Equity | Australia | Metals & Mining

The Royal Bank of Scotland

18 April 2011

Produced by: RBS Equities (Australia) Limited

Alkane Resources

Zircon prices flow through

Buy

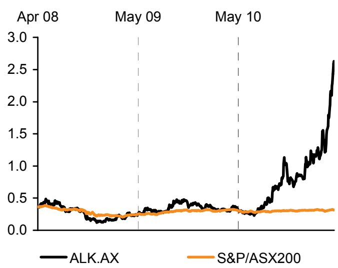
Target price
A$3.09 (from A$2.74)

Price
A$2.42

Short term (0-60 days)
n/a

Price performance

	(1M)	(3M)	(12M)
Price (A$)	1.36	1.04	0.37
Absolute (%)	78.6	132.7	563.0
Rel market (%)	66.7	130.3	583.5
Rel sector (%)	58.4	112.1	462.2



Market capitalisation
A$651.05m (US$687.26m)

Average (12M) daily turnover
A$1.39m (US$1.41m)

Sector: BBG AP Mining
RIC: ALK.AX, ALK AU
Priced A$2.42 at close 18 Apr 2011.
Source: Bloomberg

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On the back of higher than forecast zircon prices and updated incentive price analysis, we have increased our zircon price deck. This has increased our ALK valuation. We also highlight upside potential for ALK's future heavy rare earth production. We maintain our Buy recommendation.

Key forecasts

	FY09A	FY10A	FY11F	FY12F	FY13F
EBITDA (A$m)	2.12	7.51	-8.30	-10.0	75.50 ▲
Reported net profit (A$m)	11.00	7.79	-5.39	-8.94	27.50 ▲
Normalised net profit (A$m)[1]	2.30	7.79	-5.39	-8.94	27.50 ▲
Normalised EPS (c)[1]	0.85	2.90	-2.00	-3.32	10.20 ▲
Normalised EPS growth (%)	n/a	239.0	n/a	65.80	n/a
Dividend per share (c)	0.00	0.00	0.00	0.00	0.00
Dividend yield (%)	0.00	0.00	0.00	0.00	0.00
Normalised PE (x)	283.4	83.60	n/m	n/m	23.60
EV/EBITDA (x)	304.9	86.10	n/m	n/m	12.80
Price/net oper. CF (x)	-2,002	83.70	-101 ▲	-74.9 ▲	12.80 ▼
ROIC (%)	5.26	13.40	-14.2	-17.7	20.90

Use of ▲ ▼ indicates that the line item has changed by at least 5%.
year to Dec, fully diluted
1. Pre non-recurring items and post preference dividends
Accounting standard: GAAP
Source: Company data, RBS forecasts

Increase in zircon prices positive for ALK

In the wake of higher than forecast zircon prices disclosed by ILU as part of its quarterly report, and continued positive market commentary regarding tightness in zircon markets, we have upgraded our price forecasts. This has had a positive impact on our downstream zirconium chemical price forecasts, which flows into our ALK valuation.

MOUs to be signed near term

ALK has previously flagged its expectation of signing its first memorandums of understanding for off take in the June quarter of 2011. While not legally binding, we believe MOU announcements will be a positive catalyst for the stock in that it will shine some light on potential customers who may also become project financiers. Further, multiple MOUs would provide confidence in the quality of products produced at ALK's pilot plant.

Market focus on heavy rare earths

As the rare earth sector grows and market understanding improves, we believe there will be greater emphasis placed on ALK's planned heavy rare earth production. Neither of the two major rare earth projects currently under construction (by Lynas and Molycorp) will produce material quantities of heavy rare earth oxides. Therefore, we see the potential for light rare earth and heavy rare earth prices to decouple as new light rare earth production comes on line. This scenario would represent about 16% upside to our valuation.

Investment view – catalysts and upside remain, Buy maintained

Despite the recent run in share price (over 100% in 30 trading days) we remain positive on ALK due to: 1) it trading at a 18% discount to our risked NPV; 2) positive catalysts near term; 3) sustained tightness within ALK's target markets. Our valuation has increased to A$3.09, from A$2.74 due to our higher zircon price forecasts. Our valuation includes a 30% discount applied to the Dubbo Zirconia Project due to development risk.

Important disclosures can be found in the Disclosures Appendix.

Potential catalysts

A number of key catalysts in the project development timeline remain for ALK. We believe the following events are likely to have a positive share price impact:

- Signing memorandums of understanding (MOU) for zirconia offtake, 2Q11.
- Completion of the DZP definitive feasibility study (DFS), 3Q11.
- Securing project financing for DZP development, 4Q11.

The securing of project finance should be a significant catalyst, in our view, as it will result in clarity around the quantum of dilution that will occur as a result of any equity raising. We believe the majority of project finance will be debt funded from strategically interested entities and that any equity component will be reasonably small.

Likely upside to heavy rare earth forecast

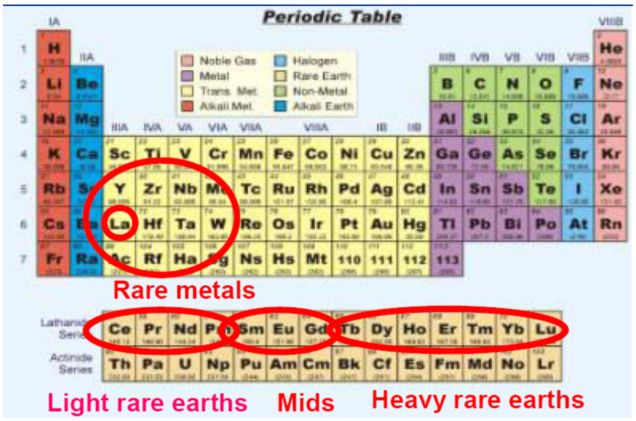
Light rare earth supply coming online from 2011

We forecast long-term rare earth prices of US$20/kg and US$40/kg for light and heavy rare earths respectively. This compares with the current spot price for a generic basket of light rare earths of about US$150/kg. At present, Lynas and Molycorp are planning to commission 42ktpa of new rare earth production in the next three years, equivalent to about 36% of global supply. As new production comes on line from late 2011 we believe rare earth prices will trend down.

ALK to be first with new heavy rare earth production

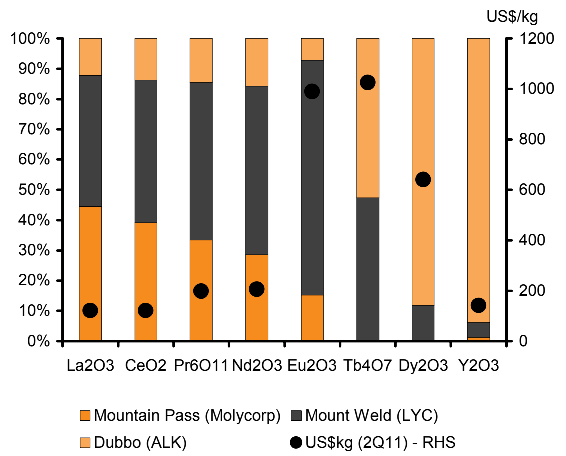
Despite having much larger total contained rare earth metal, neither Lynas or Molycorp have particularly high concentrations of heavy rare earth oxides. The implication being that the first material new supply of heavy rare earth oxides is likely to come from ALK. So while we link our heavy rare earth price to our light rare earth price forecast, the reality is that heavy rare earth prices are likely to remain well above long run averages until ALK's project comes on line in 2013. At present, all heavy rare earth production comes out of China. It is possible that China could relax its export quotas on heavy rare earths but we consider this to be highly unlikely as China's reserves of heavy rare earths are likely to be exhausted by 2020 at current production rates. Therefore we believe China is more likely to tighten heavy rare earth export restrictions than loosen them.

Chart 1 : Light and heavy rare earths



Source: ALK

Chart 2 : Relative proportions of contained metal and individual element oxide pricing



Source: ALK, LYC, Molycorp, ARU

Decoupling of rare earth prices represents upside to our numbers

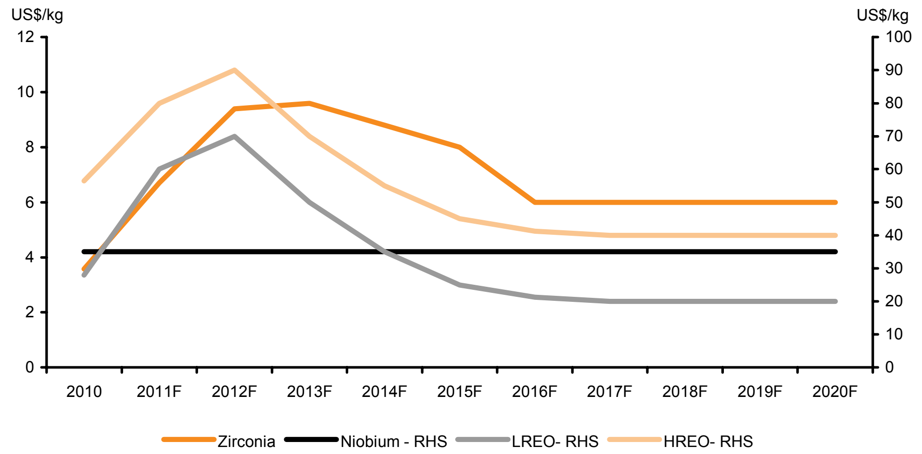
Should heavy rare earth prices decouple from lights, we forecast a likely valuation impact of about 16%. As new light rare earth production enters the market towards the end of CY11, we will monitor the pricing impact and reassess our forecasts at this time.

Table 1 : Sensitivity to long term heavy rare earth oxide (HREO) prices

	LT HREO basket price US$/kg					
	20	40	60	80	100	120
ALK discounted valuation (A$ps)	2.84	3.09	3.35	3.60	3.85	4.11
Change relative to base (%)	-8%	0%	8%	16%	25%	33%

Source: RBS forecasts

Figure 1 : RBS commodity price forecasts



Source: RBS forecasts

Zircon and zirconia

About 1.5t of zircon (ZrSiO4) is required to make one tonne of zirconia (ZrO2), representing about 50% of the production cost. This is also the case for most other zirconium chemicals, so the price of zirconia is directly linked to the price of zircon.

Table 2 : Zircon, zirconia and zirconium

Commodity name	Chemical formula	Production	Use	2010 global demand (ktpa)	Price (US$/t)
Zirconium	Zr	High-end refining	Nuclear power plants	5-10	150,000-200,000
Zirconia	ZrO_2	Chemical manufacture	Multiple chemical applications	200	6,500-8,000
Zircon	$ZrSiO_4$	Mining	Tiles	1200	1,600-1,800

Source: Industrial minerals

We use zirconia as a proxy for the wider suite of zirconium chemicals. We set our zirconia price forecasts at 4x our zircon price. Based on our long-term zircon price of US$1,500/t, 1.5 tonnes of zircon would cost US$2,250/t, representing about half of the cash cost of production, implying a cash cost of US$4,500/t. We allow an additional 30% for depreciation, realisation costs and producer margin.

Table 3 : Changes to zircon and zirconia prices

Zircon	2010A	2011F	2012F	2013F	LT
Revised (US$/t)	895	1675	2350	2400	1500
Previous (US$/t)	895	1388	1600	1800	1200
Change (US$/t)	0	287	750	600	300
% change	0%	21%	47%	33%	25%
Zirconia					
Revised (US$/t)	3580	6700	9400	9600	6000
Previous (US$/t)	3580	5550	6400	7200	5000
Change (US$/t)	0	1150	3000	2400	1000
% change	0%	21%	47%	33%	20%

Source: Company data, RBS forecasts

Revised return for mineral sands (zircon) incentive price model

We base our long-term zircon prices on a mineral sands (zircon, rutile, ilmenite) incentive price model. We assume a 5% HM grade and a Zr/TiO2 ratio of 0.5, which is slightly above the average mineral sand deposit grade. We also assume cash costs of US$400/t of product, and capex intensity of US$25/t of plant throughput for a 10Mtpa plant operating for 25 years. We assume an IRR of 20% is required for a project to be considered viable.

Applying our assumed grades and throughput gives implied production of 45ktpa of rutile, 225ktpa of ilmenite and 135ktpa of zircon for our hypothetical project. The weighted-average price of product, a key measure of viability, reflects our individual commodity price assumptions weighted for the production above.

The impact of our long-term price changes is an increase in the weighted average price per tonne of product to A$867 (US$639) from A$633, and an increase in IRR for our hypothetical project to 40% assuming Australian-based production and costs. In a US-dollar-denominated cost jurisdiction, the IRR for our hypothetical project is 21%. In our view, our assumptions are relatively conservative in that they are based on a relatively high-grade project with modest capex.

Why remain conservative?

Arguably, remaining conservative in an environment where zircon price rises have undergone multiple positive revisions across the market is a recipe for missed opportunity. The contrary argument is that as zircon and TiO2 markets are relatively small (1.2Mtpa and 6.0Mtpa, respectively), a single discovery could have a material impact on global supply and demand. For example, another Jacinth Ambrosia would increase global zircon supply by 25%. While we consider this to be unlikely in the near term, we believe it is relevant in setting long-term prices.

Table 4 : Incentive price model sensitivity (fixed Zr/TiO2 ratio of 0.5)

IRR	weighted average price (US$/t product)													
HM grade (%)	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
9.5%	25%	33%	41%	48%	55%	61%	67%	73%	79%	85%	90%	96%	101%	106%
9.0%	24%	31%	39%	46%	52%	58%	64%	70%	76%	81%	87%	92%	97%	102%
8.5%	22%	30%	37%	43%	50%	56%	61%	67%	73%	78%	83%	88%	93%	97%
8.0%	21%	28%	35%	41%	47%	53%	58%	64%	69%	74%	79%	84%	88%	93%
7.5%	19%	26%	33%	39%	44%	50%	55%	60%	65%	70%	75%	80%	84%	88%
7.0%	18%	25%	31%	36%	42%	47%	52%	57%	62%	66%	71%	75%	80%	84%
6.5%	17%	23%	28%	34%	39%	44%	49%	54%	58%	62%	67%	71%	75%	79%
6.0%	15%	21%	26%	31%	36%	41%	46%	50%	54%	58%	62%	66%	70%	74%
5.5%	13%	19%	24%	29%	33%	38%	42%	46%	50%	54%	58%	62%	65%	69%
5.0%	12%	17%	22%	26%	31%	35%	39%	43%	46%	50%	54%	57%	60%	64%
4.5%	10%	15%	19%	24%	28%	31%	35%	39%	42%	46%	49%	52%	55%	58%
4.0%	8%	13%	17%	21%	25%	28%	31%	35%	38%	41%	44%	47%	50%	53%
3.5%	6%	11%	15%	18%	21%	25%	28%	31%	33%	36%	39%	42%	44%	47%
3.0%	4%	8%	12%	15%	18%	21%	24%	26%	29%	31%	34%	36%	39%	41%
2.5%	2%	6%	9%	12%	15%	17%	19%	22%	24%	26%	28%	31%	33%	35%
2.0%	-1%	3%	6%	8%	11%	13%	15%	17%	19%	21%	23%	25%	26%	28%
1.5%	-5%	-1%	2%	4%	6%	8%	10%	12%	13%	15%	17%	18%	19%	21%
1.0%		-7%	-3%	-1%	1%	3%	4%	6%	7%	8%	10%	11%	12%	13%
0.5%						-7%	-5%	-3%	-2%	-1%	0%	1%	2%	3%

Source: RBS forecasts

Direct access to raw material an advantage for ALK

ALK will have a cost advantage over other zirconia chemical manufacturers due to having its own zirconia resource

ALK will be targeting the downstream zirconia chemicals market. About half the cost of zirconia chemical production is largely attributable to the cost of the raw zircon. So ALK will have a cost advantage over other zirconia chemical manufacturers due to having its own zirconia resource.

Valuation and target price

Our DCF valuation for ALK has increased to A$3.09 from A$2.74 due to the reasons outlined above. We base our valuation on developing a 1Mtpa operation at DZP and first production by 2013. We apply a 30% discount to our DZP valuation to reflect development risk. We do not factor in the development of the Tomingley or McPhillamy gold deposits, and we apply nominal option values for these. Upside risks to our valuation include lower capex and operating costs than we have forecast and higher commodity prices. Downside risks include delays in the finalisation of the DFS, securing project finance and lower commodity prices than we forecast.

ALK – financial summary

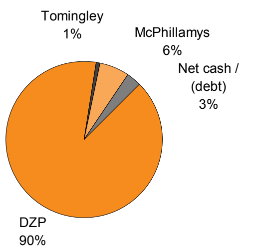
Number of shares (m)			269
Market capitalisation (A$m)			708
Enterprise value (A$m)			688
Enterprise value (US$m)			695

	Tonnes	Grade	Ounces
Resources	**(kt)**	**(g/t)**	**(koz)**
Gold resources	66,747	1.34	2,883
Gold reserves	3,600	1.78	205
EV/oz Gold resource (A$/oz)			239
EV/oz Gold reserve (A$/oz)			3,351

Valuation

Description	A$m	A$ps
DZP	717	2.67
Tomingley	5	0.02
McPhillamys	50	0.19
Total Operations	**772**	**2.87**
Net cash / (debt)	24	0.09
Corporate overheads	-8	-0.03
Exploration	43	0.16
Total Valuation	**832**	**3.09**
P/NPV		0.85

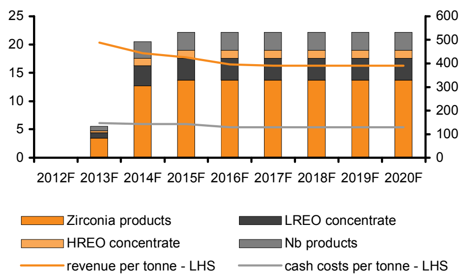
Operational NPV split



Valuation inputs	
Rf rate	5.3%
MRP	6.0%
Equity beta	1.43
Ke	14%
Kd	7.5%
Gearing	30%
Tax rate	30%
WACC	11%
DCF (A$)	3.09
Prem/disc	0%
Target (A$)	3.09

Sensitivity (US$m)	NPV(A$)	2012F	2013F
NPV / NPAT	3.09	-8.9	27.5
zr +10% increase ($m)	3.25	-8.9	30.0
zr +10% increase (%)	5%	0%	9%
nb +10% increase ($m)	3.29	-9	30
nb +10% increase (%)	6%	0%	8%
reo +10% increase ($m)	3.27	-9	31
reo +10% increase (%)	6%	0%	14%
AUD + 10% ($m)	-0.49	0.00	-7.59
AUD + 10% (%)	-16%	0%	-28%
AUD + 1cent ($m)	-0.07	0.0	-0.8
AUD + 1cent (%)	-2%	0.0	0.0

Production and costs



Dec Year End	2009A	2010A	2011F	2012F	2013F	2014F	2015F
NPAT Reported (A$m)	11.0	7.8	-5.4	-8.9	27.5	165.9	177.9
NPAT Normalised (A$m)	2.3	7.8	-5.4	-8.9	27.5	165.9	177.9
EPS (A¢)	0.9	2.9	-2.0	-3.3	10.2	61.7	66.1
CFPS (A¢)	-0.2	-0.8	-2.4	-77.6	-47.6	73.7	69.8
DPS (A¢)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P/E (x)	308.0	90.8	-131.3	-79.2	25.7	4.3	4.0
P/CF (x)	-1595.5	-316.7	-110.7	-3.4	-5.5	3.6	3.8
EV/EBITDA (x)	328.2	92.6	-83.8	-69.5	9.2	2.6	2.6
EPS Growth	n/m	n/m	-169%	66%	-408%	502%	7%
Yield (%)	0%	0%	0%	0%	0%	0%	0%
Production	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
Zirconia (kt)	0.00	0.00	0.00	0.00	3.43	12.69	13.72
LREO (kt)	0.00	0.00	0.00	0.00	0.96	3.56	3.85
HREO (kt)	0.00	0.00	0.00	0.00	0.35	1.30	1.40
FeNb (kt)	0.00	0.00	0.00	0.00	0.81	2.98	3.22
Total (kt)	0.00	0.00	0.00	0.00	5.55	20.53	22.19
Costs	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
DZP cash cost (A$/t)	0	0	0	0	147	143	143
DZP cash cost (US$/t)	0	0	0	0	138	124	112
Assumptions	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
Zirconia (US$/kg)	0.0	3.6	6.7	9.4	9.6	8.8	8.0
LREO (US$/kg)	0	28	60	70	50	35	25
HREO (US$/kg)	0	56	80	90	70	55	45
FeNb (US$/kg)	0	35	35	35	35	35	35
AUD/USD	0.79	0.92	1.02	1.00	0.94	0.86	0.79
Profit & Loss (A$m)	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
Sales revenue	0	0.0	0	0	122	411	425
Other revenue	4	9.8	0	0	0	0	0
Total revenue	4	9.8	0	0	122	411	425
Operating costs	-2	-2.3	-8	-10	-47	-143	-153
EBITDA	2	7.5	-8	-10	75	268	272
Depreciation	0	0.0	0	0	-4	-8	-8
EBIT	2	7.5	-8	-10	71	260	264
Net interest benefit / (expense)	0	0.3	1	-3	-32	-23	-10
Pre-tax profit	2	7.8	-8	-13	39	237	254
Tax benefit / (expense)	0	0.0	2	4	-12	-71	-76
Profit after tax	2	7.8	-5	-9	28	166	178
Minorities	0	0.0	0	0	0	0	0
NPAT (underlying)	2	7.8	-5	-9	28	166	178
Significant items	9	0.0	0	0	0	0	0
NPAT (reported)	11	7.8	-5	-9	28	166	178
Profitability Analysis (%)	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
EBIT margin	n/m	n/m	n/m	n/m	58%	63%	62%
EBITDA margin	n/m	n/m	n/m	n/m	62%	65%	64%
Effective tax rate	0%	0%	-30%	-30%	-30%	-30%	-30%
ROA - EBIT / (total assets - cash)	5%	18%	-20%	-4%	17%	61%	62%
ROE - NPAT / equity	5%	17%	-9%	-18%	118%	66%	38%
Cashflow	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
EBITDA	2	8	-8	-10	75	268	272
Operating cashflow	0	-1	-6	-9	51	206	196
Capex	-1	0	0	-200	-179	-8	-8
Free cashflow	-1	-1	-6	-209	-128	198	188
Investing cashflow	-5	1	0	-200	-179	-8	-8
Financing cashflow	2	0	21	450	0	-200	-150
Net Change in cash	-3	0	15	241	-128	-2	38
Balance Sheet Analysis	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
Debt	0	0	0	450	450	250	100
Equity	44	46	59	50	23	251	466
Assets	45	47	61	503	558	556	593
Cash	5	5	19	260	132	131	169
Net debt	-5	-5	-19	190	318	119	-69
Gearing - net debt/equity	**2009A**	**2010A**	**2011F**	**2012F**	**2013F**	**2014F**	**2015F**
Gearing - net debt/ (net debt + equity)	-12%	-11%	-48%	79%	93%	32%	-17%
Net debt / EBITDA	-228%	-61%	231%	-1895%	421%	45%	-25%
EBIT / net interest	9	23	-14	4	-2	-11	-26
EBITDA / net interest	9	23	-14	4	-2	-12	-27

Source: Company data, RBS forecasts

Recommendation structure

Absolute performance, short term (trading) recommendation: A Trading Buy recommendation implies upside of 5% or more and a Trading Sell indicates downside of 5% or more. The trading recommendation time horizon is 0-60 days. For Australian coverage, a Trading Buy recommendation implies upside of 5% or more from the suggested entry price range, and a Trading Sell recommendation implies downside of 5% or more from the suggested entry price range. The trading recommendation time horizon is 0-60 days.

Absolute performance, long term (fundamental) recommendation: The recommendation is based on implied upside/downside for the stock from the target price and, except as follows, only reflects capital appreciation. A Buy/Sell implies upside/downside of 10% or more and a Hold less than 10%. For research produced by Nedbank Capital, a Buy implies upside in excess of 20%, A Sell implies an expected return less than 10%, and a Hold implies a return between 10% and 20%. For UK-based Investment Funds research, the recommendation structure is not based on upside/downside to the target price. Rather it is the subjective view of the analyst based on an assessment of the resources and track record of the fund management company. For research produced by Nedbank Capital and for research on Australian listed property trusts (LPT) or real estate investment trusts (REIT), the recommendation is based upon total return, ie, the estimated total return of capital gain, dividends and distributions received for any particular stock over the investment horizon.

Performance parameters and horizon: Given the volatility of share prices and our pre-disposition not to change recommendations frequently, these performance parameters should be interpreted flexibly. Performance in this context only reflects capital appreciation and the horizon is 12 months.

Market or sector view: This view is the responsibility of the strategy team and a relative call on the performance of the market/sector relative to the region. Overweight/Underweight implies upside/downside of 10% or more and Neutral implies less than 10% upside/downside.

Target price: The target price is the level the stock should currently trade at if the market were to accept the analyst's view of the stock and if the necessary catalysts were in place to effect this change in perception within the performance horizon. In this way, therefore, the target price abstracts from the need to take a view on the market or sector. If it is felt that the catalysts are not fully in place to effect a re-rating of the stock to its warranted value, the target price will differ from 'fair' value.

Distribution of recommendations

The tables below show the distribution of recommendations (both long term and trading). The first column displays the distribution of recommendations globally and the second column shows the distribution for the region. Numbers in brackets show the percentage for each category where there is an investment banking relationship. These numbers include recommendations produced by third parties with which RBS has joint ventures or strategic alliances.

Long term recommendations (as at 18 Apr 2011)

	Global total (IB%)	Asia Pacific total (IB%)
Buy	781 (13)	509 (3)
Hold	407 (7)	223 (2)
Sell	93 (1)	57 (0)
Total (IB%)	1281 (10)	789 (3)

Source: RBS

Trading recommendations (as at 18 Apr 2011)

	Global total (IB%)	Asia Pacific total (IB%)
Trading Buy	1 (0)	1 (0)
Trading Sell	1 (0)	1 (0)
Total (IB%)	2 (0)	2 (0)

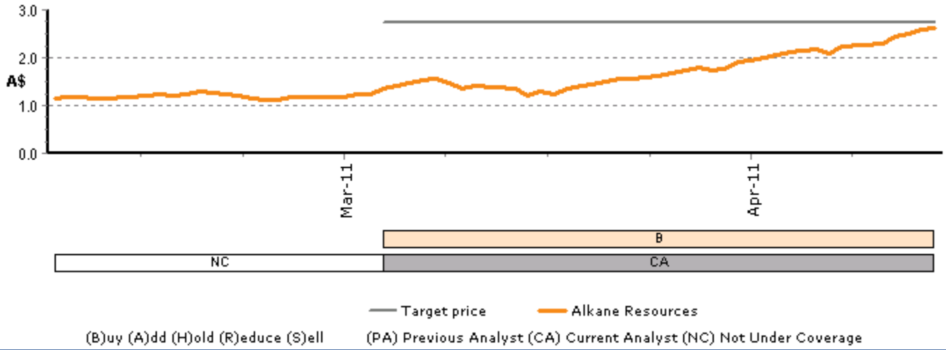
Source: RBS

Valuation and risks to target price

Alkane Resources (RIC: ALK.AX, Rec: Buy, CP: A$2.42, TP: A$3.09): We value ALK using a DCF methodology. Upside risks to our target price include production and commodity prices exceeding our expectations. Downside risks include higher-than-forecast capex, commissioning and development delays, and lower-than-forecast commodity prices.

Alkane Resources coverage data

Stock performance, recommendations and coverage (as at 17 Apr 2011)



Trading recommendation history (as at 18 Apr 2011)

Date	Rec	Analyst
	n/a	

Source: RBS

Sam Berridge started covering this stock on 3 Mar 11. New recommendation structure from 7 November 2005. Source: RBS

Regulatory disclosures

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