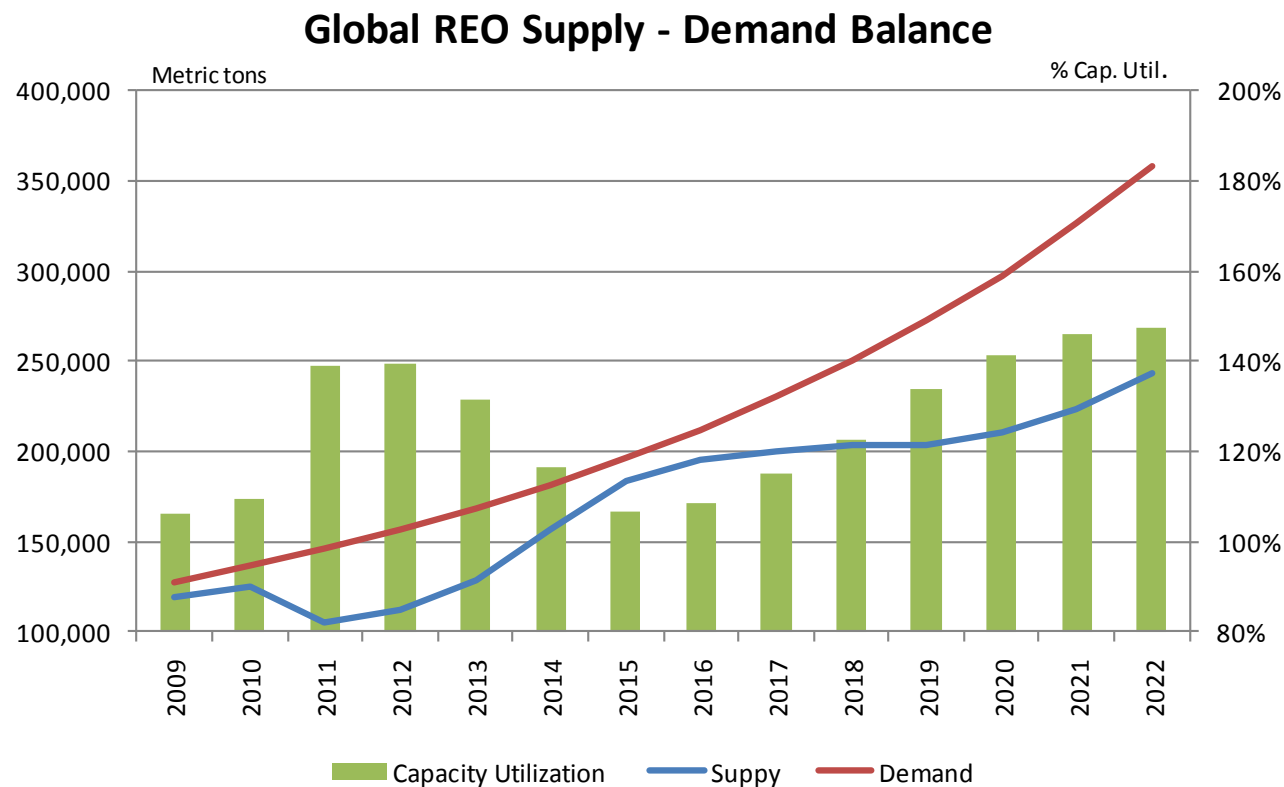
Typical Rare Earth Oxide Price History



Note: Prices represent purities of 99.90% and 96.0% for the periods 1980-1989 and 1990-June 2011 respectively

Supply and Demand

- Total Rare Earth Oxide (REO) supply growth does not keep up with demand growth rates in any year!
- Capacity utilizations bottoms out in 2015 at 107%
- Global demand then requires another ~20,000mt of supply (a Nolans project) each year above current supply forecasts
- Unclear where the supply will come from
- On an individual rare earth basis 'Lights' (Ce and La) are most plentiful but are 'snug' at their easiest point and then short

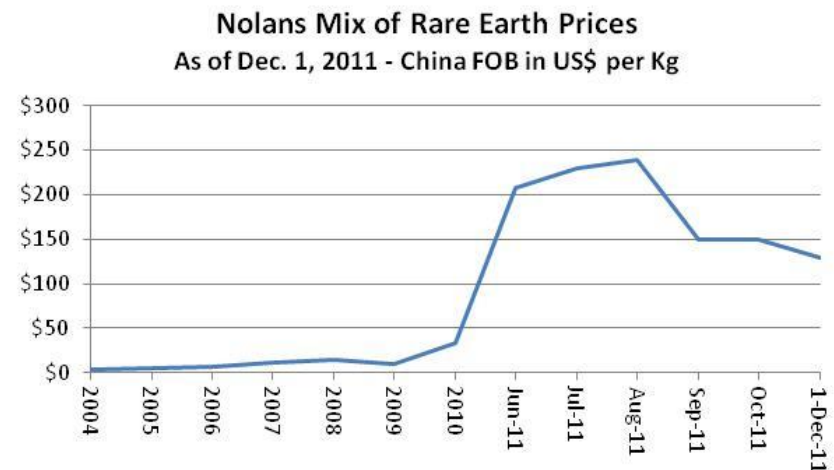
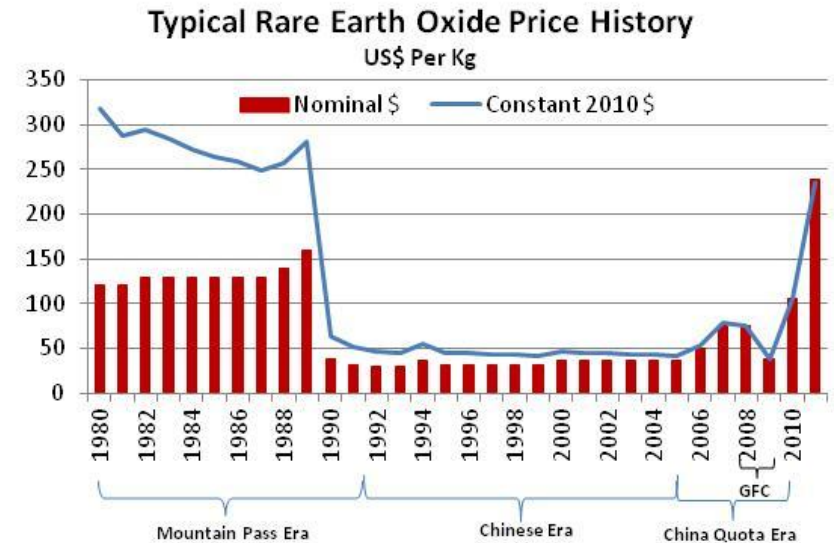


Based on Arafura's research of the market

Price Trends

Prices in real terms have returned to long term levels prior to low price 'Chinese era'

- 1990 to 2005 atypical low priced era driven by unsustainable low cost Chinese production
- 2006 prices begin to rise with first Chinese export quotas
- 2007 to 2008 prices fall due to soft demand in GFC
- 2009 prices begin to recover post GFC. Demand increases, Chinese supply reduces
- 2010 to 2011 prices increase markedly as demand accelerates, Chinese production reduces (closure of polluting and illegal operations) and Chinese export quotas tighten
- 2011H2 prices peak, then adjust from highs, rate of decline has slowed and beginning to 'level out'. Prices still circa 250% above levels 12 months ago
- 2012+ Low priced era is over, prices will follow supply/demand dynamics



Target Customer Program

- Interest in Arafura's REO products is high
- Arafura has identified target customers worldwide with whom it would like to develop mutual long term relationships, key geographical regions include Japan, Korea, Europe and USA
- First LOI already signed with Thyssen Krupp
- Arafura is only new supplier with significant volumes available for sale

	Q4 2011	Q1 2012	Q2 2012	Q3 2012
Key customer specifications refined				
Generation of customer samples from Demonstration program				
Customer visits to demonstration facilities				
Letters of Intent negotiated				
Completion of provisional sales contracts				

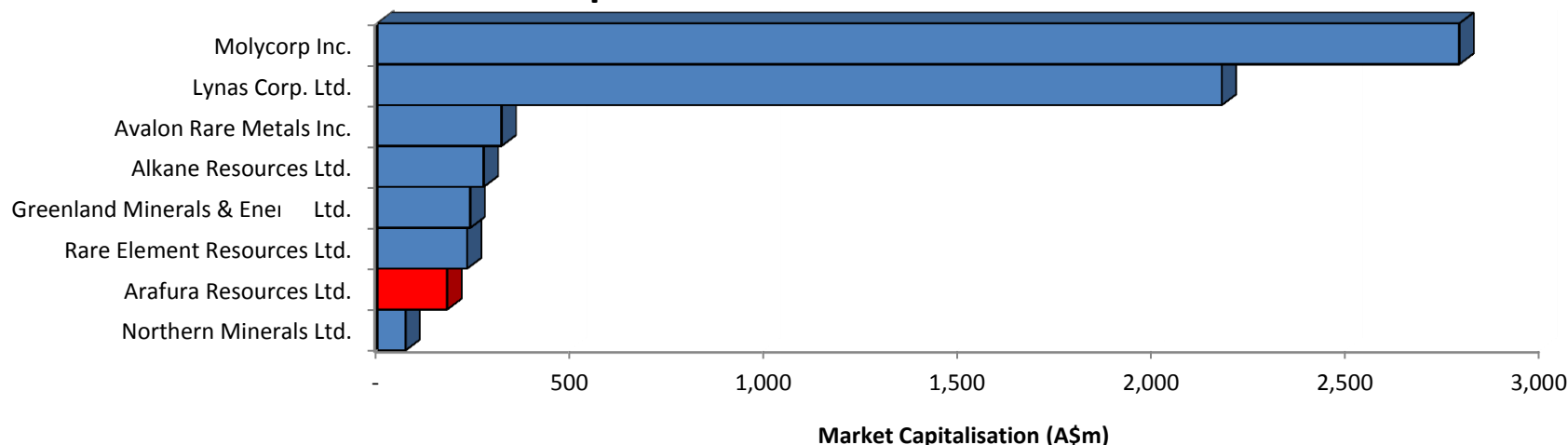
Rare Earth Project Comparison



Arafura is undervalued compared to industry peers

Exploration	Prefeasibility Study	Bankable Feasibility Study	Construction	Operations
Northern Minerals (ASX: NTU)	Greenland Minerals & Energy (40 kt p.a.) (ASX: GGG)	Arafura (20 kt p.a.) (ASX: ARU)	Molycorp (40 kt p.a.) (NYSE: MCP)	Molycorp reprocessing (< 5 kt p.a.)
	Rare Element Resources (10 kt p.a.) (NYSE: REE)	Alkane (1.5 kt p.a.) (ASX: ALK)	Lynas (22 kt p.a.) (ASX: LYC)	
		Avalon Rare Metals (10 kt p.a.) (TSX: AVL)		

Market Capitalisation – Rare Earth Sector



Note: Market capitalisation as at 2 December 2011 converted to AUD at the prevailing exchange rate

Funding requirements:

- Current cash on hand approximately A\$45 million with no debt
- Requirements for next 12 months are approximately an additional A\$70 million to complete the BFS and fund completion of the demonstration plant ahead of project financing at the end of 2012
- Recent 1:3 rights issue @ A\$0.60 per share was cancelled due to market volatility
- Macquarie Capital (Australia) Limited has now been appointed to advise on funding options

Funding sources:

- Consideration is being given to all possible sources:
 - Customers (forward sales) and strategic investments
 - Debt & equity markets
 - Suppliers
 - Sovereign debt markets
 - Other (hybrid, mezzanine etc)or a combination of the above
- A number of recent examples of customers, strategics and institutional investors that have supported financing of new rare earths projects outside of China

- Robust and well regarded 'All Australian' business model
- World scale Nolans Project with high value creation potential
- Nolans Project well advanced and likely to be one of very few new supply sources this decade – with upside potential
- Significant government and community support – EIS to highest standards underway
- Australian developed and proven technology. Now going the extra mile (via the BFS and demonstration plant) to optimize, de-risk, get it right first time and ensure success
- On-track for completion of BFS and to have Project Financing in place by end of 2012
- Discussions are in progress with target customers worldwide outside of China
- 'Undervalued' compared to peers - investment opportunity

Experienced Management Team



Dr. Steve Ward

Managing Director & CEO
Age 56

Holds PhD in Physical Chemistry and over 30 years experience in the chemical, mining and minerals processing industries.

Formally engaged by Cristal, a Saudi Arabian based titanium pigment producer as Snr Vice President Strategy and Development and was Chairman and CEO of Bemax Resources



Gavin Lockyer

Company Sec & CFO
Age 44

Has over 15 years experience in the banking and mining industries.

Previously with Newmont, Newcrest, Tethyan CopperCo, Bankwest and ANZ, and Bankers Trust and Deutsche Bank in London.



Gary Cianfichi

Head of Sales & Marketing
Age 54

Gary has a degree in Science and Engineering and has spent a large part of his career in senior executive roles involved with global sales and marketing in titanium dioxide and other specialty chemicals



Richard Brescianini

GM – Exploration & Development
Age 48

Has over 20 years experience in the minerals industry,

He has worked with BHP Minerals on base and precious metals exploration programs throughout Australasia and North America.

Recently he held the position of Director with the Northern Territory Geological Survey.



Neil Graham

GM – Operations
Age 47

Neil Graham has more than 25 years of international experience in the chemical industry, encompassing design, construction, and commissioning of both start up and brownfield installations, in addition to substantial operations management experience of facilities in several different countries.

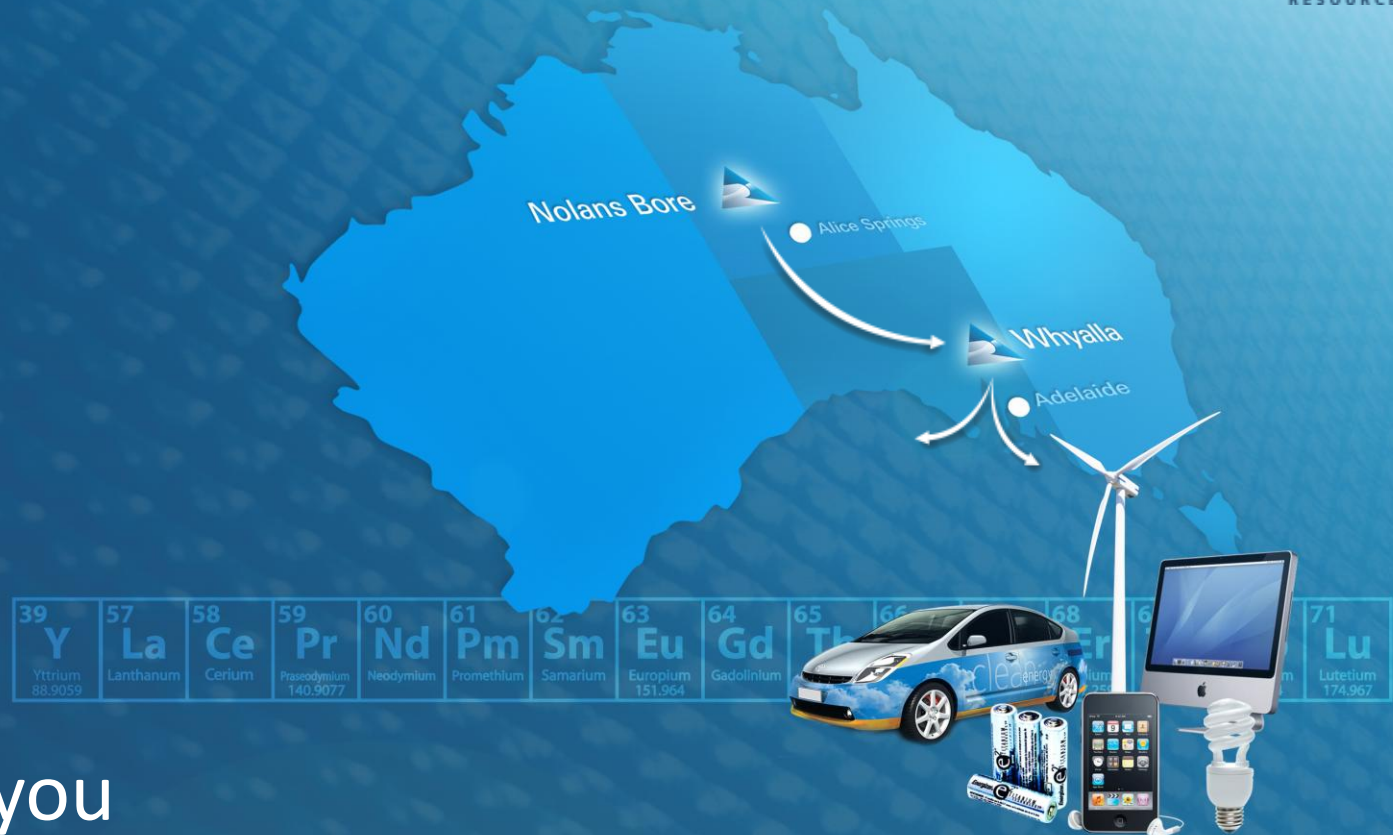


John Ganser

GM – Projects
Age 55

John Ganser is a graduate in Mechanical Engineering from the University of Adelaide with over 30 years of experience in the minerals and metals industry. He has worked for Rio Tinto, BHP, Iluka Resources, Hatch, SKM GHD and Calibre Projects.

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Thank you