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Epithermal Gold Target Highlighted at Boda Prospect Within the NMPP

- Assay results received for Alkane's first diamond holes at the Kaiser-Boda prospects, located within the Northern Molong Porphyry Project (NMPP). Previous drilling in the region has identified a large low grade gold-copper porphyry system.
- The NMPP covers a large portion of the northern Molong Volcanic Belt, and results have confirmed the presence of epithermal style gold mineralisation crosscutting earlier porphyry gold-copper mineralisation at the Boda Prospect (KSDD001). Drill intercepts include:

KSDD001	6m @ 2.14g/t gold from 483m
within	33m @ 0.51g/t gold from 476m
within	68m @ 0.35g/t gold from 476m

- The epithermal gold is characterised by pyritic stringers and a distinctive pathfinder element suite, consistent with that noted at the nearby Duke Prospect (4m @ 9.69g/t Au from 110m KSRC013).
- Diamond drilling suggests the Boda epithermal stringers have a steep easterly dip, indicating that the main zone of gold mineralisation defined in RC drilling (311m @ 0.28g/t Au from 19m to EOH in KSRC018) remains untested.
- KSDD002 at Kaiser confirmed broad low grade porphyry style gold-copper mineralisation below the small near surface deposit. Results include:

KSDD002	30m @ 0.23g/t gold, 0.13% copper from 6m
and	129m @ 0.14g/t gold, 0.11% copper from 50m
incl	23m @ 0.41g/t gold, 0.19% copper from 69m

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North Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The Northern Molong Porphyry Project (NMPP) incorporates three exploration licences; Bodangora (EL 4022), Kaiser (EL 6209) and Finns Crossing (EL 8361), covering an area of 110km² of the northern Molong Volcanic Belt (MVB), in central western New South Wales.

The northern MVB, within the eastern Lachlan Orogen is considered highly prospective for porphyry and epithermal gold-copper mineralisation, as demonstrated by the presence of the world class Cadia porphyry district located along strike (~43Moz Au; Newcrest, 2016).

Alkane's exploration activity has established a geological framework for the region which highlights strong similarities with the Cadia district. Ongoing exploration success has demonstrated the margins of major magnetic complexes provide a primary control for porphyry and epithermal mineralisation, with significant intersections being reported from the Duke Target along the western margin of the Kaiser Magnetic Complex and the Boda Target at the western margin of the Boda Magnetic Complex (combined strike length >900m).

Results have been received for the first two diamond holes testing the Kaiser and Boda Prospects. Previous shallow drilling has identified a small, porphyry style gold-copper deposit (no JORC classification) at Kaiser.

Boda Prospect

A single diamond drill hole (KSDD001, 801.5m) was drilled to test the depth extent of gold-copper mineralisation identified in RC drilling at the southern end of the Boda Prospect (130m @ 0.23g/t Au, 0.18% Cu KSRC021; ASX Announcement 3 April 2017). The drill hole identified a steeply east dipping sequence with the recognition of epithermal gold mineralisation overprinting the earlier gold-copper porphyry event. The epithermal mineralisation is characterised by gold-rich pyritic stringers associated with a distinctive pathfinder element suite (Au+As+Bi+Te+Se), an association also noted at the Duke Prospect nearby.

The gold-rich pyritic stringers combined with the distinctive element association is consistent with that described for intermediate sulphidation epithermal systems overlying porphyry systems and shows several similarities with the Cowal Gold Deposits (164.12Mt @ 0.96g/t gold, Evolution Mining 2016).

KSDD001	6m @ 2.14g/t gold from 483m
within	33m @ 0.51g/t gold from 476m
within	68m @ 0.35g/t gold from 476m

This interpretation defines several additional porphyry/epithermal exploration targets (including Boda North and Boda West) which remain untested.

The identification of epithermal mineralisation in this initial diamond drilling campaign is considered significant due to:

 the main extensive zone of epithermal gold defined in RC drilling at the Boda Prospect (311m @ 0.28g/t Au from 19m to EOH in KSRC018; ASX Announcement 6 May 2016) remains untested down dip (i.e. future drilling in the Boda area will be directed towards the west)



this mineralisation style has the potential to carry high gold grades, as demonstrated by 4m @ 9.69g/t Au from 110m in KSRC013 at the nearby Duke Prospect (ASX Announcement 6 May 2016)

Kaiser Prospect

A single diamond drill hole (KSDD002, 591m) was drilled to test the depth extents at the Kaiser prospect and returned intervals of low grade porphyry mineralisation, including:

KSDD002	30m @ 0.23g/t gold, 0.13% copper from 6m
and	129m @ 0.14g/t gold, 0.11% copper from 50m
inc	23m @ 0.41g/t gold, 0.19% copper from 69m
and	142m @ 0.07g/t gold, 0.13% copper from 195m
and	2m @ 0.52g/t gold, 0.78% copper from 485m

The core hole was located at the north end and below the small porphyry style gold-copper deposit (no JORC classification) and further 3D modelling is required in this structurally complex target area.

BODA-KAISER PROSPECT DIAMOND DRILLING – 15 August 2017 (>0.1g/t Au and or 0.05% Cu)											
Hole ID	Easting (MGA)	Northing (MGA)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)	Prospect
KSDD001	690069	6410809	-66	080	801.5	337	383	46	0.22	-	BODA
and						476	544	68	0.35	-	
inc.						476	509	33	0.51	-	
inc.						483	489	6	2.14	-	
inc.						531	544	13	0.44	-	
and						611	623	12	0.17	0.11	
and						651	669	9	0.16	0.11	
and						681	717	36	0.18	0.09	
inc.						681	690	8	0.36	0.21	
KSDD002	689828	6412033	-54	275	591	6	36	30	0.23	0.13	KAISER
and						50	179	129	0.14	0.11	
inc.						51	102	51	0.26	0.13	
inc.						69	92	23	0.41	0.19	
and						195	337	142	0.07	0.13	
and						425	488	63	0.06	0.10	
inc.						485	487	2	0.52	0.78	
and						569	591	22	0.11	0.17	

Significant intervals, defined by >0.1g/t Au and/or 0.05% Cu, with up to 5m internal dilution













Core photos showing intensely developed pyritic stringers, intermediate sulphidation epithermal mineralisation at the Boda Prospect (KSDD001) and bornite-rich porphyry mineralisation from Kaiser Prospect (KSDD002)



Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as 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

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.

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 the TGO has provided the funding to maintain the project development pipeline and will assist with the pre-construction development of the DP.

The NSW Planning Assessment Commission granted development approval for the DP on 28 May 2015 and on 24 August 2015 the Company received notification that the federal Department of the Environment gave its approval for the development. Mining Lease 1724 was granted on 18 December 2015 and the Environment Protection Licence was approved on 14 March 2016. Financing is in progress and this project should make Alkane a strategic and significant world producer of zirconium, hafnium and rare earth products with production targeted for 2019.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Bodangora, Wellington and Elsienora 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 Elsienora.





The following tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of exploration results.

JORC Code, 2012 Edition – Table 1 NORTHERN MOLONG PORPHYRY PROJECT

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. 	 Drilling was undertaken by Titeline Drilling Pty Ltd DD sample intervals were defined by geologist during logging to honour geological boundaries, cut in half by diamond saw, with half core sent to ALS Laboratories
	 Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice
	• 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	 Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 3m) 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 Half core was sampled
		 Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish A multi-element suite was determined using a four acid digest with a ICP-MS analytical finish
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). 	 Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (PQ3) sized oriented core
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	 DD - core loss was identified by drillers and calculated by geologists when logging. Generally ≥95% was recovered with any loss usually in portions of the oxide zone Triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core used in the oxide and saprolite zones
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Sample quality is qualitatively logged



Criteria	JORC Code explanation	Commentary		
	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		
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. 	• 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)		
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography 	 Mostly logging was qualitative with visual estimates of the various characteristics. In addition magnetic susceptibility data (quantitative) was collected as an aid for logging 		
		 All core geologically logged onto physical log sheets, followed by importing into Alkane's central database 		
		All core was logged by qualified and experienced geologists		
	The total length and percentage of the relevant intersections logged	All drill holes were logged in full		
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	Core sawn with half core samples submitted for analysis		
	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	• n/a		
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	 Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% <2mm (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000grm to 85% <75um (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC). 		
	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples 	Internal QAQC system in place to determine accuracy and precision of assays		
	 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 	Non-biased core cutting using an orientation line marked on the core		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample are of appropriate size		



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.	 All samples were analysed by ALS Minerals Gold is determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill is dissolved in aqua regia with gold determined by flame AAS Other geochemical elements, samples are digested by near-total mixed acid digest with each element determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry
	 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. 	No geophysical tools were used to determine any element concentrations
	 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. 	 Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. 	Drill data is 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.	No twinned holes have been drilled at this early stage of exploration
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	 All drill hole logging and sampling data is entered directly into field data entry spreadsheets for transfer and storage in an industry standard access database with verification protocols in place All primary assay data is received from the laboratory as electronic data files which are imported into sampling database with verification procedures in place. QAQC analysis is undertaken for each laboratory report
	Discuss any adjustment to assay data.	No adjustments made
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. 	 Drillholes are laid out using hand-held GPS (accuracy ±2m) then DGPS surveyed accurately (± 0.1m) by licenced surveyors on completion
	Specification of the grid system used.	• GDA94, MGA (Zone 55)



Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	 Drillhole collars DGPS surveyed accurately (± 0.1m) by licenced surveyors on completion
Data spacing and distribution	Data spacing for reporting of Exploration Results	 At this early exploration stage, data spacing is variable with the focus on identifying new zones of mineralisation
	 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 	Early stage, reconnaissance drilling, no resource estimations being undertaken
	Whether sample compositing has been applied	 No sample composites were taken, all sampling was completed at 1m intervals
Orientation of data in relation to	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	Drillhole KSDD001 suggests a broadly steeply east dipping geometry
geological structure	 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 	 In the case of KSDD001, true intervals are likely to be ~50% of downhole lengths No significant sampling bias is considered relevant for KSDD002
Sample security	The measures taken to ensure sample security.	 All samples are bagged into tied calico bags, before being grouped into plyweave bags and transported ~1hr to ALS Minerals Laboratory in Orange by Alkane personnel. All sample submissions are documented via ALS tracking system with results reported via email Sample pulps are returned to site and stored for an appropriate
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted at this stage



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	 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. 	 Drilling completed on exploration licence numbers 4022, 6209 and 8261 which are owned 100% by Alkane. Ajax Joinery retain a 2% net smelter return on any products produced from within EL6209.
status	 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. 	 All exploration licences are in good standing. EL4022 expires on 13 August 2020 and EL6209 on 11 March 2023 for which an application for renewal has been lodged. EL8261 expires on 30 April 2023.
Exploration done by other	Acknowledgment and appraisal of exploration by other parties.	Significant historical drilling activity has been conducted within the bounds of EL6209 and EL4022.
parties		 Within EL6209 records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m.
		• KAISER PROSPECT: Under-reporting of historical exploration drill results from the Kaiser Prospect is suggested by preliminary metallurgical test work by previous explorers and is supported by a drill hole (KSRC001) completed by Alkane. This can be partly explained by the partial digests and analogue equipment commonly used in the 1970s.
		• BODA PROSPECT: CRA Exploration/Rio Tinto completed several reconnaissance RC holes in the Boda Prospect area in 1995. The results identified sporadic, shallow low grade intervals of gold mineralisation hosted within a sequence of monzonites, diorites and intermediate volcanics. Sampling was performed by collecting spear composites from 3m drill runs, assayed by aqua regia digest and fire assay-AAS and ICP finishes.
Geology	Deposit type, geological setting and style of mineralisation.	• The area is located at the northern extent of the Molong Volcanic Belt, a geological region considered highly prospective for and host to several economically important examples of porphyry Au-Cu mineralisation e.g. Cadia Valley alkalic porphyry cluster.
77Drill 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. 	See body of announcement
	 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. 	All drill holes have been reported in this announcement.



Criteria	JORC Code explanation	Commentary
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. 	 Exploration results reported for uncut gold grades, grades calculated by length weighted average
	 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. 	 Reported intercepts are calculated using a broad lower cut of 0.1g/t Au and/or 0.05% Cu although grades lower than this may be present internally (internal dilution). No top cut has been used Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals
	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No metal equivalents are reported
777Relations hip 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'). 	 One of the outcomes of drilling the core holes has been determining the geometry of mineralisation. It is clear on the sections and the report descriptions that the overall geometry of porphyry and epithermal mineralisation at Boda is steeply east dipping, at Kaiser it is less well known and will require additional oriented core drilling to fully determine In the case of KSDD001, true intervals are likely to be ~50% of downhole lengths No significant sampling bias is considered relevant for KSDD002
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. 	Plans showing geology with drill collars are included in the body of the announcement.
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. 	Comprehensive reporting has been undertaken with all holes listed in the included table.
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. 	Other than drilling noted above and minor geophysical data which has been used to assist interpretations, no other material exploration data is available for reporting.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 	It is recommended that further drilling be undertaken within the licences to further define the targets
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive 	See figures included in the announcement.