

19 June 2018



Tomingley Underground Resources & Reserves Supplementary Information

The Company announced a re-estimation of the Tomingley Underground Resources and Reserves as well as development plans for underground mining at its Tomingley Gold Operations in an ASX release on Monday 4 June 2018 (**Announcement**).

Further information to assist understanding of and to clarify that information is set out below and should be read in conjunction with the Announcement.

Planned Material for Mining

The financial evaluation of the potential underground described included the creation of a mine plan. The ore planned to be mined totalled 1.24Mt grading 2.7g/t gold for a resultant contained 108,000 ounces of gold.

The division of the material contained in the mine plan by resource classification is shown below.

TOMINGLEY GOLD OPERATIONS UNDERGROUND PLANNED MINING MATERIAL (MAY 2018)									
Deposit	Measured		Indicated		Inferred		Total		Total Gold
	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	
	(kt)	(g/t Au)	(kt)	(g/t Au)	(kt)	(g/t Au)	(kt)	(g/t Au)	
Wyoming One			939	2.7	3	1.3	943	2.7	81
Caloma	65	2.6	17	2.6	12	2.3	94	2.5	8
Caloma Two			153	3.2	52	2	206	2.9	19
Total	65	2.6	1109	2.8	67	2.0	1243	2.7	108

Apparent arithmetic inconsistencies are due to rounding

The decision to include Inferred Resources in the mine plan was supported by the operating experience and reconciliations in the existing open cut pits and is described on Page 5 of the Announcement. There is a lower level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target/mine plan itself will be realised.

Note the key difference between the material included in the mine plan and the material included in the ore reserve is that the mine plan uses a gold price of A\$1,600 per ounce and the reserve uses a gold price of A\$1,350 per ounce.

The study that resulted in the mine plan and Reserve estimation is detailed in Appendix 2 of the Announcement. The study was completed to a Pre-Feasibility level of accuracy and draws on the substantial experience of operating the Tomingley open pit operations which sit directly above planned underground operations. The geological, geotechnical, metallurgical parameters of the proposed underground mining operations were based on the direct experience of the open pit operations.

CONTACT : **NIC EARNER, MANAGING DIRECTOR, ALKANE RESOURCES LTD, TEL +61 8 9227 5677**
INVESTORS : **NATALIE CHAPMAN, CORPORATE COMMUNICATIONS MANAGER, TEL +61 418 642 556**
MEDIA : **HILL+KNOWLTON STRATEGIES: MARCHA VAN DEN HEUVEL, TEL +61 2 9286 1226 OR +61 468 960 457**



Resource Model

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. Any blocks outside the main mineralized/geological domains were classified as Inferred.

The metallurgy of the Tomingley deposits is well studied as it is an operating mine. During this time no material metallurgical issues have arisen, with recoveries ranging between 92-94%. This performance has been assumed to continue in the preparation of the resource.

For the bulk of the Wyoming 1 Indicated Resource The underground infill drilling during the 2016/2017 campaign referred to in the Announcement 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 with no indication that the planned underground operations will have characteristics materially different to the current open pit operations. Grade control drilling has been undertaken during mining on a 10m x 10m grid to a nominal 20 vertical metres and this drill data was used determine Measured and Indicated Resources in Caloma and Caloma Two. Drill samples were pulverised and fire assayed using a 30g or 50g charge depending on whether they were 1m samples or composites.

Ore Reserves

The Ore Reserve includes both Proven and Probable reserves with the high resource conversion factor assisted by the forecast low capital cost associated with the development of the underground operations. The existing mining and processing infrastructure together with the detailed knowledge of the operations provided a solid base from which to estimate the Ore Reserve and the material for processing in the proposed mine plan. Gold grade was estimated using ordinary kriging for all lodges.

The mining method used will be conventional for underground operations of this type and will include both top down long hole open stoping using rib pillars with no fill and bottom up long hole open stoping using cemented rockfill.

The cut off grades were determined based on known costs estimated with the benefit of intimate knowledge of the costs associated with the current open pit mining operations sitting directly above the proposed underground operations and the operating experience of the Tomingley Processing Plant, (through which the underground ore is to be processed). A break-even cut-off grade (BECOG) policy was adopted to estimate the Wyoming one mining lodges. Using the cost model to generate unit costs the break-even cut-off grades were established.

The combination of the historical performance of the Company's existing processing plant and the homogeneous nature of the ore body gives a high level of confidence that recovery factors applicable to the underground operations will replicate those from the open pit operations (92%). No deleterious elements have been evident in the open pit operations and there is no reason to expect this will change.

The proposed underground operations were contemplated as part of the Company's original mine plan approval and permitting process obtained prior to the start of the open pit operations at Tomingley. The underground operations lie within granted mining tenements with existing infrastructure owned or leased by the Company.



Competent Persons Statement

The information in this report that relates to exploration results, Mineral Resources and Ore Reserves, including the Production Target underpinning the mine plan, is based on information compiled by Mr D Ian Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as 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 consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

ABOUT ALKANE - www.alkane.com.au - **ASX: ALK and OTCQX: ANLKY**

Alkane is a multi-commodity company focused in the Central West region of NSW, Australia. Currently Alkane has two advanced projects - the Tomingley Gold Operations (TGO) and the nearby Dubbo Project (DP). Tomingley commenced production early 2014. Cash flow from TGO has provided the funding to maintain the project development pipeline and has assisted with the pre-construction development of the DP.

The DP is a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. As it is an advanced poly-metallic project outside China, it is a potential strategic and independent supply of critical minerals for a range of sustainable technologies and future industries. It has a potential mine life of 75+ years. The DP is development ready, subject to financing, with the mineral deposit and surrounding land acquired and all major State and Federal approvals in place.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Bodangora, Wellington, Rockley and Elsenora prospects. Wellington has a small copper-gold deposit which can be expanded, while at Bodangora a large monzonite intrusive complex has been identified with porphyry style gold copper mineralisation. Gold and base metal mineralisation has been identified at Rockley and Elsenora.

