

18 July 2022



Kaiser RC Drilling Delineates Significant Au-Cu Mineralisation

- Initial results returned for the Reverse Circulation (RC) drilling program at the Kaiser prospect identified multiple zones of significant gold-copper mineralisation including:

KAI057	357m grading 0.23g/t Au, 0.25% Cu from 7m
incl	173m grading 0.34g/t Au, 0.42% Cu from 87m
incl	37m grading 0.97g/t Au, 1.0% Cu from 113m
KAI053	177m grading 0.32g/t Au, 0.14% Cu from surface
incl	36m grading 0.53g/t Au, 0.24% Cu from 9m
also	29m grading 0.68g/t Au, 0.20% Cu from 73m
incl	1m grading 11.05g/t Au, 1.35% Cu from 75m

- At Boda Two, results were received for diamond core drill holes KSDD050 and BOD061, testing the southern extension of gold-rich pyrite mineralisation intersected in KSDD022 as well as north-south continuation of broad gold-copper mineralisation intersected in previously announced drillholes. Significant intercepts are:

KSDD050	306m grading 0.57g/t Au, 0.04% Cu from 928m
incl	34m grading 0.36g/t Au, 0.16% Cu from 1045m
also	155m grading 0.80g/t Au, 0.02% Cu from 1079m
incl	38m grading 1.9g/t Au, 0.02% Cu from 1106m
incl	1m grading 28.4g/t Au, 0.02% Cu from 1135m
BOD061	522m grading 0.28g/t Au, 0.14% Cu from 855m
incl	56m grading 0.73g/t Au, 0.28% Cu from 1232m
and	57m grading 0.38g/t Au, 0.16% Cu from 1436m

- The initial 100m x 100m RC drilling at the Kaiser prospect to identify shallow open pittable mineralisation is near competition with a diamond core rig mobilised to tail selected RC holes to greater depths.
- The recently completed Induced Polarisation (IP) with Magnetotelluric (MT) survey undertaken over the north-west structural corridor area extending 5km north-west of Kaiser, has identified two high-priority targets which are to be drill tested in the near future.

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- **A major RC and diamond core infill drilling program has been designed at the Boda Two and Boda Three prospects. The drilling program will decrease the drill hole spacing to an average of approximately 75m spacing. Pending approvals this drilling will commence in August 2022.**

Alkane Resources Limited (ASX: ALK) announces the first set of results from its initial resource drilling program at the Company's Kaiser Prospect in Central New South Wales. Kaiser is to the immediate north-west of the landmark Boda 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 ('Tomingley').

Alkane Managing Director, Nic Earner, said: *"As anticipated, the RC drilling program at Kaiser is showing that mineralisation is both extensive and reaches the surface. Drilling at Kaiser continues, and an initial resource estimate is scheduled for preparation and release in the coming months.*

"The team is also drilling south of the Boda resource at Boda Two and Three to follow up on the higher-grade mineralisation previously identified. Planning is also underway to drill other nearby targets identified by the recent IP and MT surveys.

"These results build on the initial Boda resource released in May and are encouraging confirmation that the Northern Molong Porphyry Project has significant potential yet to be unlocked."

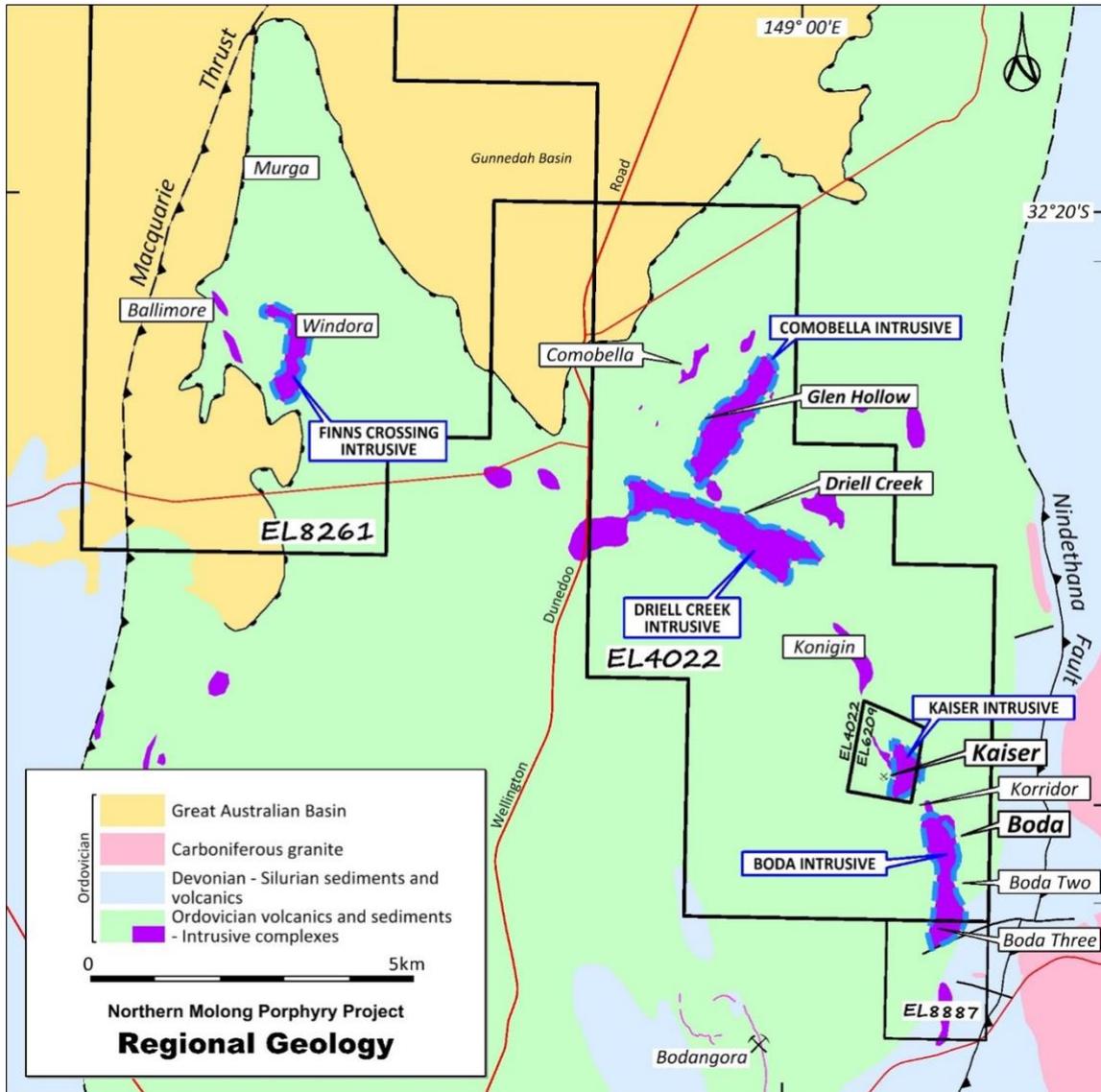


Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The NMPP is located in central west NSW at the northern end of the Molong Volcanic Belt of the Macquarie Arc and is considered highly prospective for large scale porphyry and epithermal gold-copper deposits.

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



A major RC and diamond core drilling program commenced in July 2020, 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 drill program is testing other known gold-copper mineralisation occurrences and co-incident IP anomalies within the 15 km monzonite intrusive corridor that extends from Boda Three to Finns Crossing.

Following the reporting of an initial Inferred Resource for the Boda deposit (*ASX Announcement 30 March 2022*), RC and DD core drilling has continued to test mineralised zones outside of the resource envelope at Kaiser, Korridor and Boda Two.



Kaiser Prospect

The Kaiser prospect comprises a thick sequence of basaltic to andesitic volcanics and volcanoclastics that have been intruded by a series of dykes and stocks that range in composition from diorite and monzodiorite to monzonite. Porphyry gold-copper mineralisation at the Kaiser prospect is associated with two northwest trending zones of potassic to calc-potassic alteration, the Kaiser and Duke Zones, that host zones of chalcopyrite-bornite \pm pyrite in veins and as disseminations. Minor gold-copper bearing hydrothermal breccias are responsible for narrow intervals of high-grade mineralisation. The Duke and Kaiser Zones show many similarities to the Boda prospect including alteration assemblages and zonation with a northwest trend to the hydrothermal system.

An RC drilling program commenced in February 2022 which was designed on a 100m x 100m grid to a 300m vertical depth over a strike length of 800m for the purpose of estimating a shallow resource. Results have been returned for 25 holes (8,190 metres) and these results have delineated localised zones of significant gold-copper grades within the two broadly northwest trending zones.

The best results from the Duke Zone are centred within the northwest of the target area with KAI058 on the most north-western traverse returning a mineralised intercept of 182m @ 0.11g/t Au and 0.24% Cu from 53m, indicating that the system is still open to the northwest. Additionally, RC drill chip logging has indicated that several of the most north-eastern drill holes on each traverse are mineralised and subsequently addition holes have been designed to test this mineralisation at depth, as well as test extensions of shallow mineralisation along strike to the northwest.

Drilling within the Kaiser Zone during this program has been limited to the most south-westerly hole on each traverse. The best results returned thus far within the Kaiser Zone are located within the southeast of the drilling area with KAI053 returning an intercept of 177m grading 0.32g/t Au and 0.14% Cu from surface. This 90m (true width) intercept is along strike from shallow mineralisation intersected in KSRC027 - 156m grading 0.48g/t Au & 0.20% Cu from surface, and KSRC029 - 144m grading 0.22g/t Au & 0.20% Cu from surface (*ASX Announcement 9 September 2019*). This shallow mineralised zone continues over a length of greater than 350m through the old workings to the west-northwest.

Boda Two Prospect

The Boda Two prospect is defined by coincident magnetic high and gold-copper soil anomaly with an estimated north-south 1,100m x 500m footprint. An electrical geophysics survey (3D-IP) identified a strongly conductive target (*ASX Announcement 19 May 2020*) that was drill tested with KSDD022 intersecting substantial pyrite mineralisation with significant gold grades of 292m @ 0.66g/t Au from 867 metres (*ASX Announcement 11 November 2020*).

Drilling has been conducted on west-orientated drilling traverses, spaced 100 metres apart with broad drill hole spacing ranging between 150 – 300m. The drilling continues to identify extensive and continuous zones of low-grade gold-copper porphyry mineralisation with internal high-grade zones associated with weakly developed hydrothermal breccias of magnetite \pm pyrite \pm chalcopyrite. Assay results were received for two RC precollared diamond core drill holes for 3,359.9 metres, with significant intercepts of:

KSDD050	24m grading 0.25g/t Au, 0.03% Cu from 409m (Au-rich)
and	203m grading 0.23g/t Au, 0.02% Cu from 682m (Au-rich)
incl	20m grading 0.38g/t Au, 0.02% Cu from 844m (Au-rich)
and	306m grading 0.57g/t Au, 0.04% Cu from 928m (Au-rich)
incl	34m grading 0.36g/t Au, 0.16% Cu from 1045m
also	155m grading 0.80g/t Au, 0.02% Cu from 1079m (Au-rich)
incl	38m grading 1.9g/t Au, 0.02% Cu from 1106m (Au-rich)



incl 1m grading 28.4g/t Au, 0.02% Cu from 1135m (Au-rich)
and 25m grading 0.21g/t Au, 0.11% Cu from 1269m

BOD061 35m grading 0.32g/t Au, 0.02% Cu from 583m (Au-rich)
and 22m grading 0.28g/t Au, 0.15% Cu from 768m
and 522m grading 0.28g/t Au, 0.14% Cu from 855m
incl 56m grading 0.73g/t Au, 0.28% Cu from 1232m
and 57m grading 0.38g/t Au, 0.16% Cu from 1436m

The gold-rich pyrite mineralisation first identified in KSDD022, and now intersected in KSDD050 and BOD061 approximately 100m and 300m to the south, flanks the eastern shoulder of the porphyry gold-copper mineralisation. Distally this mineralisation is associated with quartz-pyrite veins and pyrite stringers transitioning to pyrite-cemented hydrothermal breccias at depth.



KSDD050 – A 30cm long pyrite vein breccia within a 1m sample that is grading 28.40g/t Au, 0.02% Cu from 1135m

This gold-rich pyrite mineralisation does not extend to surface however, it is open at depth. The relationship of this zone to the porphyry gold-copper mineralisation is not fully understood but it does appear to be gradational in KSDD050 with a 40m zone of increasing copper grade at the base of the gold-rich-zone.

A major RC and diamond core drilling program has been designed at Boda Two and Boda Three with drill holes designed to target extensions to gold-copper mineralised breccias and to infill the drilling in the low-grade disseminated mineralisation. An initial hole will be drilled from west to east targeting the gold-rich pyrite mineralisation with a secondary purpose of identifying repetition in alteration and mineralisation assemblages potentially caused by steep west dipping shear zones. Drilling is expected to start in Q3 2022.

Korridor Prospect

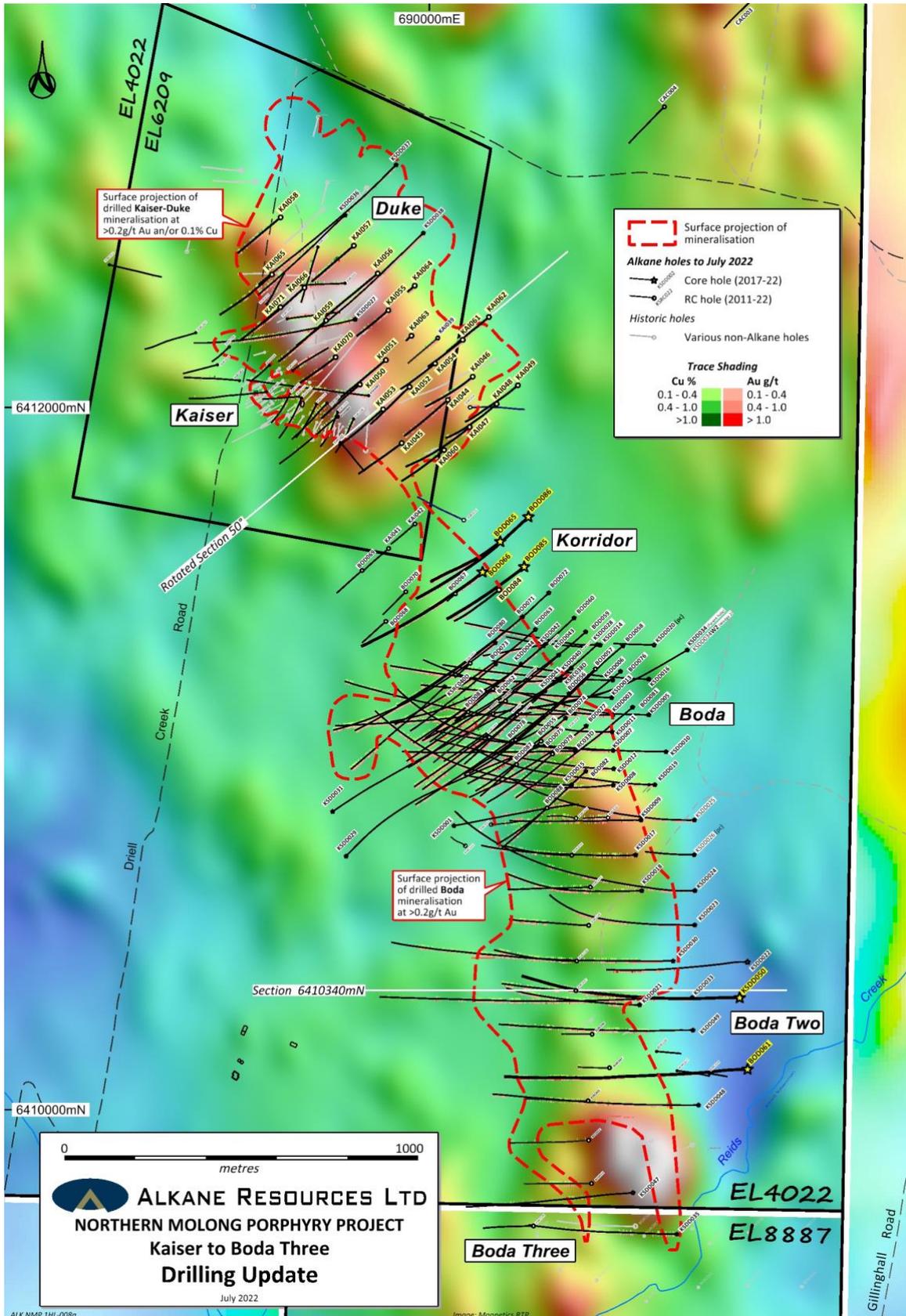
The Korridor prospect is positioned within the northwest trending structural corridor between the Boda deposit and the Kaiser prospect. Porphyry gold-copper mineralisation was intersected from near surface in RC holes BOD066 - 226m grading 0.25g/t Au, 0.10% Cu from 12m to end of hole, and deeper in BOD065 - 64m grading 0.43g/t Au, 0.12% Cu from 174m to end of hole (*ASX Announcement 17 December 2021*). Subsequently, a further four holes were designed at 100m spacing to test the southeast lateral, and depth extent of this new shallow zone of mineralisation. Additionally, BOD065 and BOD066 were diamond tailed.

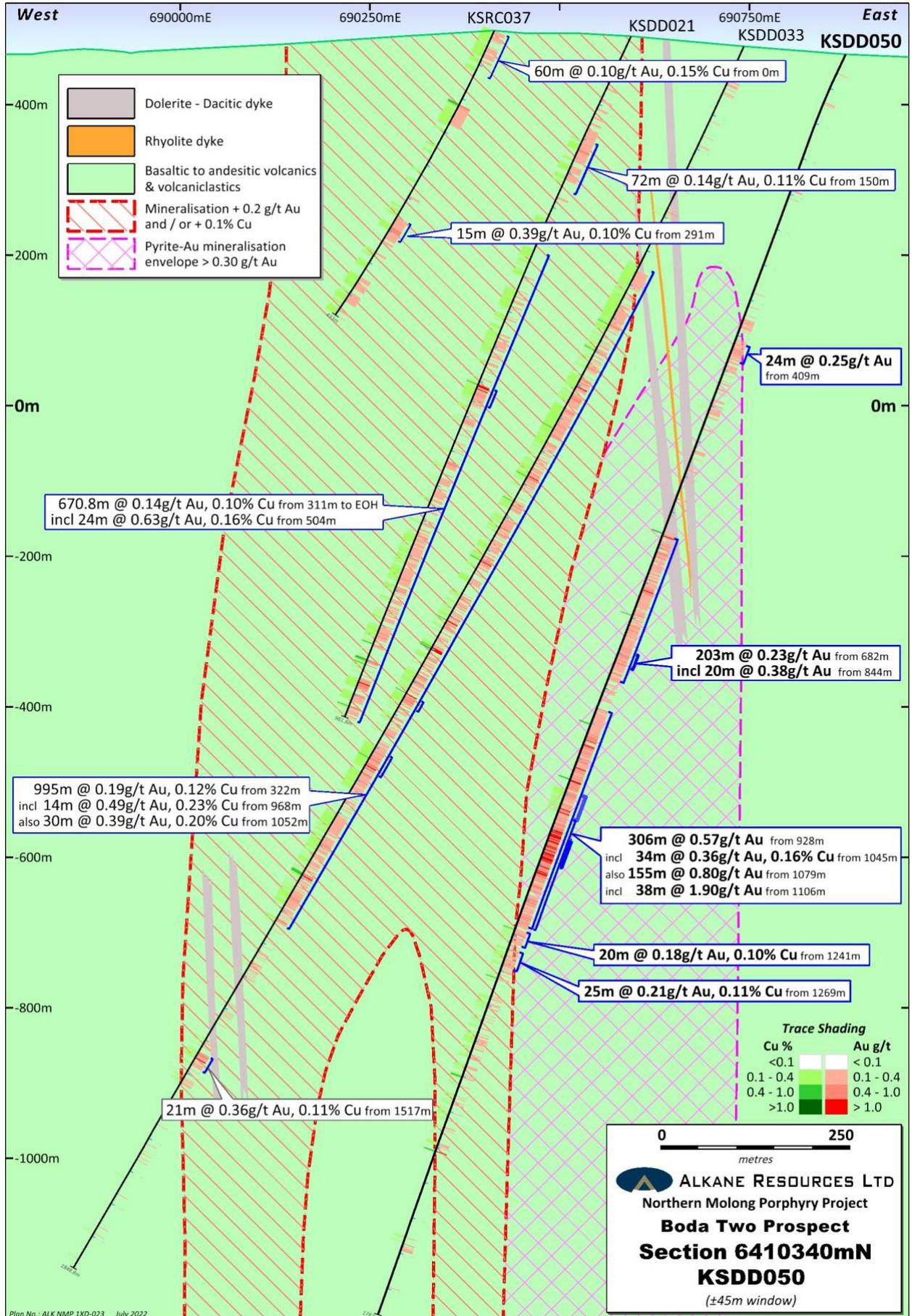
Drilling has established that the Korridor prospect is located over a significant NNW-SSE trending, steep WSW dipping reverse structure over which significant post-mineral displacement has occurred. This structure abuts deeper porphyry gold-copper mineralisation (BOD065) against weakly mineralised Au-rich pyrite mineralisation (BOD086) generally observed at higher levels at Boda. Northeast to east directed drilling across the fault will be required to test the footwall zone at depth.



Electrical Geophysics

An Induced Polarisation (IP) and Magnetotelluric (MT) geophysical survey was completed over a 5km x 2km area to the northwest of the Kaiser prospect in March 2022. The survey was designed to delineate further intrusive centres. Three coincident IP chargeability and conductivity anomalies were identified with the two strongest anomalies to be drill tested in quarter three (2022) pending approvals.





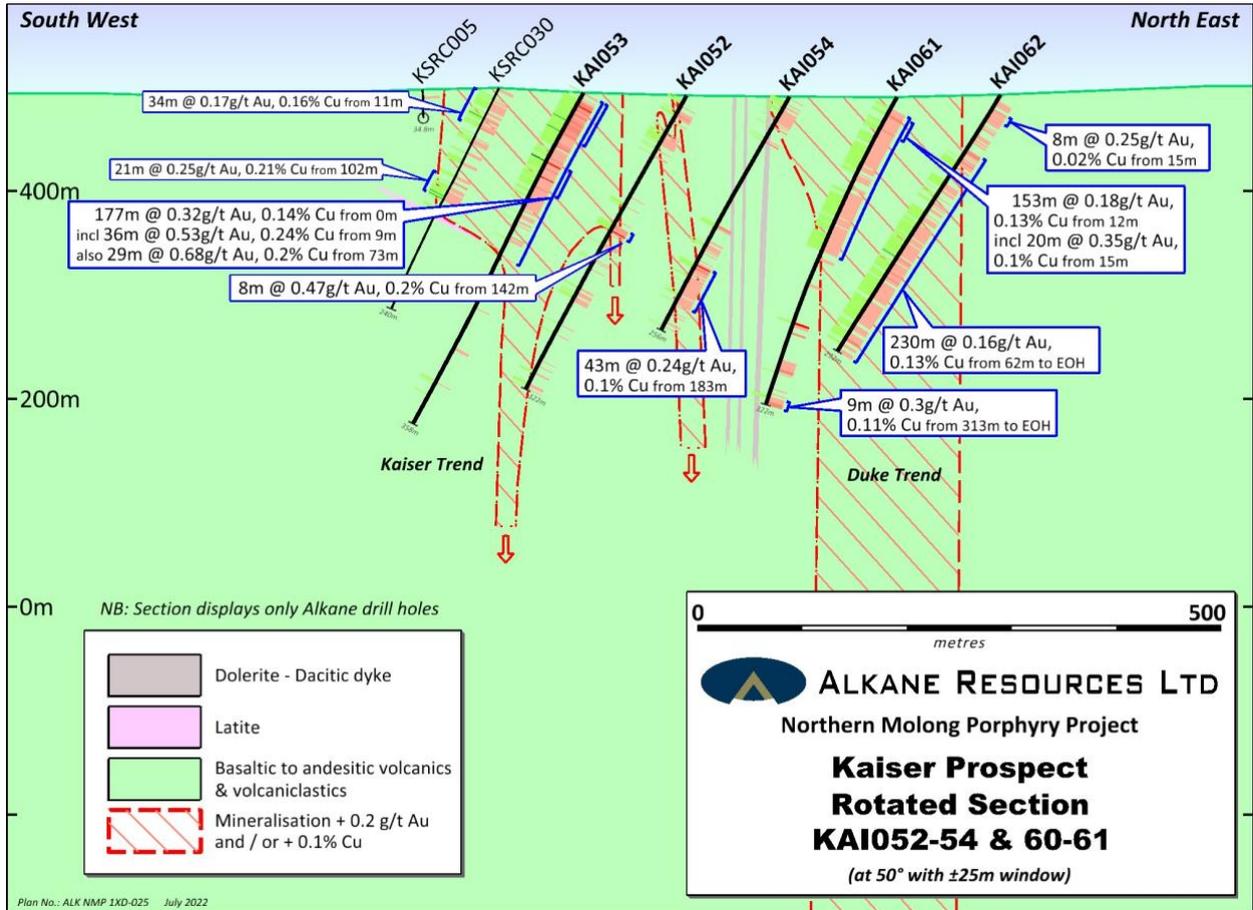




Table 1 – Kaiser Drilling Significant Results – July 2022 (>0.2g/t Au and/or >0.1% Cu)

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
KAI044	690052	6412022	488	-61	228	350	99	111	12	0.28	0.10
and							339	350	11	0.24	0.11
KAI045	689922	6411899	489	-61	228	294	191	204	13	0.18	0.18
KAI046	690122	6412088	487	-61	228	348	6	249	243	0.19	0.15
incl							140	156	16	0.34	0.45
incl							225	235	10	0.62	0.18
and							301	348	47	0.25	0.14
KAI047	690114	6411944	485	-61	228	390	3	67	64	0.19	0.15
and							97	116	19	0.23	0.15
and							311	323	12	0.08	0.15
KAI048	690190	6412010	485	-61	228	400	314	361	47	0.23	0.02
incl							350	361	11	0.39	0.02
and							366	387	21	0.22	0.15
KAI049	690250	6412063	486	-61	228	460	<i>No significant results</i>				
KAI050	689804	6412066	498	-61	231	352	0	161	161	0.20	0.12
incl							0	11	11	0.37	0.27
also							57	72	15	0.40	0.18
and							282	352	70	0.07	0.10
KAI051	689877	6412135	495	-61	232	358	93	150	57	0.20	0.15
and							203	249	46	0.12	0.11
and							308	322	14	0.44	0.21
and							325	350	25	0.25	0.12
KAI052	689944	6412059	492	-61	228	322	16	23	7	0.29	0.10
and							38	54	16	0.13	0.11
and							142	150	8	0.47	0.20
and							211	224	13	0.13	0.10
KAI053	689869	6411995	495	-61	231	358	0	177	177	0.32	0.14
incl							9	45	36	0.53	0.24
also							73	102	29	0.68	0.20
incl							75	76	1	11.05	1.35
KAI054	690016	6412125	491	-61	230	256	6	26	20	0.14	0.11
and							183	226	43	0.24	0.10
incl							184	189	5	0.74	0.22
KAI055	689884	6412277	495	-61	229	260	7	32	25	0.33	0.09
and							85	97	12	0.16	0.13
KAI056	689854	6412382	497	-59	230	442	15	29	14	0.25	0.14
and							52	98	46	0.21	0.08
and							156	186	30	0.19	0.15
and							196	322	126	0.12	0.11
and							347	436	89	0.35	0.10
incl							353	366	13	0.62	0.16
KAI057	689787	6412461	499	-61	230	364	7	364	357	0.23	0.25
incl							87	260	173	0.34	0.42
incl							113	150	37	0.97	1.02
KAI058	689580	6412541	501	-61	230	334	53	235	182	0.11	0.24
incl							132	140	8	0.15	0.59
also							149	167	18	0.19	0.46
and							309	334	25	0.23	0.19



Table 1 – Kaiser Drilling Significant Results – July 2022 (>0.2g/t Au and/or >0.1% Cu)

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
KAI059	689708	6412248	499	-61	228	418	0	418	418	0.23	0.11
incl							0	11	11	0.43	0.19
also							208	235	27	0.47	0.14
KAI060	690041	6411879	486	-61	228	316	26	32	6	0.56	0.38
and							39	88	49	0.21	0.31
KAI061	690094	6412192	490	-61	228	322	12	165	153	0.18	0.13
incl							15	35	20	0.35	0.10
and							313	322	9	0.30	0.11
KAI062	690168	6412258	493	-61	228	292	15	23	8	0.25	0.02
and							62	292	230	0.16	0.13
KAI063	689950	6412204	493	-61	228	46	12	46	34	0.25	0.11
KAI064	689959	6412347	495	-61	228	58	9	39	30	0.26	0.10
KAI065	689555	6412379	501	-61	228	370	84	212	128	0.13	0.11
and							279	294	15	0.08	0.21
KAI066	689647	6412341	501	-61	228	358	3	36	33	0.06	0.11
and							109	128	19	0.11	0.14
and							208	318	110	0.40	0.12
and							349	357	8	0.20	0.10
KAI070	689735	6412143	500	-60	231	370	0	59	59	0.23	0.12
and							105	176	71	0.20	0.08
and							229	246	17	0.20	0.11
KAI071	689579	6412286	500	-61	228	352	0	51	51	0.20	0.12
and							148	201	53	0.16	0.12
and							277	293	16	0.12	0.10

Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 16% of reported intercepts. True widths are estimated as approximately 50% of intersected width.

Table 2 – Boda Two Drilling Significant Results – July 2022 (>0.2g/t Au and/or >0.1% Cu)

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
KSDD050	690877	6410318	467	-65	271	1787	409	433	24	0.25	0.03
and							682	885	203	0.23	0.02
incl							844	864	20	0.38	0.02
and							928	1234	306	0.57	0.04
incl							1045	1079	34	0.36	0.16
also							1079	1234	155	0.80	0.02
incl							1106	1144	38	1.90	0.02
incl							1135	1136	1	28.40	0.02
and							1241	1261	20	0.18	0.10
and							1269	1294	25	0.21	0.11
BOD061	690899	6410115	459	-65	268	1569.9	583	618	35	0.32	0.02
and							768	790	22	0.28	0.15
and							855	1377	522	0.28	0.14
incl							1232	1288	56	0.73	0.28
and							1436	1493	57	0.38	0.16

Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 16% of reported intercepts. True widths are estimated as approximately 50% of intersected width.



Table 3 – Korridor Drilling Significant Results – July 2022 (>0.2g/t Au and/or >0.1% Cu)

Hole ID	Easting (MGA)	Northing (MGA)	RL	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Cu (%)
BOD065	690200	6411618	478	-65	228	540.9	174	540.9	366.9	0.26	0.13
incl							177	219	42	0.54	0.14
incl							204	219	15	0.92	0.20
also							311.1	356	44.9	0.34	0.14
also							433	486	53	0.22	0.19
also							524	540	16	0.62	0.28
BOD066	690150	6411531	477	-65	230	1116.8	3	487	484	0.21	0.12
incl							108	120	12	0.68	0.24
also							189	195	6	1.60	0.11
also							410	468	58	0.30	0.21
incl							459	460	1	2.17	0.31
BOD084	690197	6411480	479	-60	231	334	251	258	7	0.29	0.04
and							321	333	12	0.16	0.21
BOD085	690268	6411546	481	-60	231	552.7	396	526	130	0.36	0.02
incl							484	516	32	0.66	0.02
BOD086	690280	6411688	481	-61	228	778.5	581	600	19	0.40	0.01
and							627	638	11	0.56	0.01
and							766	777	11	0.30	0.08

Gold and copper intercepts are calculated using a lower cut of 0.1g/t Au and 0.05% Cu respectively. Internal dilution (< cut off) is less than 16% of reported intercepts. True widths are estimated as approximately 50% of intersected width.



Competent Person

Unless otherwise advised above or in the Announcements referenced, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr Rodney Dean, MAIG, (Senior Exploration Geologist) 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 Dean consents 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 - ASX: ALK

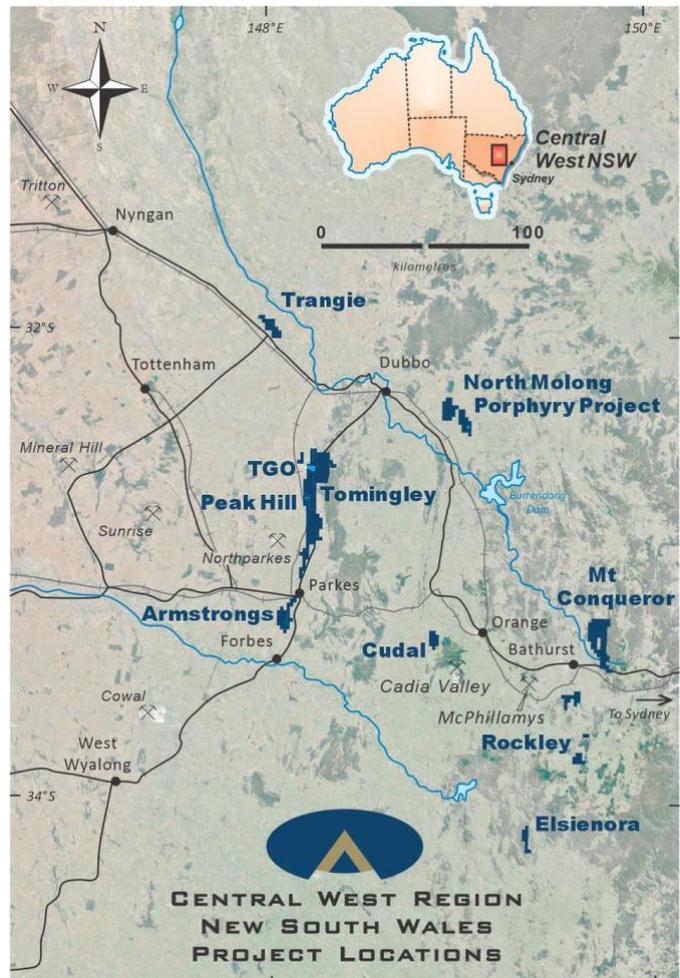
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 life beyond 2030.

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 drilling ongoing adjacent to the initial resource identified at Boda, 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 ~9.7% 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 – July 2022

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"> 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. 	<ul style="list-style-type: none"> Diamond core drilling was undertaken by Ophir 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 RC drilling was undertaken by Strike Drilling Pty Ltd RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 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. Half core is sampled with a Corewise automatic core saw. RC Drilling – the total sample (~35kg) 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 mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying ≥ 0.10 g/t Au or ≥ 0.10 % Cu are re-split 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. Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish A multi-element suite was determined using a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (HQ3) sized orientated core. Wedge holes are completed using NQ3 wireline bit producing 45mm diameter sized orientated core.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> DD - core loss was identified by drillers and calculated by geologists when logging. Generally $\geq 99\%$ 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 or RC precollars used in the oxide zones. RC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 	<ul style="list-style-type: none"> Sample quality is qualitatively logged Core drilling completed using HQ triple tube where possible to maximise core recovery. 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.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> There is no known relationship between sample recovery and grade
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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)
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography 	<ul style="list-style-type: none"> 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 drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database All drill holes were logged by qualified and experienced geologists
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged 	<ul style="list-style-type: none"> All drill holes were logged in full
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> Core sawn with half core samples submitted for analysis
	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	<ul style="list-style-type: none"> Each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where 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. The 1m intervals forming composite samples assaying ≥ 0.10 g/t Au or ≥ 0.10 % Cu are resplit using a cone splitter on the rig during the time of drilling and re-submitted to the



Criteria	JORC Code explanation	Commentary
		<p>laboratory for re-assay.</p> <ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> 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).
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples 	<ul style="list-style-type: none"> Internal QAQC system in place to determine accuracy and precision of assays
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Non-biased core cutting using an orientation line marked on the core Duplicate RC samples are collected for both composite intervals and re-split intervals.
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sample are of appropriate size
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> 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. RC samples that are re-split are digested by aqua regia with a ICP Atomic Emission Spectrometry for Cu only
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No geophysical tools were used to determine any element concentrations
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels
Verification of sampling	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> Drill data is compiled, collated, and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary



Criteria	JORC Code explanation	Commentary
<i>and assaying</i>	<ul style="list-style-type: none"> <i>The use of twinned holes.</i> 	<ul style="list-style-type: none"> <i>No twinned holes have been drilled at this early stage of exploration</i>
	<ul style="list-style-type: none"> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> 	<ul style="list-style-type: none"> <i>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</i> <i>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</i>
	<ul style="list-style-type: none"> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> <i>No adjustments made</i>
<i>Location of data points</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> <i>Drillholes are laid out using hand-held GPS (accuracy $\pm 2m$) then DGPS surveyed accurately ($\pm 0.1m$) by licenced surveyors on completion</i>
	<ul style="list-style-type: none"> <i>Specification of the grid system used.</i> 	<ul style="list-style-type: none"> <i>GDA94, MGA (Zone 55)</i>
	<ul style="list-style-type: none"> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> <i>Drillhole collars DGPS surveyed accurately ($\pm 0.1m$) by licenced surveyors on completion</i>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results..</i> 	<ul style="list-style-type: none"> <i>At Kaiser drill spacing is on nominal 100m x 100m grid. For all other prospects too early an exploration stage, and the data spacing is variable with focus on identifying new zones of mineralisation.</i>
	<ul style="list-style-type: none"> <i>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</i> 	<ul style="list-style-type: none"> <i>No Mineral Resource estimation procedure and classifications apply to the exploration data being reported.</i>
	<ul style="list-style-type: none"> <i>Whether sample compositing has been applied</i> 	<ul style="list-style-type: none"> <i>RC – each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where 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.</i> <i>The 1m intervals forming composite samples assaying ≥ 0.10 g/t Au or ≥ 0.10 % Cu are re-split using a cone splitter on the rig during the time of drilling and re-submitted to the laboratory for re-assay. Composite samples may be reported if re-split assays were not received in time for announcement.</i> <i>DD – Sample intervals are based on alteration and lithology but in general are 1m. No</i>



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		<i>interval was less than 0.3m or greater than 1.3m.</i>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> 	<ul style="list-style-type: none"> <i>Drilling suggests a broadly sub vertical geometry</i>
	<ul style="list-style-type: none"> <i>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</i> 	<ul style="list-style-type: none"> <i>Estimated true intervals are ~50% of downhole lengths</i>
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> <i>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</i> <i>Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years).</i> <i>The Company has in place protocols to ensure data security.</i>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> <i>No audits or reviews have been conducted at this stage</i>



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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All four licences (EL4022, EL6209, EL8261 and EL8887) in the Northern Molong Porphyry Project are owned 100% by Alkane.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Significant historical drilling activity has been conducted within the bounds of EL4022. 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. 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. EL6209 (Kaiser) historical records show 14 AC (170m), 78 RC (7591m) and 45 DD holes (7833m) = 15,594m.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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.
Drill hole information	<ul style="list-style-type: none"> 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"> 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. 	<ul style="list-style-type: none"> See body of announcement



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drill holes have been reported in this announcement.
Data aggregation methods	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Exploration results reported for uncut gold grades, grades calculated by length weighted average 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). Internal dilution can be significant because of the type of bulk mining techniques used to extract this style of mineralisation but are limited to <16% for the purpose of calculation. 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
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> It is apparent on the sections and the report descriptions that the overall geometry of the porphyry mineralisation at Kaiser, Boda Two and Korridor prospects are subvertical. True intervals are likely to be ~50% of downhole lengths
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Plans showing geology with drill collars are included in the body of the announcement.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comprehensive reporting has been undertaken with all holes listed in the included table.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Recently acquired drone magnetic data is not considered meaningful enough to be reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> It is recommended that further drilling is undertaken at the Kaiser prospect to define resource potential at depths greater than the 100mx 100m RC drilling has identified. Other drilling targeting Boda Two and Three and the Korridor prospects will be undertaken within the Project. Regional exploration comprising of IP, MT and soil geochemistry surveys are also planned.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><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>	<ul style="list-style-type: none"><i>See figures included in the announcement.</i>