

9 November 2020



## *Significant Expansion to Mineralisation at Boda*

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- Drilling at Boda Prospect has intersected further extensive zones of gold-copper mineralisation, more than doubling the size of the immediate target zone identified by the discovery drill program in September 2019.
- Drilling shows a subvertical elliptical zone of significant gold-copper mineralisation indicative of a large alkalic porphyry system of 400 metres width that is over 1,000 metres north-south strike length and more than 1,100 metres vertically.
- The extension of mineralisation to the south is driven by assay results received from a diamond core drill hole 500 metres south of the original Boda gold-copper intersections.
- This hole was designed to test the Boda Two conductive anomaly identified by 3D-IP electrical geophysics. The hole intersected significant gold mineralisation indicative of a large pyrite shell to another porphyry system:

KSDD022      102m grading 0.24g/t AuEq\* (0.22g/t Au, 0.02% Cu) from 685m  
and            292m grading 0.66g/t AuEq (0.64g/t Au, 0.02% Cu) from 867m  
incl            24m grading 1.87g/t AuEq (1.81g/t Au, 0.03% Cu) from 1108m

- At Boda the drilling continues to intersect extensive zones of gold-copper mineralisation. Significant intercepts include:

KSDD010      851m grading 0.26g/t AuEq (0.17g/t Au, 0.10% Cu) from 293m  
incl            20m grading 0.91g/t AuEq (0.71g/t Au, 0.19% Cu) from 362m  
and            5m grading 2.15g/t AuEq (2.11g/t Au, 0.03% Cu) from 1139m

KSDD011      222m grading 0.33g/t AuEq (0.32g/t Au, 0.05% Cu) from 9m  
and            877m grading 0.21g/t AuEq (0.14g/t Au, 0.11% Cu) from 391m  
incl            97m grading 0.39g/t AuEq (0.21g/t Au, 0.17% Cu) from 904m  
and            10m grading 0.48g/t AuEq (0.22g/t Au, 0.25% Cu) from 1544m

KSDD012      1,159m grading 0.30g/t AuEq (0.18g/t Au, 0.12% Cu) from 39m  
incl            133m grading 0.49g/t AuEq (0.29g/t Au, 0.20% Cu) from 671m  
and            63m grading 0.53g/t AuEq (0.33g/t Au, 0.18% Cu) from 1007m

KSDD013      834m grading 0.38g/t AuEq (0.24g/t Au, 0.12% Cu) from 198m  
incl            323m grading 0.54g/t AuEq (0.28g/t Au, 0.24% Cu) from 623m  
incl            29m grading 1.07g/t AuEq (0.60g/t Au, 0.45% Cu) from 672m  
and            24m grading 1.45g/t AuEq (0.59g/t Au, 0.81% Cu) from 804m

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KSRC032 incl	503m grading 0.22g/t AuEq (0.10g/t Au, 0.11% Cu) from 0m to end of hole 57m grading 0.55g/t AuEq (0.28g/t Au, 0.25% Cu) from 446m to end of hole
KSRC038 incl and	404m grading 0.42g/t AuEq (0.35g/t Au, 0.07% Cu) from 94m to end of hole 17m grading 0.96g/t AuEq (0.92g/t Au, 0.03% Cu) from 302m 12m grading 2.14g/t AuEq (1.93g/t Au, 0.20% Cu) from 341m

- **Drilling continues at Boda targeting the high-grade mineralisation as well adding further definition within and extensions to the identified mineralised system.**
- **A second diamond drill rig has been mobilised to the project and drill testing of targets within the northwest trending Kaiser-Boda corridor including the conductive IP anomaly at Kaiser is also underway.**

Alkane Resources Limited (ASX: ALK) ('Alkane') announces a significant expansion of the mineralisation at the Company's Boda Prospect in Central New South Wales. Boda is a landmark porphyry gold-copper system, within the Northern Molong Porphyry Project, which the Company believes has the potential to be a large, tier one gold-copper project.

Alkane also operates the nearby Tomingley Gold Operations and is working towards its stated ambition of becoming Australia's next multi-mine gold producer.

Alkane Managing Director, Nic Earner, said: *"The Boda Prospect just keeps getting bigger and bigger. We have extended the mineralisation to the north and, to the south, we have either an extension or a whole new system emerging. We believe Boda is shaping up to be a large, tier one gold-copper porphyry project."*

*"We've mobilised a second diamond drill rig to site and we are currently targeting the identified high grade areas, infilling the very long and deep mineralised system and testing identified anomalies at Kaiser and, further to the south of Boda, an area about 5 kilometres in length."*

*"We anticipate being able to report the next round of results from this campaign in late December this year."*

***\*The equivalent calculation formula is  $AuEq(g/t) = Au(g/t) + Cu\%/100 * 31.1035 * copper\ price(\$ / t) / gold\ price(\$ / oz)$ . The prices used were US\$1,650/oz gold and US\$5,000/t copper, and A\$:US\$0.71.***

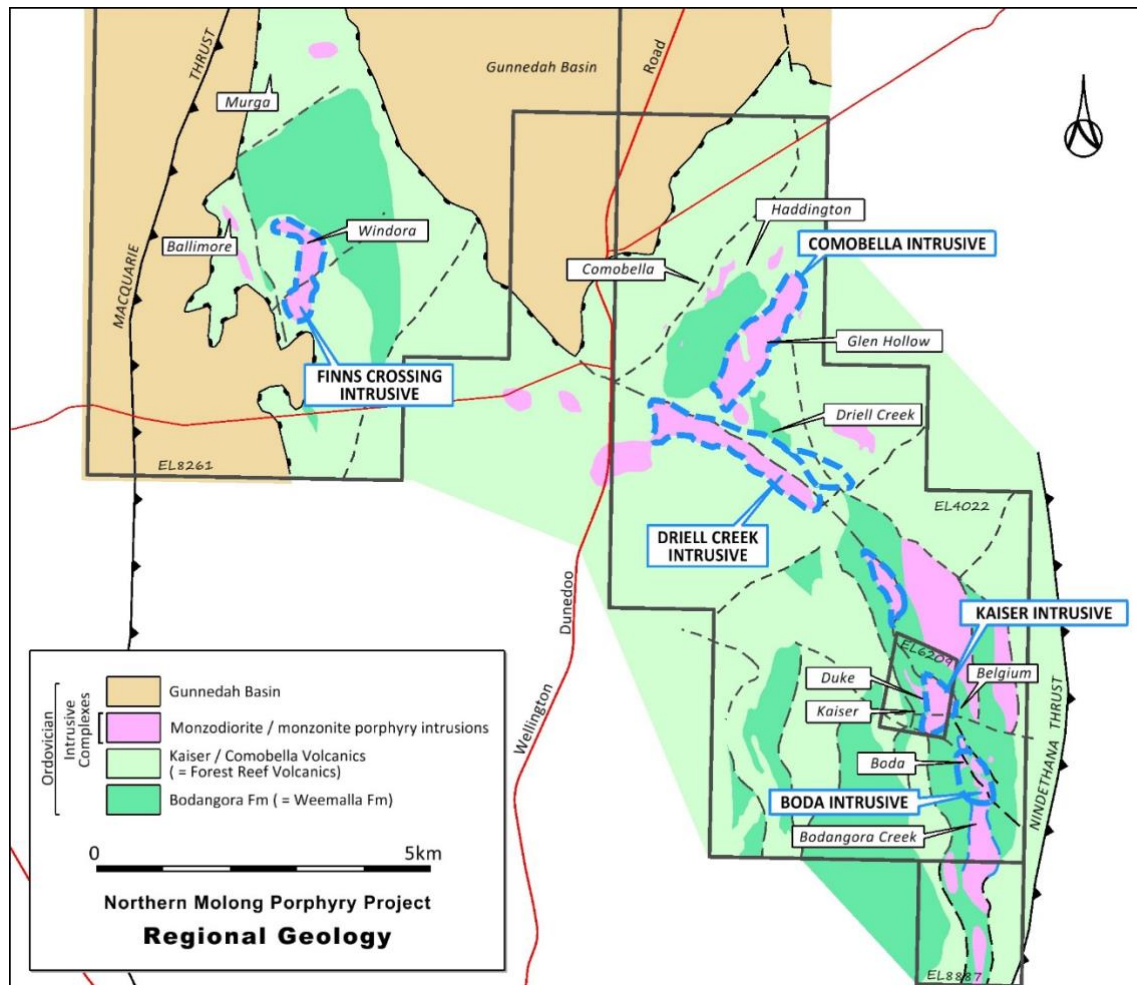


## Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The Project is located at the northern end of the Molong Volcanic Belt, within the Eastern Lachlan Orogen (Macquarie Arc) in Central West of NSW and is considered highly prospective for large scale porphyry and epithermal gold-copper deposits.

Exploration in the NMPP has identified five discrete magnetic/intrusive complexes – Kaiser, Boda, Comobella, Driell Creek and Finns Crossing – within a 15 km northwest trending corridor. The corridor is defined by monzonite intrusives, extensive alteration and widespread, low-grade, gold-copper mineralisation.



### Boda and Boda Two Prospects

A major RC and diamond core drilling program for approximately 30,000 metres commenced in July 2020. The program is designed to test the dimensions and extensions to the large low-grade mineralised envelope as well as any internal high-grade zones at Boda. In addition, the drilling is testing other known gold-copper mineralisation occurrences and co-incident IP anomalies within the 15km monzonite intrusive corridor that extends from Boda to Finns Crossing.

The recent drilling has identified multiple phases of intrusions of monzonite to monzogabbro composition that are plumbing a northwest structural corridor hosting extensive (calc-)potassic alteration and significant gold-copper mineralisation. Northwest structural zones are important controls to Macquarie



Arc alkalic gold-copper porphyry mineralisation such as the Lachlan Transverse Zone that transects Cadia Valley and Northparkes deposits. The northwest structural lineament at Boda is mapped with magnetics and is approximately 1km wide and is a continuous regional scale feature including Boda, Kaiser and Finns Crossing. The northwest orientation is replicated in vein measurements in the Boda core dipping shallowly to the southwest (striking northwest).

Assays received from the current drilling program at **Boda** comprised four diamond core holes and six RC drill holes for a total of 6,829 metres testing the strike and depth extensions of the gold-copper porphyry mineralisation at the Boda prospect (discovery hole KSDD003 - 502m @ 0.48g/t Au, 0.20% Cu from 211 metres; *ASX Announcement 9 September 2019*).

The high-grade zone intersected by KSDD007 of 96.8m grading 3.97g/t Au, 1.52% Cu from 768 metres (*ASX Announcement 23 March 2020*) is focused along a brecciated contact between monzogabbro dykes and sills and the volcanic host rocks. The monzogabbro unit is only intersected by KSDD007 and KSDD011 to date and at this stage the high-grade mineralisation is not laterally extensive but is likely to be vertically extensive. The high-grade mineralisation may plunge steeply to the northwest along the contact with the monzogabbro unit and away from hole KSDD010 that is over 200m below KSDD007 and is subparallel to the current drilling direction. The high-grade mineralisation is the focus of further drilling and a drill hole will commence shortly testing this zone normal to the NW structural corridor.

RC drill holes KSRC032 and KSRC038 terminated in mineralisation due to RC drilling capability and will be extended by diamond tails at a later date. Core holes KSDD014 – KSDD021 are scheduled in the current program.

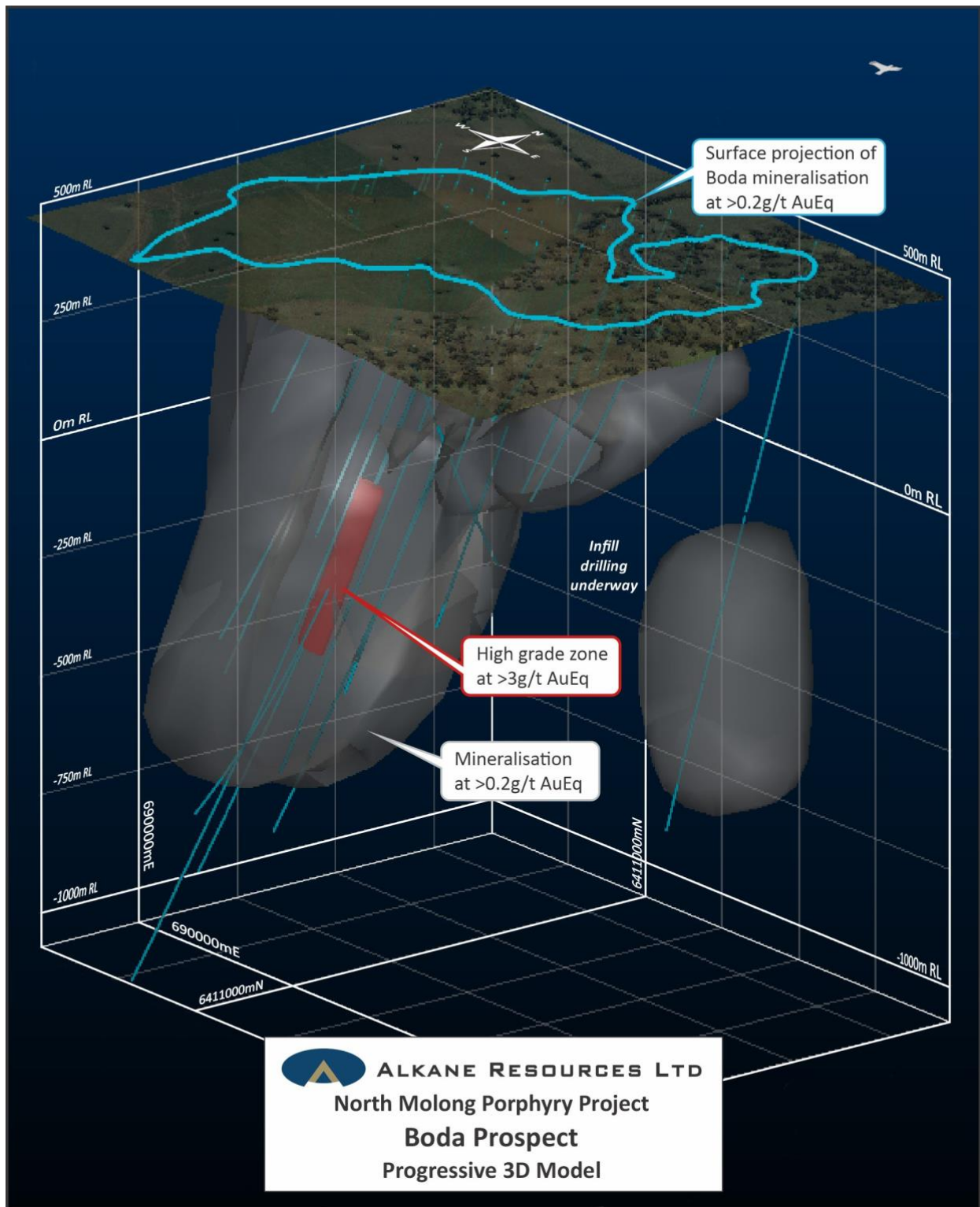
An electrical geophysics survey (3D-IP) completed over a six km long north-south target corridor of Boda volcanic stratigraphy identified strongly conductive targets at Kaiser and **Boda Two** prospects (*ASX Announcement 19 May 2020*). KSDD022 was completed to 1,225m targeting the centre of a large conductive anomaly at Boda Two. The diamond core drill hole intersected a large pyrite shell comprising stringers and aggregates of pyrite within a sequence of propylitic altered basaltic andesites and monzodiorite sills and dykes. The thick intersection of strong gold mineralisation with anomalous copper and pathfinder elements could be indicative of a distal component to a large fertile magmatic system at Boda Two. Encouragingly, the discovery of Boda was the result of testing beneath a similar gold enriched pyrite shell intersected by earlier RC drilling.

A second, high-capacity diamond core drilling rig was mobilised to the Boda district in October. In addition to the continued drill testing of the resource potential of Boda, drilling is also planned to test the strong conductive IP anomaly at Kaiser and targets at Boda Two.

### **Boda Prospect – Initial Modelling**

The drilling results are continually used to update the +0.2g/t AuEq\* cut-off shell to assist with directional trends within the alteration zone. Currently this indicates a subvertical elliptical zone of significant gold-copper mineralisation of over 1,000m north-south strike length, 400m wide and more than 1100m vertically.

Drilling continues to expand the footprint of Boda and remains open to the northwest, south and at depth. This, together with the encouraging mineralisation at Boda Two and Kaiser, give support to potential for a large tonnage gold-copper alkalic porphyry district is being defined.



3D wireframe of +0.2g/tAuEq (grey) and +3.0g/t AuEq (red).

The AuEq cut-off is used to assist in the visualisation of a mineralised envelope and is not an estimation of a Mineral Resource. Whilst the elements used in the gold equivalent calculation, i.e. gold and copper, have reasonable potential to be recovered and sold in the future, no metallurgical recovery work has occurred to date. However, the primary sulphides are standard pyrite, chalcopyrite and bornite, and 100% recovery of both gold and copper was used in the calculation. The calculation formula is  $AuEq(g/t) = Au(g/t) + Cu\%/100 * 31.1035 * CuPrice(\$/t) / AuPrice(\$/oz)$ . The prices used were US\$1,650/oz gold and US\$5,000/t copper and A\$:US\$0.71.



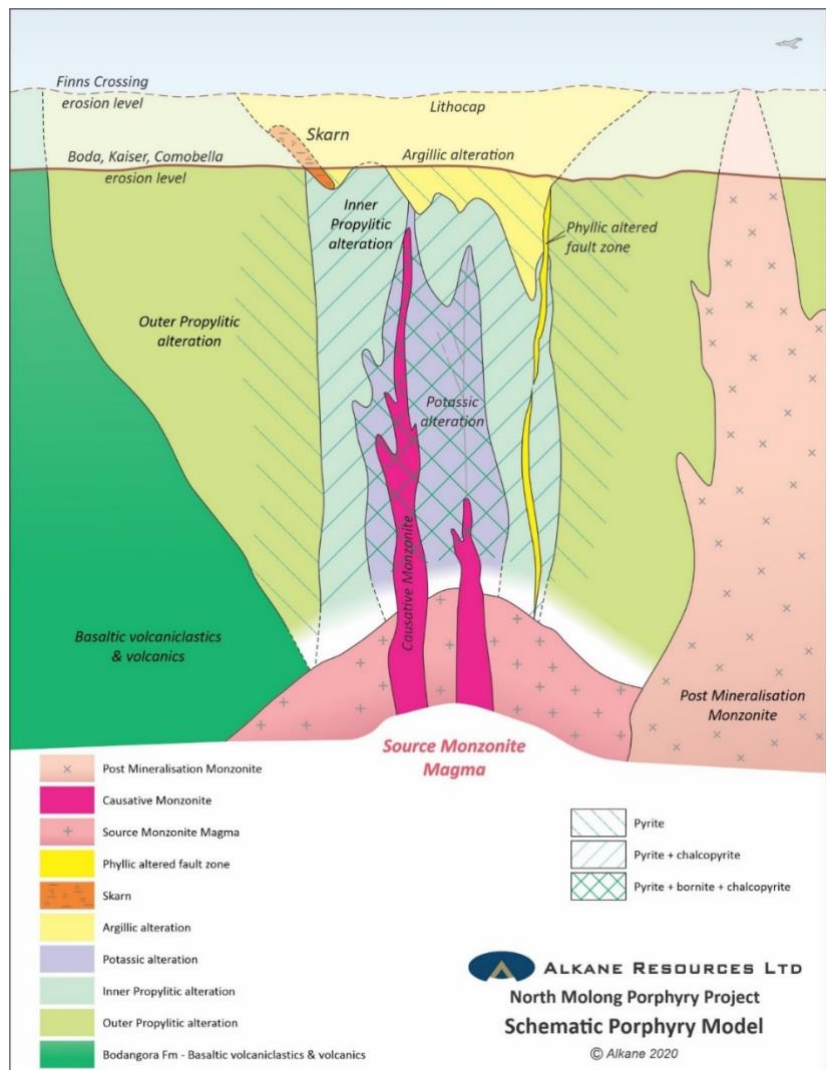
## Background - NMPP Geological Model

The Macquarie Arc alkalic porphyry model has been modified with the recent Boda discovery to develop a geological model for the NMPP and is presented in the figure below.

The stratigraphy at Boda comprises a submarine package of hornblende bearing andesitic lavas with minor intercalated volcanoclastics. The lava dominant stratigraphy suggests a position near to a volcanic centre that has been subsequently intruded by a series of monzonitic intrusions.

The Boda Intrusive Complex (BIC) magnetic anomaly is a thick sequence of fractionated andesite lavas with an early pervasive magnetite alteration overprint. The strong magnetite alteration is likely caused by an early stage deep monzonite stock plumbing the system. Monzonitic apophyses or offshoots such as those identified as Group 1 Monzonite, are central to the significant gold-copper mineralisation at Boda and appear to be focused within a significant northwest trending structural zone. These northwest orientated structural zones can be important controls to Macquarie Arc alkalic gold-copper porphyry mineralisation such as the Lachlan Transverse Zone at the Cadia Valley and Northparkes deposits.

The alteration at Boda suggests the prospect is positioned in the upper parts of an alkalic porphyry system with high level epithermal gold veins observed in some of the drilling coincident with strongly pyritic zones. Deeper drilling has defined strong pervasive hydrothermal alteration that is dominantly calc-potassic (biotite + actinolite + epidote + magnetite + chalcopyrite ± ksp + magnetite ± bornite mineral assemblage) phasing out to more distal propylitic alteration (albite + epidote + chlorite + pyrite ± chalcopyrite).



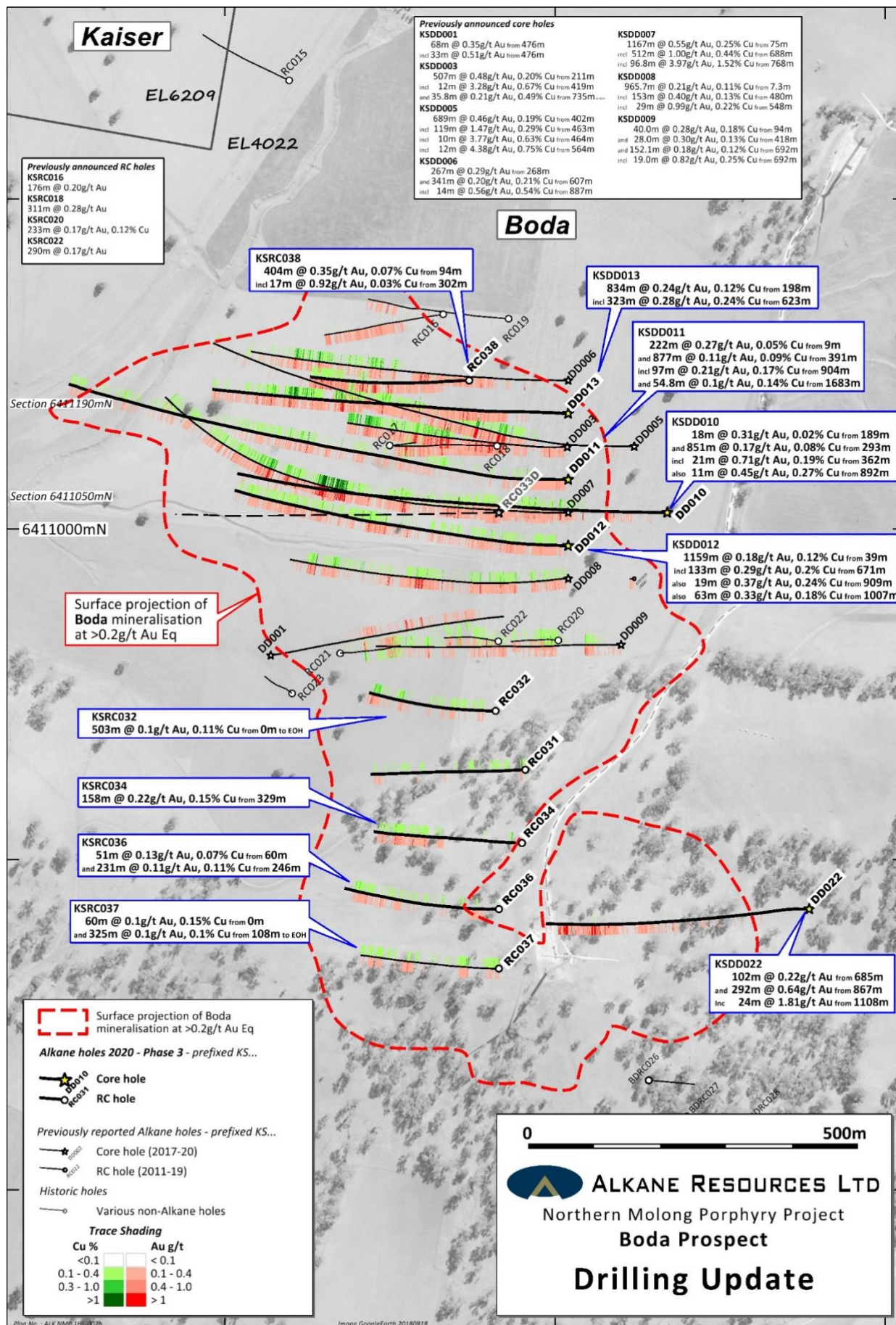


Boda Prospect Significant RC and Diamond Drilling Results – November 2020 (>0.1g/t AuEq*)												
Hole ID	Eastin g	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	AuEq* (g/t)	Au (g/t)	Cu (%)
<b>KSDD010</b>	690670	6411025	485	-65	270	1419.7	189	207	18	0.34	0.31	0.02
and							293	1144	851	0.26	0.17	0.08
incl							362	383	21	0.91	0.71	0.19
also							892	903	11	0.74	0.45	0.27
also							1139	1144	5	2.15	2.11	0.03
<b>KSDD011</b>	690520	6411075	484	-65	270	1737.8	9	231	222	0.33	0.27	0.05
and							270	279	9	0.24	0.10	0.13
and							325	337	12	0.20	0.08	0.11
and							391	1268	877	0.21	0.11	0.09
incl							904	1001	97	0.39	0.21	0.17
and							1378	1430	52	0.21	0.10	0.10
and							1499	1578	79	0.21	0.09	0.11
incl							1544	1554	10	0.48	0.22	0.25
and							1683	1737.8	54.8	0.25	0.10	0.14
<b>KSDD012</b>	690520	6410975	483	-65	270	1239.8	39	1198	1159	0.30	0.18	0.12
incl							671	804	133	0.49	0.29	0.20
also							909	928	19	0.62	0.37	0.24
also							1007	1070	63	0.53	0.33	0.18
<b>KSDD013</b>	690520	6411175	486	-65	270	1032.9	198	1032	834	0.38	0.24	0.12
incl							623	946	323	0.54	0.28	0.24
also							672	701	29	1.07	0.60	0.45
also							804	828	24	1.45	0.59	0.81
<b>KSDD022</b>	690600	6410423	471	-63	268	1224.8	685	787	102	0.24	0.22	0.02
and							867	1159	292	0.66	0.64	0.02
incl							1108	1132	24	1.87	1.81	0.03
<b>KSRC031</b>	690455	6410636	497	-65	268	401**	0	18	18	0.24	0.13	0.10
and							54	123	69	0.14	0.04	0.09
and							141	189	48	0.14	0.05	0.09
and							282	352	70	0.13	0.05	0.08
and							367	401**	34	0.18	0.09	0.09
<b>KSRC032</b>	690410	6410725	489	-65	268	503**	0	503**	503	0.22	0.10	0.11
incl							353	371	18	0.56	0.25	0.29
also							446	503*	57	0.55	0.28	0.25
<b>KSRC034</b>	690450	6410525	487	-65	268	500	33	45	12	0.32	0.08	0.22
and							279	310	31	0.22	0.12	0.09
and							329	487	158	0.38	0.22	0.15
<b>KSRC036</b>	690415	6410425	496	-65	268	498	60	111	51	0.20	0.13	0.07
and							198	207	9	0.36	0.14	0.21
and							246	477	231	0.22	0.11	0.11
<b>KSRC037</b>	690415	6410335	498	-65	268	433**	0	60	60	0.26	0.10	0.15
and							108	433**	325	0.20	0.10	0.10
incl							291	306	15	0.50	0.39	0.10
<b>KSRC038</b>	690370	6411225	485	-65	268	498**	94	498**	404	0.42	0.35	0.07
incl							302	319	17	0.96	0.92	0.03
also							341	353	12	2.14	1.93	0.20

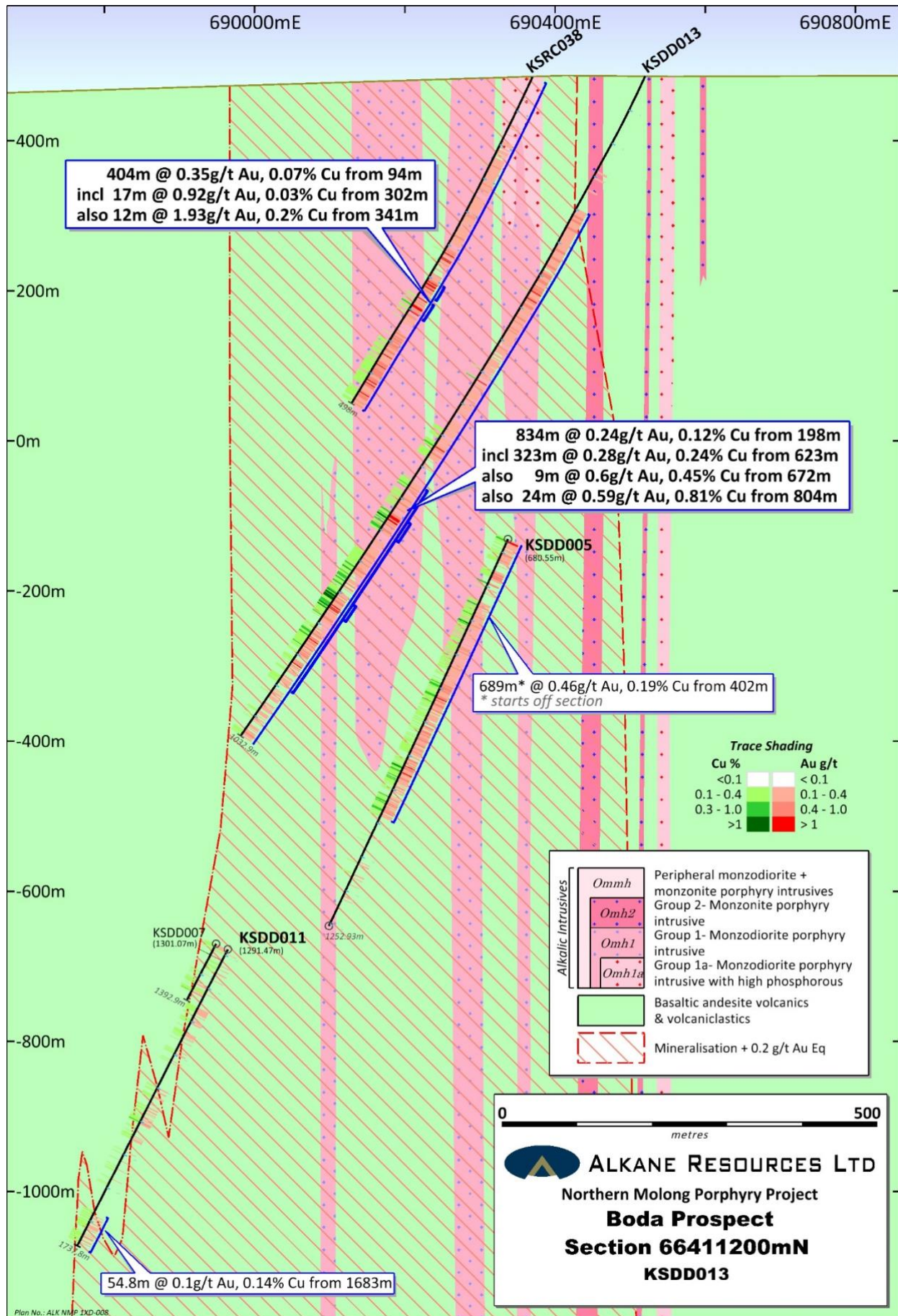
\* Intercepts are calculated using a lower cut of 0.1g/t AuEq. The prices used to calculate AuEq were US\$1,650/oz gold and US\$5,000/t copper.

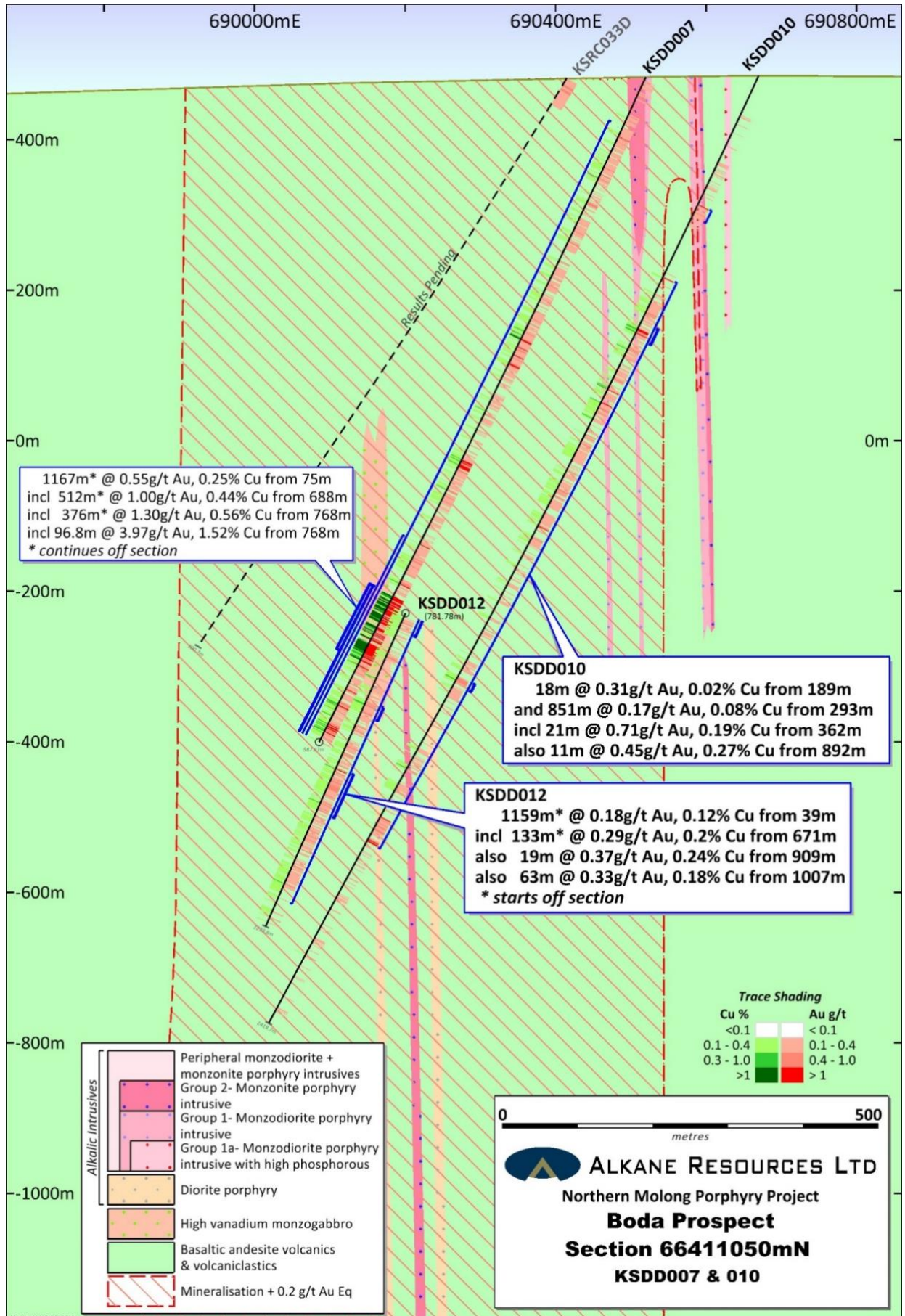
\*\* hole abandoned.

Internal dilution (< cut off) is less than 20% of reported intercepts. True widths are estimated as approximately 50% of intersected width.











### Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results is based on, and fairly reflects, 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.

### Previous Information

The information in this report that relates to exploration results is extracted from the Company's ASX announcements noted in the text of the announcement and are available to view on the Company's website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and that the form and context in which the Competent Person's findings are presented have not been materially altered.

### 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](http://www.alkane.com.au) - ASX: ALK and OTCQX: ANLKY

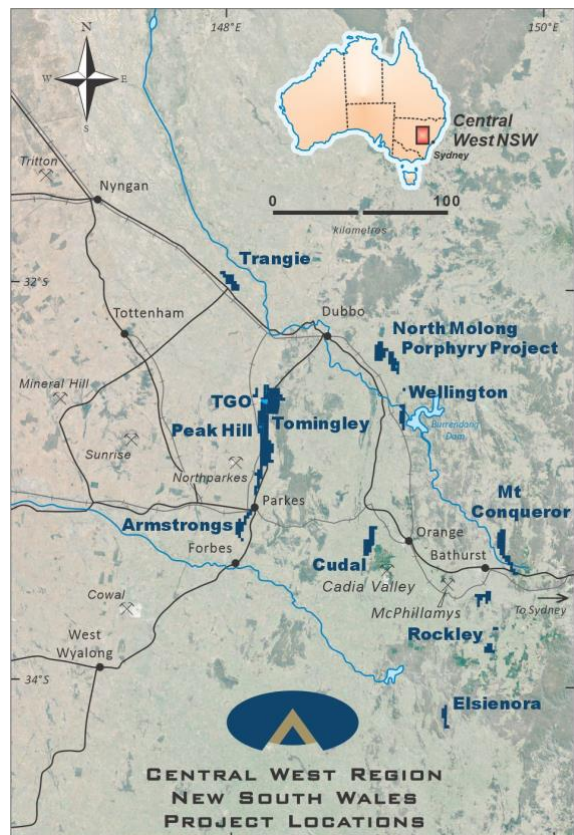
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 ~19.9% of Genesis Minerals (ASX: GMD) and ~12.7% of Calidus Resources (ASX: CAI).





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 – Boda and Boda Two November 2020

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core drilling was undertaken by Ophir Drilling Pty Ltd</li> <li>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</li> <li>RC drilling was undertaken by Strike Drilling Pty Ltd</li> <li>RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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 is sampled with a Corewise automatic core saw.</li> <li>RC Drilling – the total sample (~20-30kg) is delivered via cyclone into a large plastic bag which is retained for future use if required. A sub-sample of approximately 1kg is spear sampled from each plastic bag and composited to make a 3 metres sample interval. If strong mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are resplit using a cone splitter on the rig into a separate calico at the time of drilling and re-submitted to the laboratory for re-assay.</li> <li>Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish</li> <li>A multi-element suite was determined using a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer</li> <li>Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (HQ3) sized oriented core.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>DD - core loss was identified by drillers and calculated by geologists when logging. Generally <math>\geq 99\%</math> was recovered with any loss usually in portions of the oxide zone</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core or RC precollars used in the oxide zones.</li> <li>RC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample quality is qualitatively logged</li> <li>Core drilling completed using HQ triple tube to maximise core recovery</li> <li>A high capacity RC rig was used to enable dry samples collected. Drill cyclone is cleaned between rod changes and after each hole to minimise cross-hole contamination.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Each one metre interval is 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)</li> </ul>
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</li> </ul>	<ul style="list-style-type: none"> <li>Mostly logging was qualitative with visual estimates of the various characteristics. In addition, magnetic susceptibility data (quantitative) was collected as an aid for logging</li> <li>All drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database</li> <li>All drill holes were logged by qualified and experienced geologists</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes were logged in full</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Core sawn with half core samples submitted for analysis</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where strong mineralisation is observed by the site geologist, instead of compositing, this is individually sampled from the cone splitter on the RC rig as a 1 metre interval into a calico bag and forwarded to the laboratory.</li> <li>The 1m intervals forming composite samples assaying <math>\geq 0.10</math> g/t Au or <math>\geq 0.10</math> % Cu are resplit using a cone splitter on the rig during the time of drilling and re-submitted to the laboratory for re-assay.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Laboratory Preparation – the entire sample (~3kg) is dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp sample (±100g) is stored for future reference.</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with 70% &lt;2mm (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000g to 85% &lt;75µm (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples</li> </ul>	<ul style="list-style-type: none"> <li>Internal QAQC system in place to determine accuracy and precision of assays</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Non-biased core cutting using an orientation line marked on the core</li> <li>Duplicate RC samples are collected for both composite intervals and re-split intervals.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample are of appropriate size</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were analysed by ALS Minerals</li> <li>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</li> <li>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. RC samples that are re-split are digested by aqua regia with a ICP Atomic Emission Spectrometry for Cu only</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No geophysical tools were used to determine any element concentrations</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>No twinned holes have been drilled at this early stage of exploration</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>All drill hole logging and sampling data is entered directly into Geobank Mobile in the field for validation, transfer and storage into Geobank database with verification protocols in place</li> <li>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</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No adjustments made</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drillholes are laid out using hand-held GPS (accuracy <math>\pm 2\text{m}</math>) then DGPS surveyed accurately (<math>\pm 0.1\text{m}</math>) by licenced surveyors on completion</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>GDA94, MGA (Zone 55)</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drillhole collars DGPS surveyed accurately (<math>\pm 0.1\text{m}</math>) by licenced surveyors on completion</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results..</li> </ul>	<ul style="list-style-type: none"> <li>At this early exploration stage, data spacing is variable with the focus on identifying new zones of mineralisation</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Early stage, reconnaissance drilling, no resource estimations being undertaken</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied</li> </ul>	<ul style="list-style-type: none"> <li>No sampling compositing has been applied</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling suggests a broadly sub vertical geometry</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Estimated true intervals at this early stage of drilling are possibly ~50% of downhole lengths</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All samples are bagged into tied calico bags, before being grouped into polyweave 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</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"><li>• Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years).</li><li>• The Company has in place protocols to ensure data security.</li></ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"><li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li></ul>	<ul style="list-style-type: none"><li>• No audits or reviews have been conducted at this stage</li></ul>





## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All four licences (EL4022, EL6209, EL8261 and EL8887) in the Northern Molong Porphyry Project are owned 100% by Alkane.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All exploration licences are in good standing. EL4022 expires on 13 August 2026. EL6209 expires on 11 March 2023. EL8887 expires on 6 February 2026. EL8261 expires on 30 April 2023.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Significant historical drilling activity has been conducted within the bounds of EL4022.</li> <li>BODA PROSPECT: CRA Exploration/Rio Tinto completed a small IP survey and 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.  Amax Mining Inc/Woodsreef Mines grid sampled the residual soil profile and analysed for Cu, Pb and Zn. A coherent +250 ppm Cu soil anomaly was outlined with a strike length of over 1000m and a maximum of 1.25% Cu, in the -80-mesh sieve fraction. Grid based rock chip sampling produced up to 5.4% Cu and 42ppm Au.</li> <li>Within EL6209 records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m.</li> <li>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</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>See body of announcement</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes have been reported in this announcement.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results reported for uncut gold grades, grades calculated by length weighted average</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Reported intercepts are calculated using a broad lower cut of 0.1g/t AuEq although grades lower than this may be present internally (internal dilution). Internal dilution can be significant because of the type of bulk mining techniques used to extract this style of mineralisation but are limited to &lt;20% for the purpose of calculation.</li> <li>No top cut has been used.</li> <li>Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Gold equivalent values were calculated and used in modelling the mineralisation shells. Metal prices used for the gold equivalent were US\$1650/oz for gold and US\$5000/t for copper.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>It is apparent on the sections and the report descriptions that the overall geometry of the porphyry mineralisation at Boda prospect is subvertical.</li> <li>True intervals are likely to be ~50% of downhole lengths</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Plans showing geology with drill collars are included in the body of the announcement.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive reporting has been undertaken with all holes listed in the included table.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other exploration data is available to assist in interpretation.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>It is recommended that further drilling at Boda prospect to define its resource potential. Other drilling work targeting the IP anomalies will be undertaken within the licence.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive</i></li></ul>	<ul style="list-style-type: none"><li>• See figures included in the announcement.</li></ul>