

30 November 2011

Alkane Resources

ALK

\$0.92/share

Strong project with several funding options

BUY

ALK yesterday released an update on the Dubbo Zirconia Project (DZP) reiterating robust economics with EBITDA of over \$300Mpa and NPV of A\$1.2B (A\$4.49/share) based on conservative pricing. Several funding options exist, including a sell down of 10% of the project to three or four customers. Interest is high and ALK believe they can achieve ~\$300M cash (current market cap \$250M) for the sale. The sale is likely to follow long term off-take arrangements targeted for Q1 2012. We recommend buying ALK with 424% upside to NPV of A\$4.82/share.

DZP – a very robust project

- Studies confirm a robust, long life, high margin project.
- Annual revenue estimated at A\$508M at 1Mtpa rates.
- Annual opex of A\$196M for EBITDA of \$312M.
- Capex of A\$893M includes \$142M contingencies.
- Capital payback ~3 years.
- Reserve mine life 36 years, resources of >80 years.
- NPV of A\$1.2B based on only a 20 year mine life.
- Revenue split: zirconium 41%, light rare earths 22%, niobium 20% and heavy rare earths 17%.

Rare earths market and pricing

- Rare earth prices have retreated but remain strong.
- Lights – spot price US\$101/kg vs. US\$30/kg DFS.
- Heavy – spot price US\$377/kg vs. US\$68/kg DFS.
- Petra forecasts – light US\$35/kg, heavy US\$70/kg.
- Majority of ALK's rare earths to remain in short supply.
- ALK is unique with large proportion (24%) of heavies.

Funding – several options exist

- Strong interest from offtakers to acquire project equity.
- ALK believe 10% selldown could provide \$300M cash.
- Strong interest from various govt agencies to provide cheap debt.
- Up to \$700M in funding likely from offtakers and debt.
- Newmont reviewing options for McPhillamys (3Moz gold) – update expected early 2012.
- Potential exists to sell ALK's 49% in McPhillamys.

Newsflow ahead

- Q1 2012 – Resource/reserve upgrade Tomingley.
- Q1 2012 – Drilling at Dubbo and Bodangora.
- Q1 2012 – Rare earth MOUs.
- Q1 2012 – Tomingley project approval.
- Q2/3 2012 – Dubbo financing.
- Q1/2 2013 – First production Tomingley.
- Q2/3 2014 – First production Dubbo.

Company Data

Shares - ordinary	269.0M
Options	0M
Total (fully diluted)	269.0M
Market Cap	\$247.5M
12 month low/high	\$0.73 / \$2.73
Average monthly turnover	\$54.8M

Financial Summary (fully diluted) – 1Mtpa rates

Year end June	2010A	2011F	2012F	2013F	2014F	2015F
Revenue (\$M)	0.2	0.0	0.0	58.2	341.9	617.4
Costs (\$M)	1.5	2.2	2.5	35.1	147.4	253.3
EBITDA (\$M)	-2.1	-2.2	-2.5	23.0	194.5	364.1
NPAT (\$M)	-1.8	-2.3	-14.2	-30.0	74.4	188.9
EPS (¢ps)	-0.7	-0.9	-5.3	-11.2	27.7	70.2
PER (x)	na	na	na	na	3.3	1.3
Cashflow (Gross-\$M)	-1.2	-2.3	-14.2	-19.9	133.5	280.1
CFPS (¢/sh)	-0.5	-0.9	-5.3	-7.4	49.6	104.1
PCFPS (x)	na	na	na	na	1.9	0.9
Enterprise Value (\$M)	244	250	594	1116	1105	847
EV / EBITDA (x)	na	na	na	48.4	5.7	2.3

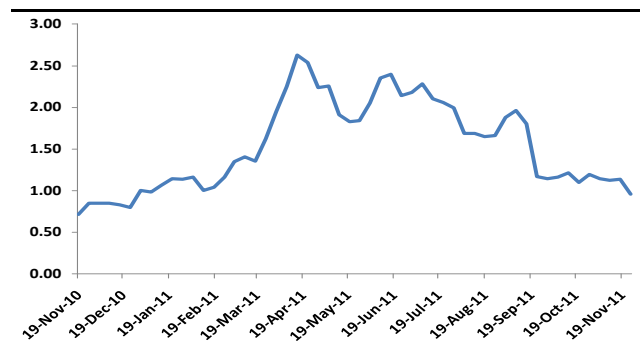
Substantial Shareholders (FPO)

Substantial Shareholders (FPO)	Shares (M)	(%)
Abbotsleigh	70.9	26.4%

Board

Director	Position	Executive	Independent
Ian Chalmers	MD	Executive	-
John Dunlop	Chairman	Non-Exec	Independent
Ian Gandel	Director	Non-Exec	Independent
Tony Lethlean	Director	Non-Exec	Independent

Alkane Resources – performance over one year



Disclosure and Disclaimer

This report must be read with the disclosure and disclaimer on the final page of this document. Petra Capital was a broker to the issue of 20M shares at \$1.05/share in February 2011, raising A\$21.0M. A fee was received.

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Definitive Feasibility Study (DFS) – released September 19th

Financing is likely in 2012 via numerous alternatives, including strong interest from offtakers.

- The DFS was based on a 20 year mine life however reserves have since been upgraded (November 16th) to 35.9Mt which equates to a 36 year mine life (Fig. 1).
- Final detailed analysis on the 1Mtpa operation is targeted for completion Q1 2012. This will not impact on the project timetable as it will proceed in parallel with the Environmental Assessment and Financing programs.
- Final Environmental Assessment is scheduled to be lodged by the end of March quarter 2012 and the review and consent process is expected to take approximately 6 months. Total construction time is estimated at 24 months for first production mid 2014.
- Ramp up to full capacity is assumed over two years.
- Total projected revenue comprises zirconium (41%), light rare earths (22%), niobium (20%) and heavy rare earths (17%).
- The majority of costs comprise process reagents (53%) and labour (25%).
- Capex of US\$893M includes contingency of 19% (Fig. 2).
- A corporate tax rate of 30% is assumed and project NPV after tax has been calculated over a project life of 20 years based on a discount rate of 8% (Fig. 3).

Figure 1: DFS – Key parameters

The DFS confirms Dubbo as a robust, long life and high margin project.

Item	
Reserve (to 55m depth)	35.9Mt @ 1.93% ZrO ₂ , 0.46% Nb ₂ O ₅ , 0.88% YREO
Mine method	Open cut
Throughput	1.0Mtpa
Mine life (base case)	20 years
Mine life (measured resource)	37 years
Strip ratio	0.14 : 1
Zirconium recovery	82%
Niobium recovery	66%
Rare earth recovery	45%
Zirconium production	15,700tpa
Niobium - tantalum production	3,005tpa
Light rare earth production	3,050tpa
Yttrium and heavy rare earth production	1,120tpa
Commencement of production	Mid 2014
Revenue (per tonne of ore)	A\$508/t
Cash costs (per tonne of ore)	A\$196/t
EBITDA (per tonne of ore)	A\$312/t

Figure 2: CAPEX (A\$M)

Capex of A\$893M at 1Mtpa rates includes \$142M (19%) in contingency.

Item	A\$M
Process Plant (1Mtpa)	543
Infrastructure plus owners costs	165
EPCM	43
Contingency (19%)	142
Total	893

Figure 3: Financials and Valuation

Robust economic parameters.

Item	
Revenue (per annum)	A\$508M
Operating Costs (per annum)	A\$196M
EBITDA (per annum)	A\$312M
IRR	30.2%
NPV	A\$1,207M
NPV	A\$4.49/share

Source: ALK

Analysis

ALKANE RESOURCES (ALK AU) (ALKNY OTCQX) 30-Nov-11 Year End 31 Dec							RESOURCES								
PROFIT & LOSS	2010A	2011F	2012F	2013F	2014F	2015F	2010A	2011F	2012F	2013F	2014F	2015F			
Sales Revenue	\$M	0.0	0.0	0.0	58.2	341.9	617.4	Tomingley Gold (NSW)							
Other Income	\$M	0.2	0.0	0.0	0.0	0.0	Tonnes	Mt	11.3	11.3	11.3	10.6	9.6	8.6	
Operating Costs	\$M	1.5	2.2	2.5	35.1	147.4	253.3	Grade (gold)	g/t	1.8	1.8	1.8	1.8	1.9	1.9
Exploration	\$M	0.8	0.0	0.0	0.0	0.0	0.0	Contained Gold	oz	661,212	661,212	661,212	624,078	571,029	517,981
Other	\$M	0.0	0.0	0.0	0.0	0.0	0.0	McPhillamys Gold (NSW)							
EBITDA	\$M	(2.1)	(2.2)	(2.5)	23.0	194.5	364.1	Tonnes	Mt	91.9	91.9	91.9	91.9	91.9	91.9
Depreciation & Amort.	\$M	0.0	0.0	0.0	10.1	27.2	42.1	Grade (gold)	g/t	42.1	42.1	42.1	42.1	42.1	42.1
EBIT	\$M	(2.1)	(2.2)	(2.5)	13.0	167.3	322.0	Contained Gold	Moz	2.96	2.96	2.96	2.96	2.96	2.96
Net Interest	\$M	(0.3)	0.1	11.7	43.0	61.0	52.1	Dubbo Zirconia (NSW)							
Pre-Tax Profit	\$M	(1.8)	(2.3)	(14.2)	(30.0)	106.3	269.9	Tonnes	Mt	73.2	73.2	73.2	73.2	72.7	71.7
Tax	\$M	0.0	0.0	0.0	0.0	31.9	81.0	Zirconium (ZrO ₂)	%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Minorities	\$M	0.0	0.0	0.0	0.0	0.0	0.0	Niobium	%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Net Profit	\$M	(1.8)	(2.3)	(14.2)	(30.0)	74.4	188.9	Yt + REE	%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Abnormal	\$M	9.6	0.0	0.0	0.0	0.0	0.0	Contained product	Mt	2.4	2.4	2.4	2.4	2.4	2.4
Reported Profit	\$M	7.8	(2.3)	(14.2)	(30.0)	74.4	188.9	ATTRIBUTABLE PRODUCTION							
Dividends Paid	\$M	0.0	0.0	0.0	0.0	0.0	0.0	Tomingley Gold	oz	-	-	-	34,535	49,335	49,335
Adjustments	\$M	0.0	0.0	0.0	0.0	0.0	0.0	DZP - ZrO ₂ products	t	0	0	0	0	8,036	16,715
Retained Earnings	\$M	(16.6)	(19.0)	(33.1)	(63.1)	11.3	200.2	DZP - Niobium	t	0	0	0	0	1,617	3,363
CASH FLOW							REVENUE								
Revenue	\$M	0.0	0.0	0.0	58.2	341.9	617.4	Tomingley Gold	\$M	0.0	0.0	0.0	58.2	79.5	75.5
Costs	\$M	(1.5)	(2.2)	(2.5)	(35.1)	(147.4)	(253.3)	Dubbo Zirconia	\$M	0.0	0.0	0.0	0.0	262.4	541.9
Net Interest	\$M	0.3	(0.1)	(11.7)	(43.0)	(61.0)	(52.1)	Other	\$M	0.2	0.0	0.0	0.0	0.0	0.0
Tax Paid	\$M	0.0	0.0	0.0	0.0	0.0	(31.9)	Total	\$M	0.2	0.0	0.0	58.2	341.9	617.4
Gross Cash Flow	\$M	(1.2)	(2.3)	(14.2)	(19.9)	133.5	280.1	COSTS							
Net Capex	\$M	(1.0)	(25.0)	(330.0)	(501.3)	(122.6)	(21.9)	Tomingley Gold	A\$/oz	0	0	930	930	930	930
Exploration	\$M	(7.8)	0.0	0.0	0.0	0.0	0.0	Tomingley Gold	\$M	0.0	0.0	0.0	32.1	45.9	45.9
Dividends	\$M	0.0	0.0	0.0	0.0	0.0	0.0	Dubbo Zirconia	\$M	0.0	0.0	0.0	0.0	98.0	203.9
Other	\$M	0.2	0.0	0.0	0.0	0.0	0.0	Other	\$M	1.5	2.2	2.5	3.0	3.5	3.5
Free Cashflow	\$M	(9.9)	(27.3)	(344.2)	(521.2)	11.0	258.2	Total	\$M	1.5	2.2	2.5	35.1	147.4	253.3
Equity Issues	\$M	0.0	20.0	0.0	0.0	0.0	0.0	CAPEX							
Net Borrowings	\$M	0.0	20.0	350.0	525.0	0.0	(200.0)	Tomingley Gold	\$M	2.0	10.0	80.0	1.3	1.3	1.3
Net Investments	\$M	9.6	0.0	0.0	0.0	0.0	0.0	Dubbo Zirconia	\$M	0.0	15.0	250.0	500.0	121.3	20.6
Surplus Cash Flow	\$M	(0.3)	12.6	5.8	3.8	11.0	58.2	Other	\$M	-1.0	0.0	0.0	0.0	0.0	0.0
BALANCE SHEET							DEPRECIATION								
Cash	\$M	4.6	17.2	23.0	26.8	37.8	95.9	Tomingley Gold	\$M	0.0	0.0	0.0	10.1	14.6	14.9
Other Current	\$M	0.4	10.0	10.0	11.6	20.5	43.2	Dubbo Zirconia	\$M	0.0	0.0	0.0	0.0	12.6	27.2
Total Current	\$M	5.0	27.2	33.0	38.4	58.3	139.1	Other	\$M	0.0	0.0	0.0	0.0	0.0	0.0
Fixed Assets	\$M	2.1	27.1	357.1	848.3	943.6	923.4	Total	\$M	0.0	0.0	0.0	10.1	27.2	42.1
Exploration	\$M	39.3	36.0	38.0	38.0	36.0	0.0	EBITDA							
Intangibles	\$M	0.0	0.0	0.0	0.0	0.0	0.0	Tomingley Gold	\$M	0.0	0.0	0.0	26.0	33.6	29.6
Other	\$M	0.5	0.5	0.5	0.5	0.5	0.5	Dubbo Zirconia	\$M	0.0	0.0	0.0	0.0	164.4	338.1
Total NC Assets	\$M	41.8	63.6	395.6	886.8	980.1	923.9	Other	\$M	-2.1	0.0	0.0	0.0	0.0	0.0
TOTAL ASSETS	\$M	46.8	90.8	428.6	925.2	1,038.4	1,063.1	Total	\$M	-2.1	0.0	0.0	26.0	198.0	367.6
Total Debt	\$M	0.0	20.0	370.0	895.0	895.0	695.0	HEDGING							
Current Liab	\$M	1.1	1.1	1.1	1.1	33.0	82.0	Gold hedged	oz	0	0	0	0	0	0
Non Current Liab	\$M	0.2	6.5	8.5	10.1	17.0	3.7	Hedged price	US\$/oz	0	0	0	0	0	0
TOTAL LIAB	\$M	1.3	27.6	379.6	906.2	945.0	780.7	Hedged price	A\$/oz	0	0	0	0	0	0
NET ASSETS	\$M	45.6	63.2	49.0	19.0	93.4	282.3	Sales hedged	%	0%	0%	0%	0%	0%	0%
SH/HLDRS FUNDS	\$M	45.6	63.2	49.0	19.0	93.4	282.3	Ave. deliverable price	US\$/oz	1226	1594	1750	1600	1450	1300
RATIO ANALYSIS							ASSUMPTIONS								
EPS	¢	(0.7)	(0.9)	(5.3)	(11.2)	27.7	70.2	Exchange Rate	A\$/US\$	0.92	1.04	1.02	0.95	0.90	0.85
PER	x	na	na	na	na	3.3	1.3	Gold Price	US\$/oz	1226	1594	1750	1600	1450	1300
EPS Growth	%	0.8	18.9	509.5	111.7	(348.1)	153.8	Gold Price	A\$/oz	1333	1526	1716	1684	1611	1529
EBITDA per share	¢	-0.8	-0.8	-0.9	8.6	72.3	135.4	Zirconia price	US\$/kg	6.00	7.00	11.00	12.00	11.50	11.00
EBITDA Multiple	x	-119.3	-112.5	-99.0	10.7	1.3	0.7	LREE Price	US\$/kg	35.00	35.00	35.00	55.00	45.00	40.00
EV/EBITDA	x	-117.1	-113.8	-237.8	48.4	5.7	2.3	YHREE Price	US\$/kg	50.00	110.00	110.00	100.00	90.00	80.00
CFPS	¢	(0.5)	(0.9)	(5.3)	(7.4)	49.6	104.1	90 day Bank Bills	%	4.68	4.95	5.00	5.25	5.25	5.25
PCFR	x	na	na	na	na	1.9	0.9	10 Yr Bond rate	%	5.38	5.12	5.00	5.50	5.50	5.50
DPS	¢	0.0	0.0	0.0	0.0	0.0	0.0	Interest Rate Charged	%	5.88	5.62	5.50	6.00	6.00	6.00
Yield	%	0.0	0.0	0.0	0.0	0.0	0.0	VALUATION							
Franking	%	0	0	0	0	0	0	Tomingley Gold					77.1	\$	0.29
Payout Ratio	%	0%	0%	0%	0%	0%	0%	Dubbo Zirconia					1,121.9	\$	4.17
Gearing D/E	%	na	4.5	707.8	4,564.0	917.4	212.2	McPhillamys					74.0	\$	0.28
Interest Cover	x	6.5	na	na	0.3	2.7	6.2	Other					10.0	\$	0.04
EBITDA Margin	%	na	na	na	39.6	56.9	59.0	Net Cash (Debt)					13.0	\$	0.05
EBIT Margin	%	na	na	na	22.3	48.9	52.2	Total					1,296.0	\$	4.82
Return On Assets	%	(4.6)	(2.4)	(0.6)	1.4	16.1	30.3								
Return On Equity	%	(4.0)	(3.7)	(28.9)	(157.7)	79.6	66.9								
Eff Tax rate	%	0	0	0	0	30	30								

Source: Petra Capital

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