

EQUITY RESEARCH



AUSTRALIA

RARE EARTHS, URANIUM, PHOSPHOROUS

FEASIBILTY STUDY

EXCHANGE: ASX:ARU

CAPITAL PROFILE

Share price (A\$)	0.195
52 week range (A\$/share) 0.14	5 to 0.535
Number of shares (m)	441.3
Options and warrants (m)	11.0
Converting notes (m)	0.0
Fully diluted (m)	452.2
Market capitalisation (undiluted) (A\$m) 86.0
Debt (A\$m) - Mar '13F	0.0
Enterprise value (A\$m)	57.9
Major shareholders: East China Min Expl & Deve	l Bureau
(ECE, 24.9%), JP Morgan Nominees (23.5%)	
Avg monthly volume (m)	25.8
Cash (A\$m) - Mar '13F	28.2
Price/Cash (x)	2.8
Price/Book (x)	0.4
Listed company options:	No



DIRECTORS

Ian Kowalick (Chairman) Chris Tonkin (MD & CEO) Shasha Lu (Non Exec Dir) T Grose (Non Exec Dir)

Mr Chris Tonkin Managing Director & CEO Arafura Resources Limited Tel: +61 8 6210 7666 Perth, WA, Australia www.arafuraresources.com.au

Analyst: Dr Tony Parry tonyparry@rcresearch.com.au

ARAFURA RESOURCES LIMITED

Price: A\$0.195

ARU's Nolans Rare Earths Project has taken another significant step towards commercialisation with the recent conversion of resources to reserves underpinning a minimum 22 year project life. With a solid cash position the company is now pushing ahead with the Feasibility Study and advancing discussions with potential project partners. The recent IER indicated a preferred value of A\$0.32/share. Our analysis indicates a likely valuation in the range A\$0.60 to A\$1.00/share if ARU brings in a project partner along with a debt finance component (50%) to reduce its equity raising requirement to manageable proportions.

INVESTMENT POINTS

- Nolans Rare Earths project is underpinned by a world-class rare earth element (REE) deposit at Nolans Bore, with total resources of 47mt and first production possible in early 2017.
- The recent conversion of resources to reserves (24mt = 22 year mine life) underpins the A\$3.2bn project independent valuation and project financeability, and is a major step in commercialisation of the project.
- Very few of the other rare earths hopefuls globally have been able to demonstrate such a high degree of resource confidence.
- Project Data: Grade 2.8% REO, Capital cost A\$1.9bn, production of 20ktpa rare earth oxides (REO), plus phosphate, uranium, gypsum. Robust project economics. Extensive testwork has confirmed REO separation technology for all five intended products, subject to final scale-up validation in on-going Feasibility Study.
- Project Review (Aug '12) indicates excellent financial returns: Revenue: A\$1.1bnpa, EBITDA A\$698mpa, Opex ~A\$20/kg versus US\$60/kg (real) REO pricing assumed.
- Short term funding issues resolved with 4Q12 A\$32.5m cash injection providing project development funding to progress the Feasibility Study in CY13 and possibly to a project partnering and financing agreement in 2H13.
- Three major multinational companies from China (ECE), Germany (ThyssenKrupp) and Korea have positioned themselves as potential development partners, and there are likely to be others (discussions underway) – this is the key to unlocking project finance.
- Our analysis shows that further strategic partnerships and probable project equity reduction will be the key to building ARU shareholder value.
- With the reserves statement ticking an important box for project viability, the medium term upside for shareholders now hinges on the outcome of current discussions with potential project partners. Our share price target of A\$0.28/share in the next six months will most likely be surpassed with any positive announcement on partnering.

COMPANY STATISTICS

YEAR END: June ^	Dec-12F	Mar-13F	2012a	2013F	2014F
Exploration, evaluation & devt (A\$m)	8.35	8.00	55.68	27.63	32.00
Corporate (A\$m)	2.00	1.80	8.01	6.87	7.20
Exploration/(Expl.+ Corporate) (%)	81	82	87	80	98
Funding duration at current burn (yrs)			0.3	0.5	0.1
Shares on issue (pr end) (m shares) ^	441.3	441.3	396.0	441.3	554.9
Drilling - RAB (m)	0	0	0	-	0
Drilling - Other/Diamond (m)	0	0	24,125	0	0
Land holding ('000 ha)	500	500	500	500	500
Tenement costs (\$k per year)	-	-	-	-	-
Capital Raisings (A\$m) *	9.96	0.0	8.2	10.0	25.0
Funding from JV partners (A\$m)	0	0	0	0	0
Cash (A\$m)	37.5	28.2	19.5	18.8	5.4
Cash backing (Ac/share)	8.5	6.4	4.9	4.3	1.2
Net asset backing (Ac/share)	41.1	40.8	38.3	40.5	42.7
* Assumes A\$25m equity raised in FY14 (@ A\$0.22/sh.	^ All quarters	refer to calendar yea	ar quarters.	

Project	Ownership/ Option	Metal	JV Partner	Target Type	Process Route	Project Status	Location		
Nolans	100%	REE, P, U	none	Vein	Leach	FS	Aust (NT/SA)		
Aileron / Reynolds *	100%/(40%)	REE, P, Fe	(Ngalia)	Various	na	Early Expl	. Aust (NT)		
Hammer Hill	100%	REE,Cu	none	Sulphide	na	Mid. Expl.	Aust (NT)		
Mt Porter/Frances Crk*	100%/(60%)	Au	Ark Mines	Sediment	na	Adv. Expl.	Aust (NT)		
Kurinelli	100%	Au	none	Reef	na	Early Expl	. Aust (NT)		
Jervois*	100%/(30%)	Fe, V,Cu	Rox	M'morphic	na	Mid. Expl.	Aust (NT)		
* Projects subject to JV agreements - potential reduced equity after farm-in shown in brackets.									

COMPANY COMMENT

Overview: ARU's flagship is the Nolans Rare Earths Project (NT/SA). The Nolans Bore deposit is 135km NNW of Alice Springs, and has JORC Reserves of 24mt containing 0.67mt of rare earth oxides (REO), 3.0mt of phosphate (P_2O_5), and 4.9kt of uranium (U_3O_8). Including Inferred Resources the total deposit stands at 46mt containing 1.2mt REO. The Project is world scale, financially robust, based on a recent IER, and strategically important with significant content of potentially critical REO's such as Dysprosium and Neodymium. ARU is now cashed up to drive the feasibility study to completion in 2013 and move towards realising its vision to be one of the leading rare earth producing companies in the world.

Maiden JORC Ore Reserve: The recent (Dec '12) conversion of 95% of the M&I resources to Probable Reserve status (see reserves table on the following page) is a major milestone in the commercialisation of this project. Only very few potential rare earths projects globally have reached the stage of establishing ore reserves. The reserves are based on an open pit mining operation, and have been established using individual financial modelling of each ore block. Based on a projected 1.1mtpa mining rate (20ktpa of REO product, plus P and U by-products) the mine life is 22 years, with a further potential 10 year mine life based on likely conversion of Inferred Resources. The deposit remains open at depth over much of its area.

ARU is Now Cashed-Up: ARU received funding inflows of A\$32.5m in 4Q12 by way of an A\$22.5m R&D tax refund and placement to its major Chinese shareholder ECE which raised A\$9.9m at A\$0.22/share. This removes a huge millstone which has been hanging from the neck of the ARU share price, with a good portion of the funding to complete the FS and move to project financing now in the bank. ARU has stated that A\$50-A\$70m will be required to complete the FS. The cash injection eliminates share market uncertainty regarding how ARU can raise short term FS funds, and addresses concerns about an imminent discounted equity issue in a dour market. On our estimates, after 1Q13 project development expenditure ARU will have ~A\$28m in the bank at the end of March 2013. ARU will not have to raise further capital until 2H13 based on our estimated cash burn rate to advance the FS of around A\$10m/Q. By this stage the Nolans FS will be well advanced and the project finance negotiations should be well advanced, if not complete.

Nolans Project Feasibility Study (FS): Importantly, the FS for eventual 20ktpa REO production, with uranium oxide, phosphate and possibly gypsum co-products, is progressing well. The flowsheet is complex, but technical risk is diminishing steadily as ARU has proven at pilot plant level that it can produce its five key final REO products to customer specifications. A very detailed (57pp) Project Update released August 2012 addressed every aspect of the project in some depth. The Project Update indicated very robust project economics. The financial evaluation generating a base case NPV₁₀ over a 20 year mine life of A\$4.3bn, annual EBITDA of A\$698mpa, IRR of 30% and 4-year pay back. This assumes real average selling price for REO products of US\$60/kg, close to current prices, which we think is reasonable given the recent stabilisation of REO prices. The market analysis predicts demand growth of 6-7% pa over the next 20 years.

Development Timeline: With cash in the bank ARU can now

push ahead towards the completion of the FS in CY13. It expects to be able to make a firm go-ahead decision, and to be arranging project financing, in 2H13. If finance and partnering arrangements are finalised in 4Q13, the project could be commissioning in 2H16.

Key 'Big Brother' partnerships: ARU has a very supportive major Chinese shareholder (East China Mineral Exploration and Development Bureau - ECE) that has already injected A\$33m (after the recent A\$9.9m placement). Recent announcements confirm that ECE is assisting in expert technical reviews, and we believe it is positive that a group from China, the world leader in REO technology, is so supportive. ARU has also cemented key strategic relationships (based on offtake agreements of 3,000tpa REO each and project financing support) with two major downstream players - the giant German materials and technology group ThyssenKrupp, and more recently an MOU with an as yet un-named major Korean multinational. we think likely to be steel giant POSCO. Further negotiations with other potential partners is on-going partnering will be the key to ARU creating shareholder value and achieving project financing (see below).

Maximising Shareholder Value: The 3Q12 Independent Experts' report (IER) required for the Oct '12 EGM put a preferred value of A\$3.21bn on the Nolans Project (nominal NPV assuming 20 year mine life, 10% discount rate, assuming US\$60/kg Nolans mix pricing, long term A\$/US\$ = 0.85). Making the assumption that the entire A\$1.9bn capex is raised by ARU through an equity issue of 9.586bn shares at A\$0.21 share, the IER provides a preferred value of ARU shares of A\$0.323/share. Our calculations (see graphs on following pages) suggest that the valuation rises to A\$0.50-A\$0.60/share if ARU sells down to ~50% equity and introduces a 50% debt funding component; and A\$0.90-A\$1.00/share if ARU sells down to 30% equity. In other words, if (as is likely) ARU will have to issue paper at a large discount to the underlying project NAV to raise equity capital, introducing a debt financing component combined with an equity sell-down to a 'big brother' partner greatly enhances shareholder value relative to a 'go it alone' approach. It also increases the likelihood of a go ahead by dramatically reducing ARU's equity capital demand.

Investment Comment: We consider that the prospects of commercialising the Nolans Project have increased significantly after the conversion of resources to reserves and the recent cash injections meaning that ARU should be able to largely complete the Feasibility Study and advance the Nolans Project to the project financing stage in CY13. The critical issue will now be the negotiations with potential project partners, an essential requirement to get the project over the line. The modest ~A\$60m EV does not seem to reflect the good progress made and the potential for value generation if big brother partners are confirmed. Based on our projected A\$0.60-A\$1.00.share valuation range and recent signs of the start of a stock re-rating, we maintain our A\$0.28/share six months price target.

RESERVES AND RESOURCES/MINERALISED MATERIAL

A major development milestone was reached in December 2012, with 95% of JORC – compliant Measured & Indicated Resources converted to Reserve status, after an independent review and financial modelling by AMC Consultants Pty Ltd.

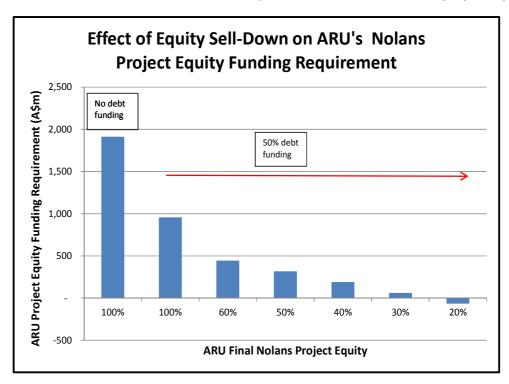
Code for reporting mineral resource	es - Australian:	(JORC)								
Rare Earth Elements	Classification	Project	Ore	REO	c/off	REO	U	P_2O_5		
		Equity	Mt	%	REO %	kt	kt	mt		
Reserves		• •								
Nolans Project	Probable	100%	24.0	2.80	na*	672	4.9	3.0		
* No specific cut-off has been app	* No specific cut-off has been applied - each ore block in the block model was modelled and analysed for financial viability.									
Resources										
Nolans Project	Measured	100%								
"	Indicated	100%								
"	Inferred	100%	22.0	2.4	1.0	<u>511</u>	<u>3.6</u>	2.2		
Total Resources & Reserve	es		46.0	2.6	1.0	1,217	8.8	5.4		
Gold Resources										
Mt Porter Project (100%/60%): Indicated & Inferred Resource 300kt @ 3.1g/t for 34,200 oz Au.										
Mineralised Material (est., non compliant with JORC)							0.0	0.0		

The summary below of key global rare earths projects in production or being developed shows that ARU's Nolans Project is one of only five that have reached full feasibility study level or are commissioning. The US\$14 EV/tonne resource valuation for ARU looks miniscule relative to the >US\$700 EV/tonne values for the two major projects currently commissioning.

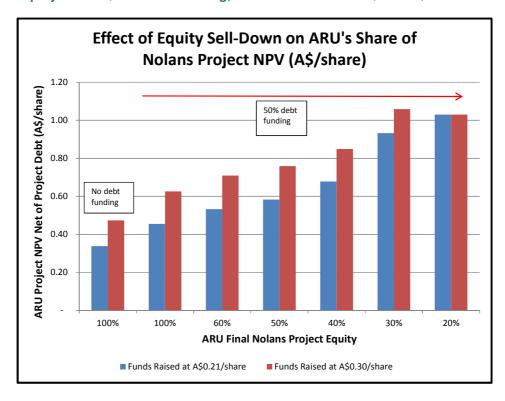
Company	Location	Mining Method	Project Stage	Market Cap (US\$m)	EV (US\$m)	TREO Resources (Mt)	Forecast REO Production (tpa)	EV/Tonne Resources (US\$/tonne)	Grade %
Arafura	Australia	Open Pit	Feasibility	70	17	1.2	20,000	14x	2.6%
Lynas Corp	Australia & Malaysia	Open Pit	Commissioning	1,283	1,488	1.9	22,000	783x	7.9%
Molycorp	USA	Open Pit	Commissioning	1,035	1,834	2.6	40,000	706x	6.6%
Alkane Resources	Australia	Open Pit	Feasibility	307	203	0.7	4,800	291x	0.9%
Avalon Rare Metals	Canada	Underground	Feasibility	160	114	4.3	10,000	27x	1.4%
Rare Element Resources	USA	Open Pit	PEA	171	124	0.7	9,400	177x	3.2%
Frontier Rare Earths	South Africa	Open Pit	PEA	46	12	1.0	20,000	12x	2.2%
Quest Rare Minerals	Canada	Open Pit	PEA	71	38	2.1	15,000	18x	0.9%
Greenland Minerals & Energy	Greenland	Open Pit	PEA	186	173	10.3	44,000	17x	1.2%
Man	favel ADID			407	400	2.0	47 200	2544	4 70/
Mean	(excl. ARU)			407	498	3.0	17,200	254x	1.7%
Median	(excl. ARU)			178	149	2.0	12,500	102x	1.7%

Source: ARU Presentation 30 November 2012

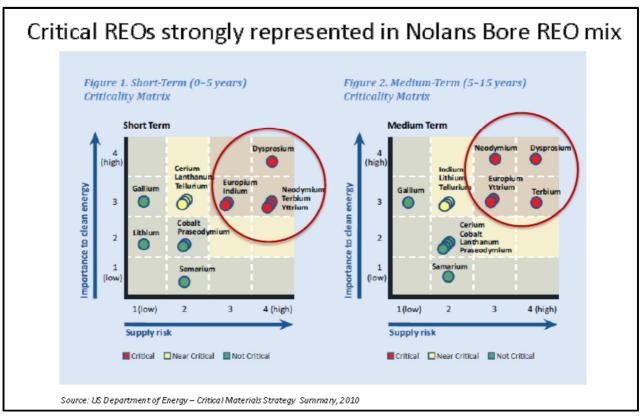
Introducing a debt funding component for the Nolans Project financing (50% debt assumed) and introducing a 'big brother' partner to reduce ARU's funding load has a dramatic effect on ARU's equity capital-raising requirement to fund the A\$1.9bn capex. Equity funding required reduces to A\$189m for a 40% stake, and only A\$61m if it reduces to 30% project equity.



With less share dilution, the value of the project to ARU shareholders (project NPV quoted as A\$/share) increases significantly if 50% debt funding is assumed and ARU sells-down a component of its project equity to a 'big brother' partner. The graph below illustrates this based on equity raised at A\$0.21/share and A\$0.30/share. Assuming 30-40% final ARU project equity and AS\$0.21/share raising, ARU's NAV rises to A\$0.60-A\$1.00/share

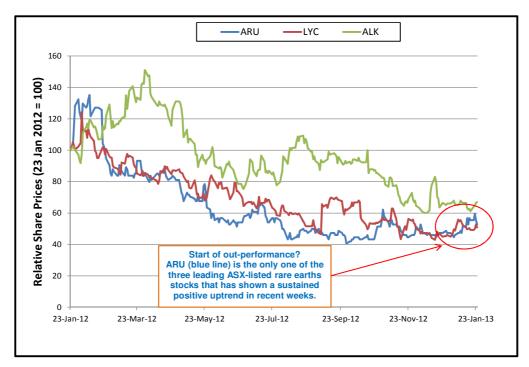


The Nolans Project demonstrates strategic advantages over other projects with significant levels of "critical" REOs represented in the expected product mix. This is likely to be a key factor in attracting investment interest from potential major partners.



Source: ARU

There is reasonable uniformity in the twelve month share price performance of the three major ASX-listed rare earths stocks (Lynas Corporation, Alkane Resources and Arafura Resources), but a recent up-trend and out-performance from ARU could be noteworthy.







CONTACT

Resource Capital Research

ACN 111 622 489

Level 33, Australia Square 264 George Street Sydney NSW 2000

T +612 9439 1919 **F** +612 9439 1919 **E** info@rcresearch.com.au

www.rcresearch.com.au

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