

11 October 2010



**AN EMERGING
RARE EARTHS
PRODUCER
FOR USERS
WORLDWIDE**

Business and financial update

Arafura provides the following business update in the attached document.

Dr Steve Ward, Arafura's Managing Director & CEO commented, "We have made significant progress in the past few months and are pleased to issue a business wide update. The rare earths industry has been the subject of much attention and changing dynamics. Arafura is now well positioned to become the recognized leading supplier of rare earth oxides in the next few years through our world class and high value creating Nolans Project. We have an exciting time ahead of us."

- ENDS -

ARAFURA RESOURCES LIMITED

arafura@arafuraresources.com.au www.arafuraresources.com.au ABN 22 080 933 455

PERTH: Level 5/16 St Georges Tce, Perth WA 6000 | PO Box 3047, Adelaide Terrace, Perth WA 6832 T: +618 6210 7666 F: +618 9221 7966
DARWIN: 18 Menmuir St, Winnellie NT 0820 | PO Box 37220, Winnellie NT 0821 T: +618 8947 5588 F: +618 8947 5599



ARAFURA
RESOURCES LIMITED

Business Update

64	65	66	67	68	69	70	71
Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Gadolinium 157.25	Terbium 158.925	Dysprosium 162.5	Holmium 164.93032	Erbium 167.259	Thulium 168.9342	Ytterbium 173.04	Lutetium 174.967

Dr Steve Ward
Managing Director & Chief Executive Officer
October 2010

Disclaimer

Important Notice

This presentation contains certain statements which may constitute “forward-looking statements”. Such statements are only expectations or beliefs and are subject to inherent risks and uncertainties which could cause actual values, results or performance achievements to differ materially from those expressed or implied in this presentation. No representation or warranty, express or implied is made by Arafura Resources Limited (“**Arafura Resources**”) that any forward-looking statement contained in this presentation will occur, be achieved or prove to be correct. You are cautioned against relying upon any forward looking statement.

Except for statutory liability which cannot be excluded, each of Arafura Resources and its related body corporates and their officers, employees and advisers expressly disclaims any responsibility for the accuracy or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any error in it or omission from it. Arafura Resources accepts no responsibility to update any person regarding any inaccuracy, omission or change in information in this presentation or any other information made available to a person, nor any obligation to furnish the person with any further information.

This presentation does not constitute an offer of securities in Arafura Resources, nor an invitation to apply for such securities. This presentation does not provide investment advice or financial product advice. You should obtain professional advice and carry out your own independent investigations and assessment of the information in this presentation (including any assumptions) before acting.

Information in this presentation which is attributed to a third party source has not been checked or verified by Arafura Resources.

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). The information in this presentation that relates to mineral resources or ore reserves is also based on metallurgical results and interpretation compiled by Mr Steven Mackowski BAppSc. Both are full-time employees of Arafura Resources.

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 Mackowski is a Fellow of the Australasian Institute of Mining and Metallurgy 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 Mackowski consents to the inclusion in this presentation of the matters based on his metallurgical results and interpretation in the form and context in which it appears.



Arafura - An Emerging Rare Earths Company

“Clear Strategy + Confirmed Business Model + World class Nolans Project + Robust Plan for delivery + growing organizational capability = creation of wealth for shareholders”

As at 30 September 2010

Capital

290m shares
18m Board/Employee options

Market capitalisation (ASX:ARU closing price @ 11 October 2010)

@ A\$1.39 = ~A\$403 million

Cash (@ 30 September 2010)

A\$18.4 million

Top shareholders

JP Morgan Nominees ¹	29.5%
ECE ²	22.2%
Citicorp Nominees	3.5%
Board & Management	3.0%

Company formed in 1997

Listed on Australian Stock Exchange (ASX) in 2003 (ARU)

Making rapid and excellent progress through the ‘Emerging Company’ phase towards first production in 2013

‘We know where we are going and what we have to do, are building the capability to succeed and are going full pace to deliver’

1. Substantial German-based shareholding amongst many shareholders (formerly ANZ Nominees)
2. East China Mineral Exploration & Development Bureau



Strategy & Vision

Clear Strategy

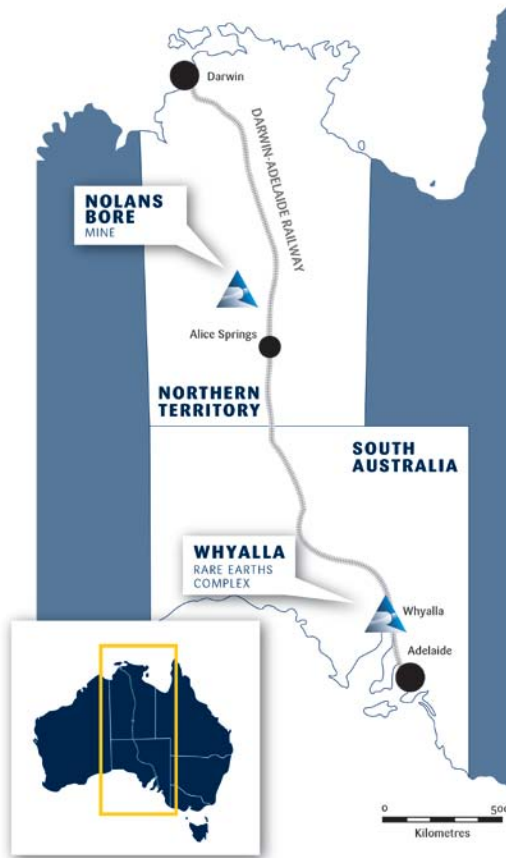
Our strategy is:

- To focus on Rare Earths;
- To generate significant value for shareholders via our Nolans project to exploit the World Class Nolans Bore Rare Earths resource
- To deliver the Nolans Project to become one of the very few new rare earths suppliers in the short to medium term timeframe
- To create value on our other non rare earths resources by formation of business arrangements with others e.g. JV's

***Our vision is to be the recognised leading supplier
of Rare Earths to the world***

Business Model

Confirmed Business Model



Adding Value in Australia:

- Mining & ore beneficiation at Nolans Bore in the Northern Territory
- Mineral Concentrate transported by rail to Whyalla in South Australia
- 20,000 tpa Rare Earth Oxides (REO) produced in Whyalla

Capturing Value in the Industry Supply Chain:

- Production of rare earth oxides rather than lower priced concentrates or intermediates
- Rare Earth oxides sales to users worldwide
- Early “easy” deals avoided, now seeking win/win contracts over the next 12 months;
- Products available for sale in rising market with excellent outlook



Nolans Project & Organizational Capability

A robust plan and growing organizational capability will underpin successful delivery of the Nolans Project

- All work streams are now confirmed and in progress following announcement of Whyalla location for Rare Earths Complex
- Demonstration of key technology components to de-risk project and facilitate a good production start up
- ‘Big Bertha’ drill program to fully understand mining conditions and enable processing tests of representative ore body samples
- Key support and assistance from major stakeholders – South Australian Government has granted Major Project Status
- Appointment of two very experienced (in chemical industry) general managers to complement existing excellent team.

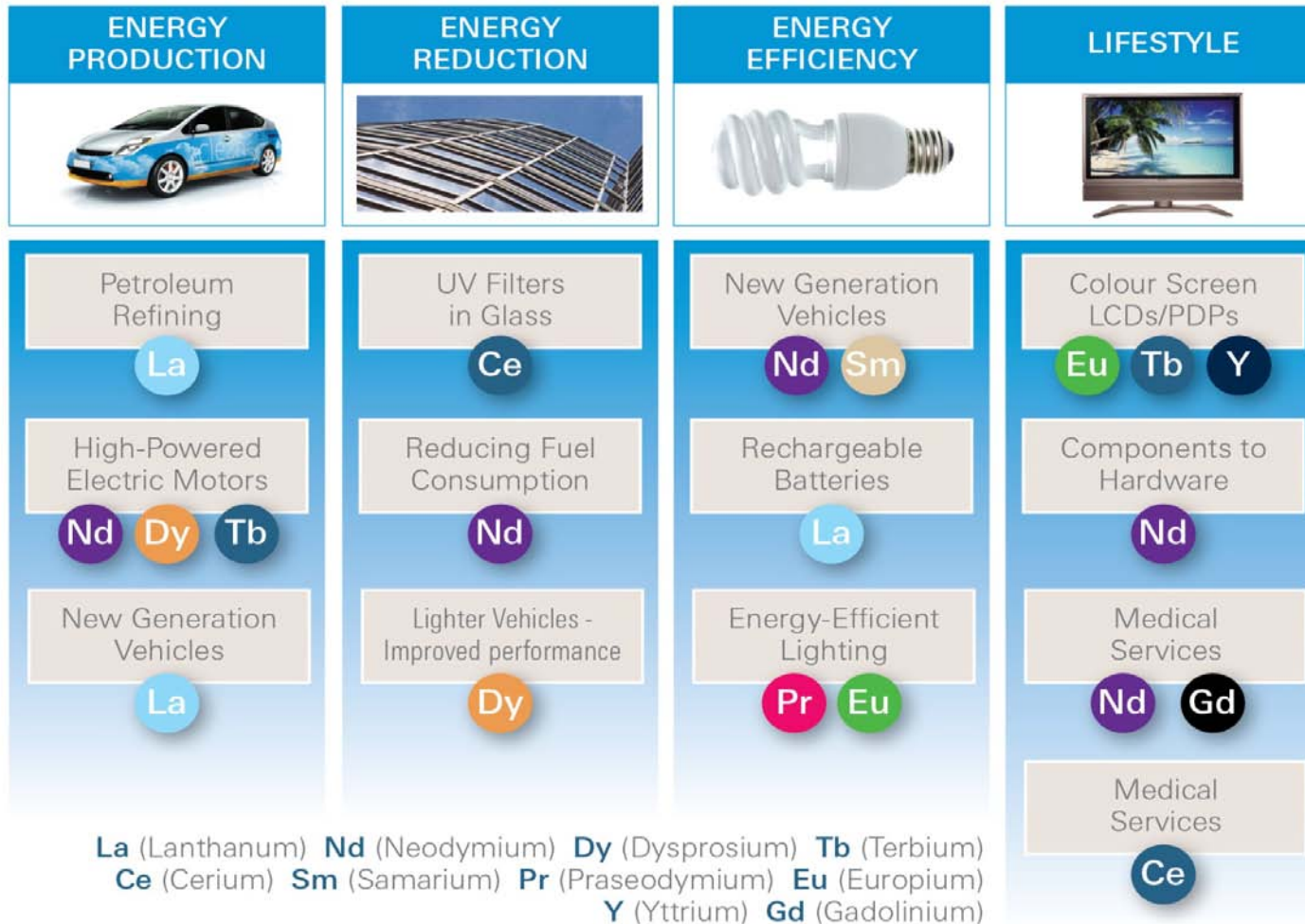
First production on track for 2013



Rare Earths Market

Rare Earths: applications

An exciting market outlook in new high technology applications with increasing demand driven by consumers, society & regulators

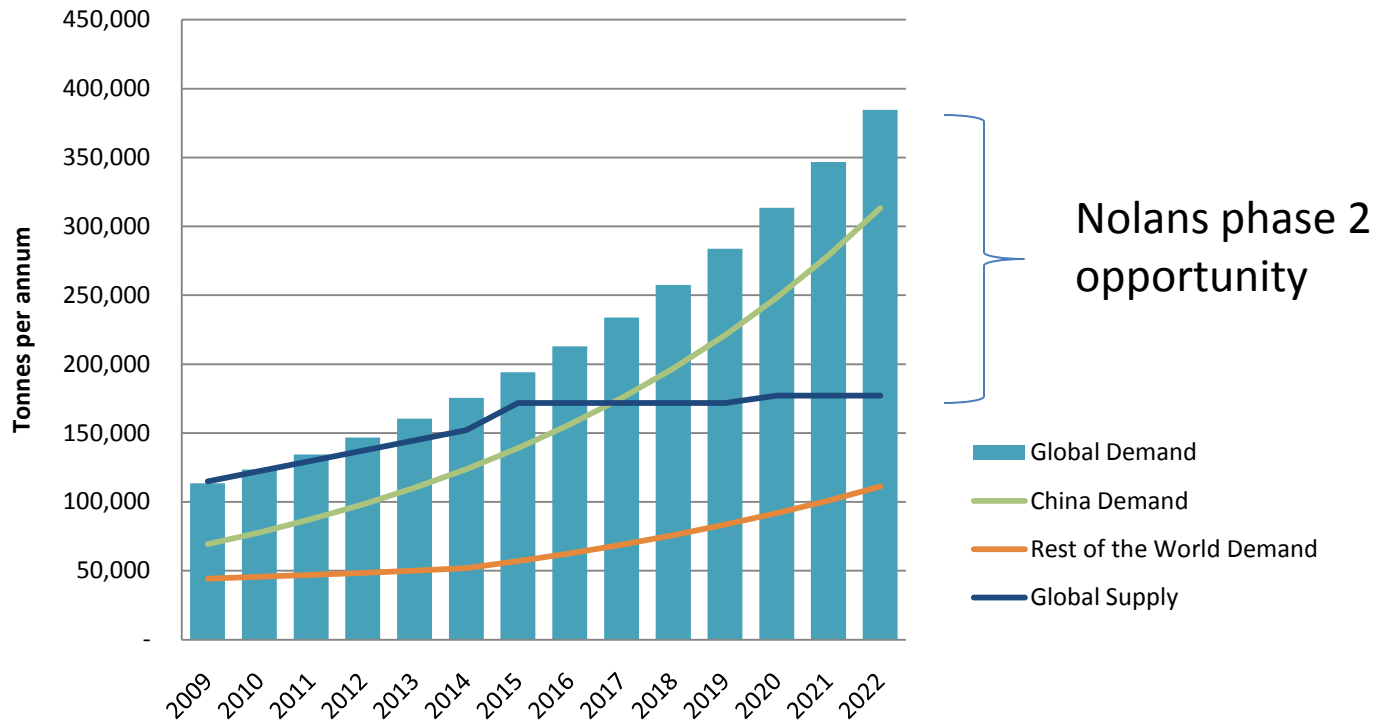


- Critical ingredients of end products
- No substitutes available
- Minor recycling opportunities
- Very small part of end product cost

Rare earths: supply and demand

The Industry challenge is on the Supply side to keep up with demand.....

Overall global tightness has been exacerbated in markets outside of China by Chinese export quota reductions

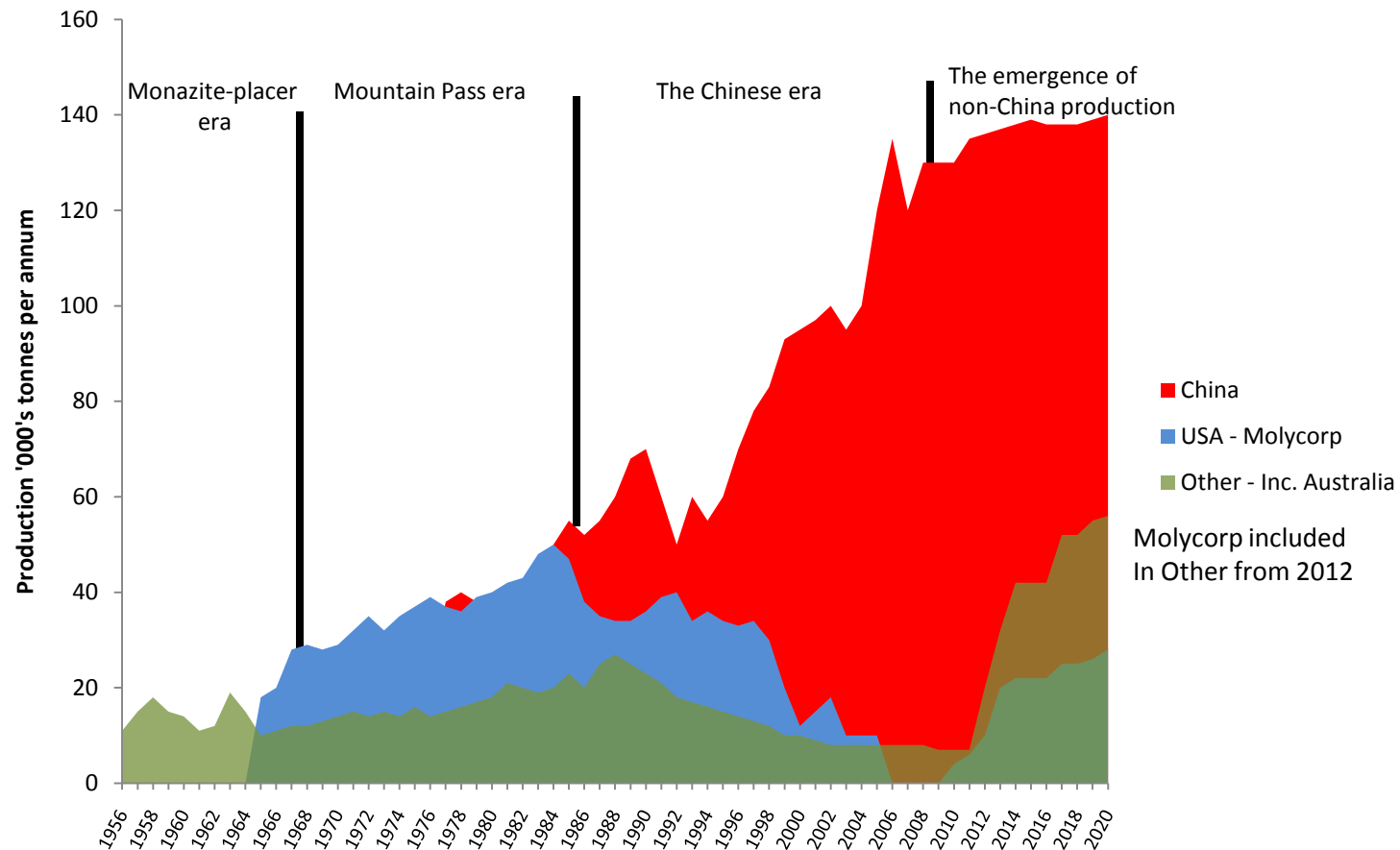


**REO Global & China Demand/Supply
(BCC Forecast 2009-2014,
Internal Supply Forecast 2014-2022)**

Industry Supply Phases

Industry Supply side currently dominated by China, but new phase emerging

Rare Earth Production Trends



Source: USGS

Rare Earths: outlook continues to improve

Excellent demand growth forecasts by industry commentators.....

- Prospects fuelled by consumer demand for new high technology products, and society and regulator drives for clean and efficient energy;
- The strategic importance of rare earths is now much better recognised by Governments who are now focusing on security of supply;
- Greater focus on future supply sources by non-Chinese users;
- Little product available for sale from new suppliers – most already contracted;
- Considerable potential new supplier ‘hype’. Very few projects will make it to production. Long lead times – approximately 15 years – for successful projects.

Arafura is ideally positioned



Rare Earths - global supply challenge

The world is looking for new (non – Chinese based) suppliers

- High capital and technology development – *different for each ore body* – are significant barriers to entry for new suppliers
- Each rare earths deposit is geologically unique and requires its own metallurgy to be developed. (*i.e.* long lead time to production and return on investment)
- New significant resources with proven technology are limited.
- China currently supplies 95% of rare earths
- China restricting supply through industry consolidation, quotas and tariffs.
- Arafura is well positioned to meet globally growing demand and importantly, has unfettered supply to anywhere in the world.

Rare earths supply: dominated by China

China is adopting a keep 'at-home' policy for domestic use

- The tightening trend of China rare earth exports continues
- Global supply shortfall of selected rare earth elements is beginning

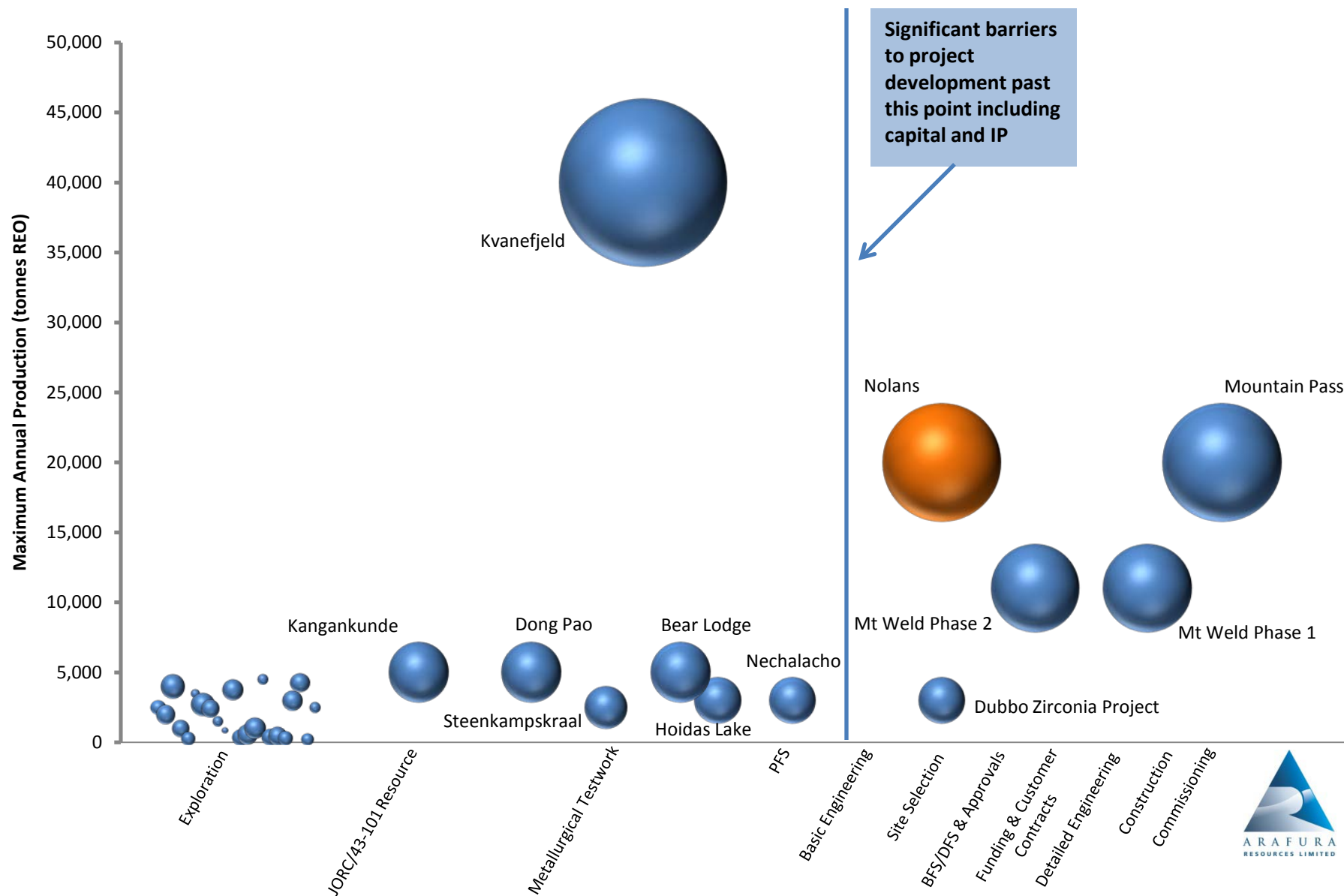
Chinese Export Quota History 2004-2010 (Tonnes REO)					
Year	Domestic Companies	Foreign Companies	Total	Y on Y Change	ROW Demand
2005	48,040	17,659	65,699	0%	46,000
2006	45,752	16,069	61,821	-6.00%	50,000
2007	43,574	10,069	53,643	-4.00%	50,000
2008*	49,871	15,834	65,705	-5.50%	50,000
2009	33,300	16,485	49,785	-12.00%	25,000
2010	22,513	7,746	30,259	-40.00%	48,000

	2010		Total (tonnes)
	H1	H2	
Foreign Producers	5,978	1,768	7,746
Domestic Chinese Producers	16,305	6,208	22,513
Total	22,283	7,976	30,259

* 2008 quotas adjusted to calendar year.

Source: Chinese Ministry of Commerce

Comparison of non-Chinese Rare Earth projects



Rare Earths Pricing: Oxides v Carbonate

- Rare earths products are saleable at different processing stages.
 - Rare earth carbonates are an intermediate product that have fewer end markets (especially outside China)
 - Rare earth oxides (a more refined product) typically attract a premium in price and can be delivered to end users worldwide.
- Arafura will produce and market Rare Earth Oxides achieving superior returns for shareholders.





Nolans Project & 2010 Progress

Nolans Project – The globally significant resource

Long life, multiple revenue streams with upside potential....

Phase 1 Annual Production

REO Rare Earths Oxides	20,000 t
P₂O₅ as 61% Phosphoric Acid	80,000 t
U₃O₈ Uranium Oxide	150 t
CaSO₄ Gypsum	500,000 t

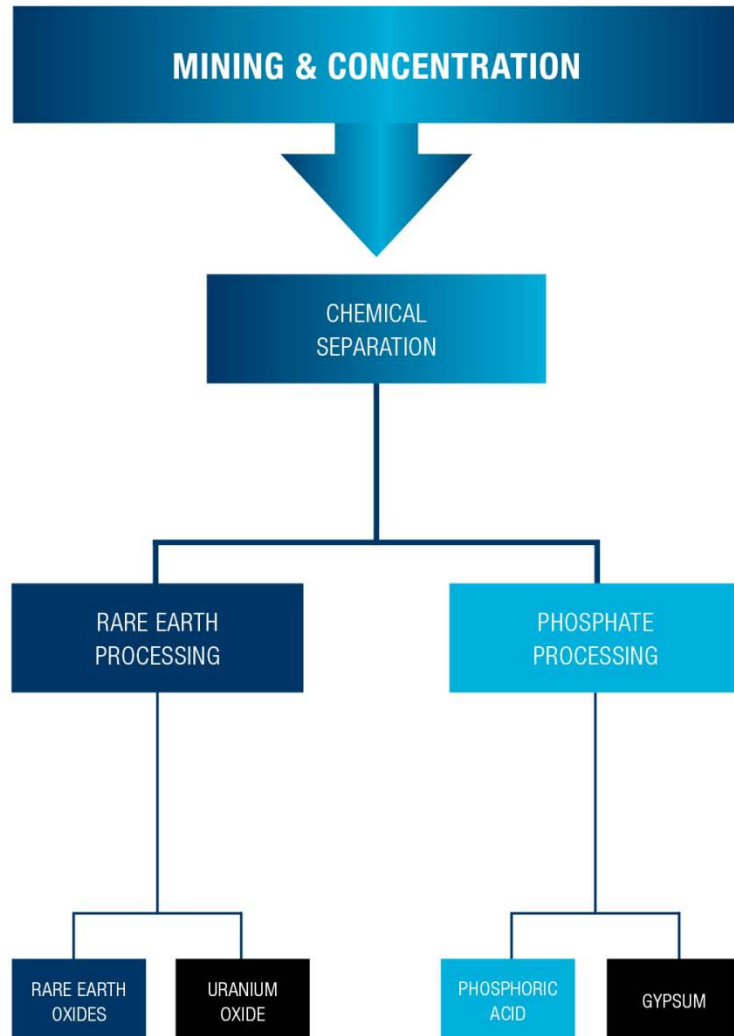
Total resources for Nolans Project

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

Further drilling is planned to identify the full size and extent of the Nolans resource – it is currently open and may be able to support expanded production.

Nolans Project – the process



- Proven and patented technology;
- Further enhancement and de-risking in 2010/11 by:
 - Ore beneficiation optimisation;
 - Demonstration of hydrochloric acid recycle and gypsum production;
 - Optimisation of rare earth oxide sulphation equipment; and
 - High quality rare earth oxide production including commercial samples for customer evaluation.

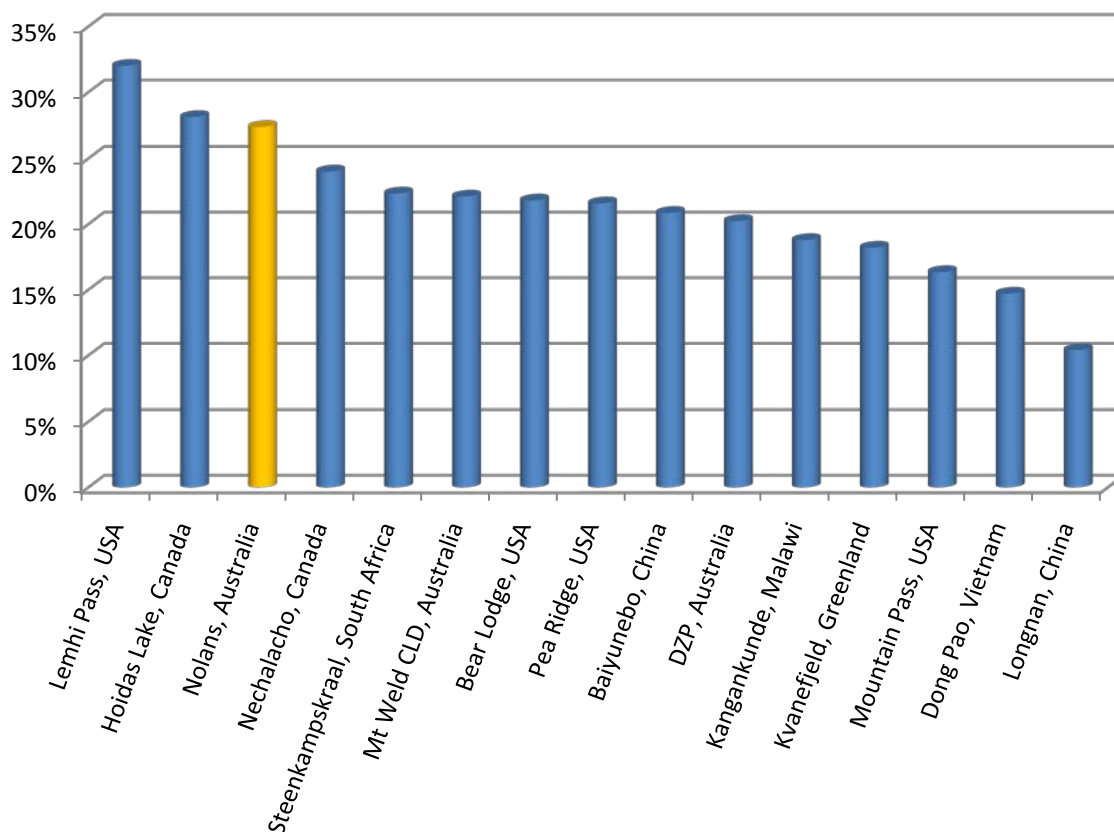
Process has been designed to comply with all regulations. Mine and rare earth complex will be subject of detailed environmental impact statements.

Nolans Rare Earths mix

Rare Earth Element	% REO contained	Volume (tonnes)	REO Price (US\$/kg)	Projected Revenue (US\$ millions) p.a.	% Revenue
Lanthanum	19.74%	3,948	\$41.00	\$162	15.9%
Cerium	47.53%	9,506	\$37.00	\$352	34.5%
Praseodymium	5.82%	1,164	\$71.00	\$83	8.1%
Neodymium	21.20%	4,240	\$73.50	\$312	30.6%
Samarium	2.37%	474	\$34.50	\$16	1.6%
Europium	0.40%	80	\$605.00	\$48	4.7%
Gadolinium	1.00%	200	\$41.00	\$8	0.8%
Dysprosium	0.33%	66	\$295.00	\$19	1.9%
Terbium	0.08%	16	\$605.00	\$10	1.0%
Yttrium	1.32%	264	\$39.50	\$10	1.0%
Others	0.21%	42			
	100.00%	20,000	\$51.02	\$1,020	100.0%

Nolans: a desirable Rare Earths mix

“Magnet Feed” Nd + Pr + Dy as a proportion of total Rare Earths mix



Nolans has a higher proportion of desirable “magnet feed” rare earths Nd, Pr & Dy compared with other deposits.

The permanent magnet market is forecast to grow at 8% per annum.

Nolans is one of only four rare earths projects that could be operating by 2015.

Nolans Project update 2010

Building momentum towards production....

In the last 6 months with the assistance of expert consultants we have:

At Nolans Bore Mine:

- Completed drilling for EIS hydrology studies;
- Completed transport study;
- Commenced mine optimisation study; and
- Commenced final engineering feasibility.

In Technology:

- Commenced ore beneficiation optimisation study;
- Successfully proven rare earth oxide separation;
- Commenced planning for Calcium chloride (CaCl_2) recycle pilot; and
- Commenced planning for sulphation equipment optimisation at demonstration scale.

Nolans Project update 2010 contd.

Building momentum towards project financing....

At the Rare Earths Complex:

- Confirmed Whyalla as the preferred site location;
- Major Project Status granted by South Australian Government; and
- Commenced engineering and environmental studies .

At Corporate:

- Made key employee appointments as part of building all-round capabilities;
- Engaged with prospective marketing and supply partners; and
- Commenced initial project finance discussions.

Nolans Project Finance 2011

The work program over the next 12 months leading to Project Finance....

In Technology:

- Commercial quantities of Rare Earth Oxides produced;
- All piloting and demonstration programs completed.

At Nolans Bore Mine:

- All regulatory approvals and licence to mine.
- Resource definition drilling to identify full extent of resource underway.

At Rare Earths Complex:

- Complete all engineering and environmental studies ;
- Regulatory approvals

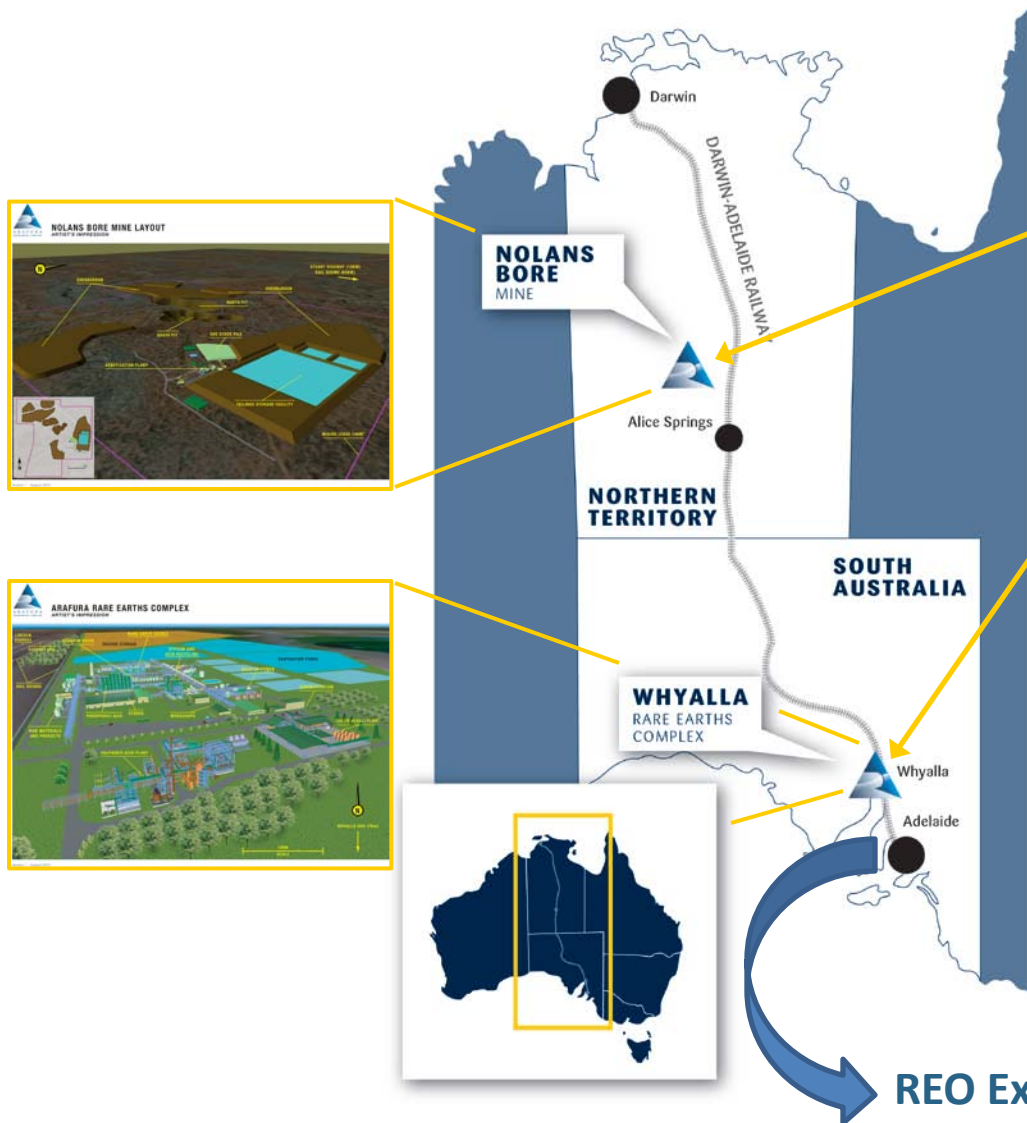
At Corporate:

- Continue to build all round business capabilities;
- Marketing and Supply contracts (and partners) secured;
- Complete BFS
- Finalise project finance. (exploring worldwide for equity, debt, financial products, and customer and supplier partnerships)



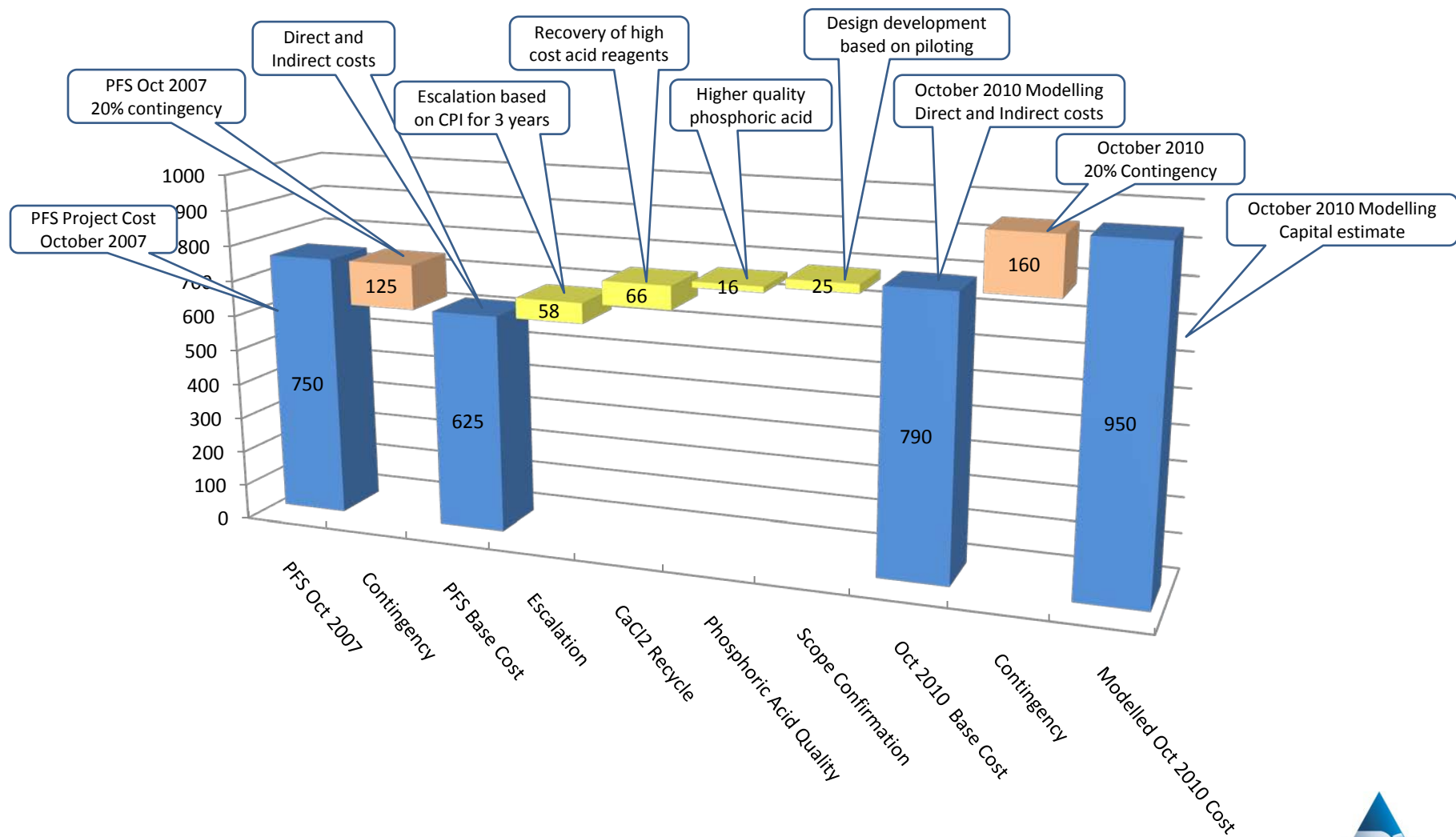
October 2010 Financial Update (Prior to final BFS)

As it is today – October 2010

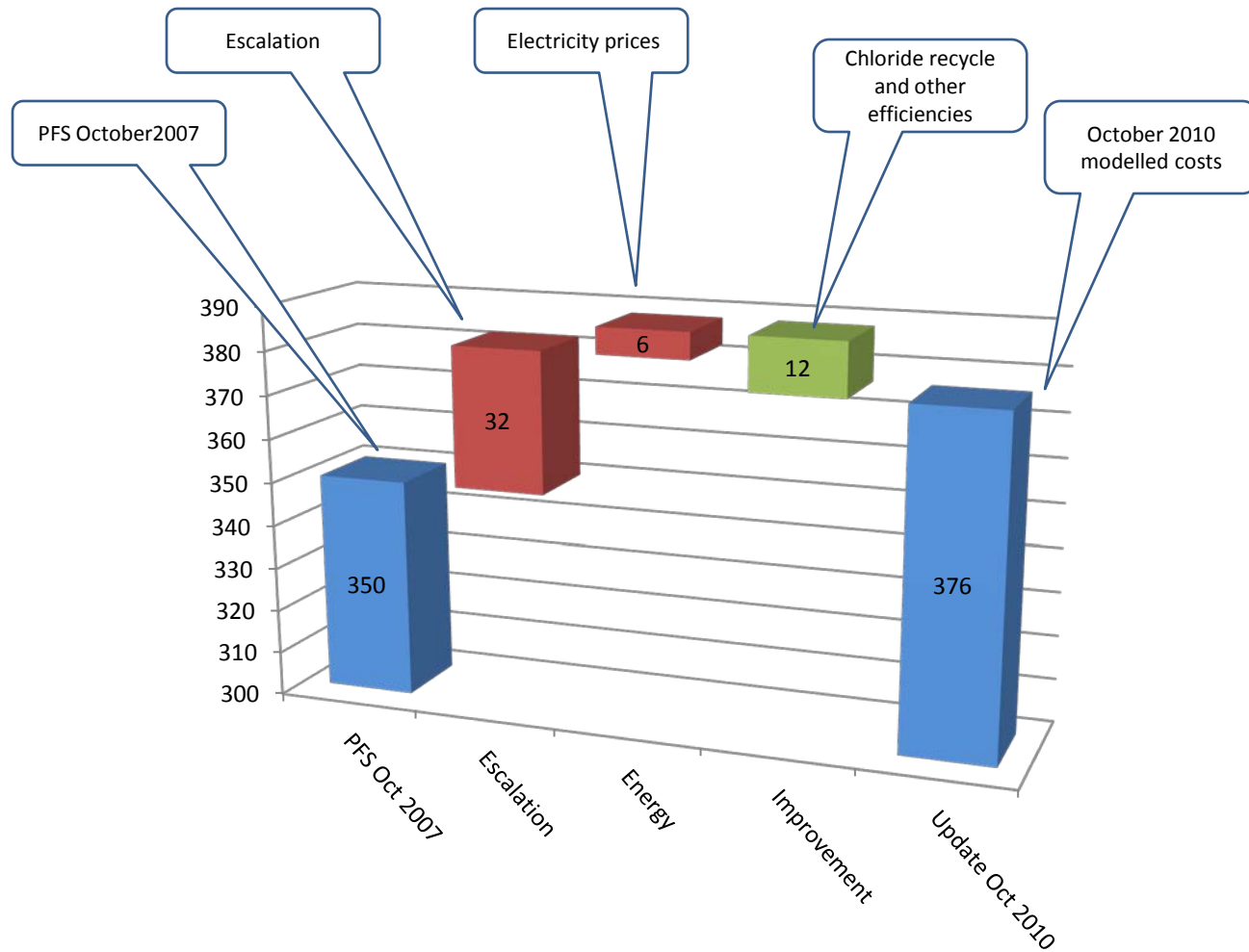


Stage	Location	CAPEX A\$M	OPEX A\$M pa
Mining	Nolans Bore	20	29
Beneficiation	Nolans Bore	80	18
Transport			38
Rare Earth Oxides (REO) and co-products	Whyalla	690	291
Base Project Costs		790	
Contingency 20%		160	
NOLANS MODEL PROJECT TOTAL	Nolans Bore & Whyalla	950	376

Capex (A\$M) 2007 PFS to October 2010 update



Opex (A\$/p.a.) 2007 PFS to October 2010 update

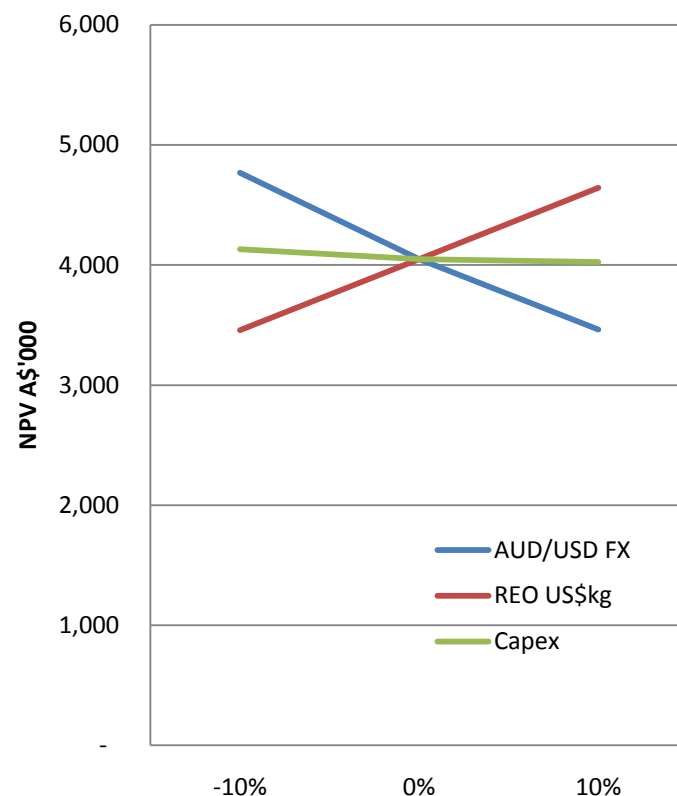


Project Valuation and Sensitivity

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.	\$565	\$885	\$1,205
	A\$		
Total Revenue p.a @ 0.95	\$595	\$932	\$1,268
Annual Operating Expenses @ 0.95	(\$376)		
EBITDA p.a	\$219	\$461	\$892
NPV @ 10% after tax and capital payback	\$1,420	\$4,050	\$6,549
Capital Payback - years	5	4	3

UDS/ AUD Forward Curve					
2011	2012	2013	2014	2015	
0.96	0.93	0.845	0.82	0.82	

Sensitivity Analysis



CAPEX & OPEX opportunities

Executing the following programs should achieve name plate production quicker, enhance financiers confidence in our process and improve financials

Opportunity	Action	Capex	Opex
Beneficiation of ore at site	Further Pilot	√	√
Calcium Chloride recycling to recover Chlorine values	Demonstrate at scale	√	√
Sulphation equipment optimisation	Demonstrate at scale	√	√
Rare earth oxide production methodologies	Demonstrate at scale	√	√
Continuous improvement program across all business areas	Ongoing	√	√



The Future Plan

Nolans Project Timeline

First production remains on target for 2013....

Activity	NOV 09	OCT 10	
Mine design and site plan	Q2 2010	Q4 2010	
Rare Earths Complex Location	Q1 2010	Q3 2010	Whyalla confirmed
BFS	Q4 2010	Q4 2011	Scope redefined by changed credit markets
HCl Recovery Program (Calcium Chloride recycle)	Q3 2010	Q1 2011	Scope redefined through new technology
Mine EIS	Q4 2010	Q2 2011	
Whyalla EIS	Q4 2011	Q3 2011	
Mine Approvals	Q2 2011	Q2 2011	Work commenced ahead of schedule
Rare Earths Complex plant approvals	Q3 2012	Q4 2011	
Project Financing	Q4 2011	Q4 2011	
Procurement and construction	2012/13	2012/13	
FIRST PRODUCTION	2013	2013	ON TARGET



Summary

Why Arafura?

Longevity – de-risked process – high value oxides – upside potential

- Clear strategy, confirmed business model, robust plan for delivery;
- World class and high value creating Nolans project;
- Longevity - 20 year+ life of mine at 20,000 tpa or (10%) forecast demand;
- Process developed with experts and de-risked through demonstration
- Proven and already efficient patented technology through to high value Rare Earth Oxides
- Uncommitted product available for customers worldwide in rising market;
- Near-term production opportunity: one of very few options available;
- Upside potential with Nolans expansion;
- Multiple revenue streams (Phosphoric Acid, Uranium, Gypsum);
- Politically stable operating environment with proven mining and processing regulations.
- A professional and highly skilled team which is growing



ARAFURA
RESOURCES LIMITED

Thank You

64	65	66	67	68	69	70	71
Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Gadolinium 157.25	Terbium 158.925	Dysprosium 162.5	Holmium 164.93032	Erbium 167.259	Thulium 168.9342	Ytterbium 173.04	Lutetium 174.967

Corporate information

Registered Office

Arafura Resources Ltd
Level 5, 16 St Georges Terrace
Perth WA 6000
Telephone +61 8 6210 7666
Facsimile +61 8 9221 7966

Share Registry

Security Transfer Registrars
770 Canning Highway
Applecross WA 6153
Telephone +61 8 9315 2333
Facsimile +61 8 9315 2233

For a copy of the 2010 Financial report or
for further information please visit

www.arafuraresources.com.au



Level 5, 16 St Georges Tce
Perth WA 6000
PO Box 3047, Adelaide Tce
Perth WA 6832

Web: arafuraresources.com.au

Steve Ward PhD
Managing Director
& Chief Executive Officer

Telephone: +61 8 6210 7666
Facsimile: +61 8 9221 7966
Mobile: +61 407 985 553

Email: sw@arafuraresources.com.au



Level 5, 16 St Georges Tce
Perth WA 6000
PO Box 3047, Adelaide Tce
Perth WA 6832

Web: arafuraresources.com.au

Gavin Lockyer
CFO/Company Secretary

Telephone: +61 8 6210 7666
Facsimile: +61 8 9221 7966
Mobile: +61 419 914 072

Email: gjl@arafuraresources.com.au





Thank You

Arafura Board



Hon Ian Laurance AM
Chairman

Ian Laurance is Chairman of the publicly listed property development company, Axiom Properties Limited (AXI). Ian represented the electorate of Gascoyne in the Western Australian Parliament for 14 years and at various times held the Ministerial portfolios of Housing, Tourism, lands, Environment and Regional Development. Ian chairs Australia's North West Tourism, the Ningaloo Research Centre Inc in WA and Anglicare WA Winter Appeal. In 2006, Ian was made a Member of the Order of Australia (AM).



Mick Muir
Non-Executive Director

Mick Muir is a Western Australian businessman with 30 years experience in the mining industry. Mick is an economics graduate and has worked in the securities industry and for the WA Chamber of Mines.



Shasha Lu
Executive Director

Ms Lu is an Executive Director and CEO of Hong Kong East China Non-Ferrous Mineral Resources Co. Ltd. (HKECE), a wholly owned subsidiary of Eastern China Geological & Mining Bureau for Non-Ferrous Metals (ECE). Ms Lu graduated with a Masters Degree from Nanjing University and completed her doctorate at Tianjin University. She has held posts within the World Health Organisation in Geneva and the Karolinska Institute in Stockholm. She is currently studying an EMBA at Nanjing University.

Arafura Board



Alex Losada-Calderon
Non-Executive Director

Dr Losada-Calderon is an independent consultant to East China Mineral Exploration & Development Bureau. Formally he was Vice-President of Exploration for Southwestern Resources Corp located in Canada. He has a PhD in Sciences from Monash University, holds Honours in Geological Science from the Universidad Nacional del Sur, Argentina and has over 20 years' experience as a geologist and project manager. He is a Member of the Australasian Institute of Mining and Metallurgy.



Ian Kowalick
Non-Executive Director

Ian Kowalick is a director and consultant on business strategy and has worked in technical and project consulting, economic and business analysis for resource companies, banking and investment. Ian was previously the CEO of the South Australian Premiers Department. Ian is Chair of the Audit & Risk sub-committee for Arafura.



Terry Jackson AM
Non-Executive Director

Terry Jackson is a Western Australian industrialist and entrepreneur with a private group of companies that has interests in innovative manufacturing, intellectual property development and vineyards.

Arafura Management



Dr. Steve Ward

Managing Director & CEO
Age 54

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 42

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.

Steven Mackowski

GM – Technologies
Age 57

Has 30 years technical and operational experience in uranium, industrial minerals, nickel, kaolin and iron ore. He also has experience in utility industries including gas and electric power generation, most recently with Sydney Gas.

Richard Brescianini

GM – Exploration & Development
Age 47

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 46

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 54

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.



For more information.....

01
HOME | **RARE EARTHS** | **OPERATIONS** | **EXPLORATION** | **SUSTAINABILITY** | **ABOUT US** | **INVESTOR INFO**

Arafura Fact Sheets

01. Who We Are

02. Nolans Project

03. Our Products

04. Nolans Bore Mine

05. Community Central Australia

06. Whyalla Rare Earths Complex

07. Community Whyalla

08. Radiation and its management

Copyright © 2008 Arafura Resources Ltd. Copyright & Disclaimer Terms & Conditions Site Map

Nolans Project Fact Sheets at www.arafuraresources.com.au

