

# Alkane Resources and its Hidden Cash Generator – Gold.

Before there was Alkane the Rare Earth developer, there was Alkane the gold miner... and in fact there still is Alkane the gold miner.

As we have noted in the past Alkane Resource Ltd. (ASX: ALK | OTCQX: ANLKY) is prismatic and looks different to different people depending what angle they come at it. In recent years most of the public spotlight has been shone on the Dubbo Zirconia Project (DZP) that is multi-metal in nature, with zirconium (hafnium), niobium (tantalum), yttrium and rare earth elements. As such it is one of the world's largest in-ground resources of rare metals and rare earths. However, there are more strings to Alkane's bow than just this one, as the company has long been a gold producer, on and off, and is pursuing an intriguing and admirable strategy of "multitasking" with gold providing cashflow in the short-term while its big project moves towards fruition. I intend to focus here on the rarely-mentioned gold operations because it would seem natural that this might be spun out to shareholders at a future date once the company becomes overwhelming a REE and Zircon miner. As I have oft-noted spin-outs or demergers can be a good bonus prize for long-term shareholders.

## **Gold – a long-time interest**

Alkane's gold focus in recent decades has been in the Tomingley area, which is situated within the northern Macquarie Arc, part of the Lachlan Fold Belt, in central western NSW. The company firstly operated the Peak Hill Mine for many years and now its focus is on the Tomingley set of deposits from which production began in the first half of 2014.

Alkane has concentrated its gold efforts in this area as the Ordovician volcanic rocks of the Macquarie Arc host some of Australia's largest gold and copper-gold deposits including the > 1.3 mn oz Northparkes deposit (formerly RTZ and now China Moly/Sumitomo), the > 3 mn oz Cowal deposit (Barrick Gold-now announced to be sold) and the > 30 mn oz Cadia-Ridgeway deposits (Newcrest).

The Peak Hill mine pictured below was operated by Alkane from 1996 to 2006.

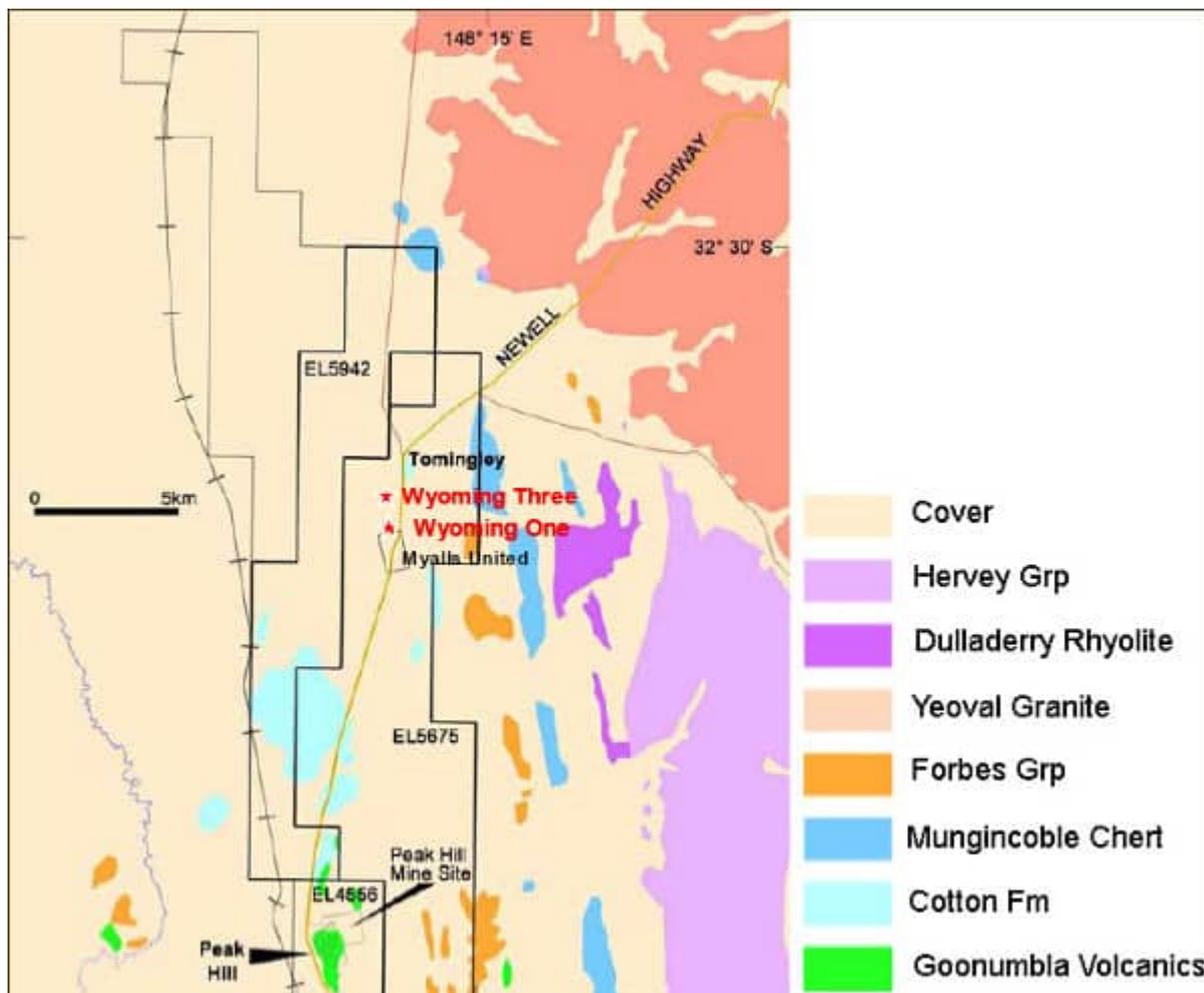


At Tomingley (about 20kms north of Peak Hill), Alkane has commissioned Feasibility Studies, which were completed in 2010, that identified the potential for three open pit mines, Wyoming One, Wyoming Three and Caloma, and a longer term underground development at Wyoming One.

### **The History**

The Tomingley region has been the subject of mineral exploration activities since before 1889. Gold was discovered at Tomingley in 1879 sparking a gold rush and the Tomingley

Gold Field was proclaimed on the 19th June, 1882. Production was focussed on a narrow belt of Ordovician volcanics between Forbes and Tomingley. Oxide zone and hard rock sulphide zone workings in the region prior to 1981 yielded an estimated 70,270 oz from the Tomingley area, the bulk of which came from the Myalls United mine which operated from the 1890s, about 500 m south of the Wyoming deposits. An estimated 86,900 oz was also mined from around Peak Hill pre-1981, mostly as alluvial gold. Further gold extraction by Alkane, using cyanide heap-leach, from the oxide zone at Peak Hill yielded 153,000 oz. This operation ceased in 2005. Alkane estimates that around 467,000 oz remain at Peak Hill, below the weathering front, as sulphide ore.



## The Tomingley Project

Tomingley is a medium-sized gold project with approximately 921,000 ounces of gold in the current defined resource space.

The project is composed of a large north-south oriented tenement package covering Ordo-Silurian volcanics and sedimentary rocks with minor intrusives. Significant mineralisation in and about the project area includes the Wyoming Gold Deposits, the Peak Hill Gold Mine and the historic Myalls United Gold Mine.

The exploration discovery of Tomingley happened as long ago as 2001, with Alkane then launching a resource definition campaign consisting of 1,602 drill holes (RAB, RC, Diamond drilling) amount to 160,784 metres. This drilling plus the cost of the feasibility studies has resulted in an expenditure so far of around AUD\$13 million.

<b>Tomingley Resource Statement</b>			
	<b>Tonnage</b>	<b>Grade</b>	<b>Au</b>
	<b>tonnes</b>	<b>g/t</b>	<b>ozs</b>
<b>Wyoming One</b>			
Measured	2,316,550	2.2	
Indicated	890,340	2.2	
Inferred	3,117,350	1.7	
<b>Total</b>	<b>6,324,240</b>	<b>1.9</b>	<b>392,400</b>
<b>Wyoming Three</b>			
Measured	642,470	2.0	
Indicated	63,225	2.0	
Inferred	102,820	1.3	
<b>Total</b>	<b>808,515</b>	<b>1.9</b>	<b>49,900</b>
<b>Caloma</b>			
Measured	2,690,530	2.3	
Indicated	567,860	2.1	
Inferred	2,194,490	1.9	
<b>Total</b>	<b>5,452,880</b>	<b>2.1</b>	<b>369,400</b>
<b>Total</b>			
Measured	5,649,550	2.2	
Indicated	1,521,425	2.1	
Inferred	5,414,660	1.8	
<b>Total</b>	<b>12,585,635</b>	<b>2.0</b>	<b>811,700</b>

The project at Tomingley has been developed with the aim of producing 50,000 – 60,000 ounces of gold per year, based on an annual ore throughput of around one million tonnes. Mining

operations commenced at Tomingley in January 2014 with the commissioning, with the first ore feed to the mill, on 16 January 2014. The company poured its first gold bar on 14 February 2014, so just one year ago. Tomingley has an expected mine life of 7.5 years though the resource has a target life of 10-12 years. We expect that much depends, as usual, on the gold price and resource expansion.

### **The Miracle of Cashflow**

Unlike the most in the Rare Earth space, Alkane can point to having a sizeable cashflow. Despite the sloppy gold price in the second half of 2014 (really since production commenced) the company had revenues of AUD\$56.9mn in the six months to the end of December and AUD\$23.5mn in the quarter ended December 31<sup>st</sup>. Since the year began the gold price has perked up, oil prices have plunged and the AUD has moved favorably for Antipodean gold producers so Alkane should be in a position to be highly cashflow positive from its Tomingley "sideline".

### **An Interesting Aside**

I am quite a fan of biogeochemistry, which is only somewhat more respectable than homeopathy in some geological circles. So I was intrigued to see that a biogeochemical survey of a large windrow of mature native trees, running almost directly across strike, commenced during January 2005, to determine whether the trees could be used to penetrate the significant transported cover to detect the Wyoming gold deposits.

Despite the sceptics this technique is a very good indicator for Rare Earths in particular, with trees bringing the minerals up through their roots to the leaves which are then shed making a layer of REE-enriched detritus at surface. One of the more bizarre manifestations is with Selenium, where plants called Loco Weed bring the element to the surface and then cattle that eat the weeds go quite literally "loco".

## **Conclusion**

Alkane's gold "personality" was around long before Rare Earths were even heard of. And it is still around. Likewise Alkane's Dubbo Zirconia Project (DZP) was around before the REE boom erupted and is still here after the tide has gone out. Due to the size of the resource, the mine is expected to process 1,000,000 tonnes of ore throughput per year over a period of 70 years or more.

Having a cashflow from the gold operations means in the very short term that the company does not need to go back to the well to fund day to day operations and thus its big "ask" is only the capex for the Dubbo project rather than rattling the cup to investors to pay to keep the lights on at HQ, like so many others. Eventually we would expect the gold assets to exit stage left and a spinout for shareholders or trade sale may be the result.