ALKANE RESOURCES LTD

THE BODA PORPHYRY DISCOVERY

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3 May 2021

NSW MINING
EXPLORATION & TENURES FORUM

NSW MINING

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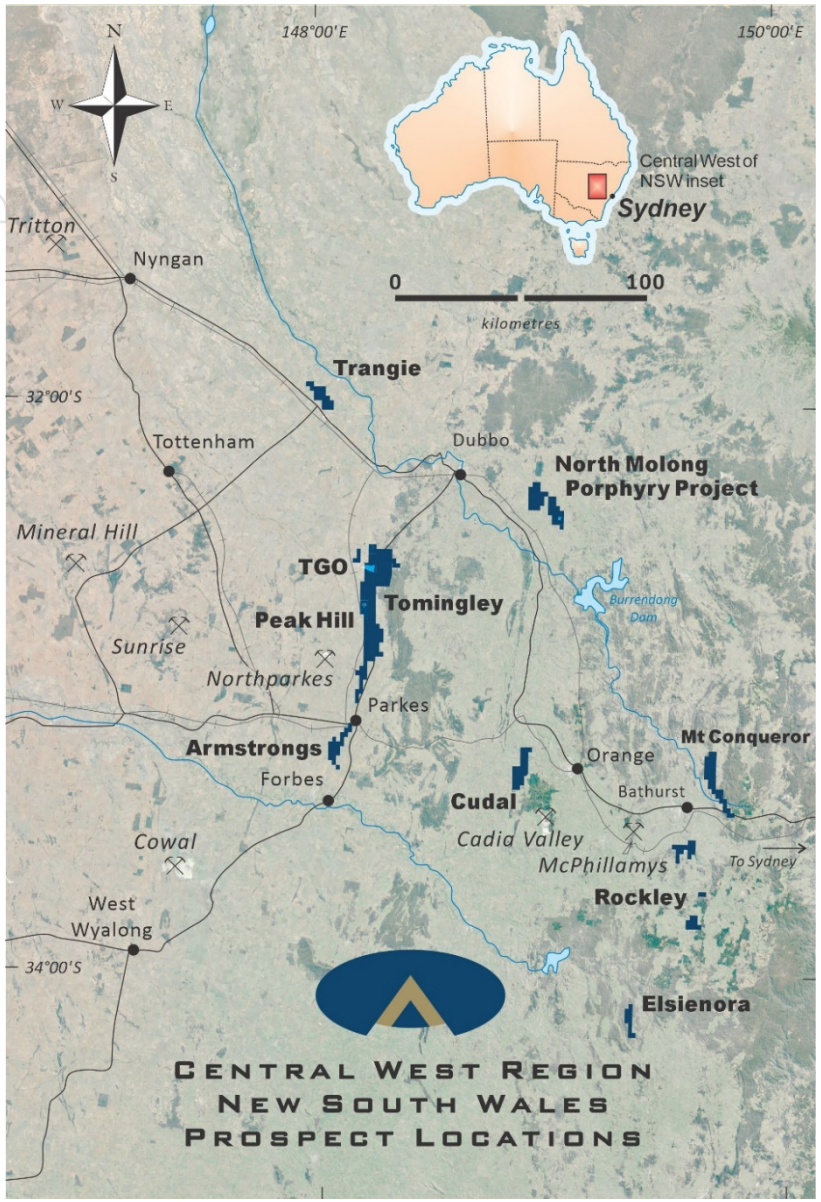
Competent Person

Unless otherwise stated, the information in this presentation that relates to mineral exploration, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Acknowledgments

The Alkane exploration team, past and present, contributed to the data compilation and target definition over many years. Dr Tony Crawford and Dr Alan Wilson provided valuable insights into the geological evolution, alteration, mineralisation and targeting within the North Molong Porphyry Project. Terry Hoschke assisted with the interpretation of geophysical data on the NMPP.

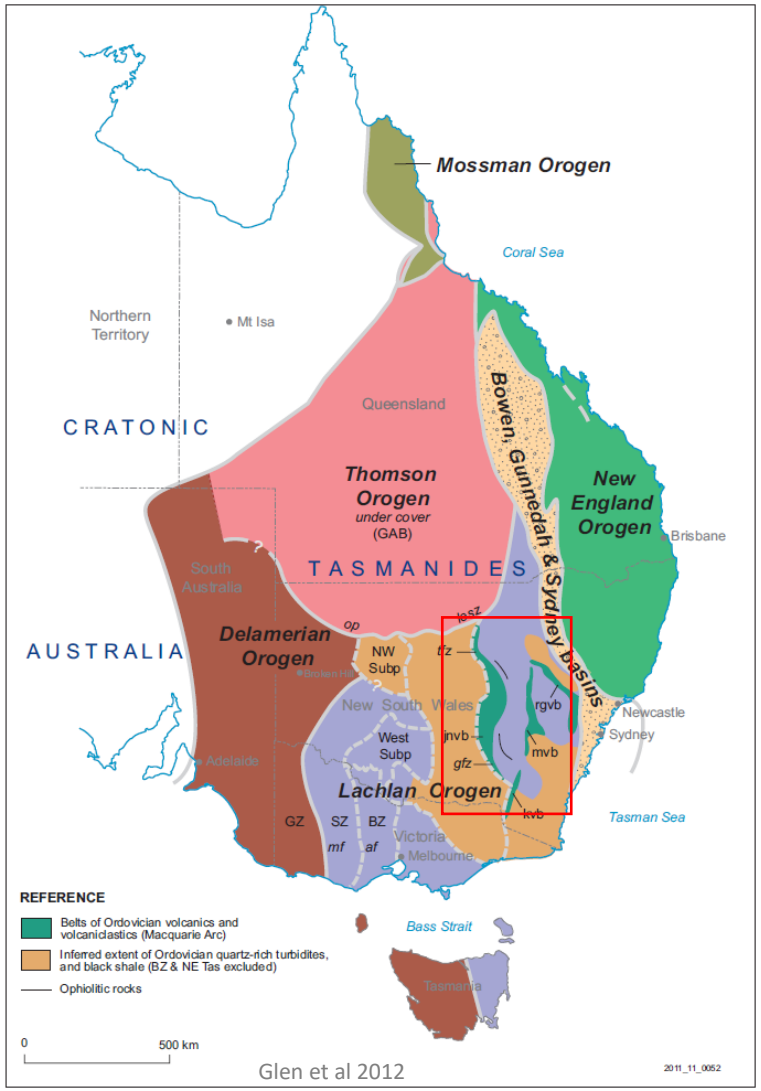
Alkane in the Central West of NSW



Active in the Region for 30 years

- **Tomingley** >2Moz Au resources and production since 2014.
- **Northern Molong Porphyry Project (NMPP)-** Discovery of significant Au-Cu mineralisation at Boda in 2019 and extensive ongoing drilling.
- Regionally active exploration programs built on substantial geological database.
- Operation of Peak Hill gold mine 1998 – 2002.
- **Previous Discoveries**
  - Discovery with Newmont of >2Moz Au McPhillamys and subsequent sale to Regis Resources (2012).
  - Resource definition of Galwadgere Cu-Au deposit and sale to Sky Metals (2020).
  - Resource definition; process development; and feasibility of the Dubbo Rare Metal and Rare Earth Project. Successful demerger of Australian Strategic Materials in 2020 and development of an innovative metallisation process in South Korea.

Macquarie Arc within the Lachlan Orogen



Glen et al 2012

- CODES (UTAS), GSNSW and industry combined in a major regional study of the Macquarie Arc geology, geochemistry, structure and geophysical signature, 1998 - 2002.
- Key findings:
  - Long-lived Ordovician to Early Silurian oceanic island arc
  - Subaqueous volcanic rocks
  - Calc-alkalic to alkalic affinity
  - Episodic evolution over ~50 m.y.
  - Island-chain and deep-marine environments
  - One contiguous volcanic belt that was seperated into four parts during Silurian to Devonian rifting
  - West-dipping subduction zone that became complex before the cessation of the arc…
  - Mineralisation associated with the culmination of arc magmatism

Macquarie Arc – Ordovician Volcanics

Major Porphyry – Epithermal Deposits

Northern Molong Porphyry Project

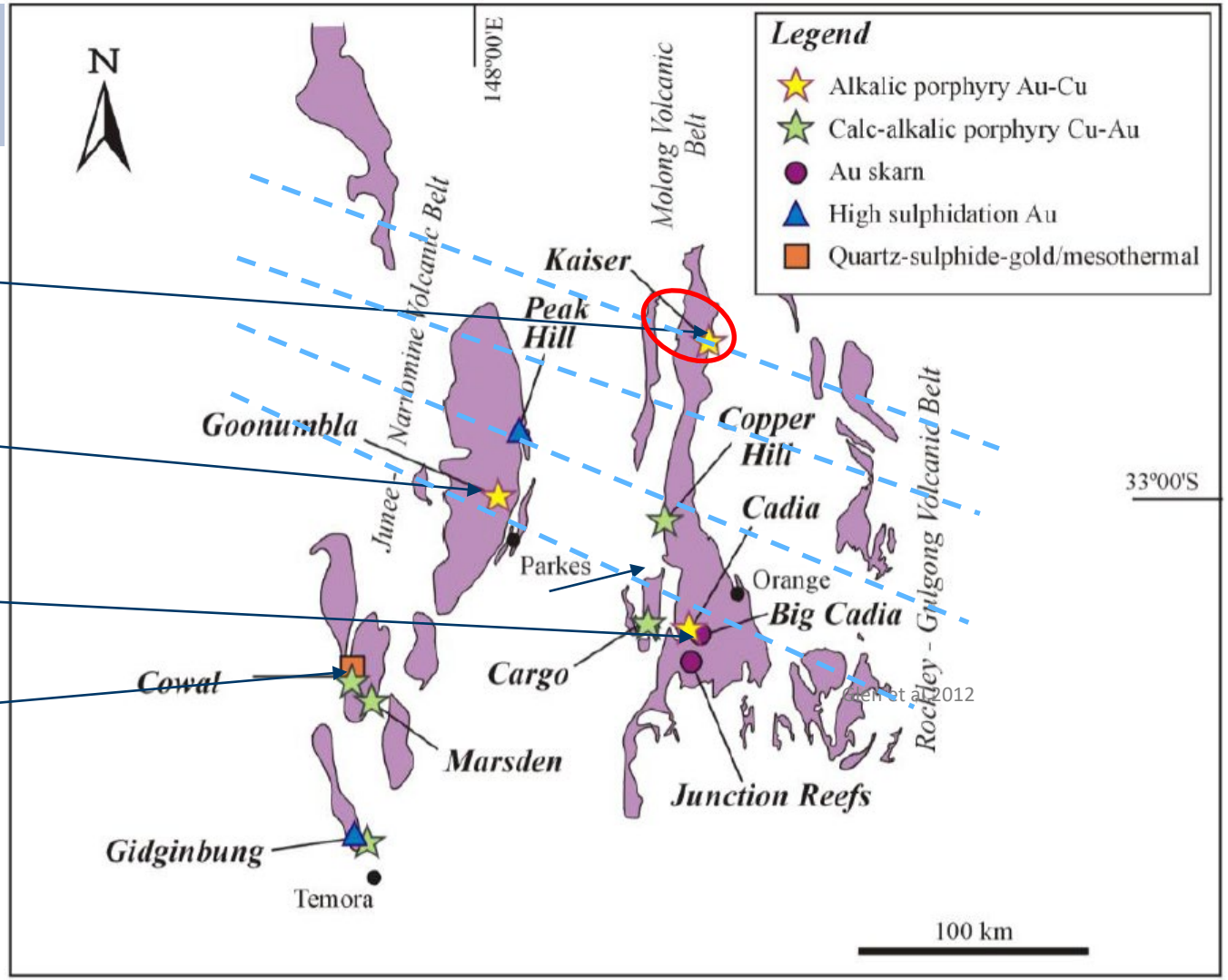
Boda

Northparkes
(5.2Moz Au + 4.4Mt Cu)

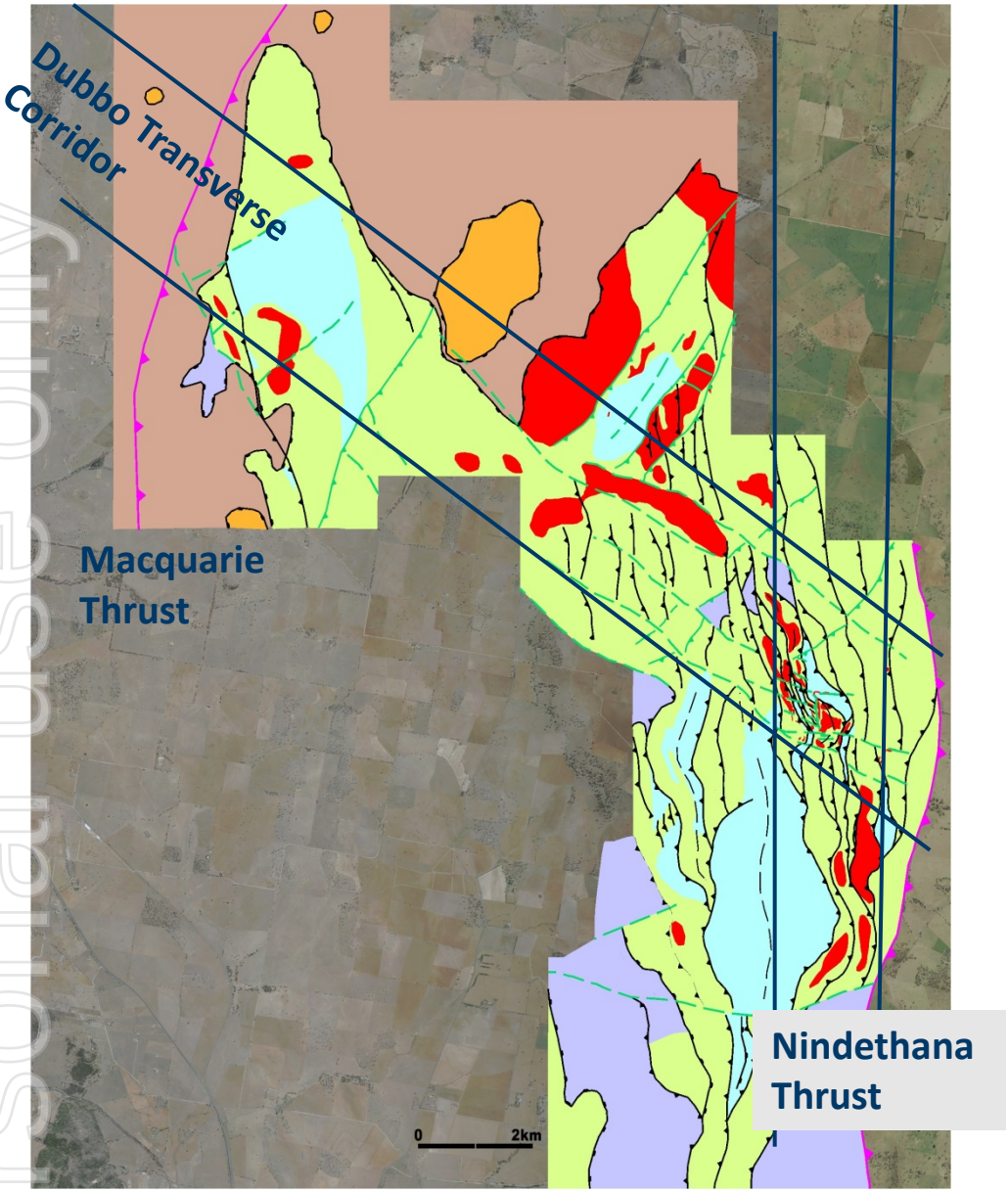
Cadia
(50Moz Au + 8.7Mt Cu)

Cowal
(11Moz Au)

Arc transverse structures



NMPP Geology / Structural / Intrusive Summary

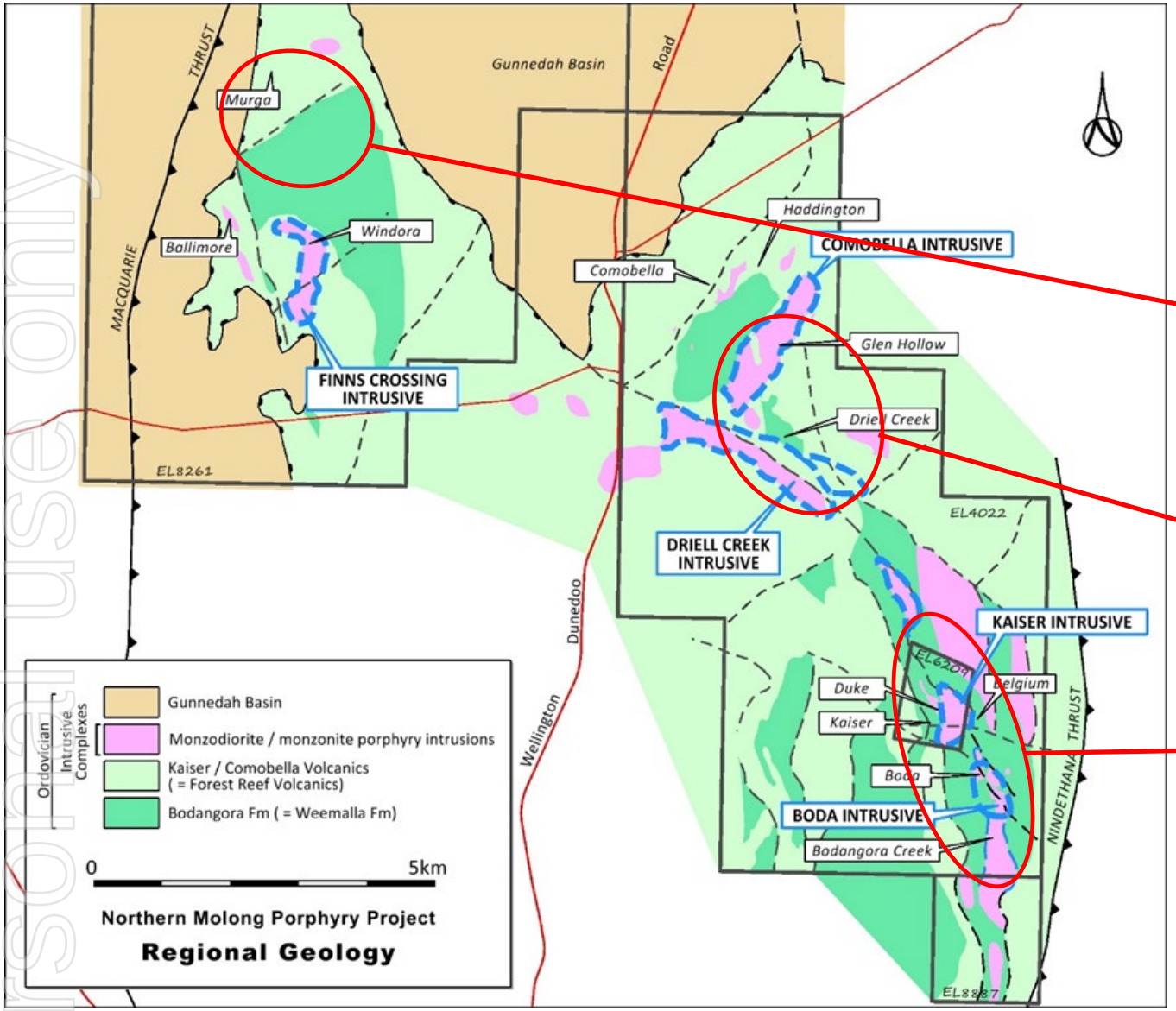


Boda – Kaiser located at the intersection of the Arc parallel Nindethana Thrust and northwest 'Dubbo' transverse corridor. Other north-south thrust structures offset the belt to the west (Macquarie Thrust).

Dilationary intersection and offset provides enhanced environment for monzonite intrusive bodies and focus for large fluid flow.

Intrusive and alteration assemblage are distinctly alkalic (not calc-alkalic) gold-copper and have more similarities to the alkalic porphyry deposits of the Golden Triangle in British Columbia.

NMPP Targets



Current Targets

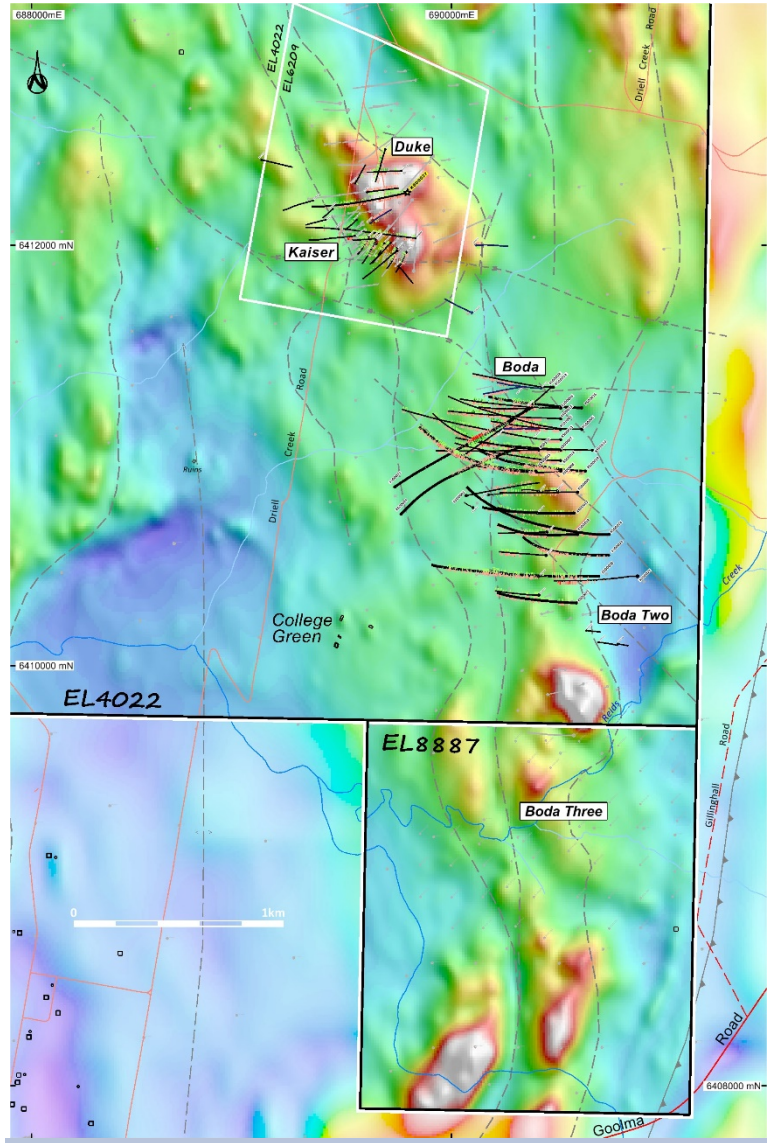
15km northwest trending structural corridor with multiple 'fertile' alkalic (monzonite) intrusive complexes.

Finns Crossing – Murga prospect aeromag target (skarn like characteristics) and separate strong IP chargeablity anomaly. Extensive argillic lithocap.
Surface float samples 6.4g/t Au 7.6% Cu; 3.8g/t Au 0.12% Cu

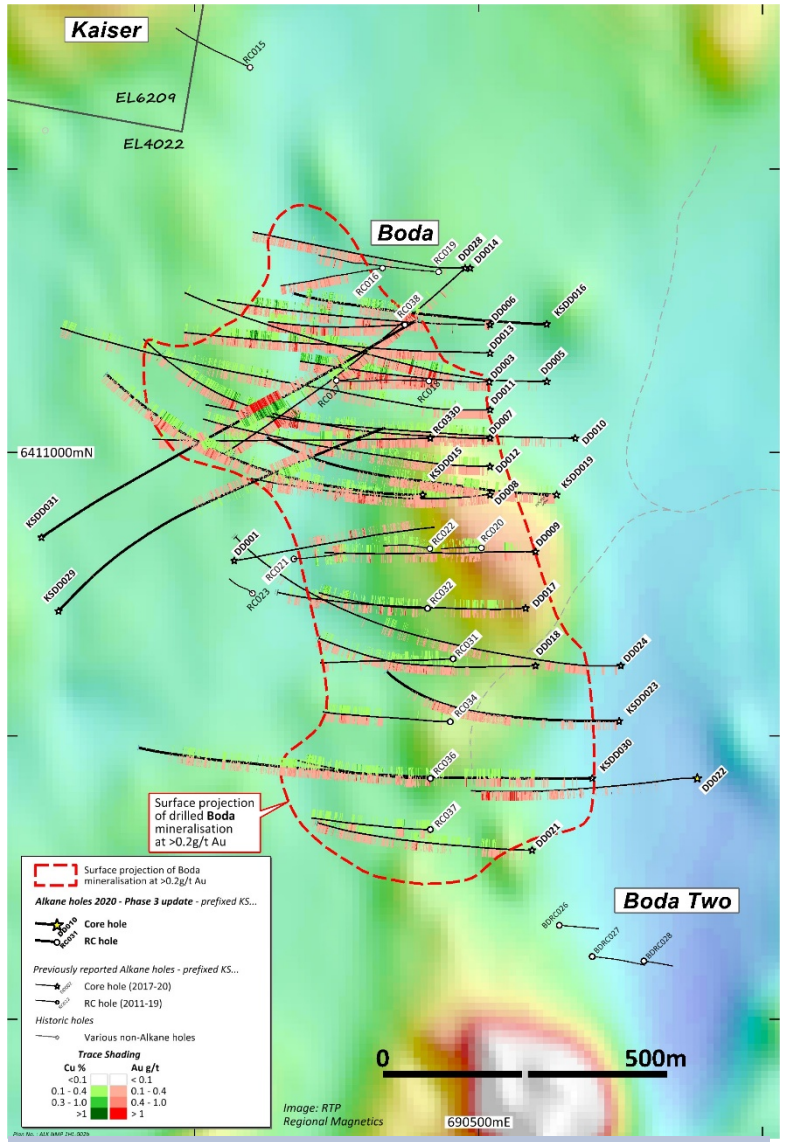
Comobella Intrusive Complex – 21km^2 area, several copper-gold intercepts associated with extensive altered monzonite intrusives. Best COMRC009 46m @ 0.9g/t Au and 0.25% Cu (ASX Announcement 1 Feb 2011).

5km long Kaiser-Boda, 1km wide corridor, of monzonite intrusives, extensive propylitic to potassic alteration with gold and copper mineralisation. Numerous intercepts at Kaiser with a small high grade historically mined body.

Kaiser - Boda Corridor



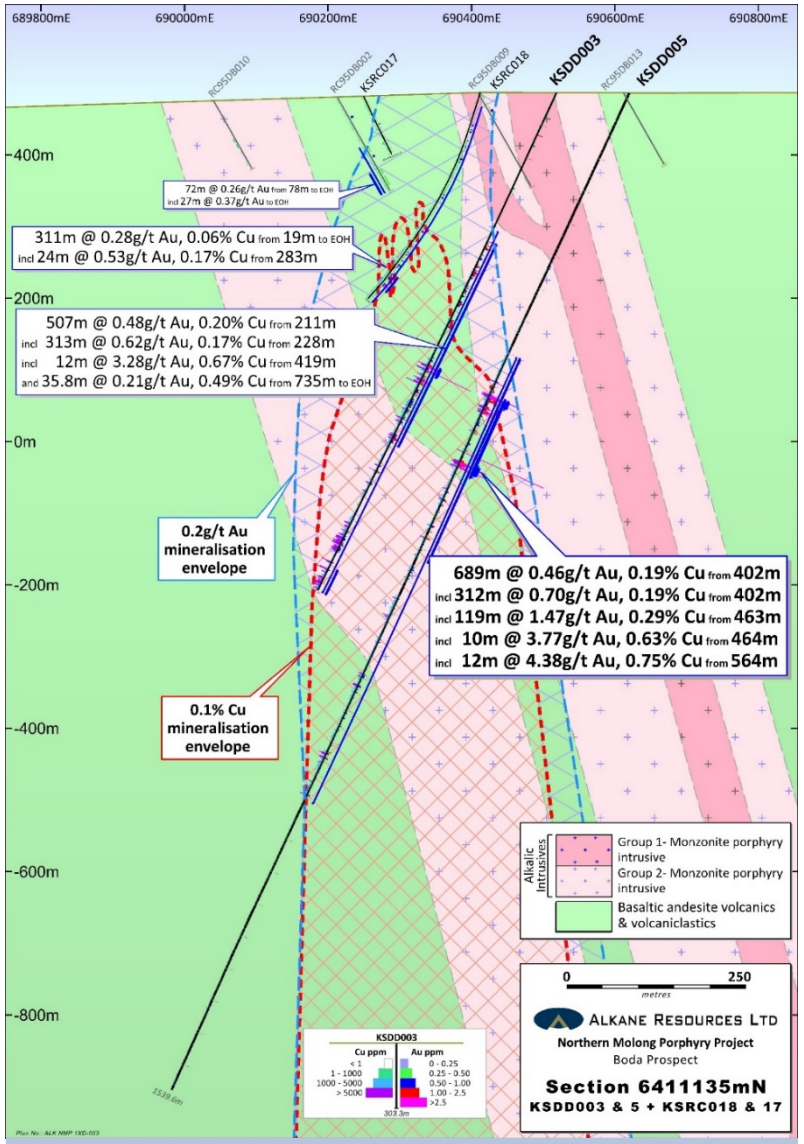
Kaiser – Boda Porphyry Target Corridor



Boda Porphyry Drilling

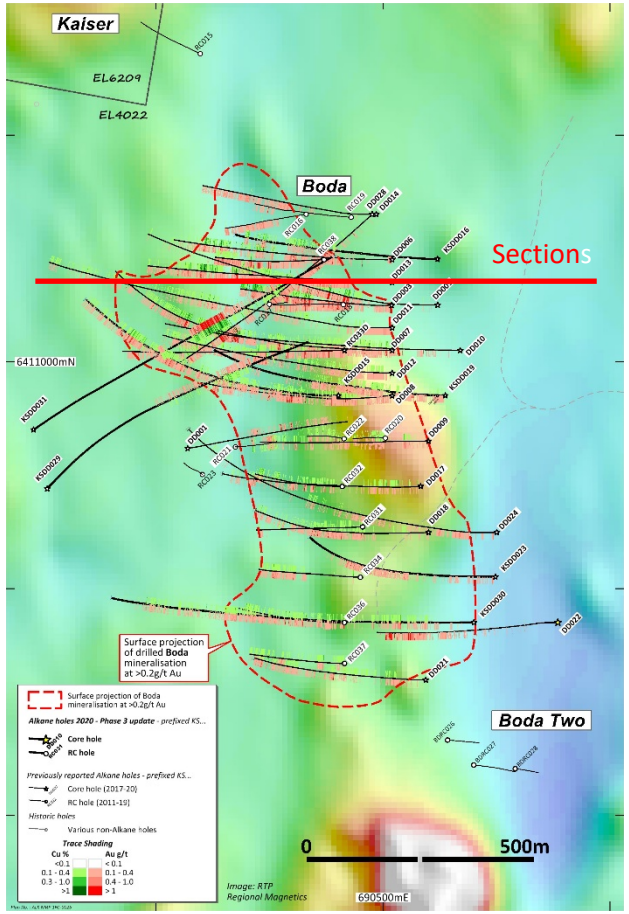
- Historic gold – copper outcropping workings at Kaiser.
- Drilling (1960s – 1990s) targeted Kaiser, identified a small ‘’high grade’ Au-Cu body within extensively altered and mineralised Ordovician volcanics.
- Alkane’s regional work confirmed a target corridor 3-5km in length with potential for porphyry Au-Cu mineralisation.
- Since 2017, Alkane has drilled in excess of 30,000m of mostly core holes, largely targeting Boda.

Boda Drilling – Discovery Section

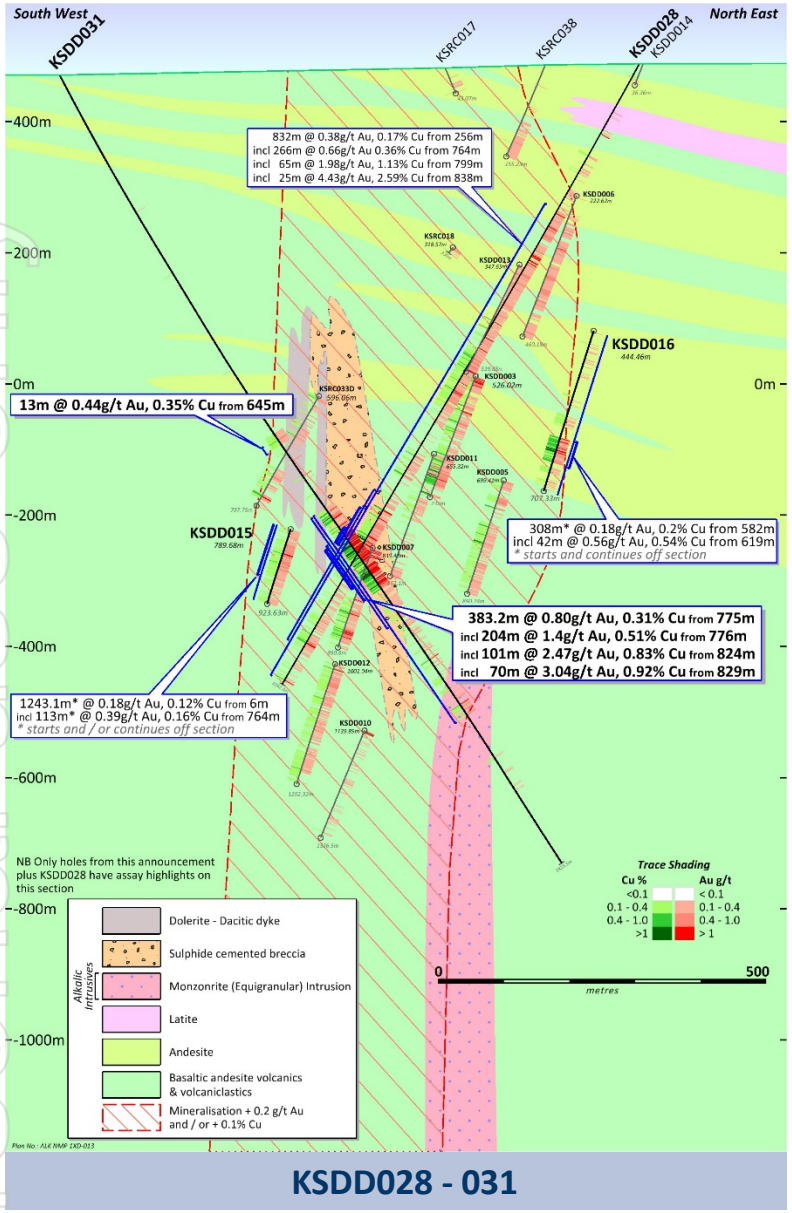


KSRC017 - 018 & KSDD003 - 005

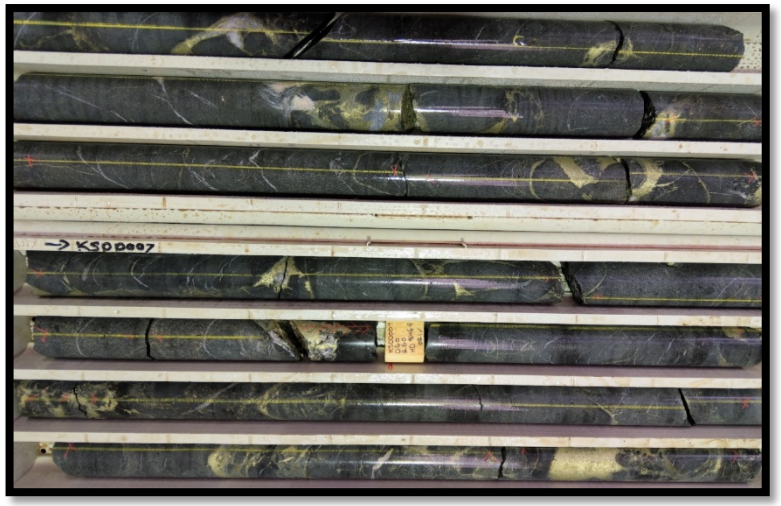
- Initial core testing of anomalous gold results in an RC hole which drilled an Au-Cu elevated soil. Also mapped surface alteration on the flanks of a weak aeromagnetic anomaly.
- KSDD003 and KSDD005 returned significant Au-Cu mineralisation within clearly demonstrated lateral and vertical metal and alteration zonation.



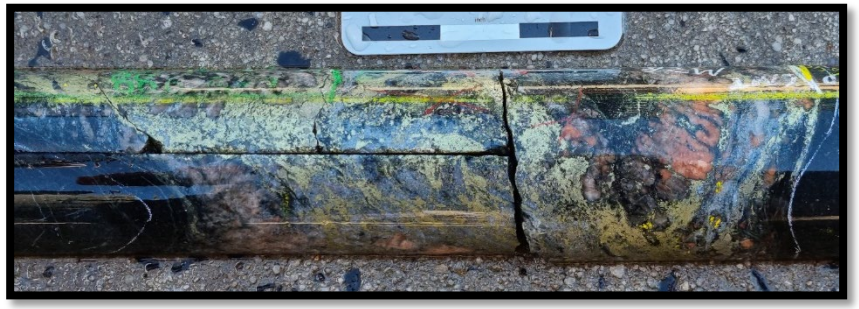
Boda – High grade breccia KSDD007; 028; 31



KSDD028 - 031

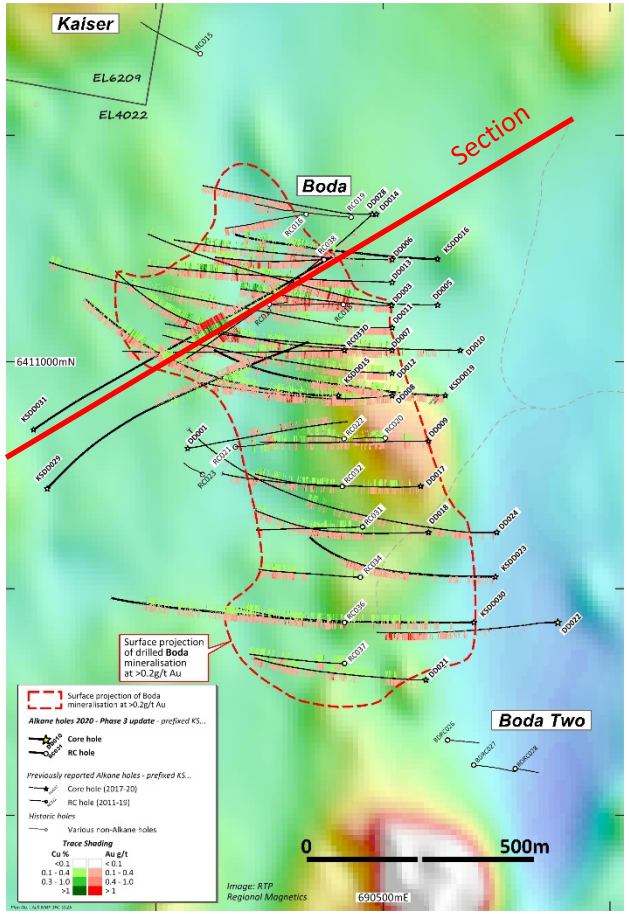


KSDD007 (96.8m @ 3.97g/t Au and 1.52% Cu)
Chalcopyrite cemented breccia in potassic altered volcanics



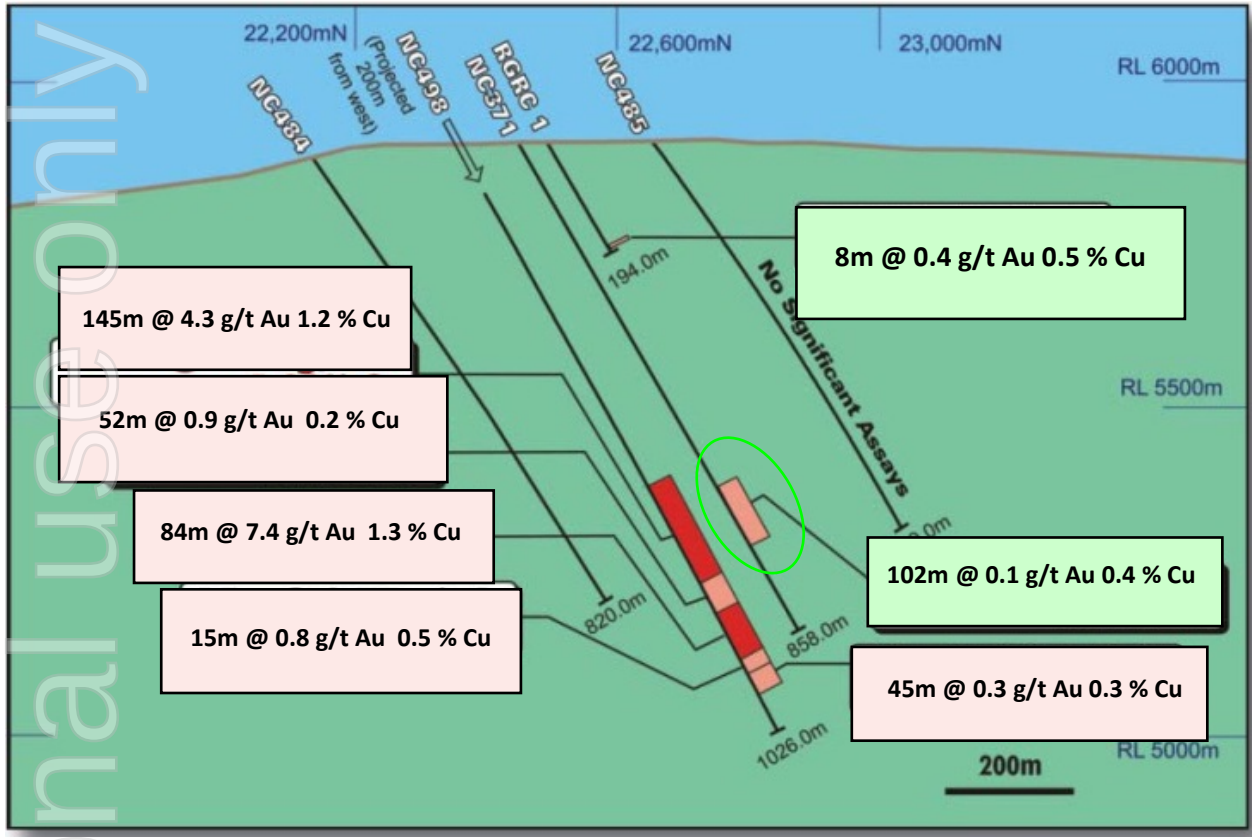
KSDD031 – 0.3m grading 43.4g/t Au, 7.8% Cu from 886.4m – Chalcopyrite-calcite-kspar altered monzonite finger within the breccia.

KSDD007	
KSDD007	1,167m @ 0.55g/t gold, 0.25% copper from 75 metres
incl	512m @ 1.00g/t gold, 0.44% copper from 688 metres
incl	376m @ 1.30g/t gold, 0.56% copper from 768 metres
incl	`96.8m @ 3.97g/t gold, 1.52% copper from 768 metres



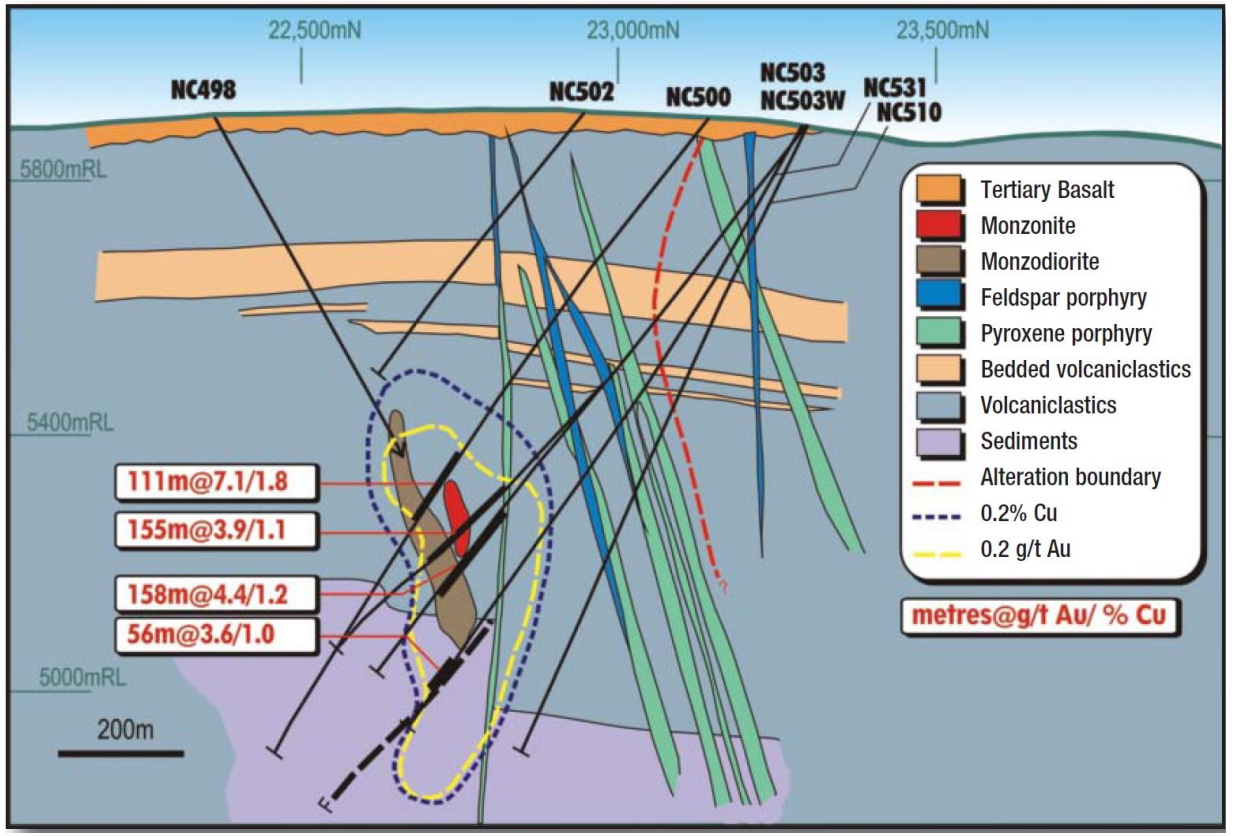
Boda Targeting – Ridgeway (Cadia) Analogy – Newcrest

Ridgeway Discovery Drill Sequence 1996



Ridgeway discovery sequence schematic section (Wood 2012)

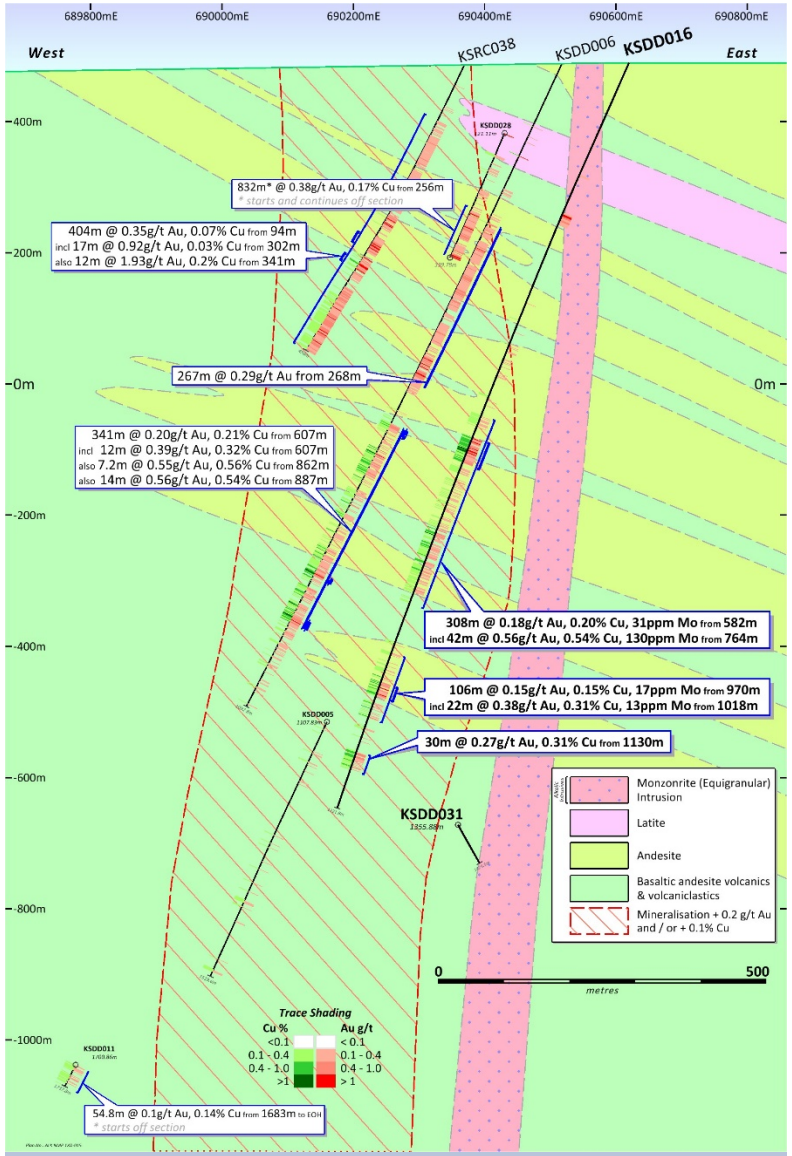
Ridgeway Deposit Definition 1996 - 1997



Ridgeway discovery section 11,000 E (Wood 2012)

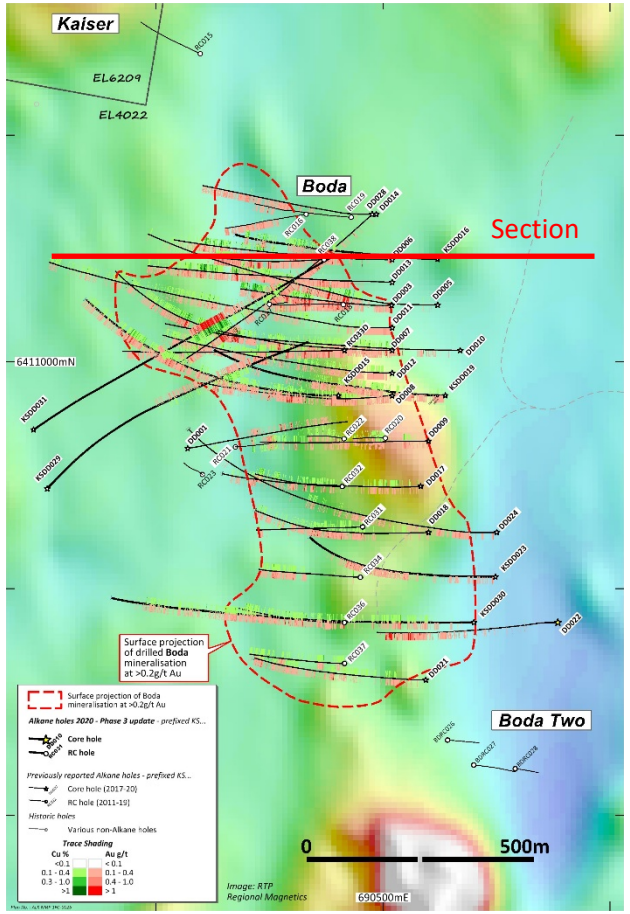
Ridgeway 1998 pre-mining Indicated and Inferred Resource 44Mt @ 2.8g/t Au and 0.82% Cu (Wood 2012)

Boda – Metal Zonation

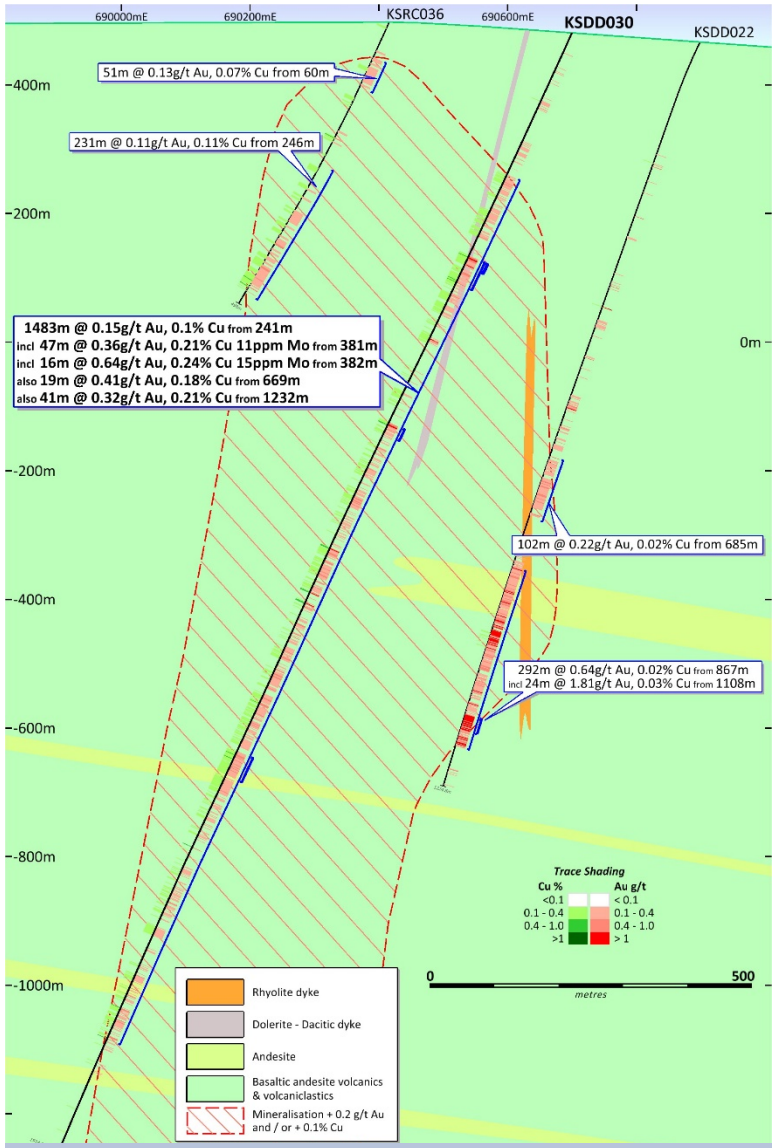


KSRC038, KSRD006 - 016

- Alteration at Boda is clearly zoned from outer propylitic, propylitic to inner potassic / calc potassic.
- Copper tends be focussed within the inner potassic, while gold is common throughout.
- Recent drilling has demonstrated other metals such as molybdenum and pathfinder elements present on the flanks and upper levels of the system.

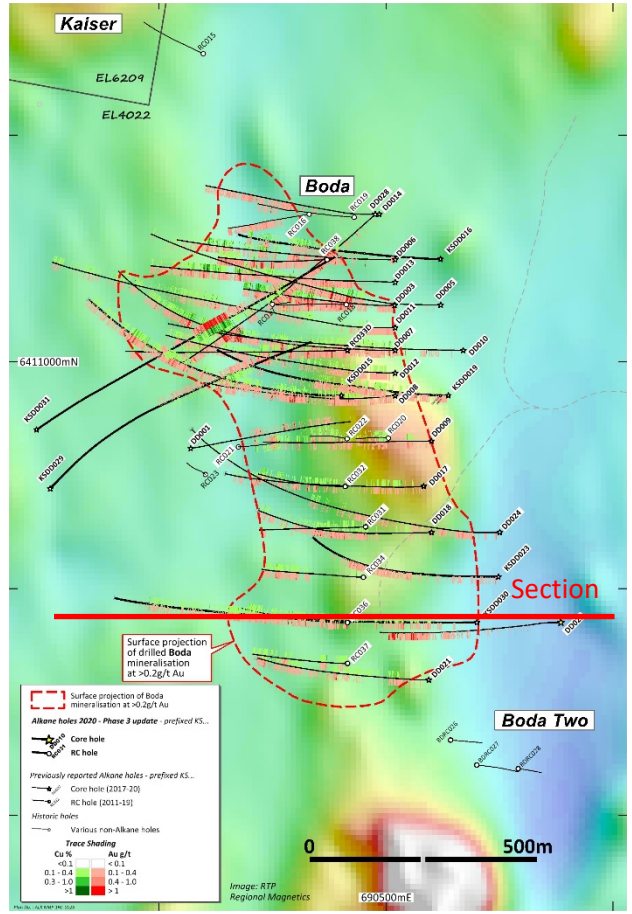


Boda Two - KSDD022; 030; KSRC036

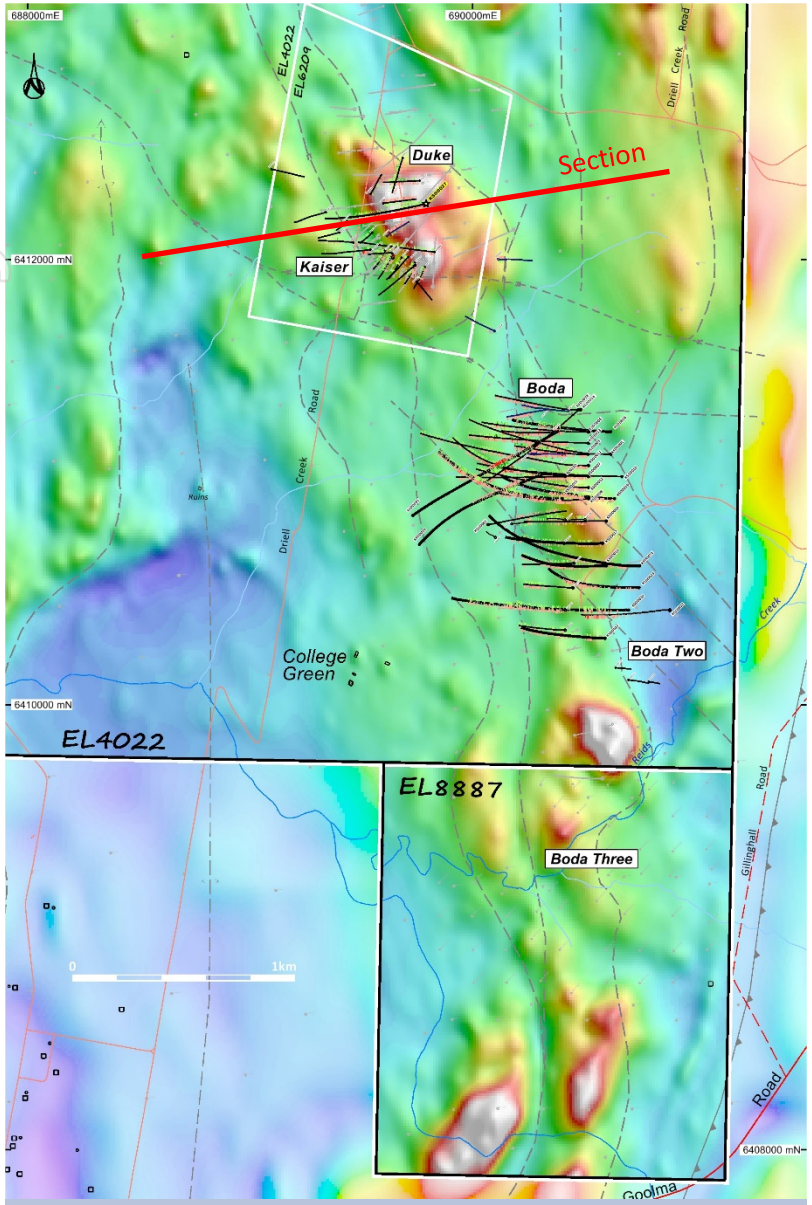


KSRC033, KSRD022 - 030

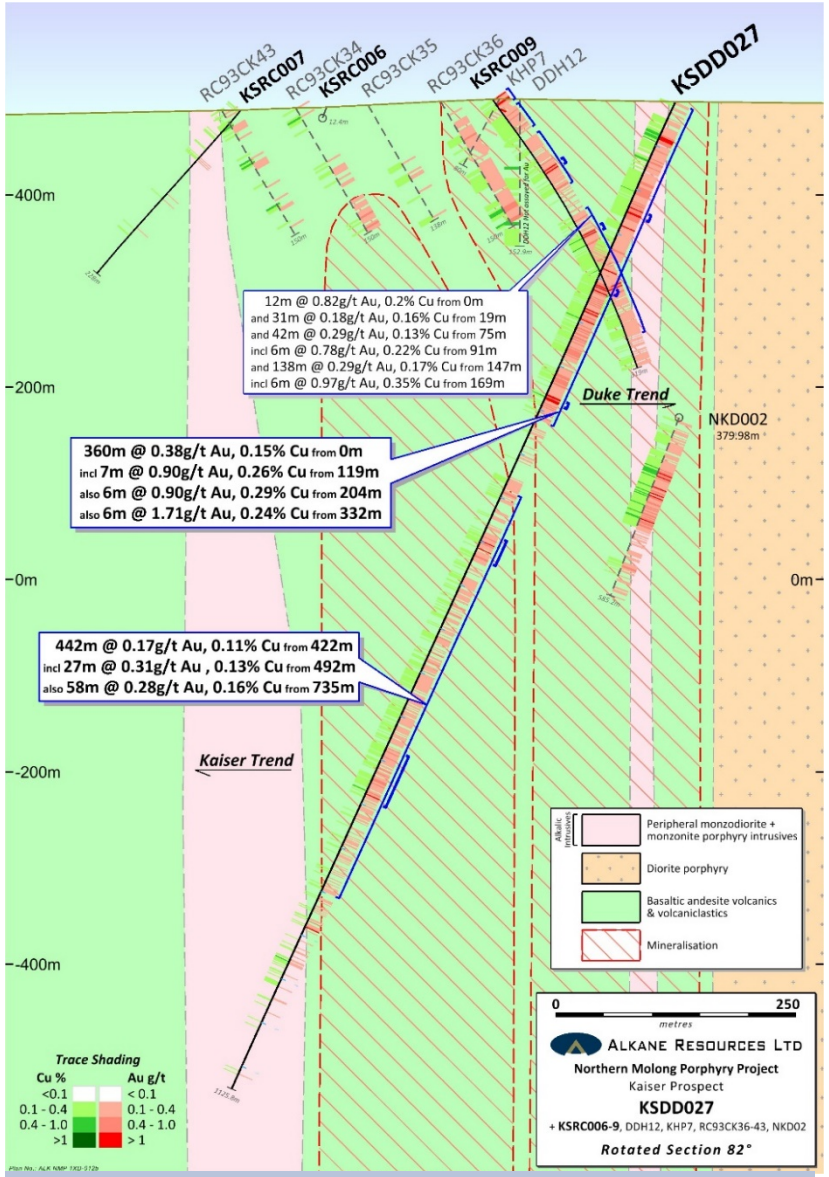
- The Boda Two target is marked by a strong IP chargeability and resistivity anomaly.
- Drill testing to date has intersected a large Au rich pyrite shell comprising stringers and aggregates of pyrite within a sequence of propylitic altered basaltic andesites.
- Anomalous copper and pathfinder elements could be indicative of a distal component to a large fertile magmatic system.



Kaiser (Duke) - KSDD027 (2021)



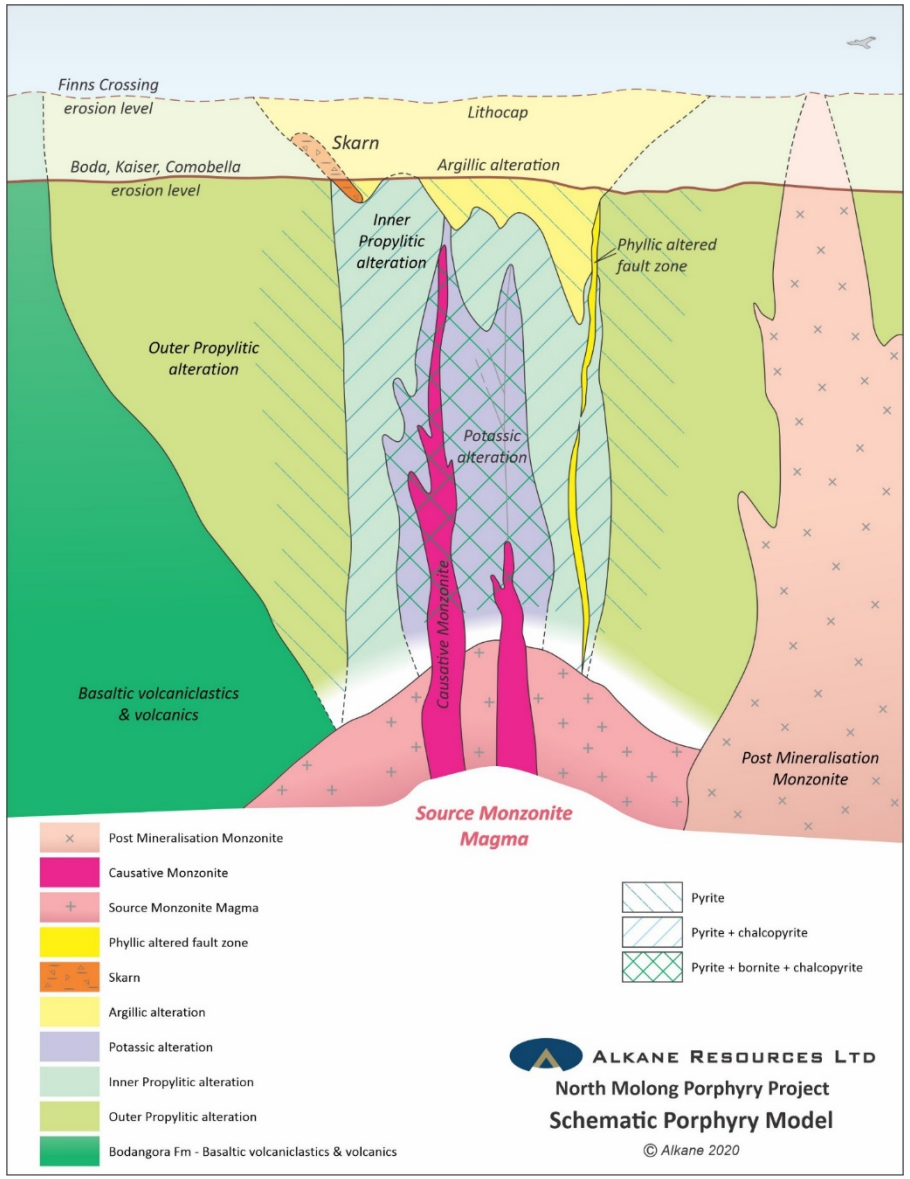
Kaiser – Boda Porphyry Target Corridor



Kaiser – Duke KSDD027

- KSDD027 confirmed a broad mineralised alteration envelope to the east, in addition to that at Kaiser.
- The eastern (Duke) zone demonstrates near surface grades over 250m width with a strike length of over 800m, open along strike and at depth.

NMPP Porphyry Model and Boda-Kaiser Mineralisation



Key Observations to Date

The host sequence is evolved basalt to andesite, flat lying volcaniclastics and lavas, cut by near vertical monzonitic bodies with at least three separate monzonite intrusive ages.

Lithogeochemistry and age-dating clearly place the NMPP in late Ordovician – Early Silurian shoshonitic (high K) volcanic - intrusive event (460 – 430Ma) that extends over the 150km of the Molong Volcanic Belt. The MVB includes the giant Cadia deposits.

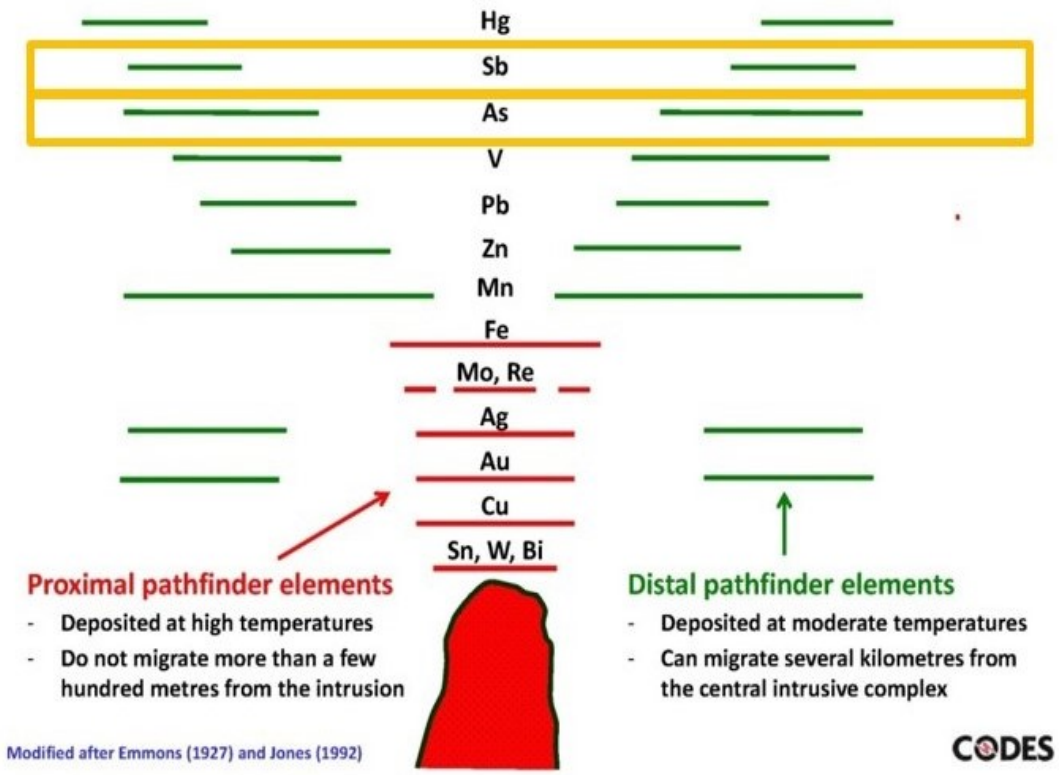
Alteration of the host volcanics is extensive, clearly displaying classic zonation from outer propylitic (some sericitic) -> propylitic -> potassic (and calc potassic). The potassic alteration is dominated by biotite with minor k-spar.

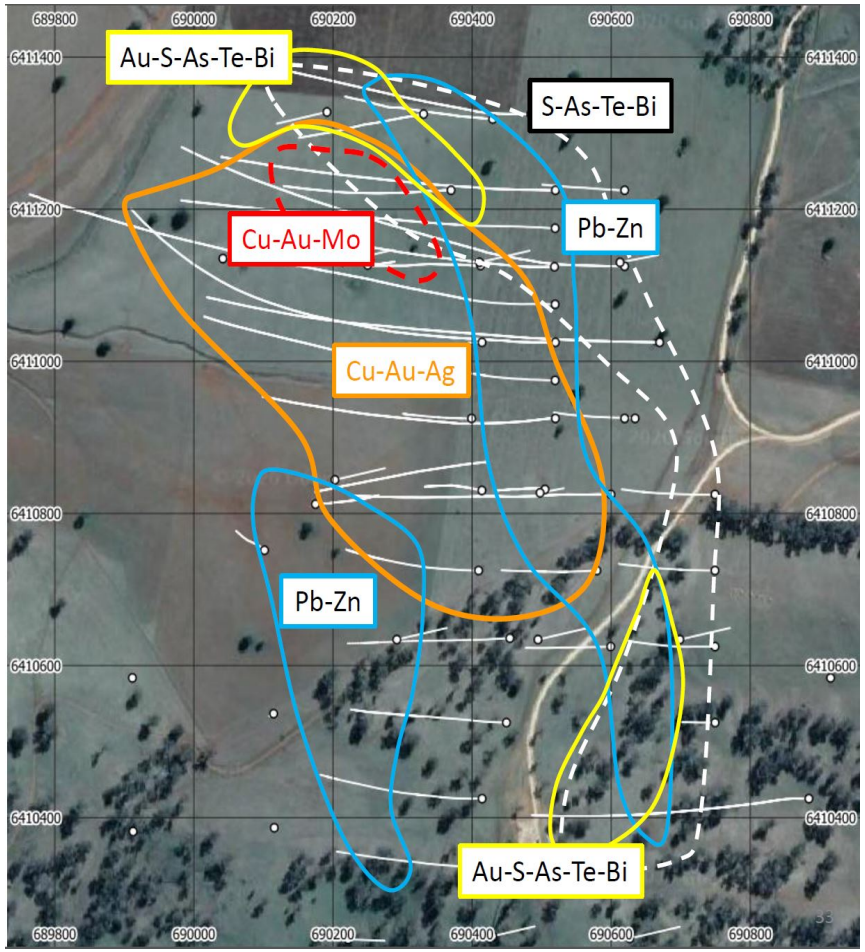
Evidence through metal zonation of a number of separate hydrothermal cells – Boda; Kaiser; Boda Two and Boda Three.

Structural control to high grade zones still being determined.

Macquarie Arc – Porphyry Geochemical Signature

Macquarie Arc Porphyry Model

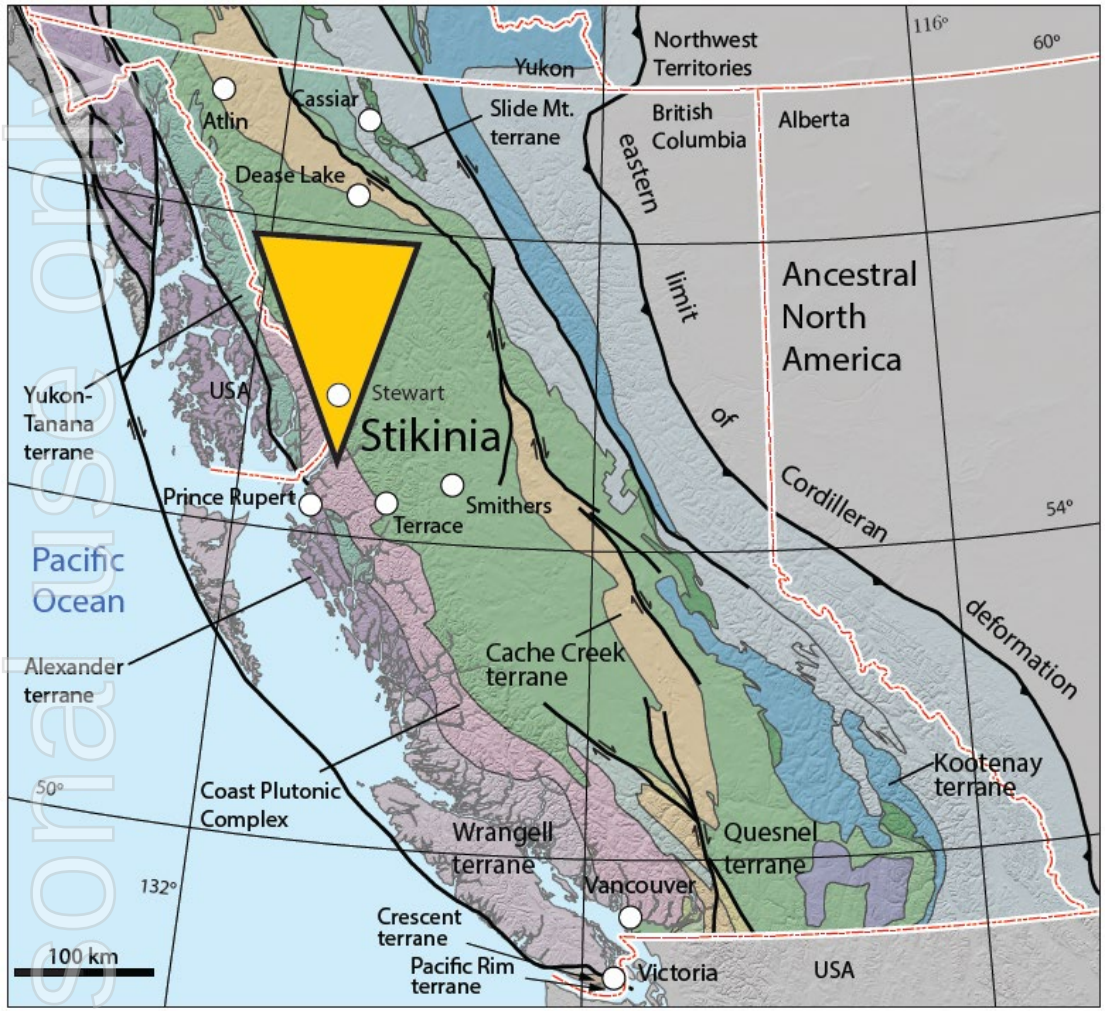




Preliminary Boda Metal Zonation

Global Alkalic Porphyry Deposits

Golden Triangle, British Columbia



BRITISH COLUMBIA | Ministry of Energy, Mines and Petroleum Resources

Information Circular 2020-06

Mining Operations

Red Chris mine (Newcrest Mining Limited 70%, Imperial Metals Corporation 30%)

- porphyry copper-gold
- began commercial production in 2015
- Proven and Probable reserves, Feb. 2012
  301.5 Mt at 0.36% Cu and 0.27 g/t Au
- Measured and Indicated resource, Feb. 2012
  1.034 Bt at 0.35% Cu, 0.35 g/t Au and 1.14 g/t Ag

Exploration

North ROK (Colorado Resources Ltd.)
- porphyry Cu-Ag
- Inferred, Jan. 2014
  142.3 Mt 0.22% Cu, 0.26 g/t Au
- 2,530 m diamond drilling in 2017

GJ (Skeena Resources Limited)
- calc-alkalic porphyry Cu-Ag
- GJ Donnelly Indicated, Apr. 2017
  215.2 Mt at 0.26% Cu, 0.31 g/t Au, 1.9 g/t Ag
- GJ Donnelly Inferred, Apr. 2017
  28.3 Mt at 0.14% Cu, 0.31 g/t Au, 1.8 g/t Ag
- Spectrum Indicated, Apr. 2017
  31.2 Mt at 0.10% Cu, 0.94 g/t Au, 2.6 g/t Ag
- Spectrum Inferred, Apr. 2017
  29.8 Mt at 0.12% Cu, 0.47 g/t Au, 1.4 g/t Ag

Advanced Exploration

Galore Creek (Galore Creek Mining Corporation)
- alkalic porphyry Au-Cu
- Reserves, Sept. 2011
  528 Mt at 0.59% Cu, 0.32 g/t Au, 6.02 g/t Ag
- Resource, Sept. 2011
  814.7 Mt at 0.50% Cu; 0.31 g/t Au, 5.2 g/t Ag

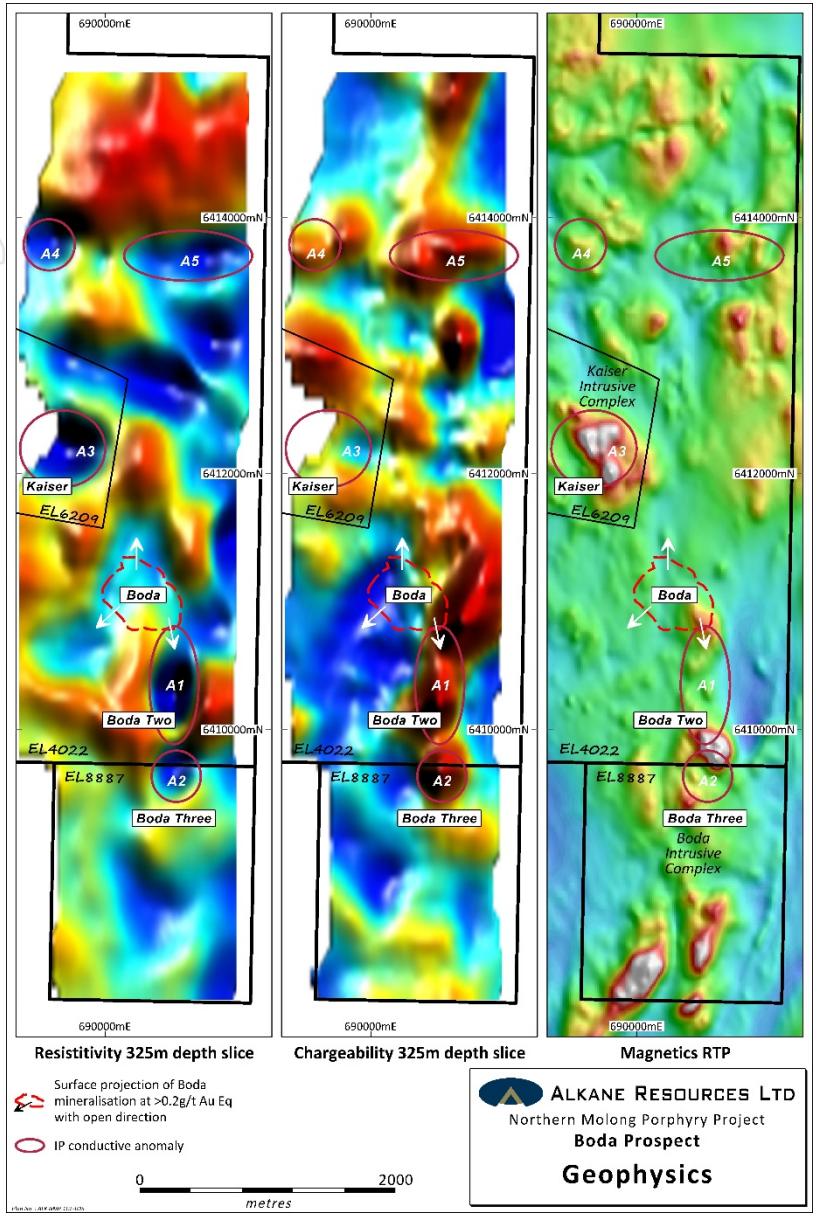
Kitsault (Alloycorp Mining Inc.)
- porphyry Mo-Ag
- Reserves, Feb. 2014
  228.2 Mt at 0.083% Mo, 5.0 g/t Ag
- Resource, Apr. 2012
  321.8 Mt at 0.071% Mo, 4.8 g/t Ag

KSM (Seabridge Gold Inc.)
- calc-alkalic porphyry Au-Cu-Ag-Mo
- Reserves, Feb. 2018
  2.198 Bt at 0.55 g/t Au, 0.21% Cu, 2.6 g/t Ag, 0.0043% Mo
- Resource, Feb. 2018
  2.925 Bt at 0.52 g/t Au, 0.21% Cu, 2.7 g/t Ag, 0.0055% Mo

Red Mountain (IDM Mining Ltd.)
- porphyry Au-Ag
- Reserves, June 2017
  1.953 Mt at 7.53 g/t Au, 21.9 g/t Ag
- Resource, June 2018
  2.771 Mt at 7.91 g/t Au, 22.75 g/t Ag

Schaft Creek (75% Teck Resources Limited, 25% Copper Fox Metals Inc.)
- calc-alkalic porphyry Cu-Mo-Au
- Reserves, Jan. 2013
  940.8 Mt at 0.27% Cu, 0.018% Mo, 0.19 g/t Au, 1.72 g/t Ag
- Resource, Jan. 2013
  1.229 Bt at 0.26% Cu, 0.017% Mo, 0.19 g/t Au, 1.69 g/t Ag

NMPP FY22 Program



Current Program

- Boda/Boda Two mineralised envelope (>0.2g/t Au)
  - Horizontal dimensions of 1,000m x 400m
  - NW (Boda) and NS (Boda Two) strike
  - Extends to 1,100m depth, and is open along strike and at depth.
- High grade Au-Cu zones currently interpreted to trend NW-SE, dipping steeply to the NE.
- Current core drilling is focussed on defining the extent of the high grade mineralisation.
- RC drilling to initially test the 1.5km NW corridor from Boda to Kaiser will start shortly.
- Drilling to test other IP anomalies and known Au-Cu mineralisation within the Kaiser-Boda South corridor over a 3km strike length, including the strong resistivity/chargeability feature at Boda Three.
- Initial aircore drilling planned to test a skarn-like, north-south aeromagnetic anomaly (2.7km by 0.4km) at Murga (Finns Crossing) 15km NW of Boda.
- A review of other regional targets such as the Comobella Intrusive Complex to prioritise follow up drilling is planned.

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Mineral Resources – Tomingley Project

TOMINGLEY GOLD PROJECT TGO MINERAL RESOURCES (as at 30 June 2020)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Resources (cut off 0.50g/t Au)									
Wyoming One	624	1.8	428	1.3	107	0.7	1,159	1.5	57
Wyoming Three	86	2.0	16	1.3	33	1.4	135	1.7	8
Caloma	879	1.6	1,016	1.2	824	1.2	2,719	1.3	115
Caloma Two	64	2.3	812	2.0	26	1.4	902	2.0	58
Sub Total	**1,653**	**1.6**	**2,272**	**1.6**	**990**	**1.2**	**4,915**	**1.5**	**238**
Underground Resources (cut off 1.3g/t Au)									
Wyoming One	664	2.8	1,390	2.9	427	2.8	2,481	2.9	228
Wyoming Three	46	2.2	24	2.0	20	1.9	90	2.1	6
Caloma	158	2.6	129	2.0	465	1.9	752	2.0	50
Caloma Two	-	0.0	785	2.4	426	2.0	1,211	2.3	88
Sub Total	**868**	**2.8**	**2,328**	**2.7**	**1,338**	**2.2**	**4,534**	**2.6**	**372**
TOTAL	**2,521**	**1.8**	**4,600**	**2.2**	**2,328**	**1.5**	**9,449**	**1.9**	**610**

TOMINGLEY GOLD PROJECT SAR MINERAL RESOURCES (as at 16 February 2021)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Total Resources (cut off 0.50g/t Au)									
ROSWELL			7,880	2.1	2,190	1.9	10,070	2.0	660.4
SAN ANTONIO			5,930	1.8	1,390	1.3	7,320	1.7	406.0
TOTAL			**13,810**	**2.0**	**3,580**	**1.7**	**17,390**	**1.9**	**1,066**

PEAK HILL GOLD PROJECT MINERAL RESOURCES (as at 30 June 2020)						
Deposit	Resource Category	Cut-Off	Tonnes (Mt)	Gold Grade g/t	Gold Metal (Koz)	Copper Metal (%)
Proprietary U/G	Inferred	2g/t Au	1.02	3.29	108	0.15
TOTAL			**1.02**	**3.29**	**108**	**0.15**

Apparent arithmetic inconsistencies are due to rounding.