

19 May 2020



## *121 Mining Investment EMEA Online Conference*

Alkane Resources Limited (ALK) (Alkane or the Company) advises that Managing Director, Mr Nic Earner, will be presenting at the 121 Mining Investment EMEA Online Conference on Tuesday, 19 May 2020 at 2:00pm.

The presentation is attached and is also available on the Company's website: [www.alkane.com.au](http://www.alkane.com.au)

**This document has been authorised for release to the market by Nic Earner, Managing Director.**

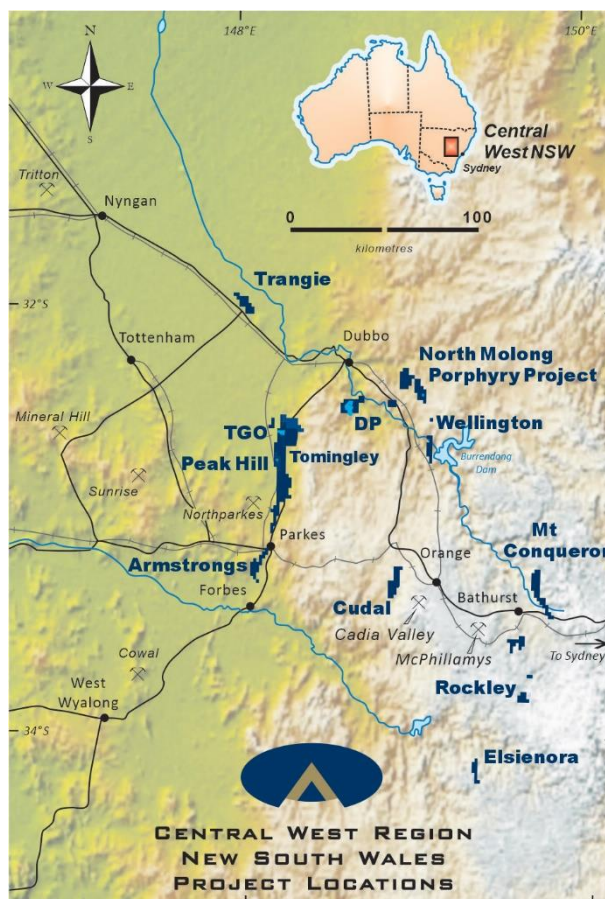
**ABOUT ALKANE** - [www.alkane.com.au](http://www.alkane.com.au) - **ASX: ALK and OTCQX: ANLKY**

Alkane is a gold production company with a multi-commodity exploration and development portfolio. Alkane's projects are predominantly in the Central West Region of NSW, but extend throughout Australia through investments in other gold exploration and mining companies.

Alkane's gold production is from the Tomingley Gold Operations (TGO) which has been operating since early 2014 and its most advanced gold exploration projects are in the 100% Alkane owned tenement area between TGO and Peak Hill and have the potential for sourcing additional ore for TGO.

Alkane has other 100% owned exploration tenements in the Central West NSW prospective for gold and copper. The recently announced significant porphyry gold-copper mineralisation intersected at Boda is an example of this potential.

Alkane's largest non-gold project is the Dubbo Project (DP), a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. As it is an advanced polymetallic project outside China, it is a potential strategic and independent supply of critical minerals for a range of sustainable technologies and future industries. The DP is development ready, subject to financing, with the mineral deposit and surrounding land acquired and all major State and Federal approvals in place.



**CONTACT** : **NIC EARNER, MANAGING DIRECTOR, ALKANE RESOURCES LTD, TEL +61 8 9227 5677**  
**INVESTORS** : **NATALIE CHAPMAN, CORPORATE COMMUNICATIONS MANAGER, TEL +61 418 642 556**  
**MEDIA** : **JOHN GARDNER, CITADEL-MAGNUS, TEL +61 413 355 997**

A photograph of an industrial facility, likely a refinery or chemical plant, at night. The facility is illuminated by warm orange lights, with various structures, pipes, and storage tanks visible against a dark sky. A large, dark, silhouetted mound is in the foreground on the left.

**Find.  
Enhance.  
Deliver.**

# Investor Presentation

Nic Earner, Managing Director

May 2020

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This presentation contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

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This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other countries' securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geosciences.

## COMPETENT PERSON

Unless otherwise stated, the information in this presentation that relates to mineral exploration, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

# Six Months of Performance and Delivery



## Corporate and Operational

- Fund raising of \$40.6M completed in January; well financed for all scheduled activities
- Implemented COVID-19 Response Strategy; zero reported cases within ALK workforce

## Tomingley Gold Operations and Corridor

- Underground stope production commenced at Tomingley Gold Operations (TGO)
- Initial Inferred Resources defined at both Roswell & San Antonio (over 900koz combined)
- Underground Exploration Drive from TGO to Roswell approved by NSW Government
- Acquisition and negotiation of underlying farmland

## Boda Discovery and Regional Exploration

- Completed initial drill program at Boda
- Strong indications of large system, including:
  - 689m at 0.46g/t Au, 0.19% Cu
  - 1,167m at 0.55g/t Au, 0.25% Cu (incl. 96.8m at 3.97g/t Au, 1.52% Cu)
- Completed IP survey and regional targeting exercise

## Australian Strategic Materials

- Appointment of Managing Director
- Construction of commercial scale pilot plant for product metallisation nearing completion
- Advanced optimisation testwork
- Preparations for separate listing substantively complete

# Strategy and Investment Highlights



Grow shareholder value by increasing production at Tomingley, pursuing organic growth through exploration and development, and strategic acquisition.

Unlock the value of Australian Strategic Materials (ASM), including a demerger and listing in 2020.

## Corporate Strength

- \$81.9M in cash, bullion and listed investments as at 31 March 2020 (nil debt)
- Extensive senior management expertise in the full mining life-cycle (exploration, approvals, construction, operation, rehabilitation)
- Highly-credentialed and experienced Board

## Existing Production

- Tomingley mill partially utilised for the existing underground; FY20 guidance of 30,000oz-35,000oz
- Production growth through Tomingley Corridor (San Antonio, Roswell)
- Expediting development pathway; underground initially (drive approvals received) with open pit longer term
- Potential for strong near-term cash flow

## Landmark Discovery at Boda

- Extensive porphyry mineralisation encountered with similar characteristics to Newcrest's Cadia Valley Mine (110km south)
- Strong indications of large system at Boda, including:
  - 1,167m at 0.55g/t Au, 0.25% Cu (incl. 96.8m at 3.97g/t Au, 1.52% Cu)
- Substantial drilling program planned at Boda and nearby targets

## Growth Options

- Extensive tenement holding in NSW with strong exploration potential
- 15% of Genesis Minerals (ASX: GMD)
- 13% of Calidus Resources (ASX: CAI)
- 100% of Australian Strategic Materials, including Dubbo Project, with demerger planned.

# Corporate Profile



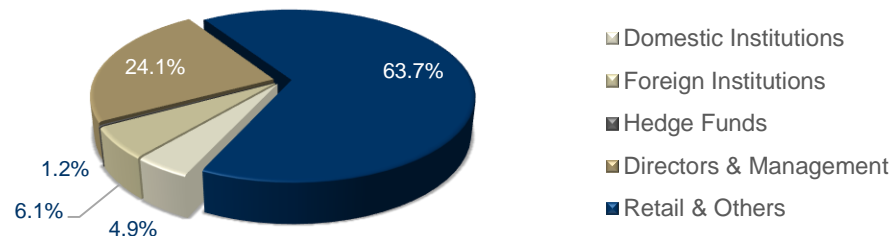
## Capital Structure

Ordinary Shares	580 million
Share Price (18 May 2020)	A\$0.84
Market Capitalisation	A\$484M
12 Month low/high	A\$0.21/\$1.16
Cash and Gold Bullion (31 Mar 2020)	A\$70.9M
Listed Investments (18 May 2020)	A\$17.2M
Interest Bearing Debt	Nil
Enterprise Value	A\$413M
Average Daily Turnover (12 Months)	A\$2.0M/day

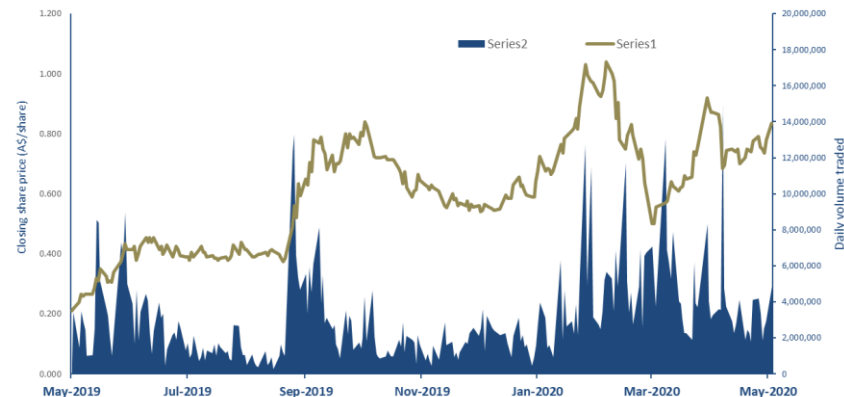
## The Board

Ian Gandel	Chairman
Nic Earner	Managing Director
Ian Chalmers	Technical Director
Anthony Lethlean	Non-Executive Director
Gavin Smith	Non-Executive Director
Dennis Wilkins	Company Secretary

## Shareholder Ownership (at 31 Mar 2020)



## Share Price and Volume (1 year)



# Corporate History: 50 Years of Find. Enhance. Deliver.



## Timeline of Key Milestones (incorporated 1969)

1990s	1996-2005	1997	2001	2006	2014	2018	2019	2020
Alkane progresses work on Dubbo Specialty Metals Project	Peak Hill Gold Mine in open pit operation – production 153,000oz	Alkane acquires North Molong Porphyry Project (NMPP) from CRA	Alkane announces Tomingley gold discovery	Alkane announces McPhillamys gold discovery (now 100% Regis); Alkane and partner IPOs BC Iron on ASX	Tomingley Mine constructed on time and budget using cash and McPhillamys proceeds (no debt)	Tomingley Corridor major gold discoveries made (San Antonio, Roswell, El Paso)	Alkane announces Boda gold-copper porphyry discovery	Alkane announces initial Roswell and San Antonio Resources
					Tomingley open pit production (2014-2019) 369,000oz at AISC A\$1,192/oz			

## Alkane Gold Business: Continuing to Grow

Tomingley Gold Project	Tomingley Corridor	Boda Discovery (NMPP)	Regional Exploration	ASX Gold Investments
<ul style="list-style-type: none"><li>▪ FY20 guidance 30,000-35,000oz</li><li>▪ Underground development established; stope production underway</li><li>▪ Underground revised modelling extends mine life</li><li>▪ Open pit cutbacks under consideration</li></ul>	<ul style="list-style-type: none"><li>▪ Multiple gold discoveries near mine</li><li>▪ Roswell Inferred Resource 7.02Mt @1.97g/t Au (445,000oz)</li><li>▪ San Antonio Inferred Resource 7.92Mt @1.78g/t Au (453,000oz)</li><li>▪ Further infill drilling programmed</li><li>▪ Underground access fast-tracked</li></ul>	<ul style="list-style-type: none"><li>▪ Significant discovery in 2019, includes:<ul style="list-style-type: none"><li>• Extensive, ore grade mineralised zone</li><li>• High grade zone targeted for aggressive follow-up drill program</li></ul></li><li>▪ Induced Polarisation (IP) survey complete</li><li>▪ Major drill program commencing</li></ul>	<ul style="list-style-type: none"><li>▪ Extensive landholding in NSW</li><li>▪ Peak Hill resource</li><li>▪ Regional targeting informed by IP and Boda</li><li>▪ Long track record of discovery in NSW, excellent understanding of permitting regime</li></ul>	<ul style="list-style-type: none"><li>▪ Cornerstone investments with strategic alliance</li><li>▪ 15% Genesis Minerals (ASX: GMD)</li><li>▪ 13% Calidus Resources (ASX: CAI)</li></ul>

# Tomingley Gold Project

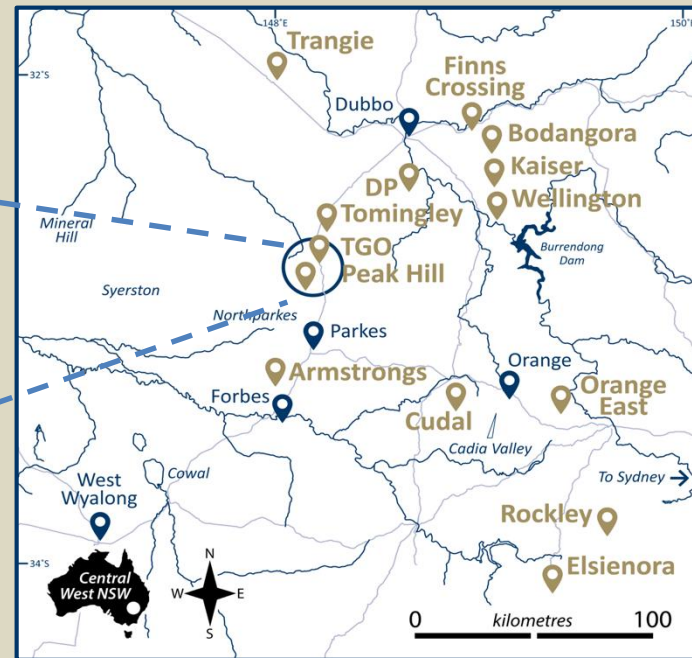


- 1.0 mtpa plant (achieved run rate of 1.4mtpa on oxide ore)
- Construction completed in 2014 on time and budget
- Production guidance for FY20 30,000 – 35,000oz Au
- Underground development established
- Underground stope ore production has commenced
- Updated underground mine plan modelling shows extended mine life
- Current plant run rate at 100% capacity
- Exploration has revitalised the Project – underground and Tomingley Corridor
- Potential for strong near-term cash flow

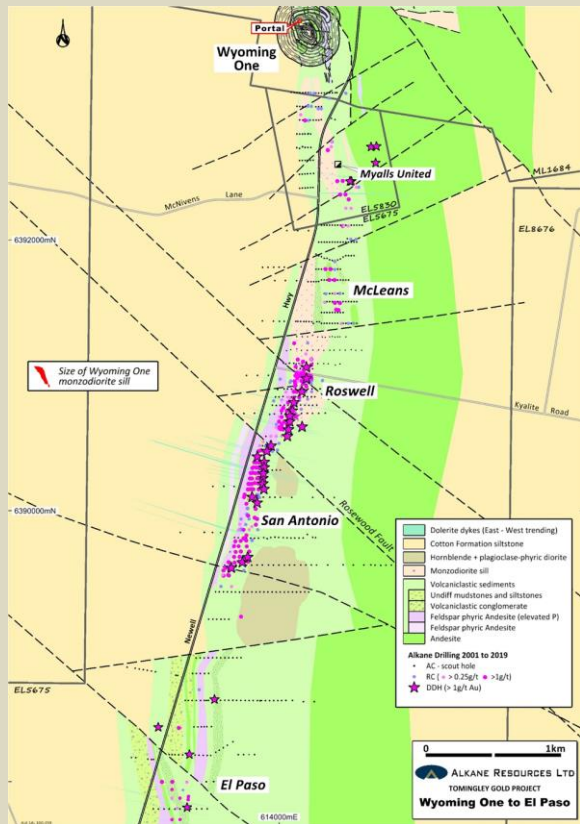


# Tomingley Corridor: Central West NSW

~10km mineralisation adjacent to  
established processing infrastructure



# Tomingley Corridor: Exploration in Plan



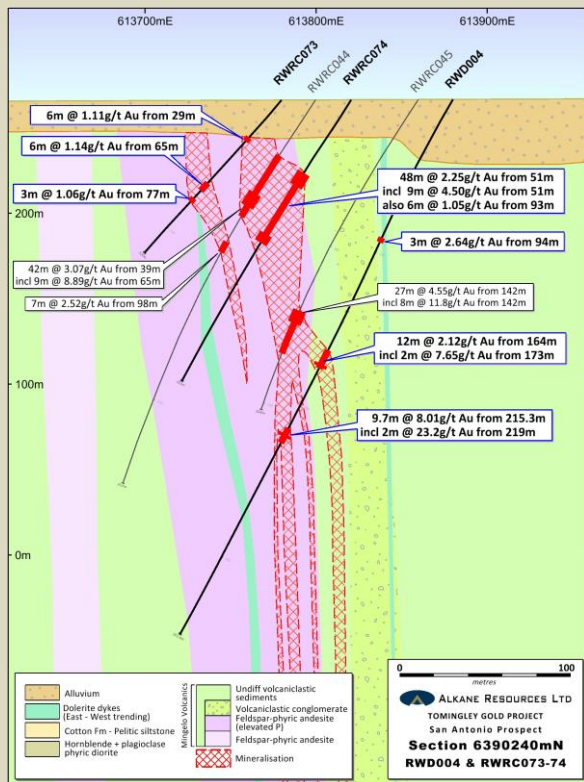
- Three major target areas within 8km of mill; Roswell, San Antonio and El Paso
- Infill drilling at 40m spacing of Roswell, San Antonio complete, further 20m program underway
- Maiden Resource (Roswell): **7.02Mt @1.97g/t Au (445,000 oz)<sup>#</sup>**
- Maiden Resource (San Antonio): **7.92Mt @1.78g/t Au (453,000 oz)<sup>^</sup>**
- Exploration Target (El Paso): **~5.1 – 7.4Mt (open pit and underground) at a grade ranging between 1.3 – 1.6g/t Au<sup>\*</sup>**
- Extent of mineralisation at San Antonio, Roswell alone covers significantly larger area than original Tomingley discoveries

<sup>#</sup>ASX release 9 July 2019, <sup>#</sup>ASX release 28 January 2020, <sup>^</sup>ASX release 20 April 2020

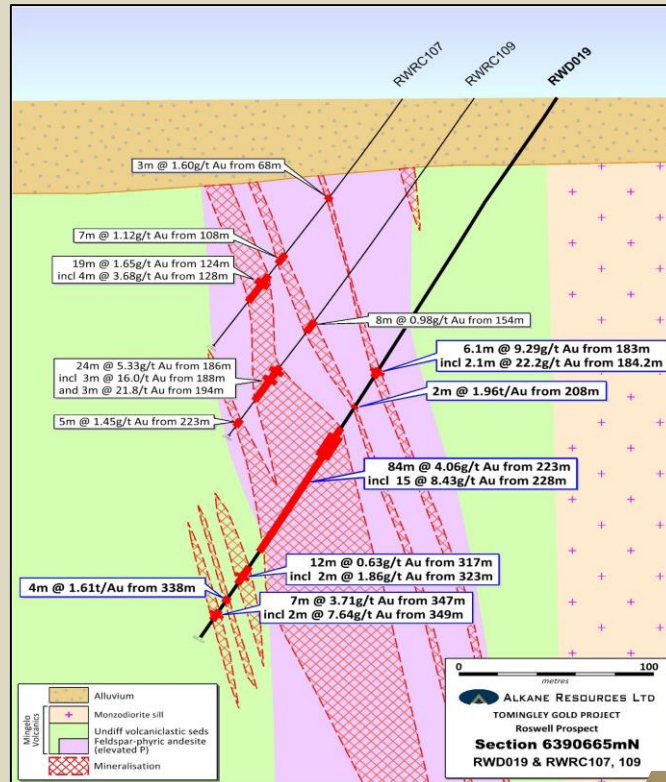
*<sup>\*</sup>The potential quantity and grade of the Exploration Target is conceptual in nature and therefore is an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.*

# Tomingley Corridor: Cross Sections

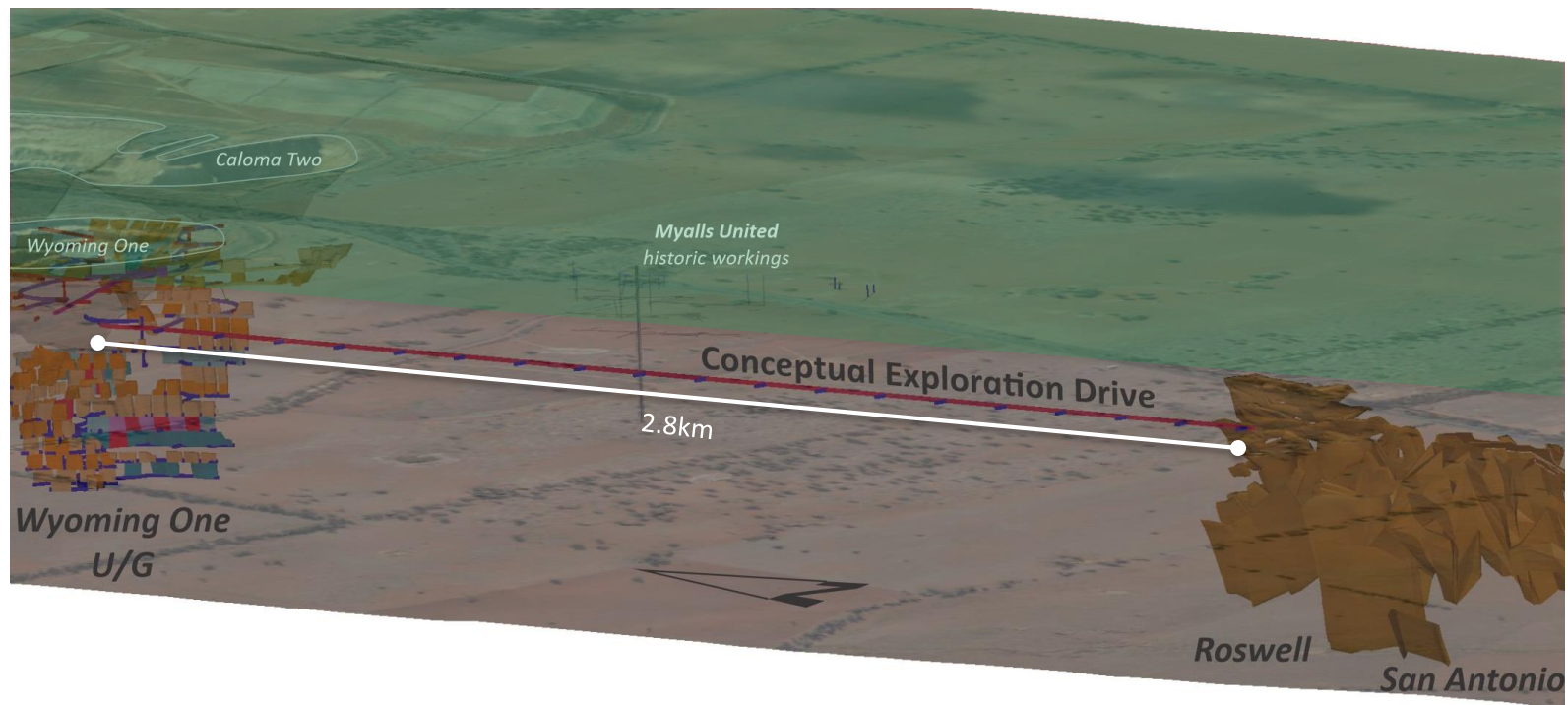
## San Antonio



## Roswell



# Tomingley Corridor: Exploration Drive



# Tomingley Corridor: Development Plan

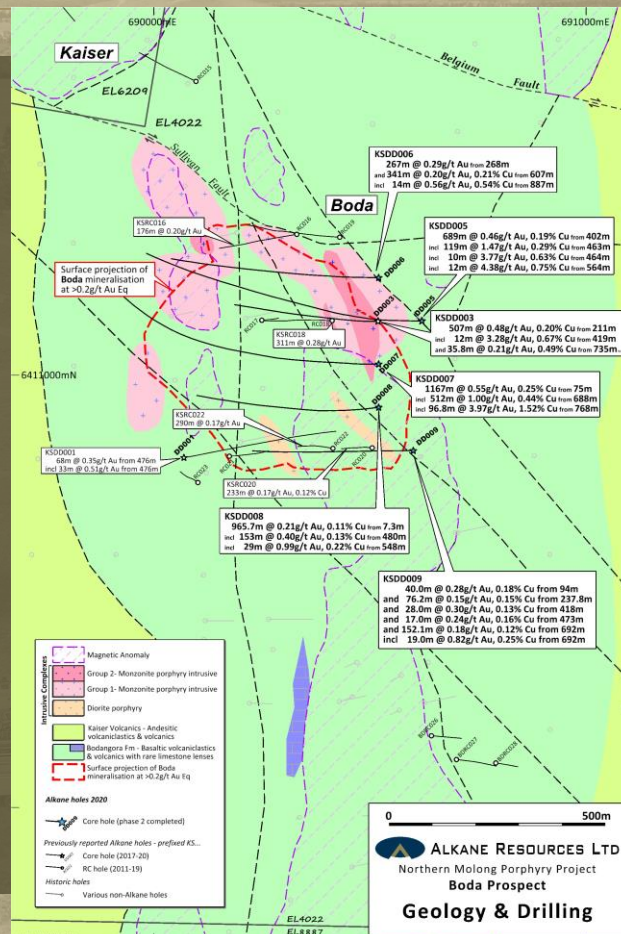


**Objective:** *To define the initial resource, develop an underground and, simultaneously, an open pit mine on an accelerated timetable.*

<b>Resource Delineation</b>	<ul style="list-style-type: none"><li>▪ 40m space drilling complete at Roswell and San Antonio, 20m space drilling underway</li><li>▪ Roswell underground extension prioritized; Indicated Resource Q3 2020</li></ul>
<b>Exploration Drive</b>	<ul style="list-style-type: none"><li>▪ From existing Wyoming One decline</li><li>▪ Drilling positions and bulk samples between Wyoming and Roswell</li><li>▪ Approvals received (May 2020)</li><li>▪ Development team on site</li><li>▪ Surface vent fan (land purchased)</li></ul>
<b>Underground Permitting</b>	<ul style="list-style-type: none"><li>▪ Utilising exploration drive for production</li><li>▪ Environmental approvals process underway</li><li>▪ Mine planning to use for approvals underway</li></ul>
<b>Open Pit Permitting</b>	<ul style="list-style-type: none"><li>▪ Infrastructure Impact – studies and consultation underway</li><li>▪ Approvals – environmental approvals underway</li><li>▪ Landholder agreement – land under contract, option or consultation</li><li>▪ Mine planning to use for approvals underway</li></ul>

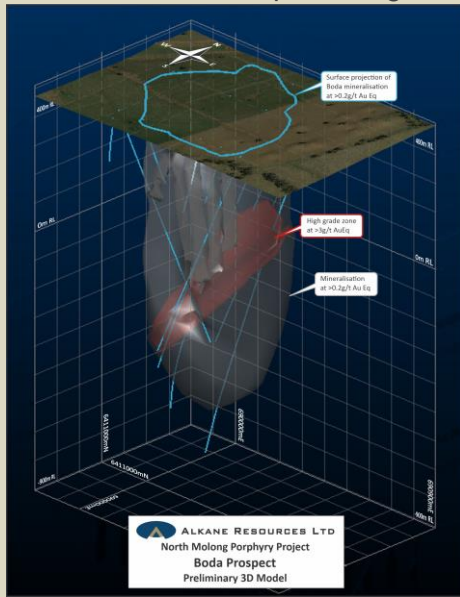
# Northern Molong Porphyry Project (NMPP)

- Significant Gold-Copper Porphyry mineralisation at Boda Prospect
- Boda target identified by geophysics followed by RC drilling
- Diamond holes show large scale mineralization with higher grade core
- Numerous other intercepts within 2-3km strike length demonstrating extensive mineralised system
- Prospect potential akin to Cadia Valley Mine (Newcrest)
- Regional targeting underway informed by Boda, utilising new IP data

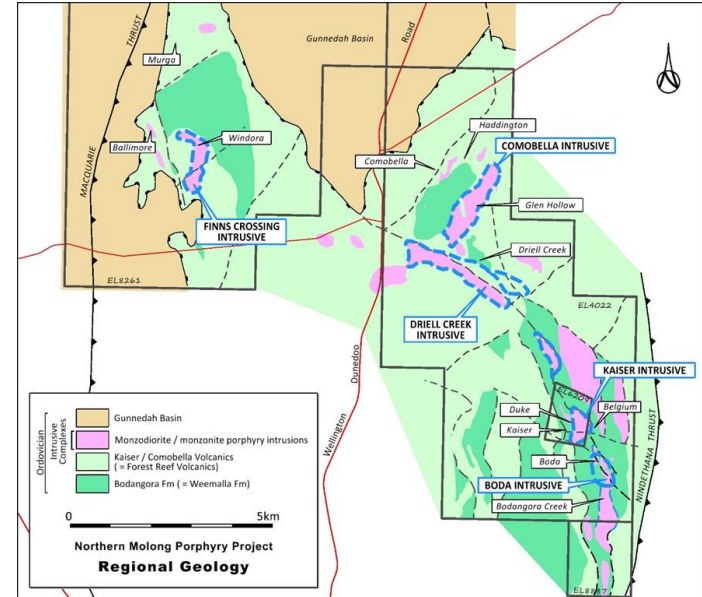


# Boda Drilling

- Modelling of the recent drilling indicates a +0.2g/t AuEq\* subvertical zone of significant gold-copper mineralisation; approx. 500 metres north-south strike length, 400 metres wide and >1100 metres vertically (grey in model)
- Within this envelope there is +3.0g/t AuEq\* high grade pod approx. 150 metres long, 100 metres wide and >500 metres vertically (red in model)
- Both zones remain open along strike and at depth



\*AuEq = Au grade + Cu grade  
@ US\$1,550/oz Au and  
US\$5000/t Cu (refer ASX  
Announcement 19 May 2020).



- Major drill program initiated over FY21
- Targeting Boda high grade core plus prospective areas on corridor
- Other regional targets presented by IP and data review will also be tested

# Broader Strategy for Gold Assets



- Stated vision to become a multi-mine Australian gold producer
- Tomingley well-positioned to anchor strategy
- Strong regional NSW exploration portfolio
- Potential growth via strategic investment and future M&A
- Collaborative approach to investments with board representation agreed



Alkane owns ~15% of Genesis Minerals, which has a 860,000oz high grade Au resource in WA, excellent exploration potential and is seeking a path to production.



Alkane owns ~13% of Calidus Resources, which is on track to develop an 80,000oz+ p.a. Au project in WA from its 1,250,000oz resource.

## A Unique Critical Materials Company

### Dubbo Project (NSW)

- All major permits in place and piloting completed
- Construction ready; land and water secured
- Federal Government support and EFA engagement
- Ongoing off-take discussions

### ASM Technology

- Intellectual property developed through Dubbo R&D
- Investment in RMR Tech, South Korea
- Pilot plant under commissioning
- Global commercialisation rights secured

### Korean Metals Plant

- Commercial study on successful piloting
- Zirconium, Hafnium separation and metallisation
- Customer discussions commencing
- Co-funding from Korean Government

### Potential Demerger

- Demerger planned and listing of ASM on the ASX to maximise value
- Consultation with key regulators well progressed
- Managing Director, David Woodall, appointed

# Key Work Plan and Milestones to December 2020




- Follow-up drilling of Boda and nearby porphyry targets (Q3 2020 commencement)
- Developing conceptual Roswell / San Antonio UG and OC plans for approval applications
- Acquisition of key land for Tomingley Corridor OC development (under contract, option or negotiation)
- Commencement of Tomingley Corridor Exploration Drive (approved)
- Execute planned Australian Strategic Metals (ASM) demerger


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# Tomingley (TGO): Resources



## Tomingley Gold Operations Mineral Resources (as at 30 June 2019)

Deposit	Measured Tonnage (Kt)	Grade (g/t Au)	Indicated Tonnage (Kt)	Grade (g/t Au)	Inferred Tonnage (Kt)	Grade (g/t Au)	Total Tonnage (Kt)	Grade (g/t Au)	Total Gold (Koz)
<b>Open Pittable Resources (cut off 0.50g/t Au)</b>									
Wyoming One	184	1.5	982	1.7	137	0.7	1,303	1.6	60
Wyoming Three	86	2.0	16	1.3	33	1.4	135	1.7	8
Caloma	895	1.6	1,016	1.2	824	1.2	2,735	1.3	116
Caloma Two	64	2.3	812	2.0	26	1.4	902	2.0	58
Sub Total	1,229	1.6	2,826	1.6	1,020	1.2	5,075	1.5	242
<b>Underground Resources (cut off 2.5g/t Au)</b>									
Wyoming One	0	0.0	787	4.0	109	3.2	896	3.9	113
Wyoming Three	10	3.6	6	3.1	4	3.1	20	3.4	2
Caloma	78	3.8	32	3.4	44	3.0	154	3.5	17
Caloma Two	-	0.0	218	3.6	76	3.2	294	3.5	33
Sub Total	88	3.8	1,043	3.98	233	3.2	1,364	3.8	165
<b>Total</b>	<b>1,317</b>	<b>1.8</b>	<b>3,869</b>	<b>2.2</b>	<b>1,253</b>	<b>1.5</b>	<b>6,439</b>	<b>2.0</b>	<b>407</b>

Note: Full details including Competent Person Statements in ASX announcements 23 September 2019 - the Company confirms that all material assumptions and technical parameters underpinning the estimated Mineral Resources and Ore Reserves, and production targets and the forecast financial information as disclosed continue to apply and have not materially changed

# Tomingley (TGO): Reserves



## Tomingley Gold Project Mineral Reserves (as at 30 June 2019)

Deposit	Proved Tonnage (Kt)	Grade (g/t Au)	Probable Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Total Gold (Koz)
<b>Open Pittable Reserves (cut off 0.50g/t Au)</b>							
Wyoming One	0	0.0	0	0.0	0	0.0	0
Wyoming Three	0	0.0	0	0.0	0	0.0	0
Caloma	0	0.0	0	0.0	0	0.0	0
Caloma Two	0	0.0	0	0.0	0	0.0	0
Stockpiles	677	0.7	0	0	677	0.7	15
Sub Total	677	0.7	0	1.7	677	0.7	15
<b>Underground Reserves (cut off 2.50g/t Au)</b>							
TGO Underground	45	2.7	688	3.2	732	3.1	74
Sub Total	45	2.7	688	3.2	732	3.1	74
<b>Total</b>	<b>722</b>	<b>1.8</b>	<b>688</b>	<b>1.9</b>	<b>1,409</b>	<b>2.0</b>	<b>89</b>

Note: Full details including Competent Person Statements in ASX announcements 23 September 2019 - the Company confirms that all material assumptions and technical parameters underpinning the estimated Mineral Resources and Ore Reserves, and production targets and the forecast financial information as disclosed continue to apply and have not materially changed

# Peak Hill (PHGM): Gold and Copper Resources



## Proprietary Mineral Resource

Project	Resource Category	Cut-Off	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)	Copper Metal (%)
Proprietary Underground	Inferred	2g/t Au	1.02	3.29	108	0.15
<b>Total</b>			<b>1.02</b>	<b>3.29</b>	<b>108</b>	<b>0.15</b>

Note: Full details including Competent Person Statements in ASX announcement 18 October 2018 - the Company confirms that all material assumptions and technical parameters underpinning the estimated Mineral Resources and Ore Reserves, and production targets and the forecast financial information as disclosed continue to apply and have not materially changed

## Dubbo Project – Mineral Resources

Resource Category	Tonnes (Mt)	ZrO <sub>2</sub> (%)	HfO <sub>2</sub> (%)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (%)	Y <sub>2</sub> O <sub>3</sub> (%)	TREO* (%)
Measured	42.81	1.89	0.04	0.45	0.03	0.14	0.74
Inferred	32.37	1.90	0.04	0.44	0.03	0.14	0.74
<b>Total</b>	<b>75.18</b>	<b>1.89</b>	<b>0.04</b>	<b>0.44</b>	<b>0.03</b>	<b>0.14</b>	<b>0.74</b>

\*TREO% is the sum of all rare earth oxides excluding ZrO<sub>2</sub>, HfO<sub>2</sub>, Nb<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub>, Y<sub>2</sub>O<sub>3</sub>

## Dubbo Project – Ore Reserves

Reserve Category	Tonnes (Mt)	ZrO <sub>2</sub> (%)	HfO <sub>2</sub> (%)	Nb <sub>2</sub> O <sub>5</sub> (%)	Ta <sub>2</sub> O <sub>5</sub> (%)	Y <sub>2</sub> O <sub>3</sub> (%)	TREO* (%)
Proved	18.90	1.85	0.04	0.440	0.029	0.136	0.735
Probable	0						
<b>Total</b>	<b>18.90</b>	<b>1.85</b>	<b>0.04</b>	<b>0.440</b>	<b>0.029</b>	<b>0.136</b>	<b>0.735</b>

\*TREO% is the sum of all rare earth oxides excluding ZrO<sub>2</sub>, HfO<sub>2</sub>, Nb<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub>, Y<sub>2</sub>O<sub>3</sub>

Note: Full details including Competent Person statements in ASX announcement 19 September 2017 - the Company confirms that all material assumptions and technical parameters underpinning the estimated Mineral Resources and Ore Reserves, and production targets and the forecast financial information as disclosed continue to apply and have not materially changed

## Dubbo Project

- Critical minerals resource
- Rare earths, zirconium, hafnium and niobium
- Used in clean energy, electric vehicles and most modern technology
- Defined resource supports 70+ year open pit operation
- 400km northwest of Sydney
- Extensive piloting at ANSTO since 2008
- Full FEED with Hatch and further updates
- All major State and Federal approvals in place
- Land and resource wholly owned

## Korean Metals Plant

- RMR tech pilot plant under construction
- Seeking to confirm low cost, low emission process
- 2020 feasibility on integrated separation and metallisation plant



## 20-year Base Case (1Mtpa)

- 1.0Mtpa (base case)
- CAPEX: A\$1.3B
- Revenue: A\$663M
- Operating Costs: A\$341M
- EBITDA: A\$320M
- IRR: 17.5%
- NPV: A\$1.24B

## Modular (4 June 2018)

### Stage 1

- 0.5Mtpa
- CAPEX: A\$808M
- Revenue: A\$397M
- Operating Costs: A\$202M

### Stage 2

- 0.5Mtpa
- CAPEX: A\$692M
- Revenue: A\$663M
- Operating Costs: A\$341M

## Dubbo Project Engineering and Financials Update (4 June 2018)

### Modular Advantage

- Large elements of construction occur offsite
- Significantly reduces initial start-up capex
- Reduces construction period
- Allows the Project to develop and grow with its customers and the target markets for its products

Note: As per ASX announcement of 4 June 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement