RCR
RESOURCE CAPITAL RESEARCH

EQUITY RESEARCH

27 MARCH 2014

AUSTRALIA

RARE EARTHS, URANIUM, PHOSPHORUS

FEASIBILITY STUDY

EXCHANGE: ASX:ARU

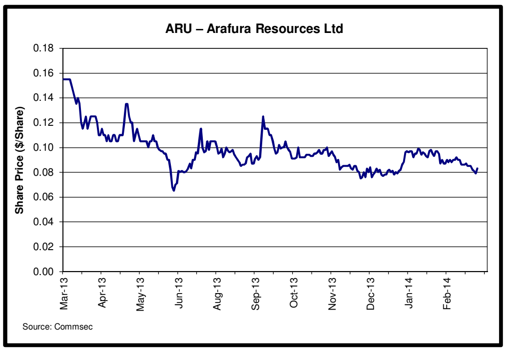
ARAFURA RESOURCES LIMITED

Price: A$0.081

ARU is taking decisive action to improve the project economics and project financing prospects for its world scale Nolans Rare Earths Project, (a Feasibility Study is well advanced). Projected operating costs and capital costs have been slashed, and are likely to be further reduced with on-going Chinese technical input. These initiatives have maintained sound project economics despite rare earths price uncertainty. We consider that Nolans is staking a strong claim as potentially the next major rare earth oxides (REO) project to achieve a project financing and firm go-ahead.

CAPITAL PROFILE

Share price (A$)		**0.081**
52 week range (A$/share)	0.062 to	0.150
Number of shares (m)		**441.3**
Options and warrants (m)		13.2
Converting notes (m)		0.0
Fully diluted (m)		454.5
Market capitalisation (undiluted) (A$m)		**35.7**
Debt (A$m) - Mar' 14F		0.0
Enterprise value (A$m)		**13.4**
Major shareholders: East China Min Expl & Devel Bureau (ECE, 24.9%), JP Morgan Nominees (23.5%)		
Avg monthly volume (m)		6.6
Cash (A$m) - Mar '14F		**22.4**
Price/Cash (x)		3.5
Price/Book (x)		0.6
Listed company options:		No



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INVESTMENT POINTS

- The Nolans Rare Earths Project is underpinned by a world-class rare earth element (REE) resource at Nolans Bore. Probable Reserves of 24mt @ 2.8% rare earth oxides (REO) equate to 22 year mine life based on 20ktpa planned REO output. Few other rare earths hopefuls globally have been able to demonstrate such a high degree of resource confidence.
- The Nolans Feasibility Study is well advanced with beneficiation and product separation technology successfully demonstrated, a point of difference from most other rare earths hopefuls.
- A detailed Base Case Project Review (Aug '12) indicated capex of A$1.9bn and opex of A$20.55/kg REO, which would not be viable at current REO prices. Since then major cost savings have been achieved, with capex reduced by 26% and opex by 24%.
- The optimised project as it currently stands is now more economically viable. Assuming modest increases from current REO prices we forecast a pre-tax NPV_{10} of A$1.2bn, and a pre-tax IRR of 22%.
- After massive price volatility in the past three years, there are now positive signs of stabilisation and firming of REO prices.
- Further cost savings are likely with input from Chinese rare earths technology experts. The increasing association with Chinese technical groups and on-going engagement with end users could be the key in getting the project commercialised.
- ARU has a very supportive and active major shareholder from China (ECE) and is continuing to develop strong relationships with major multinational companies such as Germany's ThyssenKrupp – establishing offtake agreements with major players is vital to unlocking project finance.
- ARU is cashed up (RCR forecast A$22.4m at 31 March), sufficient to fully fund the finalisation of the feasibility study over the next 12 months and to a possible project partnering and financing agreement.
- ARU is capitalised at only A$36m (EV A$13m). Clearly there is potential for significant share price upside if ARU maintains the impressive technical optimisation progress with Chinese input, and locks in significant offtake agreements in the next nine months.

COMPANY STATISTICS

YEAR END: June ^	Dec-13a	Mar-14F	2013a	2014F	2015F
Exploration, evaluation & dev't (A$m)	1.84	2.80	15.97	10.59	14.00
Corporate (A$m)	1.10	1.05	5.00	4.40	4.60
Exploration/(Expl.+ Corporate) (%)	63	73	76	71	90
Funding duration at current burn (yrs)			1.5	1.2	0.0
Shares on issue (pr end) (m shares) ^	441.3	441.3	441.3	441.3	441.3
Drilling - RAB (m)	0	0	0	-	0
Drilling - Other/Diamond (m)	0	0	0	0	0
Land holding ('000 ha)	380	380	380	380	380
Tenement costs ($k per year)	-	-	-	-	-
Capital Raisings (A$m) *	0.00	0.0	10.0	0.0	0.0
Funding from JV partners (A$m)	0	0	0	0	0
Cash (A$m)	25.9	22.4	32.2	18.1	0.0
Cash backing (Ac/share)	5.9	5.1	7.3	4.1	0.0
Net asset backing (Ac/share)	31.8	31.7	32.0	31.5	36.7

. ^ All quarters refer to calendar year quarters.

The reviews of project configuration and further project optimisation have resulted in over A$500m savings in estimated initial capex and nearly A$5.00/t REO in opex since the August 2012 base case Project Review.

NOLANS RARE EARTHS PROJECT

Capital and Operating Cost Savings Since August 2012 Project Review

	August 2012*	December 2013 **	March 2014***
TOTAL CAPITAL COST (A$m)	**$1,912**	**$1,504**	**$1,408**
Per Cent change from Aug 2012		*-21%*	*-26%*
OPERATING COST (A$/kg REO)	**$20.55**	**$17.10**	**$15.67**
Per Cent change from Aug 2012		*-17%*	*-24%*

* Detailed Project Review August 2012

** Capex and Opex Update December 2013

***Capex and Opex Update March 2014

COMPANY COMMENT

Overview: ARU's flagship is the advanced Nolans Rare Earths Project (NT). The Nolans Bore deposit is 135km NNW of Alice Springs, and has JORC Reserves of 24mt @ 2.8% rare earth oxides (REO) This is equivalent to 0.67mt of rare earth oxides (REO), and also contains 3.0mt of phosphate (P_2O_5), and 4.9kt of uranium (U_3O_8). The reserves support a mine life of 22 years. Only very few potential rare earths projects globally have reached the stage of establishing ore reserves and advancing beyond the PFS stage. Including Inferred Resources the total deposit stands at 46mt containing 1.2mt REO. The project is world scale, and strategically important with significant content of potentially critical REO's such as Neodymium and Europium. ARU is now cashed up to drive the Nolans Project feasibility study to completion in 2014 (with important Chinese technical input) and to realise its vision to be one of the leading rare earth producing companies in the world.

Rare Earths Prices Now Firming: It has been a roller coaster ride for REO prices over the past three years (see graph on page 4). After spectacularly taking off in the second half of 2010 (achieving an approximate tenfold increase) due to Chinese export restrictions, prices crashed back to earth in 2H11 and 1H12. Although prices are now showing signs of firming, this extreme volatility has severely shaken market confidence in the major emerging REO contenders such as ARU. It has also required ARU to revisit the project configuration in an effort to slash capital costs (and trim operating costs) to improve project economics. We believe REO prices may have reached the bottom of this cycle, experiencing recent modest recent gains.

Major Reductions in Capex and Opex achieved: ARU initiated a trade-off study in late 2012 to enhance the project's economics in a lower REO price environment, focusing on reducing capital costs and optimising operating costs. The table at the top of this page demonstrates the major gains achieved since the detailed Base Case Project Review was released in August 2012. These gains are essential to enhance project economics, and are on-going. Substantial gains have been generated from relocating the intermediate chemical processing plant from Whyalla to Nolans Bore minesite (particularly in transport and logistics) and moving the REO separation plant from Whyalla to an established chemical precinct, potentially offshore, saving the cost of a dedicated chlor alkali plant. A global plant site selection study is underway. Beneficiation improvements and the replacement of hydrochloric acid with sulphuric in the pre-leach have also been important. Other capex and opex cost reductions are expected to flow from the technical review and optimisation program being undertaken by Chinese REO experts introduced by ECE.

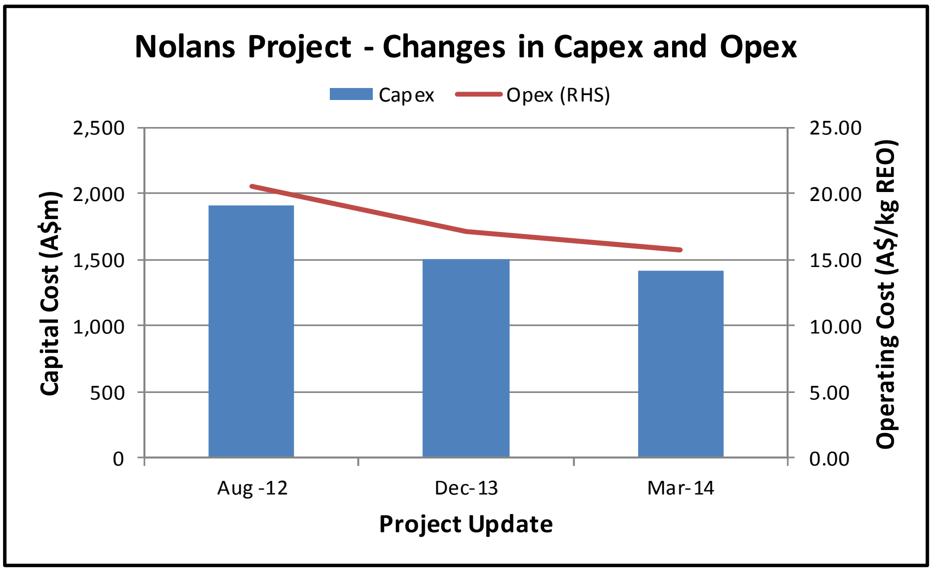
Project Economics: The detailed Base Case Project Review released in Aug '12 indicated capex of A$1.9bn, opex A$20.55/kg, and a project NPV of A$4.3bn based on assumed REO prices averaging US$60/lb (real) for the Nolans product mix. REO prices for Nolans are now US$31.50/kg, which, if sustained, would clearly make an A$1.9bn project barely viable. Hence the major reductions in capex and opex achieved since the August 2012 Project Review. We have undertaken preliminary discounted cashflow modeling of the Nolans Project to determine the effect of the cost reductions on the project economics – see graphs on page 3. The graphs confirm that the cost reductions achieved have been crucial to maintaining sound project economics that could support a project financing, assuming prices for the Nolans REO mix rise modestly from current levels to our projected forecast of US$35.00/kg REO.

ARU is Cashed-Up: ARU prudently raised A$40.7m in CY12, including an R&D tax refund of A$22.5m. As at 30 June cash was A$32.2m. With cessation of Australian REO demonstration plant testwork and optimisation work now in China, cash burn rate to progress the FS has been drastically reduced to around A$3.5m/Q, (see graph page 4) meaning no requirement to raise additional capital until at least 1H15. By that stage the Nolans FS should be concluded, and partnering and project finance negotiations could be well advanced, if not complete.

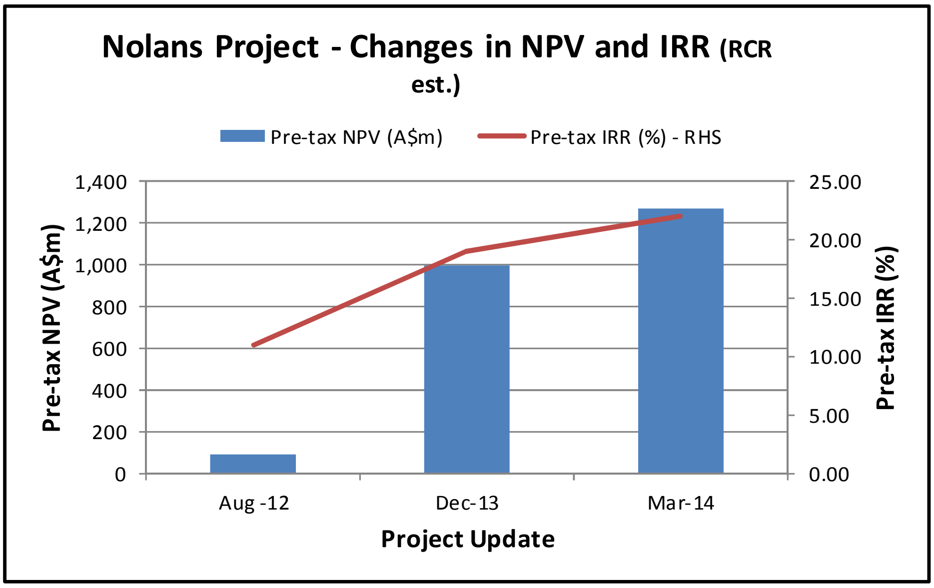
Key 'Big Brother' partnerships: ARU has a very supportive major Chinese shareholder (East China Mineral Exploration and Development Bureau - ECE) that has already injected A$33m. ECE is playing an active role in project development by introducing Chinese expertise in REO processing technology (China is the world leader in REO technology) - a key element in ARU's opex and capex reduction strategies. In September 2014 ARU signed an MOU with Shenghe Resources, a US$1.4bn market cap Chinese rare earths producer that has been allocated approximately 4.5% of the Chinese REO export quotas. Shenghe is providing key Chinese technical input and potential access to customers that could lead to crucial offtake arrangements. 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.

Investment Comment: ARU has made huge strides in the past 18 months to adapt the Nolans Project to a lower REO price environment. The cost reductions achieved, with potentially more to come, indicate that the project has been made more economically viable, which could underpin a project financing. More so with further cost reductions likely. Crucial to the further cost reductions, project risk reduction and project financeability will be the increasing Chinese influence on the project. This influence could also be important in securing offtake agreements with major market players. We think these factors could provide ARU with a major development advantage relative to the handful of other advanced REO projects seeking to reach production in the next few years.

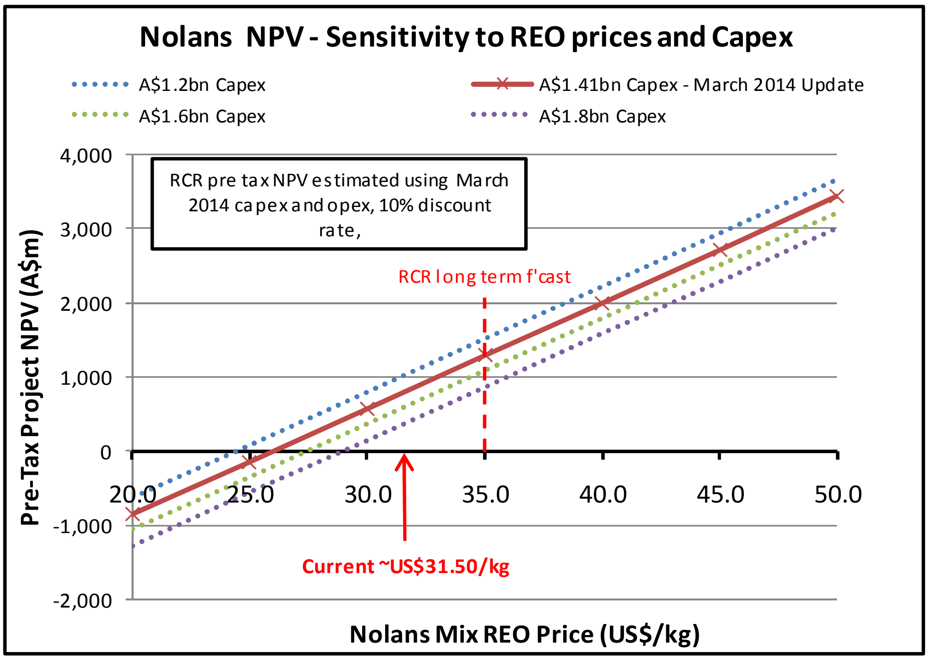
The major reductions achieved in estimated capital costs and operating costs for the Nolans Project are summarised in this graph. Further reductions are likely with an on-going optimisation program using Chinese technical input.



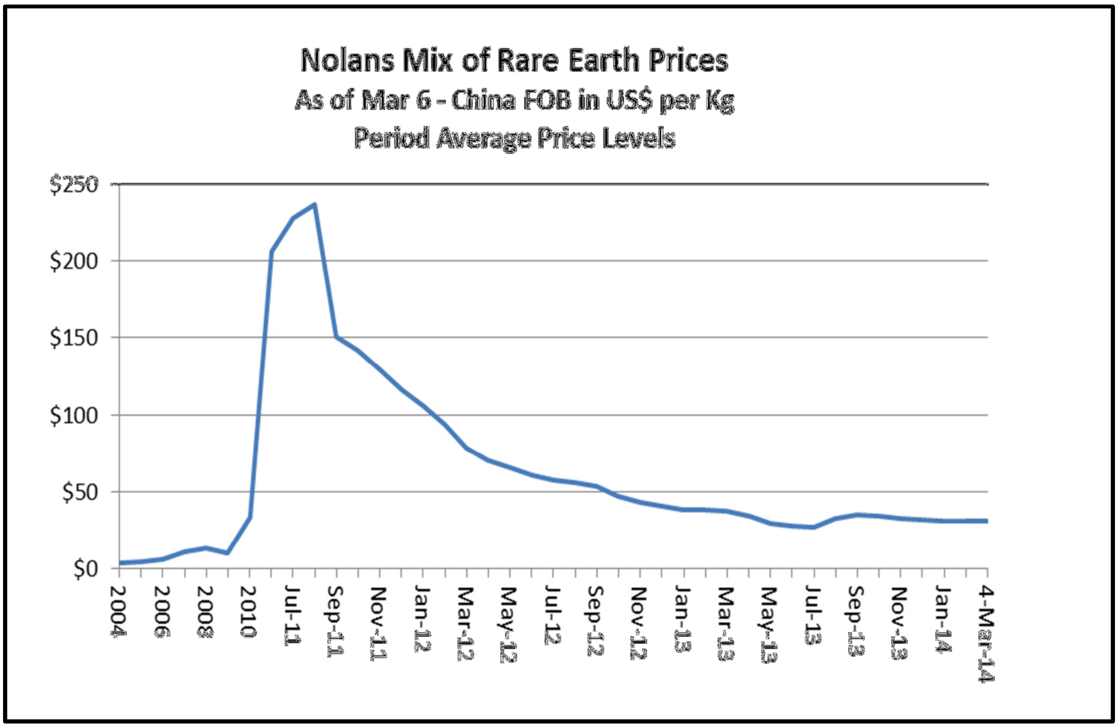
We have used a long term forecast price for the Nolans mix of REO's of US$35.00/kg REO in our financial modeling of the project, assuming 20,000 tonnes per annum REO production, 20 year mine life. At this REO price the project is marginal based on the original August 2012 capex and opex parameters. However the pre-tax NPV (10% real) has risen strongly with subsequent project optimisation, and the latest updated parameters generate a pre-tax NPV >A$1.2bn and an IRR >20%.



The sensitivity of pre-tax NPV for the project to REO prices (i.e. the weighted average price received for the Nolans mix of REO's) is shown on this graph. The effective break-even using the March 2014 project parameters is around US$26/kg. The pre-tax NPV at the current Nolans mix price (US$31.50/kg) is around A$800m. If the Nolans mix REO price was to recover to US$40/kg, the indicated pre-tax NPV rises to A$2bn.

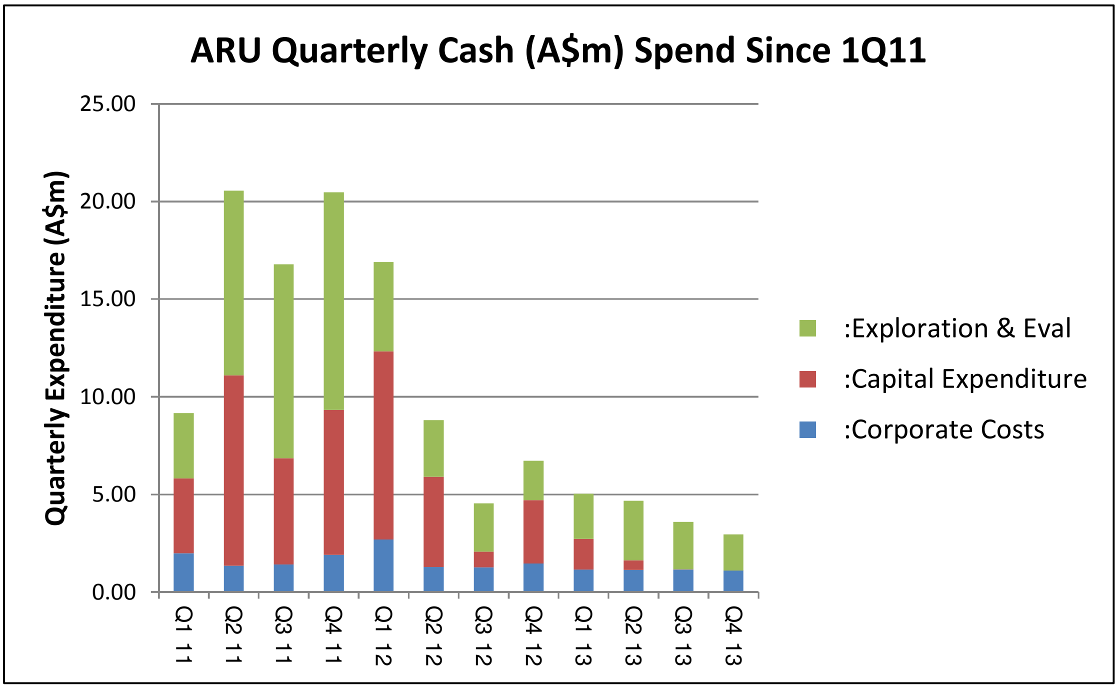


China's dominant position as a rare earth producer (controlling about 95% of global production) and the introduction of export restrictions in 2010 caused a massive spike in REO prices in 2010/2011. Since then prices have crashed back to earth, but recent signs are that they may have bottomed and are now be back on a more subdued uptrend. The price of the Nolans mix of REO's (FOB export China) has recently edged back over US$31/kg after bottoming at US$26.50/kg in June 2013. Prices are likely to continue firming in 2014 due to on-going consolidation and elimination of illegal production in the Chinese rare earths industry.



Source: ARU, Metal Pages

ARU has dramatically reduced its level of cash burn after completing intensive resource drilling and pilot plant programs in 2010 to 1H12. However this has not slowed the project impetus with technical input now coming from Chinese rare earths process experts. With A$22.4m cash (RCR forecast 31 March 2014) the Company has funds to complete the Nolans Feasibility Study by 1H15 and potentially reach the project financing stage.



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 modeling by AMC Consultants Pty Ltd.

Code for reporting mineral resources - Australian:		(JORC)						
Rare Earth Elements	**Classification**	**Project Equity**	**Ore mt**	**REO %**	**c/off REO %**	**REO kt**	**U kt**	**P_2O_5 mt**
Reserves								
Nolans Bore	Probable	100%	**24**	**2.8**	**na***	**672**	**4.9**	**3.0**
* No specific cut-off has been applied - each ore block in the block model w as modelled and analysed for financial viability.								
Resources								
Nolans Bore	Measured	100%	4.3	3.3	1.0	144	1.1	0.6
"	Indicated	100%	21	2.6	1.0	563	4.1	2.6
"	Inferred	100%	22	2.4	1.0	511	3.6	2.2
Total Resources & Reserves			**47**	**2.6**	**1.0**	**1,217**	**8.8**	**5.4**
Gold Resources								
Mt Porter Project (100%/30%) : Indicated & Inferred Resource 300kt @ 3.1g/t for 34,200 oz Au.								
Mineralised Material (est., non compliant w ith JORC)						**0.0**	**0.0**	**0.0**

KEY PROJECTS

ARU has other projects in its portfolio, however, ARU primary development focus remains on the Nolans Project.

Project	Ownership/ Option	Metal	JV Partner	Target Type	Process Route	Project Status	Location
Nolans	100%	REE, P, U	none	Vein	Leach	FS	Aust (NT)
Aileron / Reynolds *	100%/(40%)	REE, P, Fe	Ferrowest	Various	na	Early Expl.	Aust (NT)
Jervois*	100%/(30%)	Fe, V,Cu	Rox	M'morphic	na	Mid. Expl.	
Mt Porter/Frances Crk*	100%/(30%)	Au	Ark Mines	Sediment	na	Adv. Expl.	Aust (NT)
Kurinelli	100%	Au	none	Reef	na	Early Expl.	Aust (NT)

* Projects subject to JV agreements - potential reduced equity after farm-in shown in brackets.

- An RC drilling program was conducted on the Aileron-Reynolds rare earth project in the September quarter, at the Mulga Rare Earths prospect, 500m NE of Nolans Bore. No significant results were reported. No further REE drilling is planned.

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