

25 February 2022



Boda Resource Drilling Defining High Grade Zone

- The first stage of resource drilling at Boda, centred on the higher-grade gold-copper mineralisation, is nearing completion.
- Drilling currently suggests the higher-grade central zone has a strike length of 500m, is up to 400m wide, at least 900m deep and extends to surface within the larger, low grade alteration envelope the runs approximately three kilometres from Kaiser to Boda Three.
- Recent assays from the Boda resource drilling include:

BOD063 557m grading 0.52g/t Au, 0.12% Cu from 147m
incl 207m grading 0.65g/t Au from 147m (gold only flanking zone)
incl 12m grading 5.54g/t Au from 296m (gold only flanking zone)
incl 2m grading 28.9g/t Au from 305m (gold only flanking zone)
also 26m grading 1.00g/t Au, 0.18% Cu from 392m
also 27m grading 0.88g/t Au, 0.30% Cu from 441m
incl 4m grading 3.43g/t Au, 1.03% Cu from 645m
and 37m grading 0.36g/t Au, 0.14% Cu from 784m
and 88.4m grading 0.21g/t Au, 0.18% Cu from 963m

BOD074 639m grading 0.36g/t Au, 0.14% Cu from surface
incl 115m grading 0.75g/t Au, 0.32% Cu from 427m
incl 45.7m grading 1.18g/t Au, 0.44% Cu from 474.3m
also 6m grading 1.58g/t Au, 0.11% Cu from 189m

BOD056 466m grading 0.34g/t Au, 0.14% Cu from 60m
incl 20m grading 1.14g/t Au, 0.16% Cu from 275m
also 13m grading 0.75g/t Au, 0.28% Cu from 316m
also 21m grading 0.56g/t Au, 0.39% Cu from 487m
and 10m grading 0.30g/t Au, 0.12% Cu from 608m
and 13m grading 0.20g/t Au, 0.13% Cu from 624m
and 74m grading 0.15g/t Au, 0.12% Cu from 746m
incl 3.4m grading 0.43g/t Au, 0.43% Cu from 795.6m
and 22m grading 0.20g/t Au, 0.14% Cu from 885m

- Drilling also continues to define the extent of a significant lower-grade gold-copper mineralised system at the Boda Two and Boda Three prospects. Results include:

KSDD049 561m grading 0.19g/t Au, 0.12% Cu from 293m
incl 9m grading 0.63g/t Au, 0.25% Cu from 398m
also 26m grading 0.42g/t Au, 0.18% Cu from 782m

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- **Final assays from the Boda higher-grade resource drilling are scheduled for March and will be incorporated into the maiden resource estimation database. These assays have been delayed in the laboratory due to the recent wave of Covid-19 cases in NSW, as a result the initial Boda resource is now expected in April 2022.**
- **Targeting of higher-grade zones within the extensive mineralisation at Boda Two/Three will commence once the initial results from that drilling have been received in Q2 2022.**
- **Two RC drilling rigs have also commenced work on the Kaiser-Duke prospect. A 13,000m drilling program using a 100m x 100m drill hole grid sequence to 300m vertical depth is planned for the purpose of an initial resource estimate of the near-surface material.**

Alkane Resources Limited (ASX: ALK) announces an update to its drilling program 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 ('Tomingley').

Alkane Managing Director, Nic Earner, said: *"Our resource drilling program is methodically growing our knowledge of the higher-grade material at Boda.*

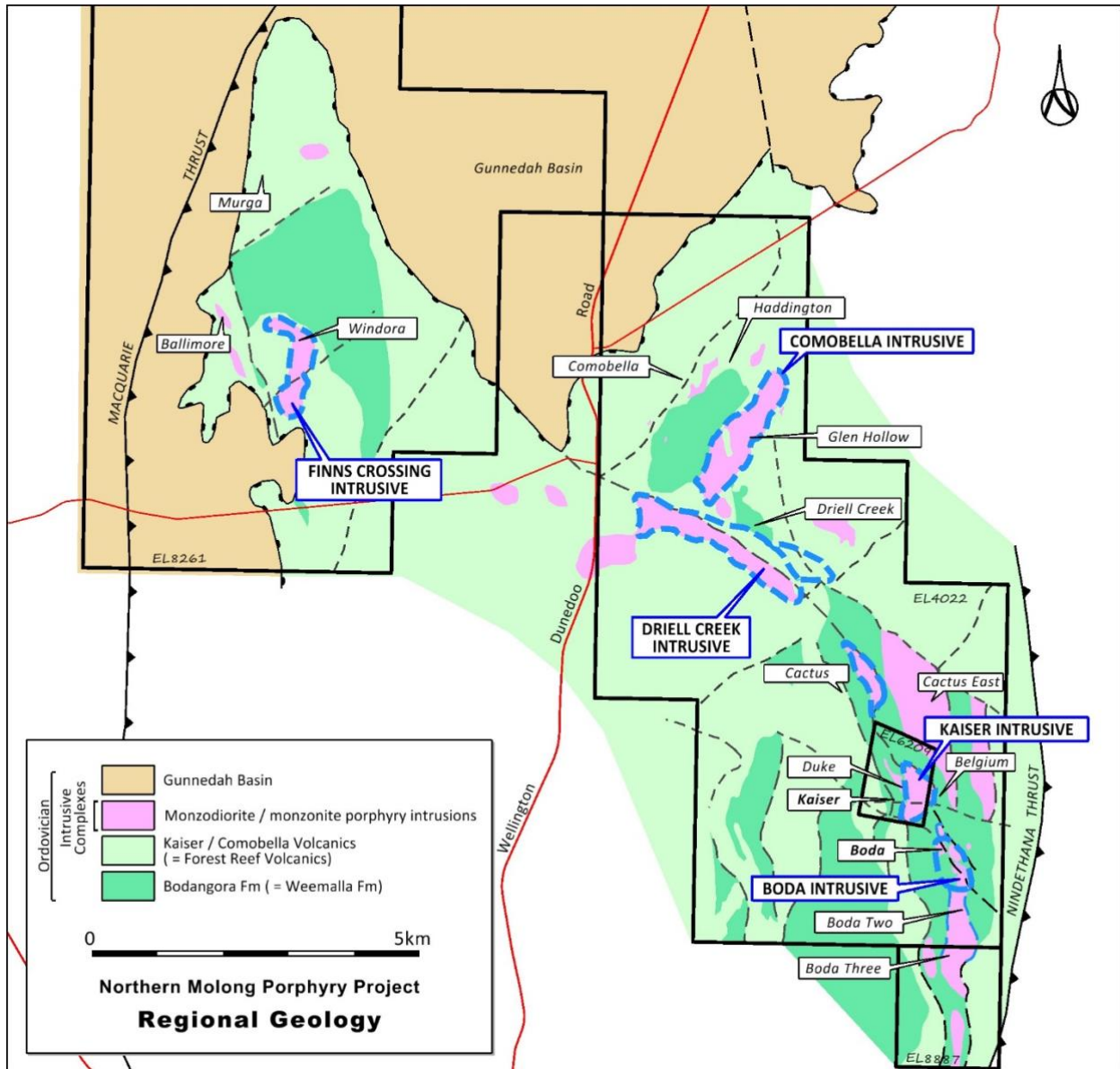
"We have experienced some delays at the laboratory, pushing our initial resource model back to April. Boda is just the first of the resource models we expect to put together in this area and we look forward to bringing Boda and subsequent models to investors, as we develop our understanding of what is emerging as a tier-one resource in a great location."



Northern Molong Porphyry Project (NMPP)

Alkane Resources Ltd 100%

The Project 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 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 overall 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.

Assays were received from the current drilling program testing Boda and Boda Two targets comprising of four RC drill holes and six diamond core drill holes for a total of 7,498.1 metres.



Boda Prospect

The Boda gold-copper porphyry system is a series of near vertical, northwest striking, intrusive related breccias hosted within a thick sequence of shallowly east dipping andesite lavas. These magmatic breccias tend to hydrothermal with a matrix comprising of calcite-quartz ± actinolite ± magnetite ± chalcopyrite ± pyrite, zoning to higher gold-copper grade when associated with a chalcopyrite ± pyrite dominant cement.

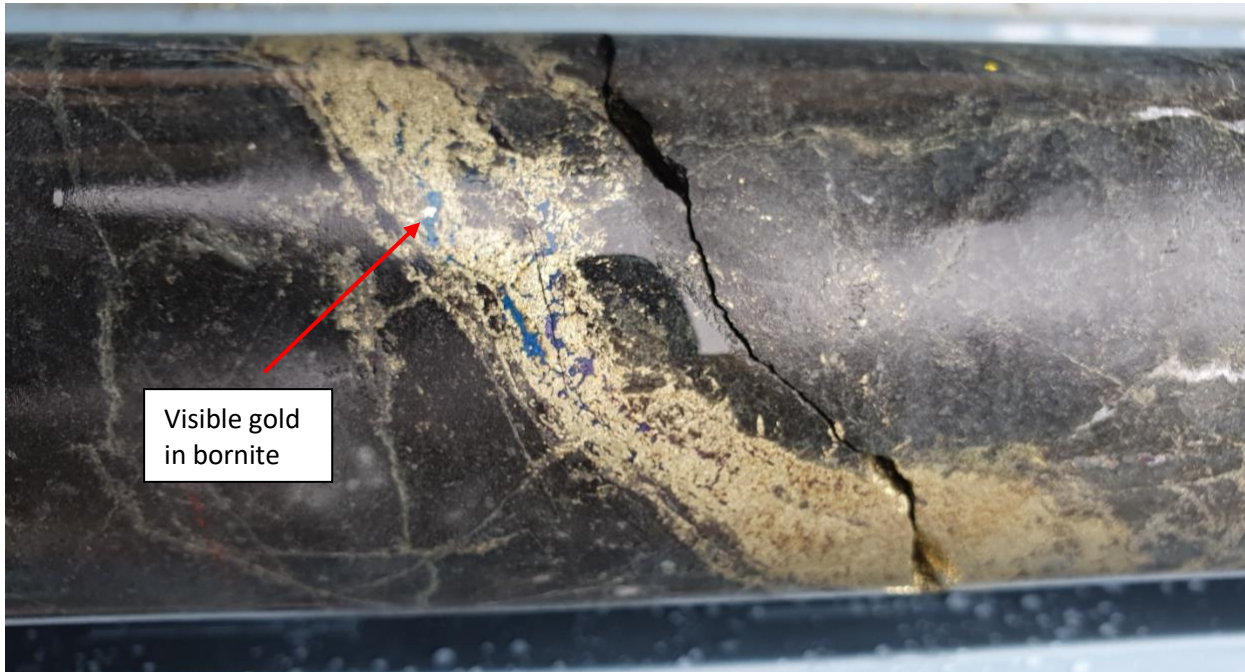
Drilling was recently completed testing the higher-grade, northwest trending mineralisation at Boda with 50m spaced southwest orientated drilling traverses with nominal 100m spaced drill holes. The drilling has defined gold-copper mineralisation over ten drill hole traverses for a strike length of 500m, up to 400m wide and 900m deep extending to surface. Assay results were recently received for four RC drill holes (1,620 metres) and five diamond core drill holes (4,581.1 metres) for a total of 6,201.1 metres. Significant intercepts from the drilling include:

BOD056	466m grading 0.34g/t Au, 0.14% Cu from 60m
incl	20m grading 1.14g/t Au, 0.16% Cu from 275m
also	13m grading 0.75g/t Au, 0.28% Cu from 316m
also	21m grading 0.56g/t Au, 0.39% Cu from 487m
and	10m grading 0.30g/t Au, 0.12% Cu from 608m
and	13m grading 0.20g/t Au, 0.13% Cu from 624m
and	74m grading 0.15g/t Au, 0.12% Cu from 746m
incl	3.4m grading 0.43g/t Au, 0.43% Cu from 795.6m
and	22m grading 0.20g/t Au, 0.14% Cu from 885m
BOD060	754.8m grading 0.31g/t Au, 0.21% Cu from 386m
incl	149m grading 0.37g/t Au from 159m (gold only flanking zone)
also	53m grading 0.68g/t Au, 0.63% Cu from 710m
incl	10m grading 1.49g/t Au, 0.77% Cu from 753m
also	5m grading 1.97g/t Au, 0.55% Cu from 816m
BOD062	20m grading 0.80g/t Au, 0.91% Cu from 134m
and	26m grading 0.51g/t Au, 0.45% Cu from 186m
and	33m grading 0.23g/t Au, 0.30% Cu from 240m
BOD063	557m grading 0.52g/t Au, 0.12% Cu from 147m
incl	207m grading 0.65g/t Au from 147m (gold only flanking zone)
incl	12m grading 5.54g/t Au from 296m (gold only flanking zone)
incl	2m grading 28.9g/t Au from 305m (gold only flanking zone)
also	26m grading 1.00g/t Au, 0.18% Cu from 392m
also	27m grading 0.88g/t Au, 0.30% Cu from 441m
incl	4m grading 3.43g/t Au, 1.03% Cu from 645m
and	37m grading 0.36g/t Au, 0.14% Cu from 784m
and	88.4m grading 0.21g/t Au, 0.18% Cu from 963m
BOD071	78m grading 0.26g/t Au, 0.18% Cu from 414m
and	311.7m grading 0.21g/t Au, 0.13% Cu from 757m
incl	9m grading 0.57g/t Au, 0.40% Cu from 972m
incl	1m grading 2.32g/t Au, 1.46% Cu from 973m
BOD074	639m grading 0.36g/t Au, 0.14% Cu from surface
incl	115m grading 0.75g/t Au, 0.32% Cu from 427m
incl	45.7m grading 1.18g/t Au, 0.44% Cu from 474.3m
also	6m grading 1.58g/t Au, 0.11% Cu from 189m



BOD078	216m grading 0.27g/t Au, 0.17% Cu from surface
incl	13m grading 0.44g/t Au, 0.66% Cu from surface
also	34m grading 0.75g/t Au, 0.14% Cu from 77m

At least four mineralised intrusive breccias have been identified central to the Boda system that remains open along strike to the northwest towards Kaiser and Korridor prospects. The north-western most traverse has intersected a weakly developed chalcopyrite cemented breccia with a core of bornite with visible gold (BOD071 core photo below). The recent identification of bornite associated with the cemented breccia suggests the breccia is more copper rich to the northwest zoning from chalcopyrite to bornite.



BOD071 – 1m grading 2.32g/t Au, 1.46% Cu from 973m - Chalcopyrite-bornite-visible gold cemented breccia of calc-potassic altered volcanics

Bornite has not previously been identified in the main chalcopyrite cemented breccia intersected by KSDD007 and it is possible that the main sulphide cemented breccia does zone to bornite dominant down dip or along strike to the northwest. Recently completed trial downhole EM on KSDD028 detected a low response from the sulphide cemented breccia in nearby drill hole KSDD007, and the response orientation suggests the deeper drilling may have missed the down dip extensions of the breccia. Further downhole EM is planned for trial in the second quarter of 2022.

Drilling has also continued to confirm that the northeast shoulder of the Boda gold-copper mineralisation has a blanket of phyllic gold only mineralisation associated strong sericite alteration, abundant pyrite and with occasional colloform quartz-carbonate veining suggestive of shallow level epithermal gold emplacement. The epithermal gold mineralisation often includes very high gold grades, as documented in Table 1 below BOD063 intersecting 2m grading 28.9g/t Au from 305m. Truncating the breccias are late-mineral monzonite vertical intrusives associated with shallowly dipping quartz + chalcopyrite veining and post-mineral vertical dolerite and dacitic dykes.

The current resource drilling program at Boda continues to improve confidence for a maiden resource estimation that is now expected in April 2022 due to Covid-19 related delays experienced by the assaying laboratory.



Boda Two Prospect

Boda Two prospect is defined by coincident high magnetic and gold - copper soil anomalies combined for an estimated north-south 1,100m x 500m footprint. An electrical geophysics survey (3D-IP) identified a strongly conductive target at the Boda Two prospect (*ASX Announcement 19 May 2020*) that was drill tested with KSDD022 intersecting strong pyrite mineralisation with impressive 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 ± pyrite ± chalcopyrite. Assay results were received for one diamond core drill hole for 1,297 metres with significant intercepts of:

KSDD049	561m grading 0.19g/t Au, 0.12% Cu from 293m
incl	9m grading 0.63g/t Au, 0.25% Cu from 398m
also	26m grading 0.42g/t Au, 0.18% Cu from 782m

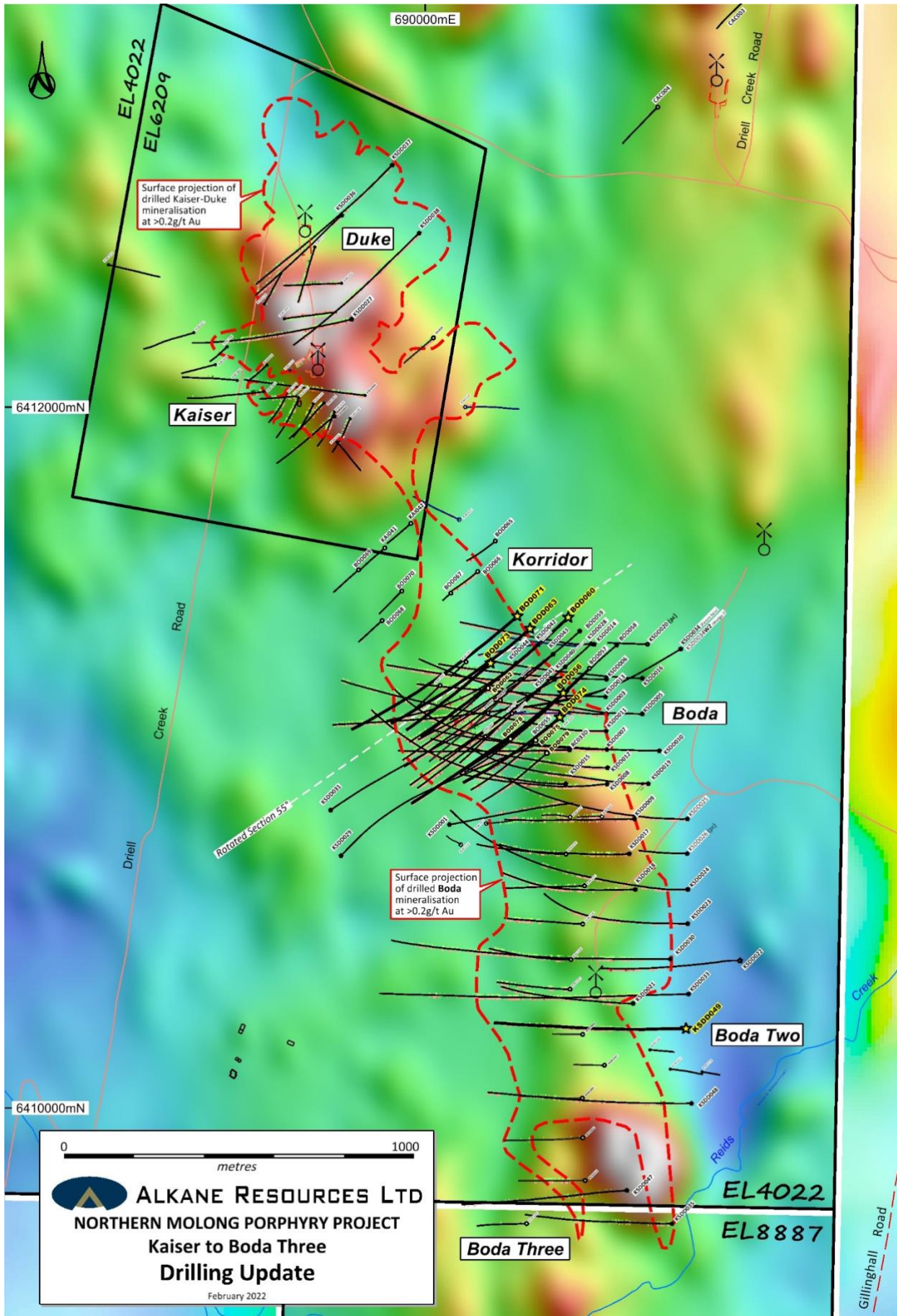
The initial phase of widely spaced drilling continues at Boda Two and Three with one diamond drill rig, and demonstrates many encouraging similarities to Boda, including the existence of low-grade gold-copper mineralised breccias that may zone to high grading zones as defined at Boda. These breccias will be targeted with a second phase of drilling in the second half of 2022.

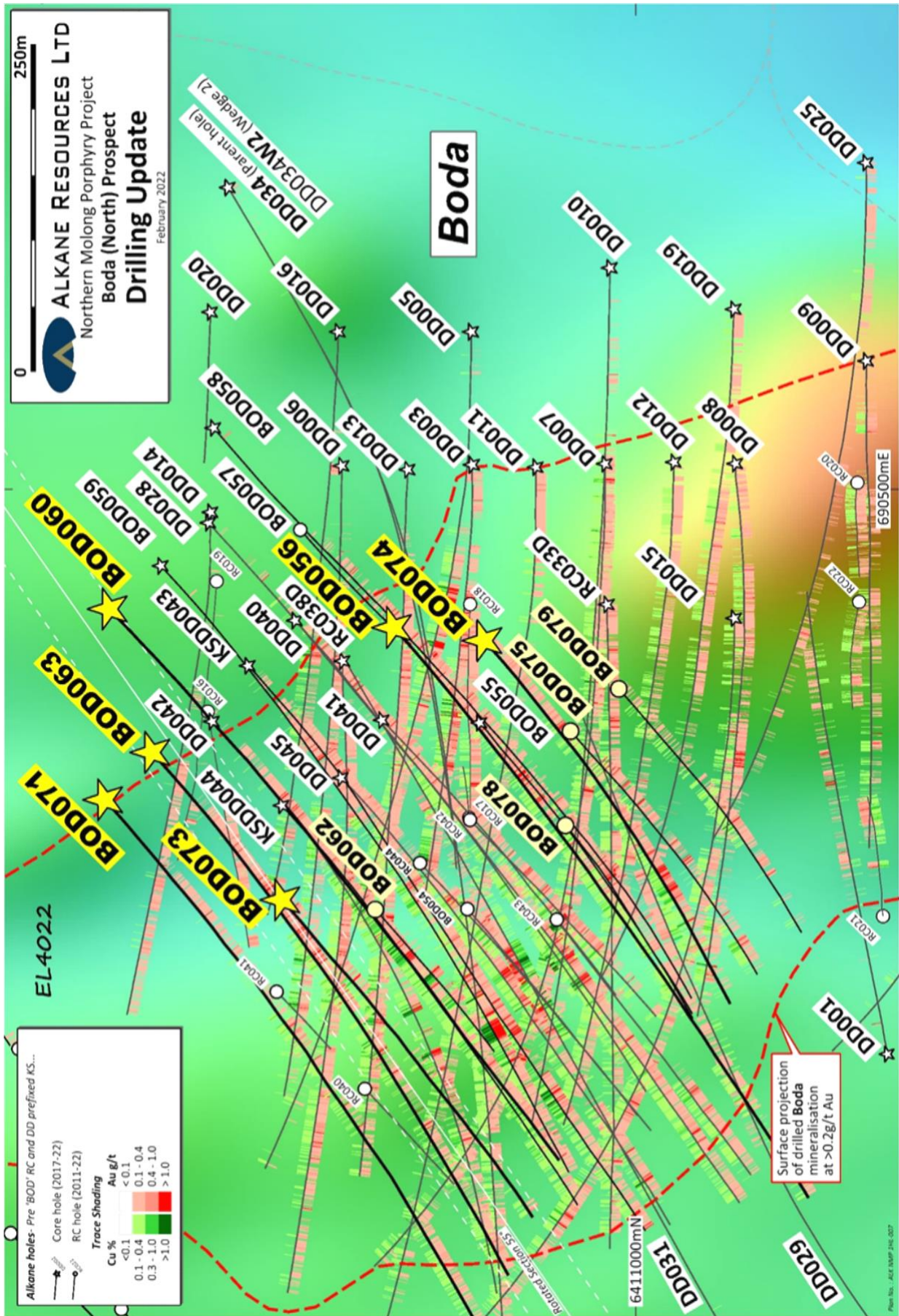
Planned Exploration Programs

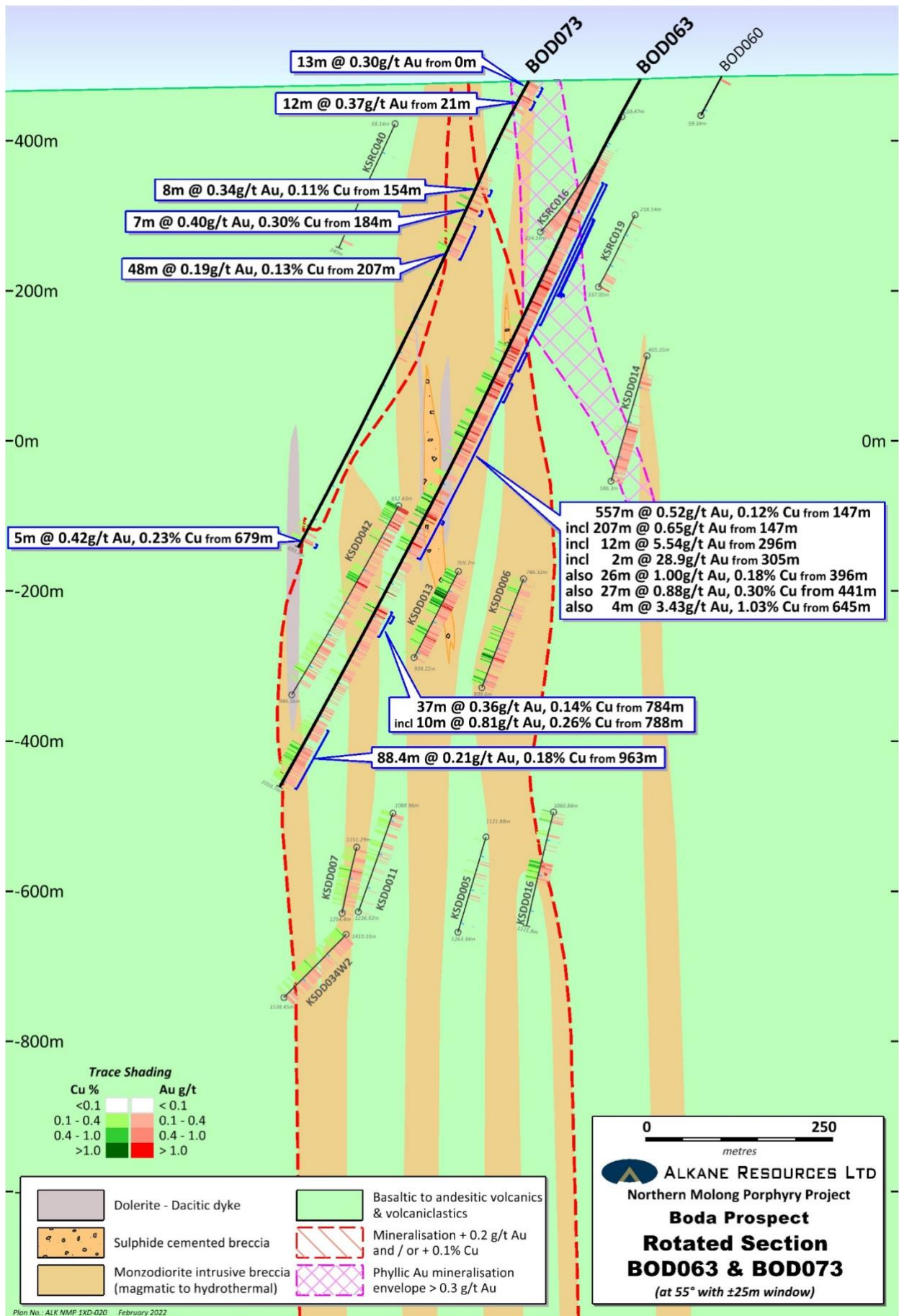
The Duke Zone within the Kaiser Prospect is estimated from drilling to be approximately 250m wide and striking over 800m. 13,000 metres of RC drilling using a nominal 100m x 100m drill hole grid sequence to a 300m vertical depth commenced in January for the purpose of estimating a shallow resource.

Drilling completed on the Korridor Zone during this period comprised of 5 drill holes for approximately 2,900 metres. Processing and sampling of the core is underway with final assay results expected in two months.

Other exploration is focused on delineating additional intrusive and mineralising centres within the 15km long northwest corridor from Boda Three to Finns Crossing. Electrical geophysics (IP) and magnetotellurics (MT) surveys are prepared to commence this month. These will cover the area northwest of Kaiser within a 5km section of the northwest structural corridor that includes the Driell Creek Magnetic Complex. Additionally, a drone aero-magnetic survey is planned to commence in March over a similar area to improve the structural mapping of the Boda corridor.







Plan No.: ALK NMP 1XD-020 February 2022



Table 1 – Boda Drilling Significant Results – February 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 (%)
BOD056	690395	6411184	487	-61	228	948.7	60	526	466	0.34	0.14
incl							275	295	20	1.14	0.16
incl							275	280	5	2.55	0.32
also							316	329	13	0.75	0.28
also							487	508	21	0.56	0.39
and							608	618	10	0.30	0.12
and							624	637	13	0.20	0.13
and							651	657	6	0.20	0.08
and							660	662	2	0.23	0.11
and							746	820	74	0.15	0.12
incl							795.6	799	3.4	0.43	0.43
and							885	907	22	0.20	0.14
and							931	934	3	0.28	0.06
and							937	945	8	0.16	0.11
BOD060	690409	6411400	486	-62	228	1140.8	3	6	3	0.41	-
and							329	338	9	0.21	-
and							371	375	4	0.26	-
and							386	1140.8	754.8	0.31	0.21
incl							386	535	149	0.37	-
also							639	661	22	0.60	0.62
also							710	763	53	0.68	0.63
incl							753	763	10	1.49	0.77
also							816	821	5	1.97	0.55
BOD062	690180	6411198	479	-61	228	328	134	154	20	0.80	0.91
incl							137	145	8	1.42	1.62
and							171	180	9	0.30	-
and							186	212	26	0.51	0.45
and							240	273	33	0.23	0.30
BOD063	690300	6411368	482	-61	228	1059.7	132	136	4	0.21	-
and							147	704	557	0.52	0.12
incl							147	354	207	0.65	-
incl							296	308	12	5.54	-
incl							305	307	2	28.9	-
also							396	422	26	1.00	0.18
also							441	468	27	0.88	0.30
also							645	649	4	3.43	1.03
and							717	722	5	0.14	0.10
and							762	763	1	1.17	0.56
and							784	821	37	0.36	0.14
incl							788	798	10	0.81	0.26
and							836	846	10	0.20	0.10
and							850	853	3	0.22	0.08
and							864	869	5	0.21	0.09
and							880	894	14	0.23	0.10
and							963	1051.4	88.4	0.21	0.18
BOD071	690267	6411407	486	-61	228	1068.7	163	166	3	0.31	-
and							195	227	32	0.20	-
and							232	236	4	0.21	-



Table 1 – Boda Drilling Significant Results – February 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 (%)
and							257	262	5	0.30	-
and							281	301	20	0.22	-
and							326	329	3	0.23	0.05
and							334	357	23	0.21	0.07
and							365	377	12	0.20	0.04
and							396	403	7	0.20	0.25
and							414	492	78	0.26	0.18
incl							414	427	13	0.49	0.28
also							431	438	7	0.56	0.27
also							444	448	4	0.62	0.35
and							528	533	5	0.15	0.12
and							545	598	53	0.18	0.11
incl							592	596	4	0.74	0.36
and							719	722	3	0.22	-
and							757	1068.7	311.7	0.21	0.13
incl							919.8	949	29.2	0.39	0.20
also							972	981	9	0.57	0.40
incl							973	974	1	2.32	1.46
BOD073	690188	6411269	483	-61	228	693.7	0	13	13	0.30	-
and							21	33	12	0.37	-
and							70	73	3	0.21	-
and							154	162	8	0.34	0.11
and							175	178	3	0.47	0.42
and							184	191	7	0.40	0.30
and							198	201	3	0.24	0.14
and							207	255	48	0.19	0.13
and							663	673	10	0.07	0.12
and							679	684	5	0.42	0.23
BOD074	690392	6411117	485	-61	228	735.2	0	639	639	0.36	0.14
incl							0	174	174	0.26	-
also							178	188	10	1.11	0.16
also							199	227	28	0.68	0.13
also							355	380	25	0.41	0.30
also							427	542	115	0.75	0.32
incl							474.3	520	45.7	1.18	0.44
also							575	581	6	0.70	0.81
also							634	635	1	8.53	0.12
BOD075	690318	6411050	482	-60	229	498	0	196	196	0.25	0.11
incl							67	103	36	0.43	0.22
also							118	124	6	0.80	0.05
also							156	160	4	1.03	0.08
and							236	258	22	0.33	-
and							273	287	14	0.62	-
and							311	320	9	0.21	0.09
and							362	478	116	0.21	0.16
incl							435	450	15	0.62	0.45
BOD078	690247	6411054	486	-61	230	328	0	216	216	0.27	0.17
incl							0	13	13	0.44	0.66
also							77	111	34	0.75	0.14



Table 1 – Boda Drilling Significant Results – February 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 (%)
and							245	281	36	0.19	0.25
BOD079	690351	6411013	484	-62	228	466	30	38	8	0.16	0.10
and							61	307	245	0.18	0.13
incl							217	307	90	0.35	0.21
incl							268	277	9	1.47	0.79
and							337	353	16	0.36	-
and							363	370	7	0.50	0.07
and							407	413	6	0.11	0.12
and							445	448	3	0.17	0.10

* hole ended in mineralisation.

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 10% of reported intercepts. True widths are estimated as approximately 50% of intersected width.

Table 2 – Boda Two/Three Drilling Significant Results – February 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 (%)
KSDD049	690745	6410227	467	-65	269	1297	108	115	7	0.12	0.10
and							119	122	3	0.07	0.12
and							134	137	3	0.54	0.13
and							202	205	3	0.23	-
and							293	854	561	0.19	0.12
incl							398	407	9	0.63	0.25
also							647	661	14	0.47	0.17
also							782	808	26	0.42	0.18
and							945	1023	78	0.07	0.12
and							1121	1135	14	0.09	0.13
and							1161	1163	2	0.13	0.34
and							1183	1204	21	0.12	0.11
and							1222	1234	12	0.23	0.11

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 12% 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 David Meates, MAIG, (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 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

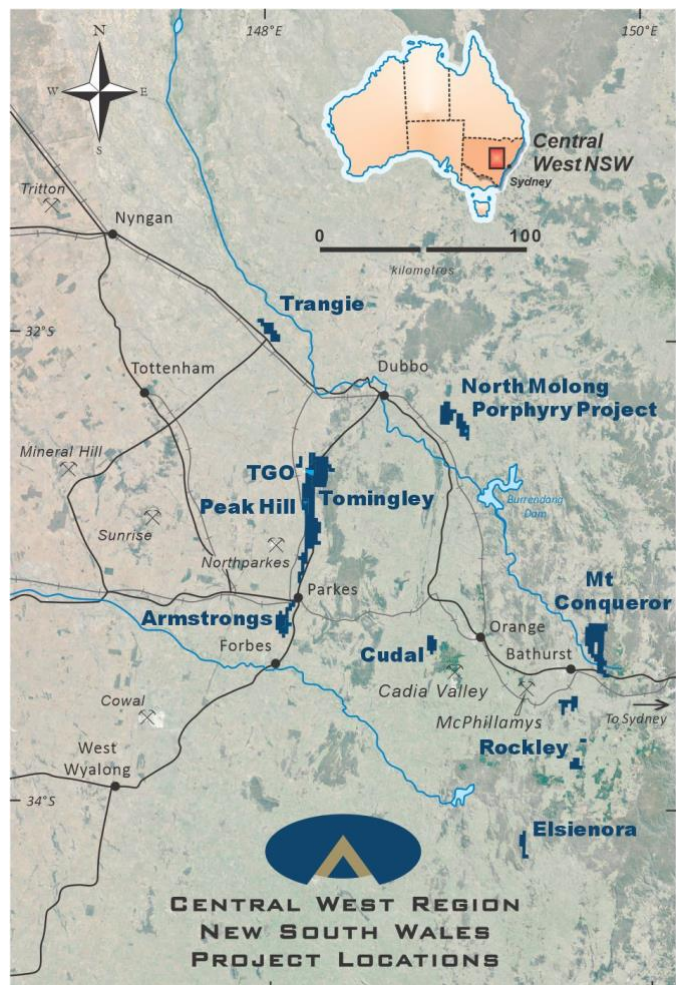
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 a major drill program ongoing 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 – February 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 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. 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 ≥ 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. The wedge holes were completed using NQ3 wireline bit producing 45mm diameter sized orientated core.



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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 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. 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



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		<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



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<i>and assaying</i>	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No twinned holes have been drilled at this early stage of exploration
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> 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 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
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No adjustments made
<i>Location of data points</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillholes are laid out using hand-held GPS (accuracy $\pm 2m$) then DGPS surveyed accurately ($\pm 0.1m$) by licenced surveyors on completion
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> GDA94, MGA (Zone 55)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Drillhole collars DGPS surveyed accurately ($\pm 0.1m$) by licenced surveyors on completion
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results.. 	<ul style="list-style-type: none"> At Boda drill spacing is on nominal 100m x 50m grid. For all other prospects too early an exploration stage, and the data spacing is variable with focus on identifying new zones of mineralisation.
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> No Mineral Resource estimation procedure and classifications apply to the exploration data being reported.
	<ul style="list-style-type: none"> Whether sample compositing has been applied 	<ul style="list-style-type: none"> RC – 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. 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. DD – Sample intervals are based on alteration and lithology but in general are 1m. No



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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 <15% 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 Boda prospect is 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 completed downhole EM was a trial and results were not considered meaningful enough to assist interpretation. Further trialling of downhole EM is planned and any material response will 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 Boda and Kaiser prospects to define their resource potential. 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.



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	<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>