

# Alkane Resources

Guidance update

## Another forecast upgrade and an investment

Metals & mining

7 June 2019

**Price** **A\$0.31**  
**Market cap** **A\$157m**

Net cash (A\$m) at 31 March 2019	72.4
Shares in issue	506.1m
Free float	78%
Code	ALKX
Primary exchange	ASX
Secondary exchange	OTCQX

### Share price performance



Gold production from the mid-grade stockpile at Tomingley continues to perform above our expectations, resulting in a second upgrade of our production estimates this year. We increase forecast gold (Au) production for FY19 to 48,000oz (from 44,000oz on 2 May 2019, previously 40,000oz on 12 February 2019). As a result, we also increase forecast gold sold to 52,800oz (from 48,800oz). The increased production levels also result in a lower all-in sustaining cost (AISC), which decreases to A\$1,004/oz Au (from A\$1,059/oz Au). Alkane also announced a binding agreement with Zirconium Technology Corporation to fund a pilot plant operation to convert metal oxides into metals.

Year end	Revenue (A\$m)	PBT* (A\$m)	EPS* (\$)	DPS (\$)	P/E (x)	Yield (%)
06/17	117.8	6.6	0.02	0.00	15.5	N/A
06/18	130.0	31.5	0.05	0.00	6.2	N/A
06/19e	92.1	28.4	0.04	0.00	7.8	N/A
06/20e	57.3	7.7	(0.00)	0.00	N/A	N/A

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

## Underground development continues apace

Alkane's transition to underground mining is on schedule and on budget. The company expects first ore stoping to commence in August 2019.

## Strategic agreement with Zircon Tech

Alkane has entered into a strategic agreement with South Korean company, Zirconium Technology Corporation (Zircon Tech). The agreement will see Alkane invest US\$1.2m in return for a 10% holding in a newly established company, which will hold an exclusive licence to all intellectual property and expertise associated with the electrolytic processing technology. Alkane will also have exclusive global rights to use the technology at commercial scale for zirconium and hafnium processing.

## Technology could improve economics at Dubbo

Alkane has entered into the strategic agreement with Zircon Tech, as it believes the technology could improve the economics of the Dubbo polymetallic project by replacing the high-energy Kroll process with an electrolytic process that converts metal oxides into metals.

## Valuation: Increased on Tomingley improvements

Our updated valuation factors in Alkane's increased share price to A\$0.305 (vs A\$0.24 previously), increased cash flow from Tomingley, the transaction value of the Zircon Tech agreement and a minor increase in the market valuation of Alkane's 15% interest in Calidus Resources. These factors increase our valuation of Tomingley plus Alkane's investments to A\$0.34/share from A\$0.30/share. Assuming Alkane secures development funding for Dubbo and the prices of metals improve to the level it expects over the next three years, our valuation could increase to A\$0.53/share from A\$0.47/share.

### Business description

Alkane Resources is an Australian production and development company. It previously produced 70,000oz of gold per year from the open pit operations at its Tomingley gold mine, but is now transitioning to underground operations and expects to produce around 32,000oz of gold pa.

### Next events

Q419 results	25 July 2019
FY19 results	25 October 2019
Q120 results	30 October 2019
Q220 results	30 January 2020

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## Higher grades lead to second FY19 forecast upgrade

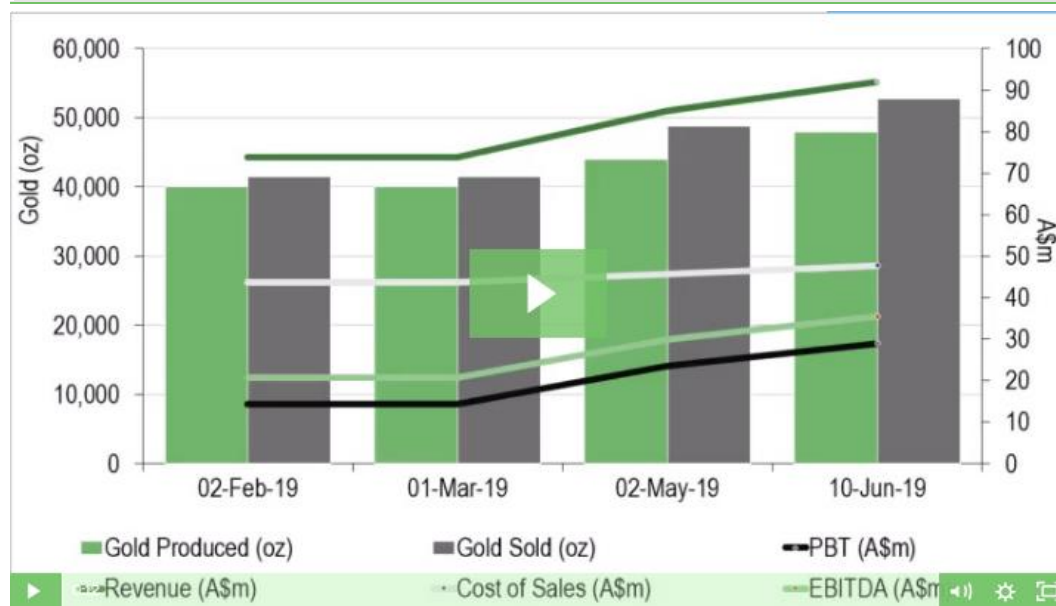
As in Q319 (ending 31 March 2019), the period ending 31 May 2019 saw Alkane processing higher grades from the mid-grade stockpile at Tomingley. As a result, we have upgraded our forecasts for the year.

## Financials

Alkane's management has provided an updated guidance range for Gold production at Tomingley of 48,000–49,000oz, up from 42,000–47,000oz previously. Cost guidance for FY19 has reduced to between \$950/oz and \$1,050/oz as a result.

We therefore increase our gold production forecasts for FY19 to 48,000oz of gold from 44,000oz. Forecast gold sales increase to 52,800oz Au from our previous 48,800oz Au. We reduce our forecast AISC has to A\$1,004/oz Au from A\$1,059/oz Au. Revenue for FY19 increases to A\$92.1m from A\$85.1m, with cost of sales increasing to A\$47.7m from A\$45.7m. As a result, EBITDA increases to A\$34.9m from A\$29.9m and PBT to A\$28.4m from A\$23.5m (see Exhibit 1).

**Exhibit 1: Edison FY19 forecast history for Alkane Resources**



Source: Edison Investment Research

## Valuation

The total effect of the updates to our forecasts is an increase in our valuation of the Tomingley Gold Mine to A\$0.33/share from A\$0.29/share, with our valuation of Alkane's 15.2% holding in Calidus Resources unchanged at A\$0.012/share. We value the Zircon Tech investment at a transaction value of A\$0.003/share.

While our forecasts for the Dubbo project have not changed, the increase in Alkane's share price to A\$0.305/share vs A\$0.24/share in our last [note](#) (published on 2 May) means that we forecast a lower amount of dilution relating to the potential equity component of funding the Dubbo project, which increases our valuation per share. We continue to assume that Alkane secures initial

development funding for Dubbo in CY20 and that the prices of metals improve to the level that Alkane expects over the next three years. On this basis, our valuation could increase to A\$0.53/share (previously A\$0.47/share).

## Zirconium Technology Corporation agreement

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On 6 June, Alkane agreed a binding agreement with Zirconium Technology Corporation whereby it will invest US\$1.2m to secure a 10% interest in a newly established company that will hold an exclusive licence to all intellectual property and expertise associated with the electrolytic processing technology. Alkane also retains exclusive global rights to use the technology at commercial scale for zirconium and hafnium processing.

Alkane has also agreed to provide an additional loan of US\$0.6m to the new company, at market-based rates, should the plant require additional capital. Alkane will have the right to convert the loan into an equity interest.

The new company will use the investment from Alkane to construct a pilot plant at Chungnam National University's (CNU) Department of Materials Science and Engineering, located in Daejeon, South Korea. The pilot plant will use rare earth oxides, zirconium dioxide and hafnium oxide extracted from the Dubbo project and Alkane has the right to market the finished product.

The plant is expected to operate through 2019 and 2020, during which period commercialisation discussions will be advanced.

## Potential impact of the technology for Alkane

There are three principal benefits to Alkane from commercialising Zircon Tech's processing technology:

- The first is the potential to use a carbon-free and environmentally superior processing technology to the traditional Kroll process, to make nuclear and industrial-grade zirconium metal, high-purity hafnium and rare earth metals at the Dubbo project.
- Secondly, Zircon Tech's processing technology has the potential to reduce metallisation costs for zirconium, hafnium and rare earth metals by 50%. As these metals account for 87% of the potential revenue generated over the life of mine at the Dubbo project, any reduction in metallisation costs for these products would have a significant impact on Alkane's bottom line.
- Thirdly, the technology uses solid oxide membranes (SOM) that are made from yttria-stabilised zirconia to replace carbon electrodes. If this technology is proven to work on a commercial scale for any of the major industrial metals, it is likely to create significant demand for both yttrium and zirconium, both of which the Dubbo project can produce.

## Recent exploration results at Tomingley

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Alkane has now defined significant gold mineralisation at three prospects around the Tomingley mine: Roswell, San Antonio and El Paso. All three prospects are located within 7km of the processing plant and with further work these prospects could provide additional feed for mill, extending the life of the operation beyond 2022.

The near-mine drill programme at the Tomingley Underground Mine is continuing and further drill results are expected to be announced in the coming weeks. A follow-up programme of ground magnetics and drilling is being planned at the El Paso prospect.

**Exhibit 2: Financial summary**

	A\$'000s	2017	2018	2019e	2020e	2021e	2022e
30 June		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
<b>INCOME STATEMENT</b>							
Revenue		117,792.0	129,974.0	92,108.0	57,266.8	75,445.5	174,103.7
Cost of Sales		(57,073.0)	(51,304.0)	(47,712.0)	(26,549.7)	(36,469.9)	(104,172.4)
Gross Profit		60,719.0	78,670.0	44,396.0	30,717.0	38,975.6	69,931.3
EBITDA		49,333.0	68,578.0	34,896.0	21,027.0	29,091.8	59,849.8
Normalised operating profit		7,607.0	32,107.0	27,642.8	11,519.8	0.0	0.0
Amortisation of acquired intangibles		0.0	0.0	0.0	0.0	0.0	0.0
Exceptionals		0.0	0.0	0.0	0.0	0.0	0.0
Share-based payments		0.0	0.0	0.0	0.0	0.0	0.0
Reported operating profit		7,607.0	32,107.0	27,642.8	11,519.8	0.0	0.0
Net Interest		(1,035.0)	(603.0)	714.8	(3,853.4)	(26,069.2)	(33,808.1)
Joint ventures & associates (post tax)		0.0	0.0	0.0	0.0	0.0	0.0
Exceptionals		(40,140.0)	(188.0)	0.0	0.0	33,356.6	0.0
Profit before tax (norm)		6,572.0	31,504.0	28,357.6	7,666.4	(26,069.2)	(33,808.1)
Profit before tax (reported)		(33,568.0)	31,316.0	28,357.6	7,666.4	7,287.4	(33,808.1)
Reported tax		4,631.0	(6,845.0)	(7,214.4)	(10,255.8)	0.0	0.0
Profit after tax (norm)		11,203.0	24,659.0	21,143.2	(2,589.3)	(26,069.2)	(33,808.1)
Profit after tax (reported)		(28,937.0)	24,471.0	21,143.2	7,666.4	7,287.4	(33,808.1)
Minority interests		0.0	0.0	0.0	0.0	0.0	0.0
Discontinued operations		0.0	0.0	0.0	0.0	0.0	0.0
Net income (normalised)		11,203.0	24,659.0	21,143.2	(2,589.3)	(26,069.2)	(33,808.1)
Net income (reported)		(28,937.0)	24,471.0	21,143.2	7,666.4	7,287.4	(33,808.1)
Basic average number of shares outstanding (m)		503	503	506	506	521	685
EPS – basic normalised (\$)		0.02	0.05	0.04	(0.00)	(0.04)	(0.03)
EPS – diluted normalised (\$)		0.02	0.05	0.04	(0.00)	(0.04)	(0.03)
EPS – basic reported (\$)		(0.06)	0.05	0.04	0.01	0.01	(0.03)
Dividend (\$)		0.00	0.00	0.00	0.00	0.00	0.00
Revenue growth (%)		N/A	10.3	(29.1)	(37.8)	31.7	130.8
Gross margin (%)		51.5	60.5	48.2	53.6	51.7	40.2
EBITDA margin (%)		41.9	52.8	37.9	36.7	38.6	34.4
Normalised operating margin (%)		6.5	24.7	30.0	20.1	0.0	0.0
<b>BALANCE SHEET</b>							
Fixed assets		148,474.0	138,275.0	173,047.7	355,010.6	746,696.2	914,728.1
Intangible assets		83,107.0	93,136.0	105,917.0	100,289.8	110,289.8	120,289.8
Tangible assets		60,627.0	36,266.0	50,035.9	237,626.0	619,311.6	777,343.6
Investments & other		4,740.0	8,873.0	17,094.8	17,094.8	17,094.8	17,094.8
Current assets		54,276.0	93,306.0	74,324.5	8,989.3	11,523.2	23,526.9
Stocks		9,644.0	19,153.0	12,895.0	2,196.5	2,893.8	6,677.9
Debtors		2,445.0	2,030.0	1,864.0	4,706.9	6,201.0	14,309.9
Cash & cash equivalents		41,969.0	72,003.0	59,565.5	1,465.9	1,308.4	919.1
Other		218.0	120.0	0.0	620.0	1,120.0	1,620.0
Current liabilities		(19,335.0)	(27,430.0)	(21,583.0)	(17,492.2)	(35,465.7)	(48,769.2)
Creditors		(11,166.0)	(9,299.0)	(8,255.0)	(2,182.2)	(2,997.5)	(8,562.1)
Tax and social security		0.0	(6,929.0)	(6,929.0)	(5,057.6)	0.0	0.0
Short-term borrowings		0.0	0.0	0.0	0.0	0.0	0.0
Other		(8,169.0)	(11,202.0)	(6,399.0)	(10,252.4)	(32,468.2)	(40,207.1)
Long-term liabilities		18,488.0	13,647.0	17,215.0	(22,785.0)	(244,785.0)	(321,785.0)
Long-term borrowings		0.0	0.0	0.0	(40,000.0)	(262,000.0)	(339,000.0)
Other long-term liabilities		18,488.0	13,647.0	17,215.0	17,215.0	17,215.0	17,215.0
Net assets		201,903.0	217,798.0	243,004.2	323,722.7	477,968.7	567,700.8
Minority interests		0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity		201,903.0	217,798.0	243,004.2	323,722.7	477,968.7	567,700.8
<b>CASH FLOW</b>							
Operating cash flow before WC and tax		49,333.0	68,578.0	34,896.0	21,027.0	29,091.8	59,849.8
Working capital		5,518.0	(9,498.0)	577.0	1,782.8	(1,376.1)	(6,328.4)
Exceptional & other		672.0	2,823.0	706.0	500.0	500.0	500.0
Tax		0.0	(6,845.0)	(7,214.4)	(12,127.1)	(5,057.6)	0.0
Net operating cash flow		55,523.0	55,058.0	28,964.6	11,182.7	23,158.2	54,021.4
Capex		(33,551.0)	(9,224.0)	(21,023.1)	(197,597.3)	(411,277.4)	(218,381.8)
Acquisitions/disposals		53.0	0.0	0.0	54,540.0	0.0	0.0
Net interest		(1,035.0)	(603.0)	714.8	0.0	(3,853.4)	(26,069.2)
Equity financing		3,471.0	(5.0)	0.0	10,000.0	100,000.0	80,000.0
Exploration and Evaluation		(10,154.0)	(10,969.0)	(12,781.0)	(13,000.0)	(10,000.0)	(10,000.0)
Other		2,963.0	(4,317.0)	(8,721.8)	36,775.0	79,815.2	43,040.2
Net cash flow		17,270.0	29,940.0	(12,846.5)	(98,099.6)	(222,157.5)	(77,389.4)
Opening net debt/(cash)		(24,455.0)	(41,969.0)	(72,003.0)	(59,565.5)	38,534.1	260,691.6
FX		0.0	0.0	0.0	0.0	0.0	0.0
Other non-cash movements		244.0	94.0	409.0	0.0	0.0	0.0
Closing net debt/(cash)		(41,969.0)	(72,003.0)	(59,565.5)	38,534.1	260,691.6	338,080.9

Source: Company accounts, Edison Investment Research

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