ASX and MEDIA RELEASE

18 August 2020

ALKANE RESOURCES LTD
ABN 35 000 689 216

Resource and Reserve Statements FY20

- **This report is a compilation of identified Mineral Resources and Ore Reserves for the Tomingley Gold Operations, Tomingley Gold Project and the Peak Hill Gold Project in the Central West region of New South Wales, as at 30 June 2020.**

- **Mineral Resources and Ore Reserves for the Tomingley Gold Operations have been re-estimated to account for depletion, changes in gold price and operating costs:**
  - **Total Mineral Resources** **9.45 Mt grading 1.9g/t Au (610,000oz)**
  - **Total Ore Reserves** **2.97 Mt grading 1.8g/t Au (176,000oz)**

- **Regional, near-mine exploration program continued between Tomingley and Peak Hill (Tomingley Gold Project), and during the year Mineral Resources were defined at Roswell and San Antonio:**
  - **Roswell Mineral Resource** **7.02 Mt grading 1.97g/t gold (445,000oz).**
  - **San Antonio Mineral Resource** **7.92 Mt grading 1.78g/t gold (453,000oz)**

- **The Mineral Resource estimate for the Peak Hill Gold Project 's Proprietary underground ore body remains unchanged from October 2018:**
  - **Inferred Resource** **1.02Mt grading 3.29g/t gold & 0.15% copper (108,000oz)**

- **Total Project Mineral Resources are 25.4 Mt grading 1.9g/t Au (1,616,000oz)**

NOTE: The demerger of Australian Strategic Materials Ltd (ASM), the holder of the Dubbo Project, was completed on 28 July 2020 and therefore future changes to the Resources and Reserves for that Project will be reported by ASM.

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Mineral Resource and Ore Reserve Estimates as at 30 June 2020

The Company reports Ore Reserves and Mineral Resources for the Tomingley Gold Operations (**TGO**), the Tomingley Gold Project (**TGP**) and the Peak Hill Gold Project (**PHGP**) as at 30 June 2020 in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC 2012**). All projects are located within the Central West region of New South Wales.

At TGO, open pit mining continued through until early 2019 and the operation then transitioned to underground mining. Low grade ore stockpiles were initially processed until underground ore became available in early 2020. An initial Resource estimation was compiled for the PHGP in October 2019 and is included in the statement.

TGO is operated on a residential basis with personnel residing in Dubbo, Narromine and Parkes, in the Central West of New South Wales.

Mineral Resource and Ore Reserve Governance & Internal Controls

Alkane has put governance arrangements and internal controls in place with respect to its estimates of Mineral Resources and Ore Reserves and the estimation process within the Tomingley Gold Operations, Dubbo Project and exploration and evaluation projects, such as the Peak Hill Gold Project, including:

- oversight and approval of each annual statement by the Technical Director;
- establishment of internal procedures and controls to meet JORC Code 2012 compliance in all external reporting;
- independent review of new and materially changed estimates;
- annual reconciliation with internal planning to validate reserve estimates for operating mines; and
- Board approval of new and materially changed estimates.

Tomingley Gold Operations – Mineral Resources

The TGO has been operating since January 2014 and consequently the geology, mineralisation style, metallurgy, recovery, mining parameters and modifying factors have previously been well documented and reported. To ensure the resources have 'reasonable prospects of eventual economic extraction', the open pittable resources have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,000 per ounce with the potential open pittable component assessed at ≥0.5g/t gold cut off. The underground resource is restricted to material below the current final pit design, below the highest stope level currently designed, with potential for eventual extraction by underground mining methods assessed at ≥1.3g/t gold.

A cut-off grade off grade (COG) of 1.3g/t has been used to estimate the underground resource based upon existing operating parameters and costs and a gold price of A$2,000 per ounce. As with the open pit resource the estimate was based on a block count method of all material above the cut-off grade. The constraints used are based on all material below current open pit surface +1.3 g/t but below the top RL of current UG stope designs which is in this case below the 180mRL.

This resource is significantly different to the 2018/2019 resource reported, as the COG has been reduced from +2.5g/t to +1.3g/t. With further drilling particularly in the southern extension of the Hanging Wall Zone (801), stopes have been designed up to the 180mRl compared to 100mRl in the 2018/2019 statement.

These estimates take into account ore depleted by mining during the 2020 financial year and are set out in the tables below.

Mineral Resources

TOMINGLEY GOLD PROJECT TGO MINERAL RESOURCES (as at 30 June 2020)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Resources (cut off 0.50g/t Au)									
Wyoming One	624	1.8	428	1.3	107	0.7	1,159	1.5	57
Wyoming Three	86	2.0	16	1.3	33	1.4	135	1.7	8
Caloma	879	1.6	1,016	1.2	824	1.2	2,719	1.3	115
Caloma Two	64	2.3	812	2.0	26	1.4	902	2.0	58
Sub Total	**1,653**	**1.6**	**2,272**	**1.6**	**990**	**1.2**	**4,915**	**1.5**	**238**
Underground Resources (cut off 1.3g/t Au)									
Wyoming One	664	2.8	1,390	2.9	427	2.8	2,481	2.9	228
Wyoming Three	46	2.2	24	2.0	20	1.9	90	2.1	6
Caloma	158	2.6	129	2.0	465	1.9	752	2.0	50
Caloma Two	-	0.0	785	2.4	426	2.0	1,211	2.3	88
Sub Total	**868**	**2.8**	**2,328**	**2.7**	**1,338**	**2.2**	**4,534**	**2.6**	**372**
TOTAL	**2,521**	**1.8**	**4,600**	**2.2**	**2,328**	**1.5**	**9,449**	**1.9**	**610**

Apparent arithmetic inconsistencies are due to rounding

These Mineral Resources are wholly inclusive of Ore Reserves.
Full details are given in Appendix 1 (Table1, Sections 1-3; JORC 2012).

Tomingley Gold Operations – Ore Reserves

Despite the substantial and sustained improved gold price over the past 12 months, the only change to the **Open Pit Ore Reserves** was the inclusion of the previously designed Caloma north-east cutback in the production plan. All other reserve estimates remained unchanged and were reported in the ASX Announcement of 23 September 2019. Full details and JORC tables were included in those announcements and 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.

The open pit ore reserves for Caloma are based on the latest site operating information. This includes:

- EOM December 2018 survey surface which delineates completion of previous open pit mining activity;
- Latest grade control and resource block models;
- Pit designs based upon review by geotechnical consultants; and
- Life of Mine cost and revenue models for the operation.

An initial estimate of **Underground Ore Reserves** was completed in 2018 at a 2.50g/t Au and was reported in ASX Announcements of 4 and 11 June 2018. Underground development commenced mid 2019 and is on schedule, with recovery and delivery of ore to the plant ROM commenced early 2020. Full details and JORC tables were included in those announcements and 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 apart from those defined below, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Current mining activities comprise of underground mining of Wyoming One and access development to the Caloma orebodies.

Three mining methods are used to mine the underground resource including Modified AVOCA stoping, Longhole Open Stoping (LHOS) with cemented rockfill and top-down LHOS with rib pillars and no fill. The choice of mining method is determined by value of the resource, orebody width and geotechnical factors.

Stoping configurations are predominantly single-lift stoping (25m vertical interval) with strike length of 20-25m. The stoping method involves establishing a slot using conventional long-hole drill and blast techniques and then the stoping front is retreated along strike. The installation of brow cables and the use of a concurrent strike-retreat blasting sequence assist in controlling ground stability. Depending on the mining method used cemented rockfill or loose rockfill is filled into the stopes upon completion of mining. For the LHOS with rib pillars there is no placement.

Ore production is scheduled at 800 ktpa which is trucked to surface using a fleet of four underground trucks. The truck fleet is matched with four Caterpillar R2900 loaders operating on a combination of tele-remote and manual control. Normal drilling fleet includes two development jumbos and two production drills.

The reported Ore Reserve is based on the Measured and Indicated Mineral Resources within the defined underground resource base at 1.3g/t Au cut-off and gold price of $2,000 per ounce and application of the current site based mine design.

Full Open Pit details are given in Appendix 2 (Table1, Section 4; JORC 2012) and full Underground details are in Appendix 3 (Table 1 Section 4; JORC 2012).

TOMINGLEY GOLD PROJECT TGO ORE RESERVES(as at 30 June 2020)							
DEPOSIT	PROVED		PROBABLE		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Reserves (cut off 0.50g/t Au)							
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	450	1.7	119	1.2	569	1.6	30
Caloma Two	0	0.0	0	0.0	0	0.0	0
Stockpiles	677	0.7	0	0	207	0.8	6
Sub Total	**1,127**	**0.7**	**119**	**1.7**	**776**	**1.4**	**36**
Underground Reserves (cut off 1.3g/t Au)							
TGO underground	573	1.9	1618	2.0	2,191	2.0	140
Sub Total	**573**	**2.7**	**1,618**	**3.2**	**2,191**	**3.1**	**140**
TOTAL	**1,700**	**1.8**	**1,737**	**1.9**	**2,967**	**1.8**	**176**

Apparent arithmetic inconsistencies are due to rounding

The tables below compare the Mineral Resources and Ore Reserves year on year with 2020 as per the current reporting requirements.

Comparison of 2019/ 2020 TGO Mineral Resources and Ore Reserves

TOTAL COMPARATIVE RESOURCES						
	2019			2020		
DEPOSIT	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)
Open Pit						
Wyoming One	1,303	1.6	60	1,159	1.5	57
Wyoming Three	135	1.7	8	135	1.7	8
Caloma	2,735	1.3	116	2,719	1.3	115
Caloma Two	902	2	58	902	2.0	58
Sub Total	**5075**	**1.5**	**242**	**4915**	**1.5**	**238**
Underground						
Wyoming One	896	3.9	113	2481	2.9	228
Wyoming Three	20	3.4	2	90	2.1	6
Caloma	154	3.5	17	752	2	50
Caloma Two	294	3.5	33	1211	2.3	88
Sub Total	**1364**	**3.8**	**165**	**4534**	**2.6**	**372**
TOTAL	**6,439**	**2**	**407**	**9,449**	**1.9**	**610**

Apparent arithmetic inconsistencies are due to rounding

TOTAL OPEN PIT RESERVES						
	2019			2020		
DEPOSIT	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)
Wyoming One	0	0.0	0	0	0.0	0
Wyoming Three	0	0.0	0	0	0.0	0
Caloma	0	0.0	0	569	1.6	30
Caloma Two	0	0.0	0	0	0.0	0
Stockpiles	677	0.7	15	207	0.8	6
TOTAL	**677**	**0.7**	**15**	**776**	**1.4**	**36**

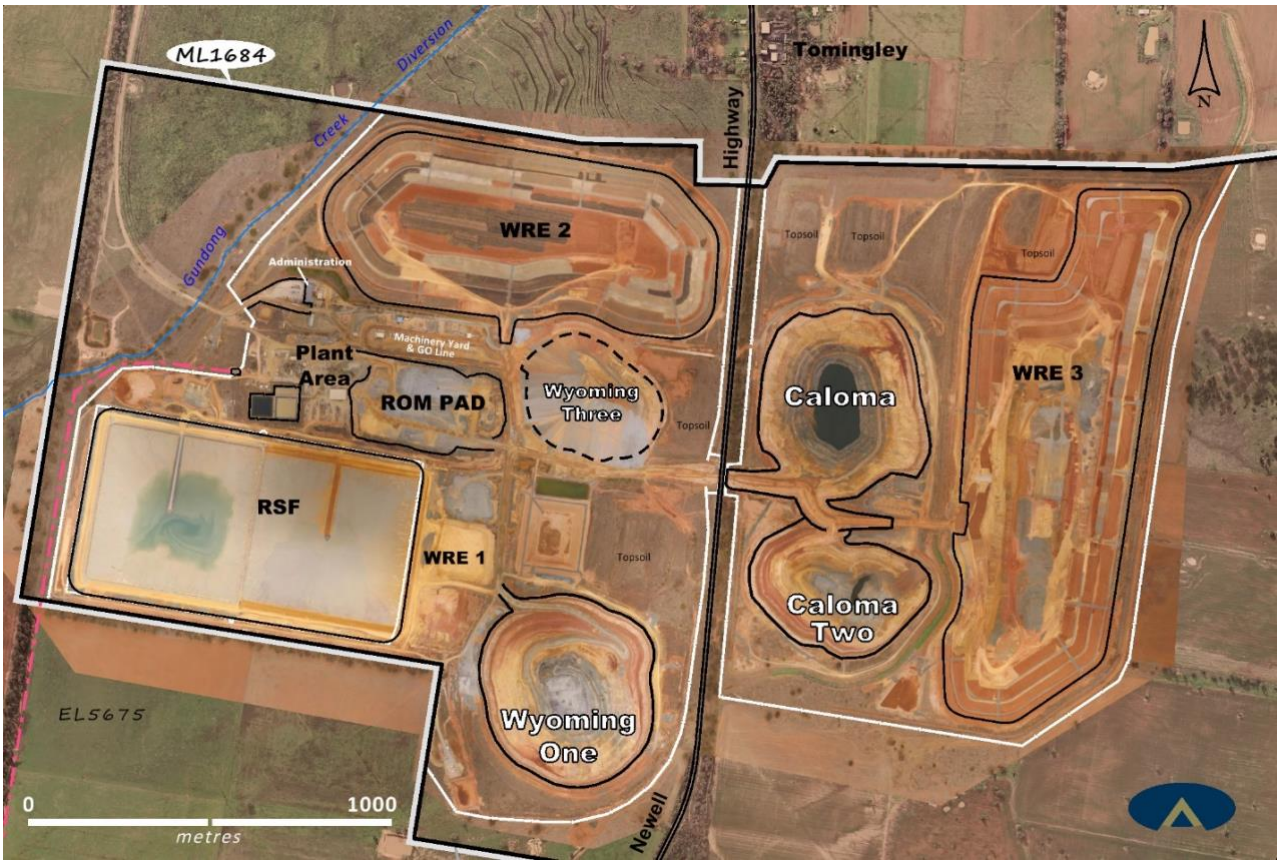
Apparent arithmetic inconsistencies are due to rounding

	TOTAL UNDERGROUND RESERVES					
	2019			2020		
SOURCE	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)	Tonnage (Kt)	Grade (g/t Au)	Gold (koz)
Proven	45	2.7	4	573	1.9	34
Probable	688	3.2	70	1,618	2.0	106
TOTAL	**732**	**3.1**	**74**	**2,191**	**2.0**	**140**

Apparent arithmetic inconsistencies are due to rounding

The primary differences from 2019 to 2020 are:

- Caloma 1 cut back placed into the reserves;
- Underground cut-off grade reduced from +2.5 g/t to +1.3 g/t; and
- Underground mining commenced 2019 with ore extraction occurring mid 2019.



Tomingley Gold Project – Roswell and San Antonio

The Tomingley Gold Project (TGP) covers an area of approximately 440km^2 stretching 60km north-south along the Newell Highway from Tomingley in the north, through Peak Hill and almost to Parkes in the south. During FY20 an extensive drilling program targeted two prospects at **Roswell** and **San Antonio** within the geologically prospective corridor immediately to the south of TGO. A total of 280 holes for 69,242 metres (38 core holes for 17,438m and 242 RC for 51,986m) were completed.

The geology and mineralisation at Roswell and San Antonio is identical to that at the Tomingley operations and preliminary metallurgical tests confirmed a recovery profile similar to TGO. Using the TGO cost structures, simple pit shells were estimated to confirm the resources have 'reasonable prospects of eventual economic extraction' the open pittable resources have been restricted by an indicative optimised pit shell estimated at a gold price of A$2,000 per ounce

An initial Inferred Resource has been calculated on the **Roswel**l deposit with a nominal 40m drill hole spacing, strike length of 600m to an average depth to -50mRL (approximately 300m below the ground surface) and details are reported in the ASX Announcement 28 January 2020.

An initial Inferred Resource has been estimated on the **San Antonio** deposit with a nominal 40m drill

hole spacing and calculated to the 12mRL, an average of 250m below the ground surface. Details are provided in the ASX Announcement 20 April 2020.

Full details and JORC tables were included in the announcements and 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 announcements.

TOMINGLEY GOLD PROJECT SAR MINERAL RESOURCES (as at 30 June 2020)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Total Resources (cut off 0.50g/t Au)									
ROSWELL					7,020	2.0	7,020	2.0	444.7
SAN ANTONIO					7,920	1.8	7,920	1.8	453.3
TOTAL					14,940	1.9	14,940	1.9	898

Apparent arithmetic inconsistencies are due to rounding

Peak Hill Gold Project

The Peak Hill Gold Project is located 15km south of Alkane's operating Tomingley gold mine (TGO). The Peak Hill Gold Mine (**PHGM**) was a fully operational open pit gold mine that is currently under care are and maintenance with most site rehabilitation completed away from the existing open cuts. There are four pits, the main Proprietary-Parkers Pit and three satellite pits, Bobby Burns, Crown and Great Eastern.

A review of the existing database in 2018 defined a resource beneath the Proprietary (220mRL – -45mRL) at a 2.0g/t gold lower cu-off. The Proprietary underground deposit is approximately 250m long and 30m wide and the resource estimate was depleted for the known historical underground workings. Details of the project and underground Mineral Resource estimation were given in the ASX Announcement of 18 October 2018.

Mineral Resources

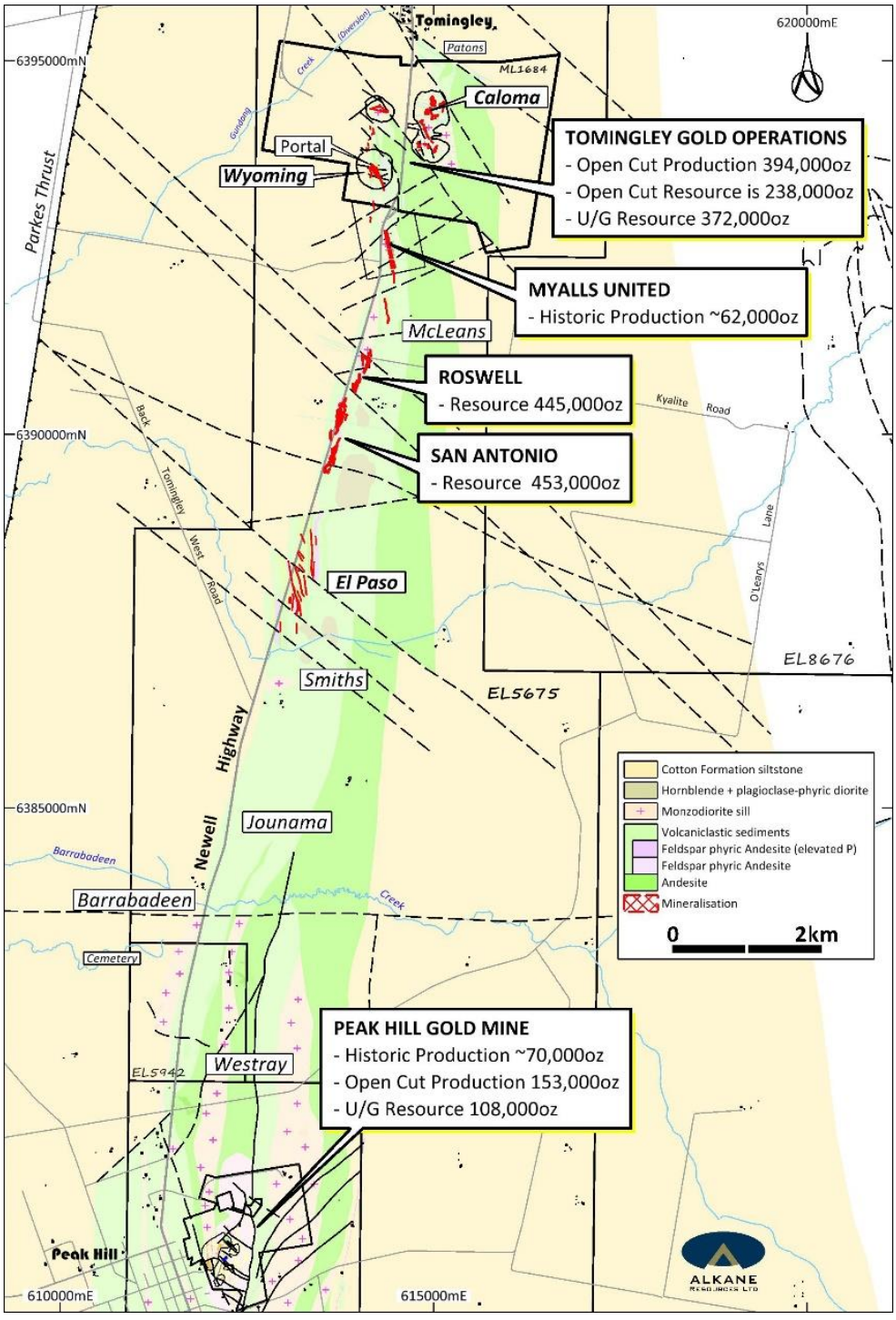
PEAK HILL GOLD PROJECT MINERAL RESOURCES (as at 30 June 2020)						
Deposit	Resource Category	Cut-Off	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)	Copper Metal (%)
Proprietary Underground	Inferred	2g/t Au	1.02	3.29	108	0.15
TOTAL			1.02	3.29	108	0.15

Full details and JORC tables were included in that announcement and 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.

Comparison of 2019 / 2020 Peak Hill Gold Project Mineral Resources

The Mineral Resource estimate was initially completed in October 2018.

PEAK HILL COMPARATIVE MINERAL RESOURCES (30 June 2020)								
Deposit	2019				2020			
Proprietary U/G	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)	Copper Metal (%)	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)	Copper Metal (%)
Inferred Resource	1.02	3.29	108	0.15	1.02	3.29	108	0.15
TOTAL	**1.02**	**3.29**	**108**	**0.15**	**1.02**	**3.29**	**108**	**0.15**



Competent Persons

*This **Mineral Resources and Ore Reserves Statement as a whole** has been approved by Mr D Ian Chalmers, FAusIMM, FAIG, (executive 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 a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Chalmers has provided his prior written consent to the inclusion in this report of the Mineral Resources and Ore Reserves Statement in the form and context in which it appears.*

*The information in this report that relates to the **TGO Mineral Resource** estimates is based on, and fairly represents, information which has been compiled by Mr Craig Pridmore, Geology Manager Tomingley Gold Operations, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Alkane Resources Ltd. Mr Pridmore has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Pridmore consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.*

*The information in this report that relates to the **TGO Open Pit Ore Reserve** estimate is based on, and fairly represents, information which has been compiled by Mr John Millbank (Proactive Mining Solutions), an independent consultant, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Millbank has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Millbank consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.*

*The information in this report that relates to the **TGO Underground Ore Reserve** estimate (fully reported 4 and 11 June 2018) is based on, and fairly represents, information which has been compiled by Mr Christopher Hiller (Hiller Enterprises Pty Ltd), an independent consultant, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hiller has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hiller consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.*

*The information in this report that relates to **Roswell and San Antonio Mineral Resource** estimate is based on information compiled by Mr David Meates MAIG, (Alkane Exploration Manager NSW) 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 a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Meates has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to the **PHGP Mineral Resource** estimate is based on, and fairly represents, information which has been compiled by Mr Craig Pridmore, Geology Manager Tomingley Gold Operations, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Alkane Resources Ltd. Mr Pridmore has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Pridmore has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

Disclaimer

This report 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 report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

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 country 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 Geoscientists.

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

ABOUT ALKANE - www.alkane.com.au - ASX: ALK and OTCEF: ALKEF

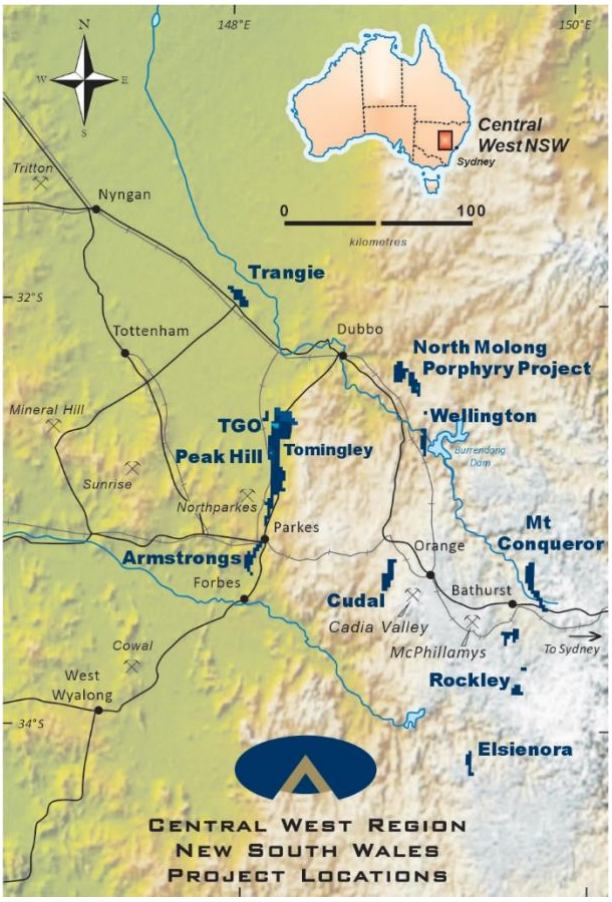
Alkane Resources is poised to become Australia's next multi-mine gold producer.

The Company's current gold production is from the Tomingley Gold Operations in Central West New South Wales, where it has been operating since 2014 and is currently expediting a development pathway to extend the mine's underground and open pit potential.

Alkane has an enviable exploration track record and controls several highly prospective gold and copper tenements. Its most advanced exploration projects are in the tenement area between Tomingley and Peak Hill, which have the potential to provide additional ore for Tomingley's operations.

Alkane's exploration success includes the landmark porphyry gold-copper mineralisation discovery at Boda in 2019. With a major drill program ongoing at Boda throughout 2020, Alkane is confident of further consolidating Central West New South Wales' reputation as a significant gold production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~15% of Genesis Minerals (ASX: GMD) and 13% of Calidus Resources (ASX: CAI).



APPENDIX 1

JORC Code, 2012 Edition – Table 1 report – Wyoming One

(For Caloma 2 and Caloma 1 JORC Table 1 report refer to ASX release 04/09/17)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The Wyoming One area has been evaluated using air core (AC), reverse circulation (RC) and diamond drilling (DD) techniques between May 2001 and June 2020 although not all of this drilling lies within the current resource outline. AC - 185 holes for 14593.8m – inclusive of 3 pre-collars totalling 294.2m RC - 149holes for 25356m – inclusive of 29 pre-collars totalling 4552.9m RC Grade Control – 1062 hole for 28366m DD - 39 holes totalling 83037.65m Face samples: 535 totalling ~3251 samples Sludge samples: 87 holes ~1283 samples AC samples were collected in large plastic bags at one metre intervals via a cyclone RC samples were collected at one metre intervals via a cyclone. DD sample intervals were defined by geologist during logging to honour geological boundaries. The resource model includes Grade Control holes drilled within the Wyoming 1 pit. These RC Grade control holes have limited impact on the Wyoming 1 Underground estimation, but were essential to the creation of the entire geological model.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	AC and RC drilling completed to industry standards. Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 3 or 6m) and labelled with the hole number, down hole depth, length of drill run. Core was aligned and measured by tape, comparing back to this down hole depth consistent with industry standards.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	AC drilling samples collected at 1m intervals via a cyclone into large plastic bags. RC Drilling – the entire RC sample was collected at 1m intervals and delivered into a large plastic bag via a cyclone. DD Drilling – sample intervals were defined by geologists during logging to honour geological boundaries and cut in half with a saw. All Underground diamond holes were full core sampled. Intervals were honoured to match geological boundaries. All samples sent to the laboratory were crushed and/or pulverised to produce a ~100g pulp for assay process. All 1m RC & AC samples and core samples were fire assayed using a 50g charge and all RC and AC composite samples fire assayed using a 30g charge. Visible gold was occasionally observed in both core and AC/RC samples

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Initial reconnaissance drilling was completed to fresh rock using 75mm or 100mm air core with follow-up and deeper drilling completed by RC (usually 126 - 140mm diameter). Detailed resource definition drilling was completed primarily by RC techniques using a 130mm or 140mm diameter face sampling hammer. DD holes were pre-collared using either RC techniques or un-oriented PQ3 (83mm diameter) core drilling. Pre-collars were completed to competent material, with holes cased off and completed to depth using HQ3 (61mm diameter) core. The 2016/2017 Diamond drilling was collared with PQ3 and were reduced to HQ3 when the ground became competent. The HQ3 core was oriented using the 'BallMark', 'EzyMark' or 'Ace' (Reflex Act) core orientation tool depending upon the contractor and time period of when the drill program was drilled. All Underground diamond holes have been drilled using NQ core diameter.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	AC and RC - sample recovery was visually estimated and was generally very good (>90%) aided by the use of oversized shrouds through oxide material. Samples were even in size. Samples were rarely damp or wet. Sample quality was assessed by the sampler by visual approximation of sample recovery and if the sample was dry, damp or wet. A riffle splitter was used to ensure a representative sample was achieved for 1 metre samples. DD - core loss was identified by drillers and calculated by geologists when logging. Generally ≥95% was recovered and any loss was usually in portions of the oxide zone. Triple tube Large diameter, triple tube core (PQ3) was used through the oxide material to ensure the greatest recovery.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	*RC drilling was completed using oversized shrouds to maintain sample return in oxide zone and all samples were split using riffle or cone splitters. Use of RC rigs with high air capacity assists in keeping samples dry.* Triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core used in the oxide and saprolite zones.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	There is no known relationship between sample recovery and grade.
He Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	*AC & RC - each one metre interval was geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage).* *DD - all core was laid out in core trays and geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). A brief geotechnical log was also undertaken collecting parameters such as core recovery, RQD, fracture count, and fracture type and orientation. With the surface and underground Diamond programs, specific zones of the core has full geotechnical analysis undertaken. This included Alpha, Beta measurements for all fractures and internal structures, fracture fill type etc*
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	*All logging was qualitative with visual estimates of the various characteristics. Magnetic susceptibility data is quantitative.*

Criteria	JORC Code explanation	Commentary
		AC & RC - A representative sample of each one metre interval is retained in chip trays for future reference. DD - Core was photographed and all un sampled core is retained for reference purposes. Underground grade control diamond core unsampled material has been thrown away.
	• *The total length and percentage of the relevant intersections logged.*	All DD core and AC/RC chip samples have been geologically and geotechnically logged by qualified geologists.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	Surface DD - zones of visual mineralisation and/or alteration were marked up by the geologist and cut in half using an Almonté (or equivalent) core cutting saw. Samples submitted for analysis were collected from the same side in all cases to prevent bias. Sampling intervals were generally based on geology, were predominantly over 1m intervals but do not exceed 1.2 metres in length. The minimum core sample length was 0.3m. All mineralised zones were sampled, plus ≥6m of visibly barren wall rock. Underground DD: - zones of visual mineralisation and/or alteration were marked up by the geologist, Sampling intervals were generally based on geology, were predominantly over 1m intervals but do not exceed 1.3 metres in length. The minimum core sample length was 0.3m. All mineralised zones were sampled, plus ≥6m of visibly barren wall rock. Laboratory Preparation – drill core was oven dried prior to crushing to <6mm using a jaw crusher, split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples were discarded. A pulp packet (±100g) is stored for future reference
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	*AC/RC – samples were collected at 1m intervals via a cyclone into large plastic bags. Spear samples were collected from each 1m sample and composited to 3m for initial analysis. Individual 1m samples from all composites assaying ≥0.2g/t Au were riffle split and resubmitted for analysis.* *Rare damp or wet samples were recorded by the sampler.* Laboratory Preparation – the entire RC sample (3kg) was dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples were discarded. A pulp packet (±100g) is stored for future reference.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Alkane (ALK) sampling techniques are of industry standard and considered adequate.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	AC – field duplicate samples were not regularly submitted for reconnaissance AC drilling RC – field duplicate samples collected at every stage of sampling to control procedures. DD – external laboratory duplicates used.
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	RC - Duplicate samples were riffle split from bulk sample. Duplicates show generally excellent repeatability, indicating a negligible “nugget” effect.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sample sizes are industry standard and considered appropriate.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	*For all 1m samples used in the resource estimate gold was determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill was dissolved in aqua regia and gold determined by flame AAS. For 3m composite samples gold was determined using a 30g charge (more rarely 50g charge).* For other geochemical elements, samples were digested in aqua regia with each element concentration determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. These additional elements were generally only used for geological interpretation purposes, are not of economic significance and are not routinely reported.
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Not applicable to this report or deposit.
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	*Commercially prepared Certified Reference Materials (CRM) and blanks were inserted at 1 in 50 samples. CRM's were not identifiable to the laboratory.* *Field duplicate samples were inserted at 1 in 50 samples (alternate to CRM's) for RC drilling programs.* *Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data was reported for each sample submission.* *Failed standards result in re-assaying of portions of the affected sample batches.*
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	Drill data was compiled and collated, and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary.
	• *The use of twinned holes.*	Twinned holes have not been used at Wyoming One as twinning provides verification only for extremely limited areas of a deposit.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	*All drill hole logging and sampling data was hard keyed into Excel spreadsheet for transfer and storage in the Datashed database with verification protocols in place.* All primary assay data was received from the laboratory as electronic data files which were imported into sampling database with verification procedures in place. QAQC analysis was undertaken for each laboratory report. Digital copies of Certificates of Analysis (COA) are stored in a central database with regular (daily) backup. Original survey data is stored on site. Data was also verified on import into mining related software.
	• *Discuss any adjustment to assay data.*	No assay data was adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	*Drill holes were laid out using hand held GPS (accuracy ± 2m) then surveyed accurately (± 0.1m) by licensed surveyors on completion.* *RC & AC drill holes were surveyed using a single shot electronic camera at a nominal 30m down hole intervals.* DD holes were surveyed at nominal 30m down hole during drilling to maintain drilling direction and then at 6m intervals on retrieval of rod string using a multi shot electronic camera. Some

Criteria	JORC Code explanation	Commentary
		of the more recent surface Diamond holes from the 2016/2017 program were surveyed by nth seeking gyro.
	• *Specification of the grid system used.*	All drill holes were originally laid out in AMG66 grid however since mining commenced in February 2014 have been transformed to MGA94 grid system to conform to reporting requirements for mine operations.
	• *Quality and adequacy of topographic control.*	The area is very flat. A site based digital terrain model was developed from accurate (± 0.1m) survey control by licenced surveyors.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	The majority of drilling at Wyoming One within the open pit was completed along east-west lines spaced 25m apart. However once the east-west lode orientation was confirmed for the '376' zone (this zone is the high grade mineralisation on the eastern contact of the porphyry intrusive contact) this portion of the deposit was assessed by south drilled holes was completed along north-south sections spaced 25m apart. The Underground infill drilling during the 2016/2017 campaign was drilled to ensure the drill hole intercept spacing within each lode was covered to a nominal 30m pattern. The drilling direction of these holes was optimised best as practical to the orientation of the mineralisation and geology to remove/reduce any potential sample bias for the estimation. The drill hole spacing is similar to that used at other Tomingley deposits and has been established to be sufficient. Surface in-pit RC Grade control drilling has was undertaken on a nominal 15m x 20m drill spacing on all ore lodes.
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	The drill hole spacing has been shown to be appropriate by the visible continuity of mineralisation and geology between drill holes.
	• *Whether sample compositing has been applied.*	Sample compositing was not applied until resource estimation stage. RC & AC – samples were composited to 3m with 1m resamples assayed if the composite returned a gold value of >0.2g/t gold. One metre samples override 3m composites in the database. DD – core was sampled to geology.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Much care was given to attempt to intersect mineralisation at an optimal angle but in complex ore bodies this can be difficult. As noted above, drilling at Wyoming One was initially completed along both east-west and north-south lines, depending upon which portion of the deposit was being assessed.
	• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	It is not thought that drilling direction will bias assay data at Wyoming One however east-west drilling will not provide optimum intersection of the 101' lode in the north where the 101 lode folds around the porphyry contact. The 2016/2017 drilling campaign specifically targeted the High grade mineralisation associated with the previously known "376" structure (now referred to as the High Grade porphyry lode). These holes were orientated to intersect this mineralisation at an optimal angle and to confirm the mineralisation thickness.

Criteria	JORC Code explanation	Commentary
		Targeted Underground grade control drilling, Sludge sampling, Face sampling and mapping the development of this area has significantly improved the lode geometry in this area of the 101 lode and converted a significant portion into a measured resource classification.
Sample security	• *The measures taken to ensure sample security.*	All samples were bagged in tied numbered calico bags, grouped into larger tied polyweave bags and transported to the laboratory in Orange by Alkane personnel or courier. Sample submission sheets were delivered with the samples and also emailed to the laboratory. All sample submissions were documented via ALS tracking system and all assays were reported via email. Sample pulps were returned to site and were stored for an appropriate length of time (minimum 3 years). The Company has in place protocols to ensure data security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Company does not routinely have external consultants verify exploration data until resource estimation procedures are deemed necessary. The Wyoming data was reviewed in 2010 and 2011 by Behre Dolbear (BDA) as part of the due diligence phase of the development of the project. BDA did not express any specific concerns with respect to the data other than to recommend the completion of some round robin assaying and completion of additional density determinations, both of which were undertaken for the Caloma Two and Wyoming 1 resource drilling.

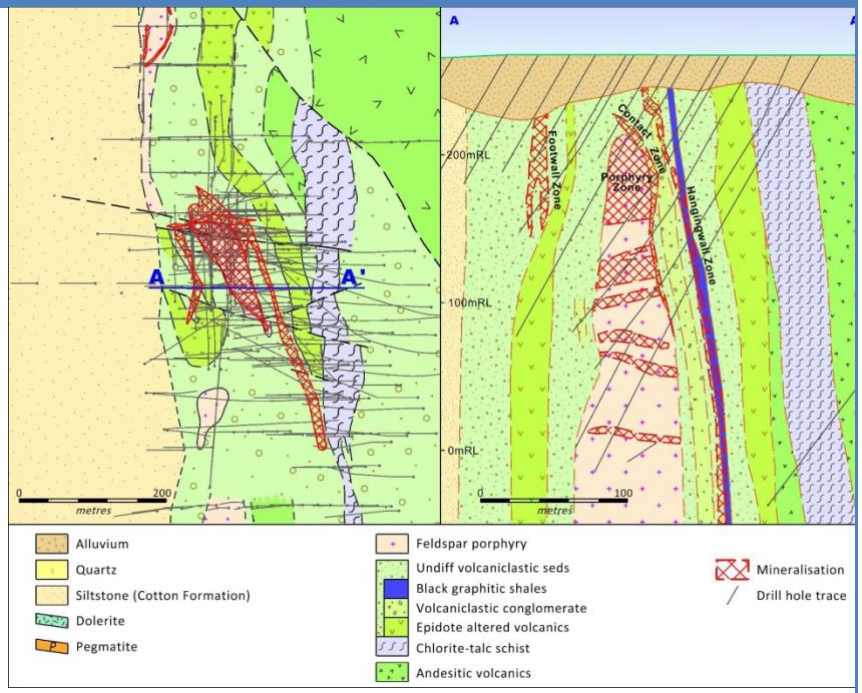
Section 2 Reporting of Exploration Results

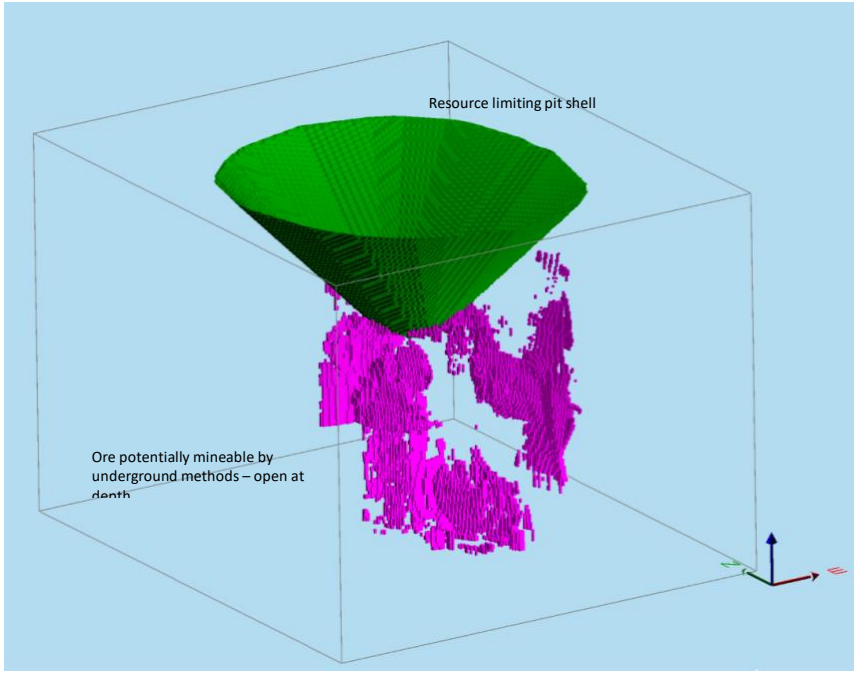
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The Wyoming One deposit lies within ML 1684 which is held in the name of Tomingley Gold Operations Pty Ltd, a wholly owned subsidiary of Alkane Resources Ltd.
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	ML1684 expires on 11 February 2034.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	All reported drilling has been completed by ALK.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Geological nature of the Tomingley Deposits is well documented elsewhere. Mineralisation is associated with quartz veining and alteration focused within sub-volcanic basaltic-andesite sills and adjacent volcaniclastic sediments. The deposits appear to have formed as the result of a rheological contrast between the porphyritic sub-volcanic sills and the surrounding volcaniclastic sediments, with the sills showing brittle fracture and the sediments ductile deformation, and have many similarities to well documented orogenic - lode-style gold deposits.

Criteria	JORC Code explanation	Commentary
		Mineralisation at Wyoming One is developed within a number of different zones which have been domained based on the geology, style of mineralisation and continuity of high mineralisation that can be separated: *Porphyry* – mineralisation hosted by a quartz stockwork within the carapace of a sub-volcanic sill with dimensions roughly 60m x 150m. High grade mineralisation is developed along the eastern and northern contact of the sediment and porphyry. This High Grade mineralisation on the contact has been domained separately for the estimation and is currently referred known as the "High Grade porphyry lode" mentioned below. Within the main porphyry body there are several internal mineralised stacked lodes that dip 45° to the NE. These structures were evident from the close spaced open pit RC Grade control drilling. Underground Diamond drilling has confirmed these stacked lodes and the targeting and defining of more internal porphyry mineralised structures will be a focus as mining continues. *Hangingwall* – a linear zone of mineralisation situated approximately 30m to hanging wall of the 'porphyry' mineralisation and hosted within quartz veins within silicified fine grained sediments and a brecciated carbonaceous mudstone. This zone is lithologically constrained with these fine grained sediment package which folds around the northern end of the porphyry; *'High Grade Porphyry Lode"'* –This zone was previously known as the '376" structure interpreted to be a bounding structure and primary fluid conduit. This High Grade zone of mineralisation is developed at the eastern and northern contact of the porphyry and incorporates some of the contact metasediments which were impacted by the mineralisation. *Footwall* – a low grade zone located in a similar stratigraphic position to the hangingwall zone but footwall to the porphyry
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	Too numerous and not practical to summarise all drill hole data used. All drilling results have been reported previously
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Exclusion of drill hole data will not detract from the understanding of this report. All drill data has been previously reported, holes are close spaced and in an operating mine area.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	*Previously reported results have been –* *For uncut gold grades;* *Intercepts were defined (bounded) by 0.5g/t gold outer limit and may contain some internal waste;* Only intervals grading ≥1 g/t gold were reported; Grades were calculated by length weighted average.

Criteria	JORC Code explanation	Commentary
	• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	Exploration results have been previously reported as length weighted average grades with internal high grade intercepts reported separately.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* ○ *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* ○ *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Previously reported exploration results include the drilled width and an estimate of true width.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	*Cross sections and a plan showing geology with drill collars were included with previously reported exploration results. A typical plan and cross section are included below.*

Criteria	JORC Code explanation	Commentary
		
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Data relating to all exploration drill holes has been reported in previous documentation of exploration results.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	No additional or new drilling results are being reported at this time.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	The Wyoming 1 underground commenced in January 2019. Extensive underground Grade control Diamond drilling has occurred since the start up and within the reporting period. This drilling will continue to infill the known mineralisation and also look towards along strike and down dip extensions of the ore lodes.

Criteria	JORC Code explanation	Commentary
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The upper portions of the Wyoming One deposit are well constrained by drilling however the high grade structures remain open at depth. 

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	Logging data was entered into Excel via drop down menus. All raw data was loaded directly to the Access database from the assay, logging and survey derived files. (Datashed is the Companies Drill hole Database platform.
	• *Data validation procedures used.*	There are validation checks to avoid duplications of data. The data were further validated for consistency when loaded into Datashed and desurveyed. An extensive check on the consistency and adequacy of down-hole survey datahas continued throughout the projects inception. .
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *(If no site visits have been undertaken indicate why this is the case.)*	No site visit was undertaken by an external consultant since the release of the previous 2014 Underground release. Since the last release the geological/structural model of the Wyoming 1 deposit has been updated based on the mapping of the geology exposed within the development of the underground.. All geostatistical analysis for the resource estimation was undertaken by Cube Consultancy who are based in Perth. The quoted resources were compiled by Mr Craig Pridmore, Geology Manager, Tomingley Gold Operations Pty Ltd, who has worked at TGO site since March 2015.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The geological model was built on structural data from core lithological logging, in pit Grade control logging,pit mapping, and underground mapping. The domain wireframes were built by the Alkane geologists most familiar with the deposit.
	• *Nature of the data used and of any assumptions made.*	Structural measurements from oriented drill core were used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips and drill core. Mapped lithological contacts have been surveyed and digitised to complete the current model.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	The Wyoming One deposit was been drilled at a close-spacing in several different drilling campaigns and in several different drilling directions, reducing the likelihood that the geological interpretation will change significantly.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	Geological (lithological) logging,in pit and underground mapping was used to develop a geological model. Alteration and mineralisation estimates along with grade guided the interpretation of the ore envelope wireframes at a nominal 0.5g/t Au lower cut-off. Gold mineralisation at Wyoming One has a close spatial relationship to feldspar porphyry which intrudes into andesitic volcaniclastic rocks and metasedimentary pelitic rock sequences. Mineralisation is associated with extensive alteration and quartz veining of the porphyry and volcanic rocks. In pit mapping has generally verified the geological interpretation on a macroscopic scale.
	• *The factors affecting continuity both of grade and geology.*	Mineralisation is directly associated with alteration and quartz veining.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The mineralisation occurs in several zones within a NNW-striking corridor 300m long and 220m wide. Mineralisation extends from about 25m below the surface for more than 400m vertical depth.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	13 mineralisation wireframes (domains) were interpreted by the Alkane geologists most familiar with the deposit to constrain the estimation. This includes an enclosing background domain which was modelled to capture minor mineralization outside the main domains. Four surfaces were also used to separate material types - topography, alluvium, saprolite and base of oxidation surfaces. The material type classification was used to allocate density values. The drill hole data were flagged by the domain wireframes in priority order, to prevent double use the data in the intersecting zones. The samples were composited to 1m, the most common sample length and flagged by the topography, alluvium, saprolite and base of oxidation surfaces. Top-cuts were selected for each domain based on histograms, probability plots and cutting statistic plots. The top-cuts ranged from 7g/t gold to 40.0 g/t gold. In November 2019 Cube consultancy reviewed the drill data in Wyoming 1. The composite gold grades were first transformed to Standard Gaussian space in order to elucidate the underlying spatial structure. A Gaussian Variogram was then produced before back-transformed to real space for use in in Wyoming 1 DOK process. Reasonably robust variogram models were obtained for all estimation domains. Each domain used in the estimation had its own variogram model. The Underground Resource model incorporates the entire Wyoming 1 project and includes the estimation for the open pit. The Estimation technique used was Ordinary Kriging. A check estimate was made using the Inverse Distance Squared method. The minimum samples, maximum samples and search parameters used in the ID2 check estimate are were the same as the Kriged estimation values. Surpac was used for estimation. The orientation of the search ellipse for each domain was controlled by a Dynamic Anisotropy model that provided a unique dip and dip-azimuth for each block. Grade control drilling data is incorporated with exploration data and a new block model generated using the same parameters as the resource model for that sector of the ore body subject to the grade control drilling. .
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	The estimates were compared to those of previous published resource estimate made by Alkane. The variance between the models is based on modifications to the geological domains and mineralised domains which have been updated. These modifications were based on the in-pit geological mapping, underground mapping and greater definition through a significant underground grade control program and additional surface diamond holes.
	• *The assumptions made regarding recovery of by-products.*	No assumptions made - Estimates were made for gold, arsenic and copper; only gold is of economic significance.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	No deleterious elements identified for estimation
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	The primary block size was unrotated (5mE x 5mN x 5mRL) because of the narrow steeply dipping nature of the mineralized zones. Sub-blocking of 2.5mE x 2.5mN x 2.5mRl was also used were estimated. These block sizes were employed in the open pit based on the practical mining considerations and the fact he variogram nugget effects are low.

Criteria	JORC Code explanation	Commentary
		These block sizes were used in the underground resource estimate below the open pit. The maximum search radius used was m with a search radius ratio of 3:1
	• *Any assumptions behind modelling of selective mining units.*	No assumptions were made.
	• *Any assumptions about correlation between variables.*	No assumptions made0
	• *Description of how the geological interpretation was used to control the resource estimates.*	Only data from the same domain were used to make estimates. No soft boundaries were used between domains
	• *Discussion of basis for using or not using grade cutting or capping.*	The top-cut analysis was undertaken by using a combination of histograms, log-probability plots of composite gold grade and cutting statistic plots (plots of cut-off grade against Coefficient of Variation (CV) and total metal). Using the statistical information above the top cuts were picked using the following criteria 1) By visual inspection of the log-probability plots of composite gold grade, with a view towards identifying the point at the upper tail where the robustness of the distribution breaks down and where the plot goes off trend. 2) By visual 3D inspection of the spatial location of the grade outliers and the spatial relationship to neighbouring values. While the principal estimate was made using top-cuts, a check estimate was made without top-cutting.
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The estimates were verified using several different techniques and checked for local variability by comparing the estimated block grades with the average of the top-cut composites in each block.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated on a dry tonnage basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The cut-off grade (0.50 g/t Gold) for open pit able resources is relevant for the current mining operation for similar material in the adjacent deposits.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Mining of ore from the Wyoming One ore body commenced in 2016 and to date reconciliations, save for poorly defined inferred mineralisation in the background domain, have been as expected. The Wyoming One deposit open pit has been completed and the underground resource is currently being mined by underground mining methods. No dilution factors in the resource model were applied to the Block model estimation.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions*	The metallurgy of the Tomingley deposits is well studied. The upper portion of the Wyoming 1 deposit has been completed. A total of 1.5K tonnes have been mined up to June 2020, with 2.5M tonnes of Wyoming 1 having been processed. During this time no metallurgical issues have arisen, with recoveries ranging between 88-92%.

Criteria	JORC Code explanation	Commentary
	made.	
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Project approval for the TGP was granted in July 2012 for mining from three open pits (Wyoming One, Wyoming Three and Caloma) and underground from Wyoming One deposit. Mining from the Wyoming Three and Caloma open pits commenced in December 2013 with processing of ore in February 2014. Mining of ore from the Wyoming One open pit commenced in January 2016 and was completed in January 2019. Underground mining commenced in January 2019.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Specific gravity measurements were completed by commercial laboratories on DD core samples of the different material types (alluvium, saprolite, totally oxidized and fresh). Oxidation was far more important than variations in lithology or alteration. The specific gravity measurements were applied on a dry basis. In December 2015 a large in-house density analysis campaign occurred on all the deposits with over 3,182 additional measurements taken. Using wet/dry density methods. All diamond hole drilled in the 2016/2017 campaign had SG measurements undertaken using the wet/dry method (SG = Mass of object/ (Mass of object) – (Mass of object in water). All measurements in the fresh material were constrained to each geological domain. The average Specific gravity reading was applied to each domain and used in the estimation.
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	SG measurements completed on all material types – see above.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	No assumptions made – SG determined and individual values applied to each material type based on wire-framed domain.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	The resources were classified using drill density, geological confidence and mineralisation continuity. The actual break-points for the different resource classes were chosen by inspection of the model in relation to the drilling density and geological continuity. Any blocks outside the main mineralized/geological domains were classified as Inferred.
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	Wyoming One Underground resource model which includes Grade control RC was estimated using high proportion of predominantly Diamond drill hole data.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The classification reflects the Competent Persons view of the deposit and its supporting data
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	No external reviews undertaken

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The Wyoming One deposit consists of 8 mineralisation zones; Reasonable robust variogram models were obtained for all estimation domains (undertaken by Cube consultancy). The variograms show clear evidence of a relatively low nugget effect (between 14% and 25%), with exception of the footwall lode which does not impact on the underground. This coupled with a rapid deterioration in continuity over a distance of several meters, as indicated by the first spherical structure ranges and sills. These features are evident when the composite gold values are visually inspected, with gold values generally being similar within a distance of 2m to 3m but then changing rapidly at greater distances. As a consequence, the second spherical structure does not exercise great influence over an OK estimate, generally having low sill values, with the exception of the hanging wall lode which is more continuous that the rest. No statistical or geostatistical method (non-linear or simulation) apart from ID2 estimation checks were used to quantify the relative accuracy of the estimate within confidence limits. Accuracy of the estimate is strongly dependent on: accuracy of the interpretation and geological domaining; accuracy of the drill hole data (location and values); orientation of local anisotropy; and Estimation parameters which are reflected in the global resource classification.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The quoted underground resources are global, being based on drill hole data at exploration spacing. To ensure the resources have 'reasonable prospects of eventual economic extraction' the resources have been restricted by an indicative optimised pit shell estimated at a gold price of $2000 per ounce and a gold cut off for eventual extraction by underground mining methods assessed at ≥1.3g/t gold.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Mining of ore from the Wyoming One ore body commenced in 2016 and to date reconciliations have shown that the original resource model was performing well within expectations, Save for poorly defined inferred mineralisation in the background domain. Reconciled Tonnes, grade and total ounces mined are all within ~10% of the original resource model prediction with and overall increase in ounces. Over the period of mining the Block Estimation model has been modified and improved, with the Open pit and Underground run simultaneously and captured within the same Block model The estimation method has been changed from ID2 (original resource model estimate) to Ordinary Kriging. Close spaced Grade control drilling has been ongoing since the start of the open pit. This additional data collected with the mapping justified a change in modelling parameters and estimation techniques from ID2 to Ordinary Kriging. This change in estimation method has been used for the underground resource model which is an extension of the current open pit grade control block model. Comparisons between the Open pit reconciled mined tonnes and grade, the Grade control model (same as the Underground Resource model) have shown that the reconciled mined tonnes are +17%, grade -1% with an overall increase of+15% ounces. This indicates the model being implemented does have a reasonable high level of accuracy with respect to grade estimation.

Appendix 2
Clarifications – JORC Table 1

Section 4 Estimation and Reporting of Open Pit Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	The Mineral Resource estimate that this reserve is based upon has been complied by Mr Craig Pridmore, Geology Manager for Alkane Resources Ltd. Mr Pridmore is employed at the Tomingley Gold Operation. The mineral resource estimates have been completed using block models developed by Mr Craig Pridmore for Caloma, using data supplied by Alkane Resources Ltd (Alkane). The models produced incorporated all mineralisation in the Caloma deposit to permit reconciliation of production to date. The depletion of these resource models utilised surveyed data from the end of month production records in December 2018. The following table comprises the Mineral Resources for the Tomingley Gold Project which were compiled by Mr Craig Pridmore, Geology Manager for Alkane.

TOMINGLEY GOLD PROJECT MINERAL RESOURCES (as at 30 June 2020)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Resources (cut off 0.50g/t Au)									
Wyoming One	624	1.8	428	1.3	107	0.7	1,159	1.5	57
Wyoming Three	86	2.0	16	1.3	33	1.4	135	1.7	8
Caloma	879	1.6	1,016	1.2	824	1.2	2,719	1.3	115
Caloma Two	64	2.3	812	2.0	26	1.4	902	2.0	58
Sub Total	**1,653**	**1.6**	**2,272**	**1.6**	**990**	**1.2**	**4,915**	**1.5**	**238**
Underground Resources (cut off 1.3g/t Au)									
Wyoming One	664	2.8	1,390	2.9	427	2.8	2,481	2.9	228
Wyoming Three	46	2.2	24	2.0	20	1.9	90	2.1	6
Caloma	158	2.6	129	2.0	465	1.9	752	2.0	50
Caloma Two	-	0.0	785	2.4	426	2.0	1,211	2.3	88
Sub Total	**868**	**2.8**	**2,328**	**2.7**	**1,338**	**2.2**	**4,534**	**2.6**	**372**
TOTAL	**2,521**	**1.8**	**4,600**	**2.2**	**2,328**	**1.5**	**9,449**	**1.9**	**610**

Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *(If no site visits have been undertaken indicate why this is the case.)*	The Competent Person for the Ore Reserves, Mr. John Millbank is an independent consultant engaged by Tomingley Gold Operations Pty Ltd (TGO), a whole owned subsidiary of Alkane. Mr Millbank has contributed to the mine planning processes at TGO since commencement of operations in 2013, and has been closely involved with site operations since this time. A site visit for the Ore Reserves calculations was completed from the 20th to the 24th of May 2019.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *(The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.)*	The Tomingley Gold Mine is an operational open pit mine and CIP processing plant. The mine is based on the extraction and treatment of ore from underground operations and remnant stockpiles from open cut mining operations. Previous open pits – Caloma One, Caloma Two, and Wyoming One. Wyoming Three had been completed to economic limits by June 2019. This reserve statement is based upon a cutback to Caloma One pit using current economics. The TGO processing plant utilises two stage crushing, single stage grinding and a gravity/CIL gold recovery circuit. The plant has a designated throughput of

		1.25mtpa of oxide ore and 1.0mtpa of fresh (sulphide) ore. The plant has been operational since February 2014. • The Tomingley Gold Mine was subject to a Definitive Feasibility Study including the estimation of an initial Mineral Resource and Ore Reserve for the Wyoming One, Wyoming Three and Caloma open pits (2009, 2009 and 2012 respectively). Caloma 2 has been subsequently optimized and designed using Whittle and Surpac software by Proactive Mining Solutions and in-house personnel. The current Ore Reserve has been calculated by the Competent Person using the designed pit and associated depletion as at the end of 31 December 2018. • The Site has been operational since January 2014 and has achieved the design objectives set out in the DFS. • This Reserves Statement is based upon well understood costs and physicals from what is now a mature operation. Cost modelling has been completed to a budget level. • The end of December 2018 mine survey information has been used to differentiate material mined from in-situ material.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• A lower block cut-off grade of 0.5g/t Au has been applied to the 'diluted' resource block model in calculating this Ore Reserve. The lower cut has been selected with consideration to mine ability, and incremental cash operating margins (i.e. processing costs). • The lower cut-off has been calculated based upon, - a $2000 per ounce gold price excluding royalties, - using process recoveries based on actual achieved for the historical mining of Caloma One. - estimated processing and administration costs for the life of mine plan, based upon achieved costs for the past financial year. • The cut-off grade has been verified by using costs and metallurgical recoveries from the previous mining and processing operations and expected Gold Price. The calculated lower block cut off of 0.5g/t is conservative when historic costs and processing recoveries are applied.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	Open cut truck excavator mining, with some free dig material in the upper oxide zones and drill and blast in the lower oxide and fresh materials.
	• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*	• Equipment size and methods selected typical of moderate scale open pit gold mining. 120 tonne class excavators, 90 tonne mechanical drive haul trucks. • Dual lane in pit ramps at 24 m wide and 1:8.5 gradient for the majority of the pits. Single lane ramps at 15m wide have been designed to access the final stages of the mine. These have shown to be successful for the mine so far. • Mining is on five metre high benches and is mined in two, two and a half metre high flitches, to reduce mining dilution. These flitch heights are typical for gold mining and match the size of mining equipment selected.
	• *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.*	In Pit ore boundaries are defined by Reverse Circulation Grade control drilling on 10 metre by 10 metre to 10 metre by 5 metre patterns depending on the size and quality of the mineralisation being grade controlled. Geotechnical parameters as advised by specialised geotechnical consultants for Caloma. Site visits are conducted regularly by the consultants, and parameters reviewed. Any modifications to wall design are addressed in design. The same consultants have been used at TGO since production commenced and are well familiar with the ground conditions.

	• *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*	Pit Optimisation parameters have been confirmed to an appropriate level of accuracy through subsequent mining operations, along with reconciliation of actual performance to date. Parameters have been applied directly to designs, and these designs have then been subjected to financial analysis, to confirm profitability.
	• *The mining dilution factors used.*	The resource model has been based on a model that includes all grade control information for the project to date. Grade interpolation has been completed using ordinary kriging. A second grade interpolation has been generated using mineable boundaries, and applying average grades within those boundaries. Material that has lower grade and where the average grade for the mineable block falls below cut off is set to waste. This effectively removes the interstitial low grade from ore zones and eliminates the reliance on selective mining sized blocks within the resource model. Resource definition drilling is backed by reconciliation of the project to date. Reconciliation of grade control drilling versus mill production to date in Caloma shows the grade control drilling underestimates by approximately 4% on ounces fed. No dilution factor has been applied.
	• *The mining recovery factors used.*	Assumed 100% recovery of the models, due to acceptable reconciliation to date.
	• *Any minimum mining widths used.*	Pit Design has been limited to a minimum working width of 20 metres.
	• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*	Inferred resources contained in the mineralised ore wireframes are included in the current mine schedule for Caloma. The proportion of inferred in pit resource is less than 2% of ore tonnes and is not considered significant. Reconciliations to date for Caloma One show the original resource model is over reporting tonnes by 15% and under reporting grade by 11% for a total over report of ounces by 7% against Mill feed. This is based on 100% of the original pit ore being mined thus far, and includes the inferred in pit mining resource. Reconciliation excluding the inferred resource over performs the model estimates, with 9% under reporting of tonnes, 17% over reporting of grade, and overall under reporting of 10% for contained ounces. When the au_sched grade item is applied, which has been modified to mining blocks, the overall model reporting error is 1% under on tonnes, 3% over on grade and 4% under on ounces. Consequently no further reconciliation factors have been applied to the au_sched item..
	• *The infrastructure requirements of the selected mining methods.*	• All required infrastructure is currently in place, including surface works for Caloma. There is adequate tailings storage available with the current facilities in place.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	Ore from the Tomingley Project will be treated at the Tomingley Gold Plant which is described above.
	• *Whether the metallurgical process is well-tested technology or novel in nature.*	The technology is well tested and has been successfully operated for six years.
	• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*	The DFS plan uses 96% metallurgical recovery for oxide and 91% for fresh for an overall recovery of 93%. Each pit, had specific metallurgical test work undertaken for the DFS which is made up of leach and gravity recovery. The metallurgical test work is representative of all material types and areas of the ore bodies. The range of recoveries used are within the parameters of the individual pit recoveries. Processing of ores from each pit to completion including those from Caloma , have shown process recoveries to fall within the DFS limits.

	• *Any assumptions or allowances made for deleterious elements.*	No deleterious elements extracted.
	• *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.*	Process recovery for the 2016/2017 financial year averaged 91.47%. A blend of 24% oxide and 76% fresh material was processed for the year. This results in process recovery being 1% less than the LOM Plan.
	• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	N/A – no minerals defined by a specification.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• All environmental approvals are in place for operating within the Caloma pit. • Waste will be sent to either the existing Wyoming Three or Caloma Two pit voids as backfill. • There is sufficient volume in the RSF design to allow for all the material in the LOM, including Caloma Two.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• Infrastructure has already been constructed for open pit mining and processing. Works to site included access road, a water pipeline, a 66 KV power line, site drainage, topsoil stockpiling, waste dump construction, Residue Storage Dams, Process Water Dams, associated offices, workshops, fuel and laydown areas. Sufficient site infrastructure has been constructed to process ore at 1.25 MTPA. • All surface drainage works for Caloma have been carried out. • The site relies upon local employment drawing employees from Tomingley, Peak Hill, Dubbo and Parkes Region.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.*	No allowance was made for capital costs in this reserve analysis although pre-stripping of waste for Caloma may be capitalised. The economic analysis is based on total cash costs. Projected All In Sustaining Costs have been calculated from the LOM Plan and are less than the predicted realised gold price, leaving margin.
	• *The methodology used to estimate operating costs.*	• Operating costs – Mining and Process o Current wage rates. o Projected fuel price for 2020 o Current contract rates for equipment hire, drilling contractor and explosive supplier. o Current explosives costs and estimates of requirements for blast hole drilling, blasting, excavation and processing based on the varying rock types. o Current work rates and OEM specs for excavator productivity. o Truck hours based on OEM specs and projected haul cycles from mine plan. o Contract Prices for Processing Consumables o Current contract prices for power and estimated usage o Associated onsite administration cost and a portion of head office costs are not included. These costs are distributed to existing underground operations.
	• *Allowances made for the content of deleterious elements.*	N/A – No deleterious elements extracted
	• *The source of exchange rates used in the study.*	Gold price is expressed in Australian dollars and no exchange rate is required.
	• *Derivation of transportation charges.*	No transportation charges have been applied in economic analysis as these are included in the mining costs. Ore will be delivered directly from the pit to the ROM stockpiles beside the existing plant within estimated mining costs. Gold transportation costs to the Mint are included in the refining component of the milling charges assumed in the study.

	• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*	Processing operating costs outlined above.
	• *The allowances made for royalties' payable, both Government and private.*	Royalties payable at rate of 4% ex-mine value to the NSW State Government have been considered. There are no other royalties' due.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	• Assume 100% ore mining recovery of the regularised Model. • Selling costs and Royalties included in costs to give a net revenue per ounce. • No deleterious metals present that incur smelter penalties. • A base gold price of AUD$ 2000 /Oz excluding royalties in this ore reserve assessment. • Exchange rates, royalties and transport charges dealt with above.
	• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	No assumptions made. The gold dore is to be sold at spot price.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*	• There is a transparent quoted derivative market for the sale of gold; • The Dore Gold is sent to the ABC Refinery at commercial rates for refining. The Tomingley Gold Operations Pty Ltd sell the gold into the open market at the spot value for gold.
	• *A customer and competitor analysis along with the identification of likely market windows for the product.*	N/A There is a transparent quoted derivative market for the sale of gold
	• *Price and volume forecasts and the basis for these forecasts.*	N/A There is a transparent quoted derivative market for the sale of gold
	• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	N/A – not assessing industrial minerals
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	• The operation is currently operating at a processing rate of 1.1 MTPA and has built up 6 months of ore grade stockpile. • The preliminary analysis carried out did not estimate the NPV but rather simple cash flow based on a variety of possible gold prices; or • For all deposits, the optimal pit shell was chosen as that with the highest discounted cash flow from the Whittle Four-X pit Optimisation. The pits were designed from the chosen shell. Pit designs where then back calculated for undiscounted return using the whittle input costs to ensure profitability within limits.
	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	Sensitivity analysis was included in the Whittle optimization and simple cash flow analysis were completed for gold prices ranging from $1800 - $2200
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• The TGO site is located on flat farm land with the Newell Highway separating Caloma and the Wyoming (pits and processing) side of operations. Surrounding the site is the village of Tomingley (600 m to the north) and local operating farms. • All key stakeholder agreements are in place, including a Voluntary Planning Agreement (VPA) with the Narromine Shire Council. The Company has close working relationships with the local communities.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* o *Any identified material naturally occurring risks.*	A risk analysis was undertaken as part of the Feasibility Study and Environmental Assessment and no naturally occurring risks were identified.

	○ *The status of material legal agreements and marketing arrangements.*	Majority of production is sold into the spot gold market.
	○ *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	The operation is situated on a granted Mining Lease which expires in 2034. All statutory and government approvals have been obtained. The required development approvals for Caloma.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.*	The classification of the Tomingley Gold Operations, Caloma open cut deposit (July 2020) has been carried out in accordance with the recommendations of the JORC code 2012.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Yes. The Caloma deposits are robust at current gold prices and this has been proven over past six years of operations.
	• *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	No probable reserves have been derived from Measured Resources – all measured resources converted to Proved Reserves.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	The Ore Reserves estimates have been completed by Competent Persons external to Alkane Resources and Tomingley Gold Operations. No further review has been conducted.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*	The resource block models from which the mining reserve has been derived was based on a geostatistical estimation completed by Mr Craig Pridmore who is satisfied with the resource categories quoted. Within the reserve estimation process the effects of included dilution have been accounted for to produce an anticipated selective mining unit grade. The effects of this dilution are more pronounced in narrow zones of mineralisation, leading to overall grade reduction and loss of some narrow zones to waste through a drop below cut-off grade.
	○ *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The material included in the LOM schedule is only material that has been estimated inside of designated ore zones. The estimated material outside of the ore zones has not been included.
	○ *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*	The assumption that the high grade (plus 1 g/t) and the low grade (0.5-1.0 g/t) could be wholly separated has not been proved, although low grade material is being recovered. This has resulted in more high-grade material and less low-grade material than as predicted in the resource models. A revised technique using grade control drilling and modelling a separate attribute called au_sched has shown some improvement for this. The estimation technique used essentially smooths the grade and allows for low grade within the high grade mineable ore blocks.
	○ *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Reconciliation to date of the au_sched attribute shows an underestimate of 4% on ounces recovered from milling operations.

Appendix 3
JORC 2012 Table 1 Checklist of Assessment and Reporting Criteria
Section 4 Estimation and Reporting of Ore Reserves

Criteria	Comments
Mineral Resource estimate for conversion to Ore Reserves	• The underground Ore Reserve estimate is based on the Mineral Resource estimate carried out by Alkane Resources Ltd. Gold grade was estimated using ordinary kriging for Wyoming One and Caloma One and ID2 for Caloma Two. • The Mineral Resources are reported exclusive of the Ore Reserve. • The Mineral Resource model used to estimate this Reserve is described as; wyoming1_ug_bm_19072020.mdl, cal2_june14.mdl and caloma_200717.mdl.
Site visits	• The Competent Person is Christopher Hiller a full-time employee of Hiller Enterprises Pty Ltd. Christopher has been onsite providing mining engineering support since February 2020. Christopher is a member of the Australasian Institute of Mining and Metallurgy.
Study status	• Wyoming One is an operating underground mine, having commenced capital development in December 2018 and stoping in February 2020. The life of mine design is updated and reviewed on a quarterly basis. • Capital development has commenced to access Caloma One and Two. The life of mine design is updated and reviewed on a quarterly basis. • The mine has been in full production since 2014 and is achieving design objectives. • Any further studies undertaken are to extend the mine or optimise the current operating practices.

Cut-off parameters	• Two cut-off grades have been calculated and applied based on current costs and modifying factors for the Life-of-Mine plan. A gold price of AU$2,000/oz was provided by Alkane Resources Ltd and was used in this calculation.
	  ○ Fully Costed cut-off grade of 1.3 g/t and this includes all costs associated with the extraction and processing of ore material
	  ○ Incremental Development cut-off grade of 0.5 g/t applies to all development ore material.

Mining factors or assumptions	• The TGO Ore Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied post-geological interrogation to generate the final diluted and recovered Ore Reserve.

- The Life-of-Mine plan used for budgeting at the Tomingley Gold Operations utilises three mining methods
    - Top down long hole open stoping using rib pillars with no fill
    - Bottom up long hole open stoping using cemented rockfill.
    - Modified AVOCA stoping

- Stope size, development placement and ground support strategies have been designed in line with recommendations from the current ground control management plan

- 25,000m of grade control drilling is planned within Wyoming One, Caloma One and Caloma Two orebodies.

- The model used to estimate the Ore Reserve is consistent with that which forms the basis of the Mineral Resource estimate for the TGO deposits. The models are internally known as wyoming1_ug_bm_19072020.mdl, cal2_june14.mdl and caloma_200717.mdl.

- Planned dilution has been accounted for in the creation of the Stope Shapes. Unplanned mining dilution of 15% for LHOS with pillars and LHOS using CRF has been used. Planned dilution for Modified AVOCA stoping is 38%. These factors have been applied in Deswik Scheduler.

- A 95% mining recovery factor has been applied to both LHOS using rib pillars and LHOS using cemented rockfill. An 85% mining recovery factor has been applied for Modified AVOCA stoping

- Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.

- A global minimum mining width of 3m is used. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution.

- All ore in the Ore Reserve estimate is classified as a Proved or Probable Ore Reserve. No Inferred Mineral Resources is included in the Ore Reserve. The Inferred Mineral Resources in the Life-of-Mine plan have been removed from the Ore Reserve estimate.

- The infrastructure requirements of the stoping methods used are already in place and maintenance of this infrastructure has been included in the economic evaluation.

- The capital and operating costs of this additional infrastructure to support underground mining have been included in the economic evaluation which demonstrates the economic viability of the Ore Reserve.

Metallurgical factors or assumptions	• All TGO ore is trucked to the TGO processing plant which is located adjacent to the Wyoming Three pit. The plant consists of a crushing circuit, single-stage milling circuit and hybrid carbon-in-leach (CIL) circuit with one designated leach tank and numerous adsorption tanks. Gold is recovered from activated carbon into concentrated solution. Electrowinning and smelting are conducted in an adjacent secure gold room. The tailings from the process are thickened and pumped to a paddock type tailings storage facility with multi-spigot distribution. • The technology associated with processing of TGO ore is currently in operation and is based on industry standard practices. • Mine production and cash flow estimates are based on a metallurgical recovery of 87%, which is consistent with current performance. • No deleterious elements extracted. • N/A – no minerals defined by a specification. • A recent study on capacity requirements of the tailings storage facility (TSF) showed that the total capacity that will be created (lift nine) will be adequate for processing until July 2023.
Environmental	• TGO is currently compliant with all environmental regulatory agreements under the Environmental Protection Act 1986. • TGO was subject to numerous environmental studies as part of the Environmental Assessment (EA) for the Tomingley Gold Project during the approvals phase and all required approvals were granted prior to the commencement of mining. The EA included documentation regarding the underground mine which is still relevant today. • The Mine Operating Plan (MOP) requires renewal prior to September 2021. • The project approval requires renewal prior to December 2022. • All external reporting against the environmental licenses are recorded and reported in the Annual Environmental Report available on the Alkane Resources Ltd website.
Infrastructure	• Infrastructure has been constructed for underground mining and processing. Works on site include access road, a water pipeline, a 66 KV power line, site drainage, topsoil stockpiling, waste dump construction, Residue Storage Dams, Process Water Dams, associated offices, workshops, fuel, and laydown areas. Sufficient site infrastructure has been constructed to process ore at 1.25Mtpa.

	• The underground specific infrastructure in place includes
	  ○ Underground primary ventilation fans
	  ○ Secondary fans
	  ○ Portals
	  ○ Pump station
	  ○ Mobile equipment
	  ○ Compressors
	  ○ HV to portals
	  ○ Substations
	  ○ Rescue equipment
	• Labour is sourced from Tomingley, Narromine, Dubbo, and Parkes region and as such the operation requires no accommodation or messing facilities.
	• Central NSW has many active mining operations within a short distance of TGO and as such the ability to procure labour and infrastructure services for the operation does not pose any major challenges.

Costs	• All costs used in the estimation of Ore Reserves are based on the Ore Reserve plan. This plan excludes the Inferred Mineral Resources in the Life-of-Mine plan. • Mining capital estimates have been made using, wherever possible, budget pricing obtained from reputable suppliers. The few instances where costs could not be obtained from these sources, costs were obtained by benchmarking of similar sized Australian mines. • The operating cost estimates have been derived from the past year of operating costs. • No deleterious elements are modelled in the Mineral Resources Models nor has there been any concern with this during the period TGO has been producing gold dorè. • Gold price is expressed in Australian dollars and no exchange rate is required. A gold price of AU$2,000/oz has been used in all calculations. • Transport charges for dorè to the ABC Refinery are included in the refining charges and based on historical charges incurred by TGO. • Site treatment charges are well known due to the current processing of fresh rock ore material from underground. Refining charges have been assumed to be AU$1.50/oz in accordance with historical charges incurred by TGO by the ABC Refinery. • A 4% New South Wales state royalty of revenue less processing and selling costs has been allowed for in the financial evaluation.

Revenue factors	• A gold price of AU$2,000/oz has been used in all revenue calculations for the Ore Reserve.
Market assessment	• All gold doré produced at the TGO processing plant is transported to the ABC Refinery for refining. • The gold market is driven by several factors and fluctuates dependant on physical supply and demand, political tensions, and global instability. In times of uncertainty gold is seen to be a stable and safe "currency" and this has maintained its value for a significant period. • TGO currently sells most of its gold at spot prices however also has contracts to sell 17,700 ounces at $1,836 per ounce. • The Underground mine would contribute only a small portion of the overall volume of output and is unlikely to have any impact on the market.
Economic	• The underground operation at TGO is an operating asset. • The financial analysis used the costs as well as the revenue from gold sales, together with the mine schedule to calculate a net cashflow per month for the duration of the project. This cashflow is then discounted to derive at the projects Net Present value (NPV). This NPV excludes depreciation, amortisation, and taxes. • No inflation of costs has been undertaken as there has been no forward speculation on gold price. It is the net cashflow that drives NPV and this is assumed to remain consistent (i.e. gold price and inflation move in the same direction). • Life-of-Mine plans are updated on a quarterly basis. These plans reflect current and projected performances for the Ore Reserve. • Sensitivities have been undertaken for both the entire mining inventory and the reserve version of the financial model.
Social	• Alkane Resources Ltd's social licence to operate is underpinned by the excellent relationship that the Company has built, over many years, with the local community of Tomingley. • TGO has a set up a community consultation committee that meets quarterly to discuss the activities on the mine, interaction with the local community and any concerns from local residents, the committee includes: o Independent Chairperson, o TGO Environment and Community Manager, o TGO Operations Manager, o Narromine Shire Council Representative, o 3 x Community Representatives,

	○ An Aboriginal Community Representative.
Other	• A company risk register is maintained to address and mitigate against all foreseeable risks that could impact the Ore Reserve. • Contracts are in place for all critical goods and services required to operate the mine. • The TGO underground operations are an operating asset in full production with all required government and statutory permits and approvals are in place.
Classification	• The Ore Reserve includes only Proved and Probable classifications. • The Ore Reserve is in line with expectations given the low capital cost associated with the project and due to the locality. The Competent Person is confident that it is an accurate estimation of the current TGO reserve. • The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve. • The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.
Audits or reviews	• The Ore Reserve has undergone internal reviews to ensure quality and consistency. No external reviews have been undertaken.
Discussion of relative accuracy/ confidence	• The Ore Reserve estimate has been prepared in accordance with the guidelines of the JORC Code (2012). The relative confidence of the estimates contained fall with the criteria of Proved and Probable Ore Reserves. • The Ore Reserve has been estimated in line with the Alkane Resources Ltd Ore Reserve process. • The main factors which could affect the confidence of the assessment include: ○ Stope stability, this has been assessed by a reputable geotechnical consultancy and remains relevant. ○ Modifying factors, these are in line with industry accepted norms ○ Costs, cost have been sourced from the past year of capital and operating costs. ○ Revenue, revenue assumptions used are in line with TGO expectations and gold price used below current spot prices.