

## First assays confirm strong porphyry copper mineralisation at Cockie Creek

### HIGHLIGHTS:

- **First Cockie Creek drill hole, CCDD001, returns strong porphyry copper mineralisation indicative of a well-mineralised porphyry Cu-Au-Mo system located nearby within the prospect area:**
  - **71m @ 0.48% Cu and 70ppm Mo** from 16m (CCDD001)
  - **incl. 31m @ 0.65% Cu and 80ppm Mo** from 36m
- **Assays are from eastern part of the Mineral Resource area (Discovery Outcrop) and confirm the high grade nature of mineralisation within the Resource envelope**
- **Mineral Resource area crops out at surface and likely to represent one of several hydrothermal fluid pathways originating from a mineralised porphyry core**
- **Results are being analysed and pathfinder indicators modelled to enable vectoring of further drilling towards the porphyry core, the source of surface mineralisation**
- **Numerous batches of assays yet to be received from the labs**
- **CCDD007 recently completed at western end of Discovery Outcrop**
- **Porphyry intrusions and mineralisation thickening with depth. Mineralisation also broadens westwards from the Discovery Outcrop towards interpreted large porphyry intrusion centres**
- **Compelling magnetic anomalies and historical drilling identify a Western Extension Zone, west of the Discovery Outcrop, near several large magnetic features interpreted as porphyry system centres**
- **Significant potential for the discovery of a large porphyry Cu-Au-Mo mineralisation system**
- **Potential to significantly expand the historic Mineral Resource Estimate of 13Mt @ 0.42% Cu (0.25% Cu cut-off grade) (JORC 2004)<sup>1</sup>, which was established over only about half of the known strike of mineralisation at surface and only to shallow depths**
- **Main period of historic exploration over 30 years ago focussed on the shallow parts of the Discovery Outcrop with no exploration targeting a porphyry system**

Superior Resources Limited (ASX:SPQ) (Superior, the Company) is pleased to confirm the return of strong assays from the first hole drilled (CCDD001) under the Company's maiden program at the Cockie Creek Prospect. Cockie Creek is one of several porphyry copper-gold-molybdenum prospects within the Company's 100%-owned Greenvale Project (Figure 1).

The recent receipt of a second batch of assays marks the return of all assays for CCDD001. The assays confirm that the actual copper grades consistently exceed the visual estimations of chalcopyrite

<sup>1</sup> Refer ASX announcement dated 27 March 2013

mineralisation observed within the core. The mineralisation is predominantly confined within the strong foliation fabric developed within the host porphyry intrusions and not visible on the core surface.

The Cockie Creek mineralisation appears consistently of high grade in porphyry deposit terms, which elevates the mineralisation potential of the system’s core. Observations from the mineralisation, including the extensive strong potassic alteration indicate the possibility that a porphyry core may be located nearby to the current drilling.

The current program represents the first systematic drilling at Cockie for over thirty years and the first to target the prospect as a porphyry system. The program as planned comprises 17 HQ diamond core holes for a total of 6,650m with the following objectives:

- target two high order induced polarisation (IP) chargeability anomalies directly below the Discovery Outcrop. The chargeability anomalies are interpreted to represent the upper zones of a mineralised Cu-Au-Mo porphyry core;
- target interpreted large intrusion centres west of the Discovery Outcrop; and
- establish a JORC (2012)-compliant upgraded Mineral Resource Estimate on the Discovery Outcrop.

Completed drilling to date comprises seven holes for a total of 2,773 metres of core.

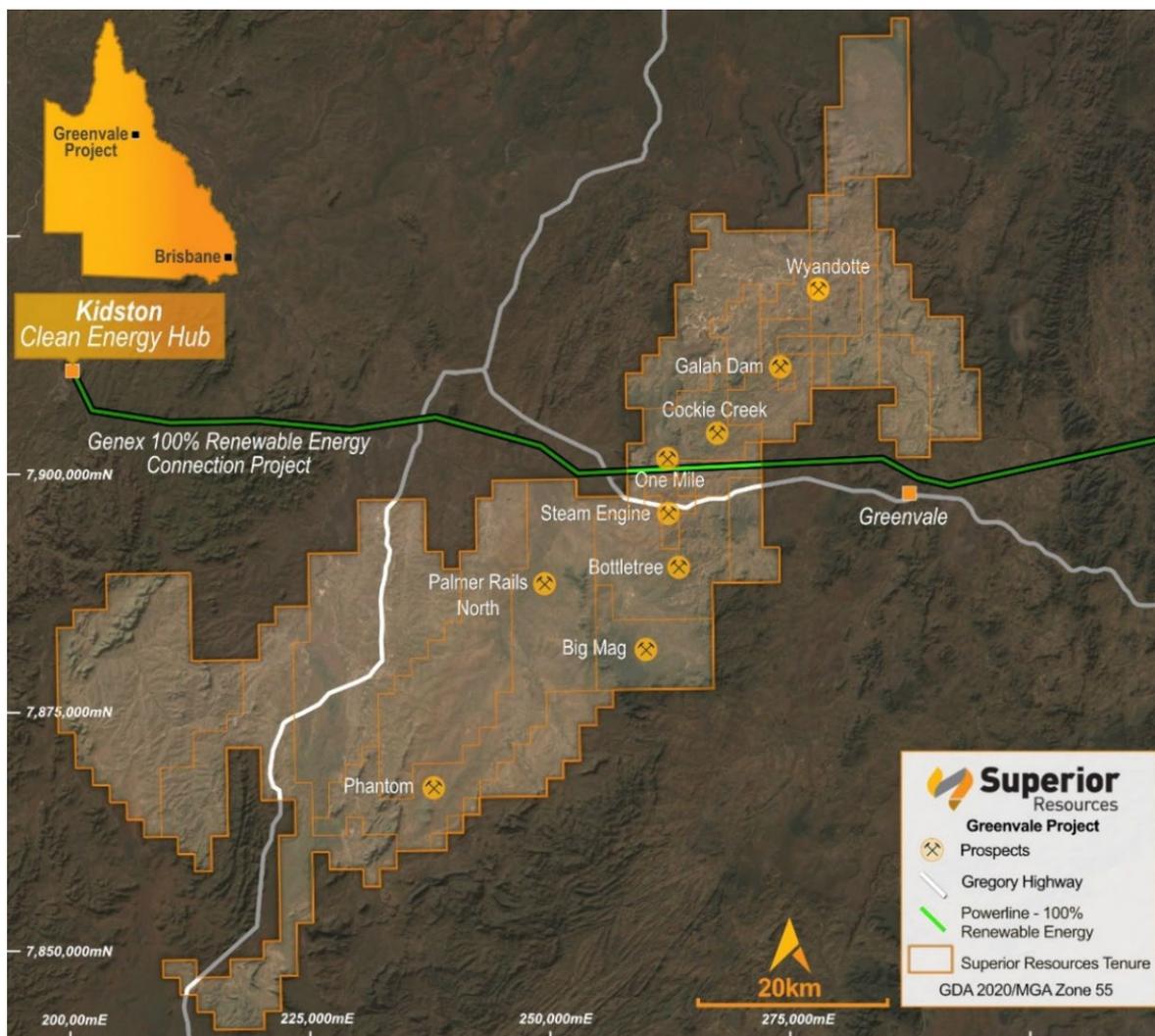


Figure 1. Map showing the locations of the Greenvale Project tenements and select prospects. The Gregory Highway, Kidston Clean Energy Hub and associated power infrastructure corridor are also indicated.

**Superior’s Managing Director, Peter Hwang commented:**

*“The quality of the mineralisation at Cockie in terms of grade, consistency and continuity is quite impressive and gives us confidence as to the size and grade potential of the causative porphyry system.*

*“Although we have only received assays for the first hole, the assays support the general accuracy of our visual estimations of mineralisation in the other holes and enable us to progress the analysis of the important alteration, lithological and structural information obtained from the drill core.*

*“These assays and the current program are also positively contributing to an upgrade of the Mineral Resource at the Discovery Outcrop, but that outcome is secondary to our primary objective of intersecting the main porphyry deposit system, or core. The main task at hand is to analyse the extensive geological information coming from the drill holes together with the geophysical and geochemical datasets to enable us to vector our drilling towards the core of the porphyry system.*

*“We believe that several pathfinder vectors are emerging and our efforts at Cockie will focus on data analysis over the next few weeks.*

*“Drilling at Cockie has significantly outpaced the receipt of assays and the analysis of pathfinder and geological datasets. In the meantime, we have paused the drilling and our team is making preparations to commence the Bottletree Phase 2 drilling program. Details of the Bottletree program will be announced ahead of the start of drilling.”*

**Maiden Drilling Program**

Drilling commenced on the eastern end of the historical copper zone in early July 2023. A total of 2,773m for seven HQ diamond drill holes (CCDD001 – CCDD007) cored from surface have been completed to date (Figure 2). The program, as planned, comprises a total of 17 holes for 6,650 metres.

As a result of several factors, including the quantity of new data obtained from the drilling that requires analysis and degree to which the drilling has outpaced the receipt of laboratory assays, drilling operations have been paused at Cockie Creek and diverted to the Bottletree Prospect.

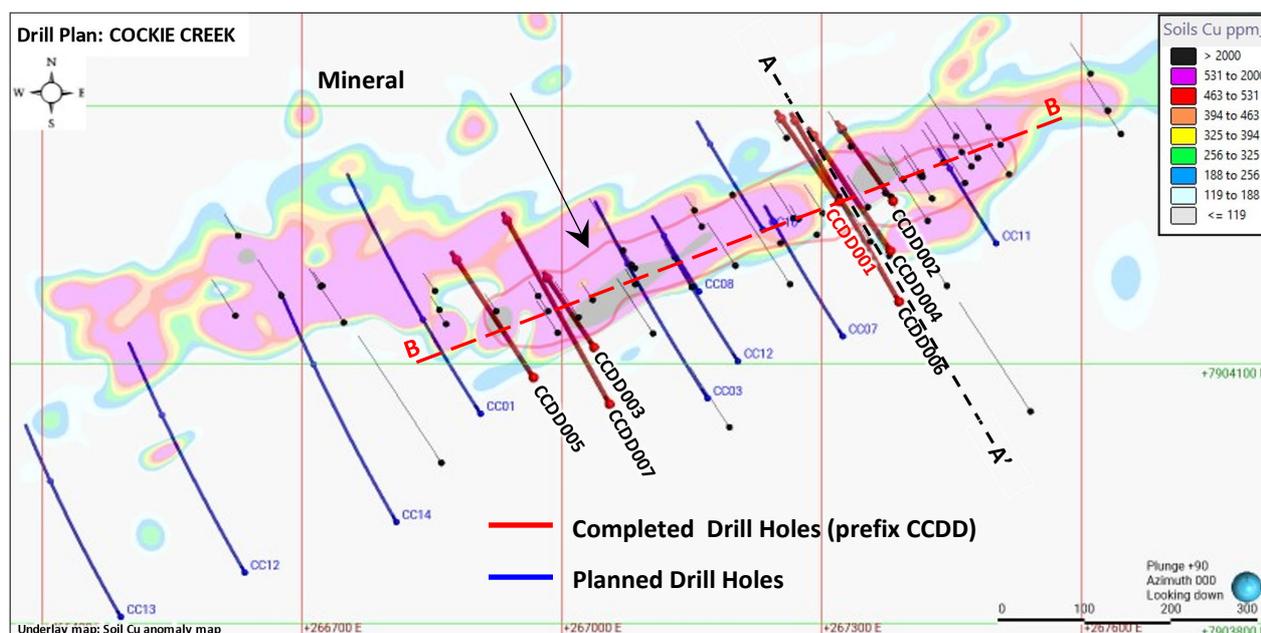


Figure 2. Plan of the Cockie Creek Discovery Outcrop area showing completed drill holes CCDD001 – CCDD007 (in black) over gridded Cu soil geochemistry. Outline of Mineral Resource at surface and cross section A-A’ are shown.

## Drill hole CCDD001

Recently received complete assays for CCDD001 have confirmed the historical high grade assays, but importantly, have also confirmed that the mineralisation is more extensive than previously understood (Figure 3). The mineralisation crops out at surface and was intersected from a down-hole depth of 16 metres:

- **71m @ 0.48% Cu and 70ppm Mo** from 16m (CCDD001)
  - incl. **31m @ 0.65% Cu and 80ppm Mo** from 36m.

CCDD001 was continued for a considerable distance past the main zone of mineralisation for the purpose of understanding the geological setting and investigating a suspected porphyry-related zone on the northern side of the Discovery Outcrop. A broad zone of hydrothermal biotite alteration was intersected towards the bottom of CCDD001 within the zone of interest. Bornite mineralisation was also observed within this zone, although the overall grades of the zone are low. However, the grade of the zone is of less importance than the geological information that is provided by the zone.

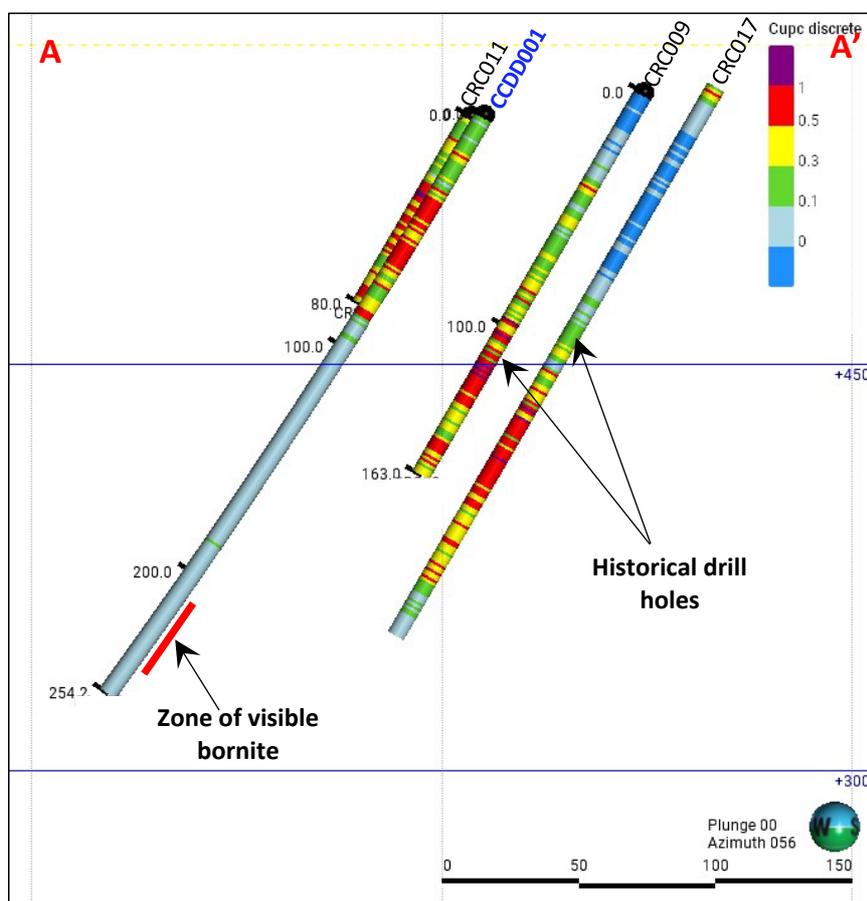


Figure 3. Cross section along A-A' (refer Figure 2) looking east-northeast showing CCDD001 and historical drill holes (CRC009, CRC011, CRC017). Down-hole copper assay values (1m intervals) are represented as grade categories.

CCDD001 drill hole collar was positioned for the purposes of validating the historical drilling and to investigate a suspected porphyry-related zone located to the north of the Discovery Outcrop.

CCDD001 intersected a long interval of copper and molybdenite mineralisation associated with porphyry style alteration. A range of porphyritic intrusive rocks, which include quartz diorites, diorites and lesser tonalites intrude several metavolcanic units and appear to be responsible for the copper mineralisation.

The main mineralised lithology is a medium to coarse grained textured quartz diorite that has been subjected to K-feldspar alteration with minor chlorite. The mineralisation is predominantly disseminated and focussed along strong foliation structures, although some mineralisation appears to be remobilised out of quartz vein structures that are possible deformed porphyry B-veins evident within the prospective quartz diorite and metavolcanic units (Figures 4 to 6).

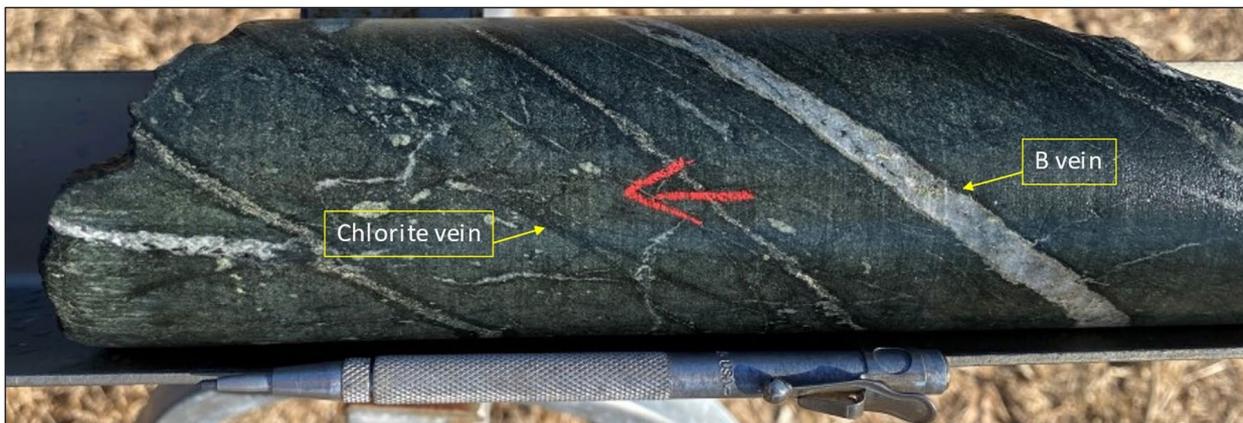


Figure 4. Core from CCDD001 (30.25m) showing meta-andesite unit with a porphyry B vein containing quartz, pyrite and chalcopyrite. Fine chlorite veining with patches of epidote alteration also present.

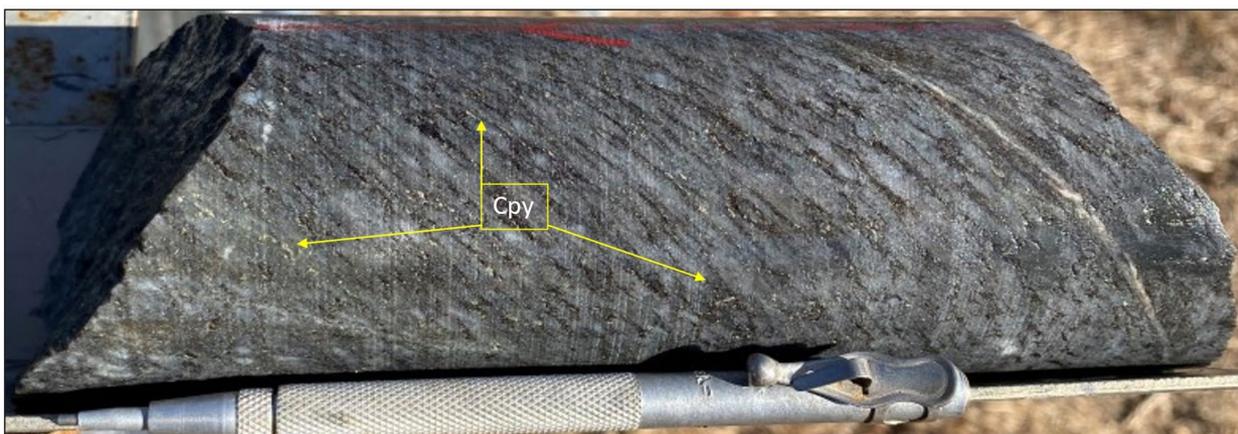


Figure 5. Core from CCDD001 (36.2m) showing quartz diorite unit with disseminated pyrite and chalcopyrite mineralisation (0.71% Cu) developed within strong foliation. Alteration includes minor chlorite and K-feldspar.

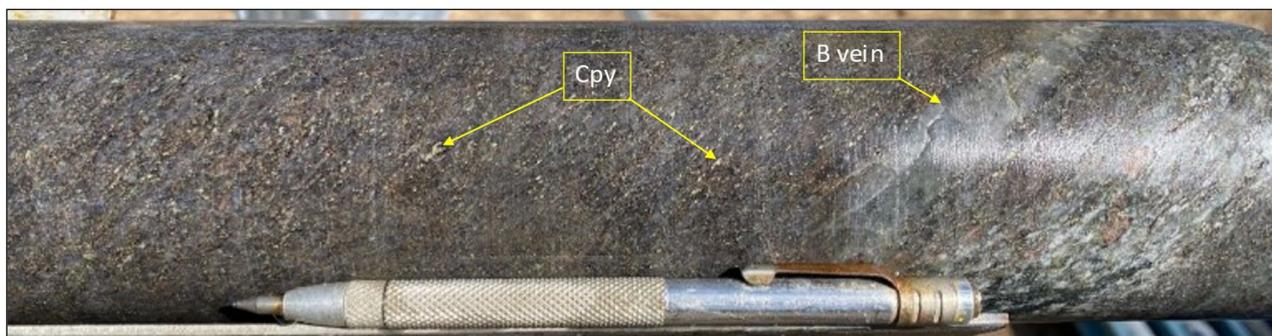


Figure 6. Core from CCDD001 (60m) showing quartz diorite unit with porphyry style B vein and disseminated chalcopyrite and minor pyrite mineralisation (0.57% Cu) within strong foliation. Mineralisation is associated with K-feldspar alteration.

## Synopsis to date

The Cockie Creek drilling program is unveiling a broader geological canvas that hints at the potential for more extensive mineralisation zones and importantly, significant large interpreted porphyry centre targets.

The observed mineralisation and alteration such as actinolite-chlorite and overprinted phyllic alteration assemblages strongly suggest that we are potentially in proximity to a significant Cu-Au-Mo porphyry system.

The mineralisation at the Discovery Outcrop area is showing strong continuity, good grades and increasing thickness with depth (Figure 7). In particular, strong copper mineralisation visually observed in other holes within the program (e.g. CCDD004 and CCDD006) is **developed over significantly wider intervals (up to 40% wider) than indicated by historical assays** (Figure 8).

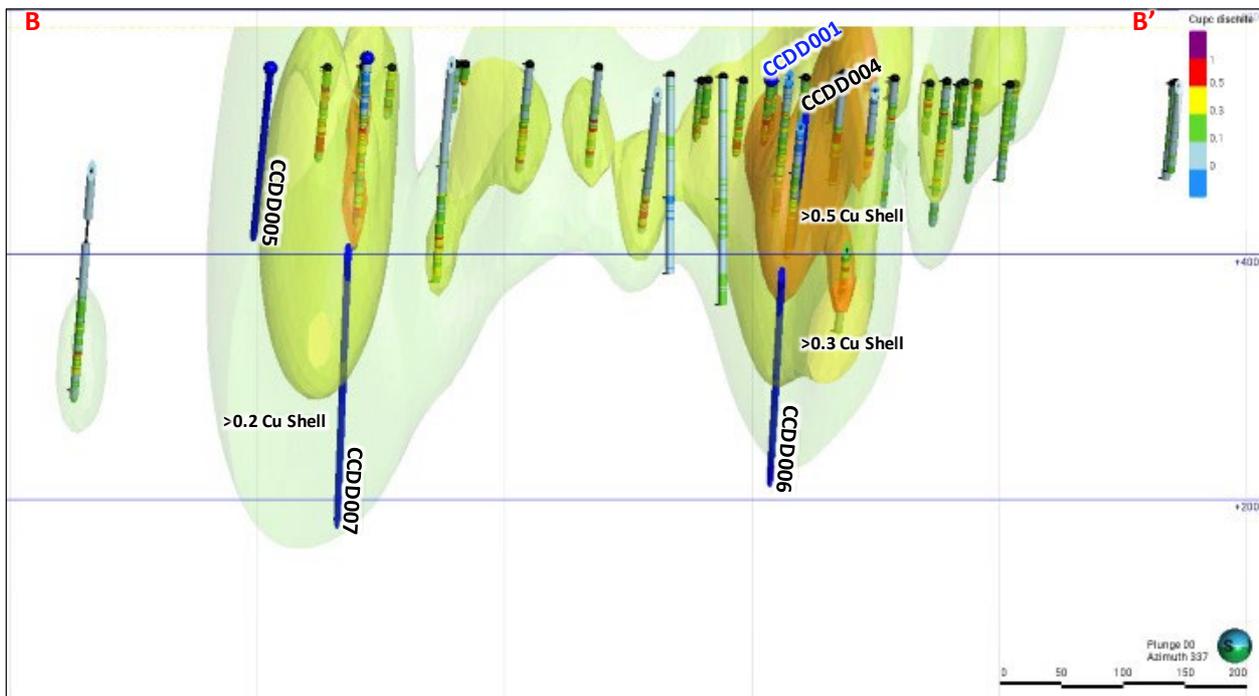


Figure 7. Long section along B-B' (refer Figure 2) looking north-northwest shows copper grade shells modelled using the assays from historical drill holes and CCDD001.

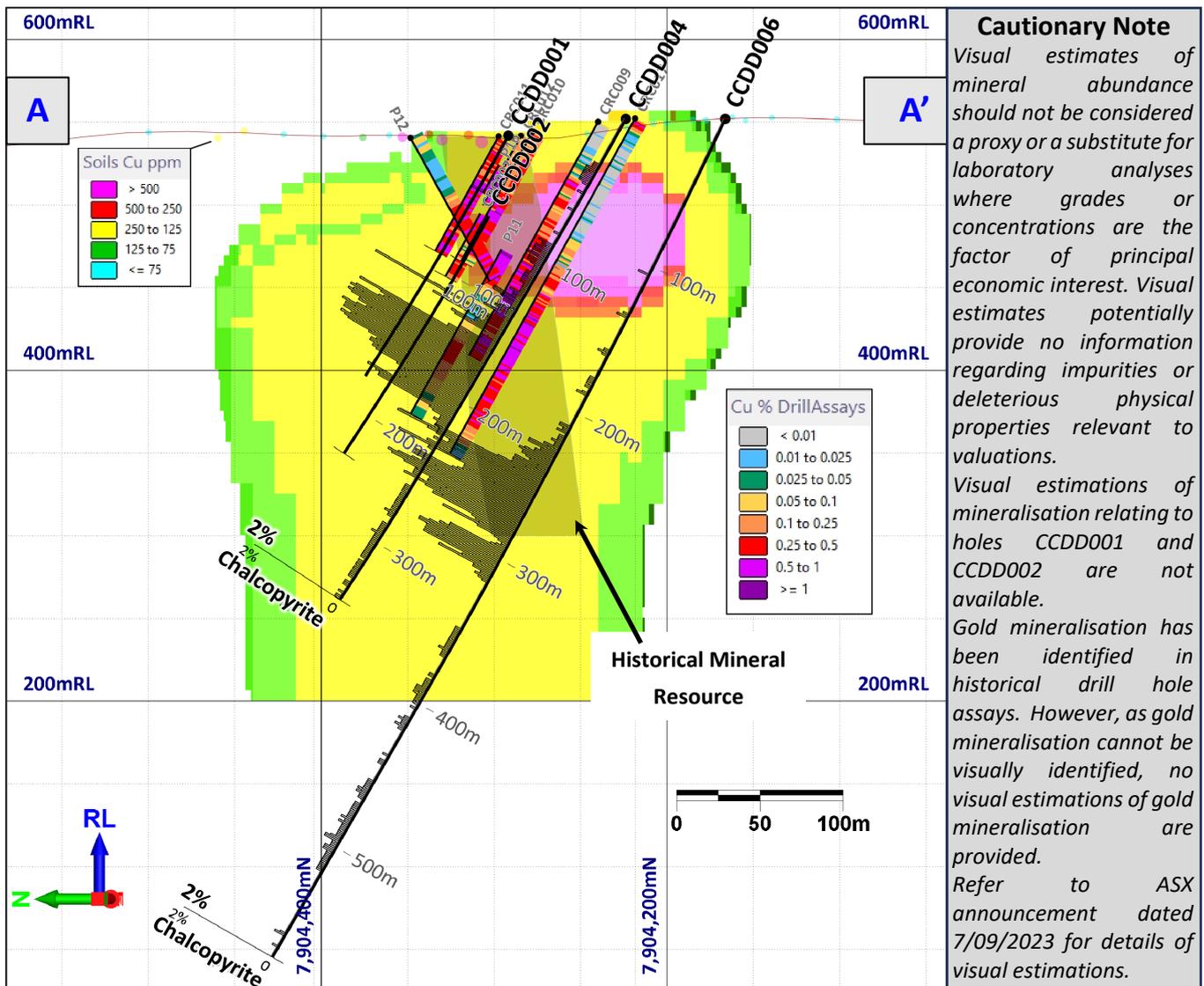


Figure 8. Cross section along A-A' (refer Figure 2) looking east-northeast, showing recently completed drill holes (prefixed "CCDD") with down-hole visual estimations of chalcopyrite mineralisation as histograms, historical drill holes showing down-hole Cu assays, historical Mineral Resource (grey shaded polygon) and 3D-modelled IP chargeability data.

### WESTERN EXTENSION AREA

Analysis of core from the current drilling together with the geological and geophysical data has identified significant potential for the continuation of the main copper-mineralised zone westwards from the historical Mineral Resource. The continuation of the main copper zone (and consequently, the Mineral Resource) westwards, is evidenced in one western-most historical drill hole that intersected significant mineralisation at depth and strike of (but outside) the Mineral Resource. The mineralisation in this historical hole does not appear to reach the surface (i.e., a blind zone) and does not show a surface soil geochemistry expression (Figure 9).

In addition, aerial magnetic data clearly highlights a continuation of the same structure on which the main copper zone is developed. The Western Extension Zone continues for at least one kilometre and lies adjacent and to the north of a large circular magnetic feature (Figure 10).

3D modelling of IP chargeability data shows substantial broadening of a large high chargeability zone at the western end of the historical Mineral Resource (Figure 11). The limits of the IP survey prematurely

terminates the high chargeability zone at the western and eastern ends of the prospect area. A large-scale modern IP survey is being planned for the Cockie Creek prospect area and surrounds to cover most of the interpreted intrusive complex.

The mineralisation at Cockie Creek remains open in all directions and is surrounded by several significant magnetic features, potentially representing one or more mineralised Cu-Au porphyry system cores.

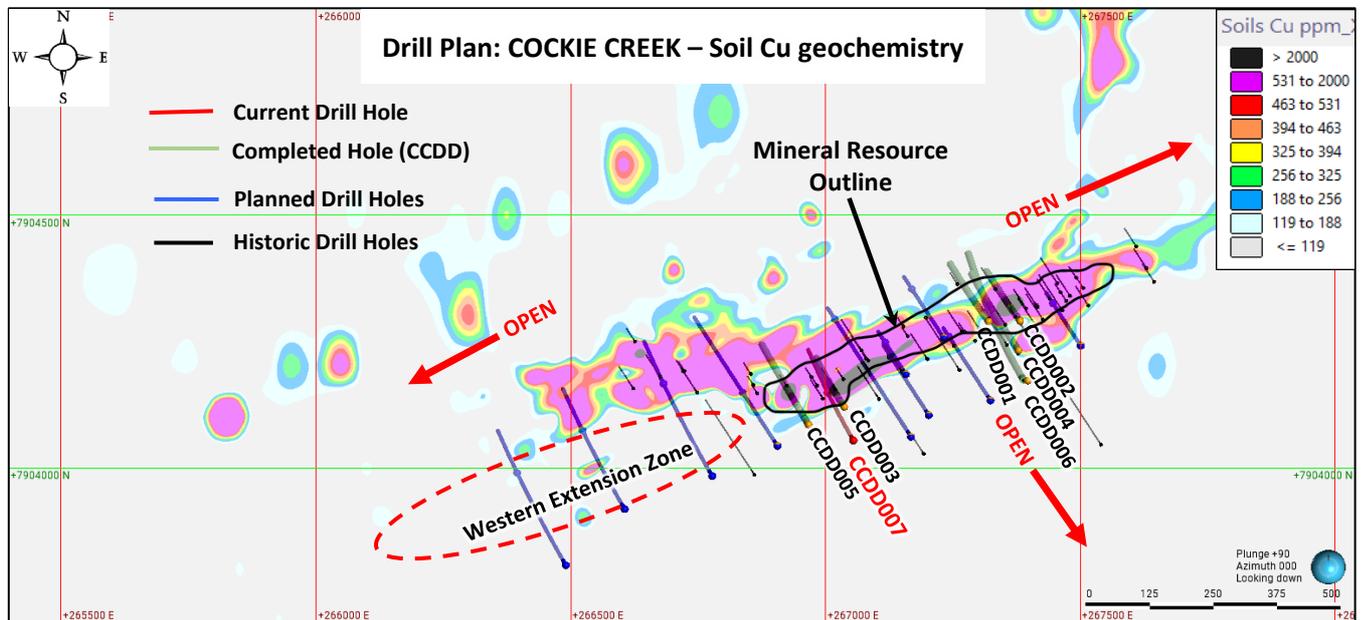


Figure 9. Gridded soil Cu geochemistry of the Cockie Creek area showing the Western Extension Zone, outline of historical Mineral Resource and current program drill holes.

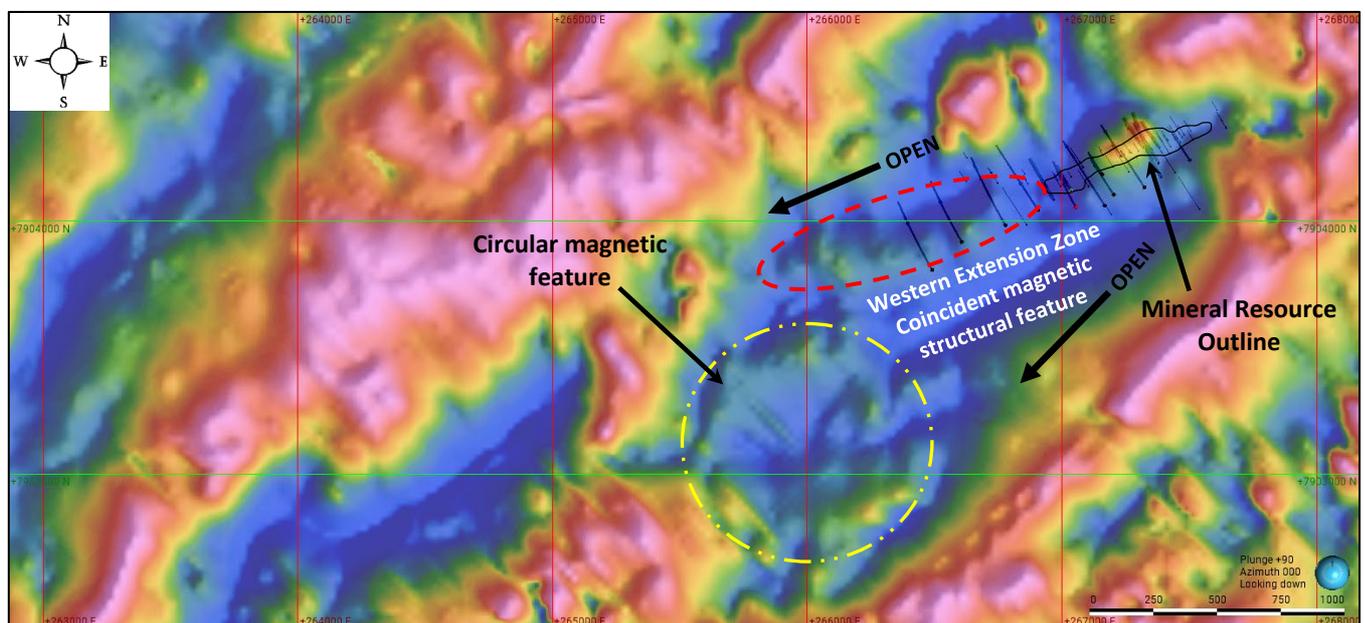


Figure 10. Aerial magnetic image (RTP) of the Cockie Creek regional area showing the outline of the historical Mineral Resource and the Western Extension Zone (red polygon) as supported by a linear series of magnetic features. A prominent large circular magnetic feature is located south of the Western Extension Zone (yellow circle).

## BACKGROUND INFORMATION ON COCKIE CREEK

Extensive geological and geophysical modelling work has highlighted an exceptional target that has the potential to lead to the discovery of a large porphyry Co-Au-Molybdenite mineralisation system (Figure 11). The work also identified significant potential to expand the historic Mineral Resource Estimate of **13Mt @ 0.42% Cu** (0.25% Cu cut-off grade) (JORC 2004)<sup>2</sup>, which was established over only about half of the known strike of mineralisation at surface and only to shallow depths (Figure 12).

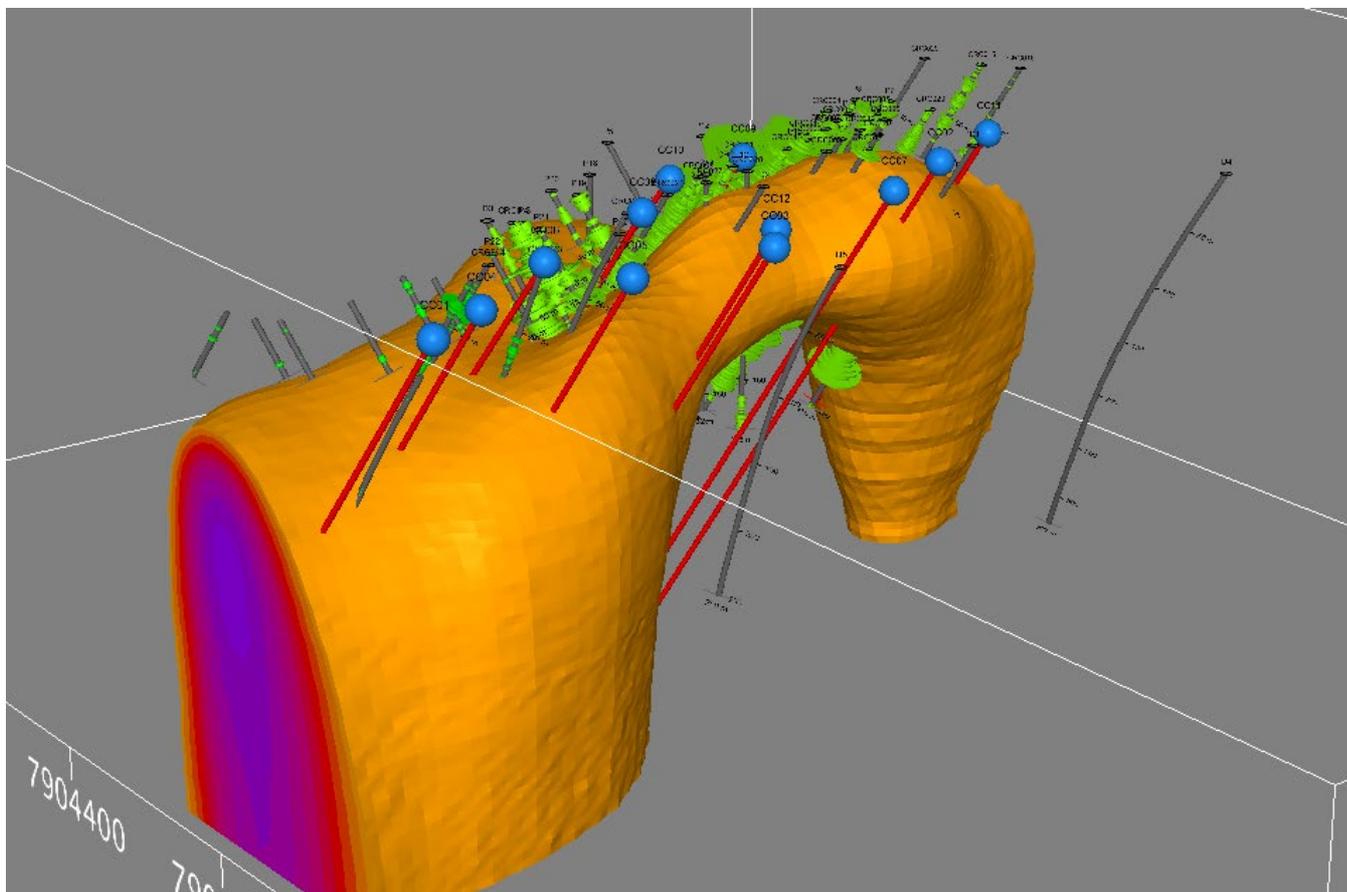


Figure 11. 3D IP chargeability model showing moderate to high chargeability zone. Historical drill holes (grey traces) and copper mineralisation (green) with 2023 planned drill holes in red. Viewed looking northeast.

<sup>2</sup> Refer ASX announcement dated 27 March 2013

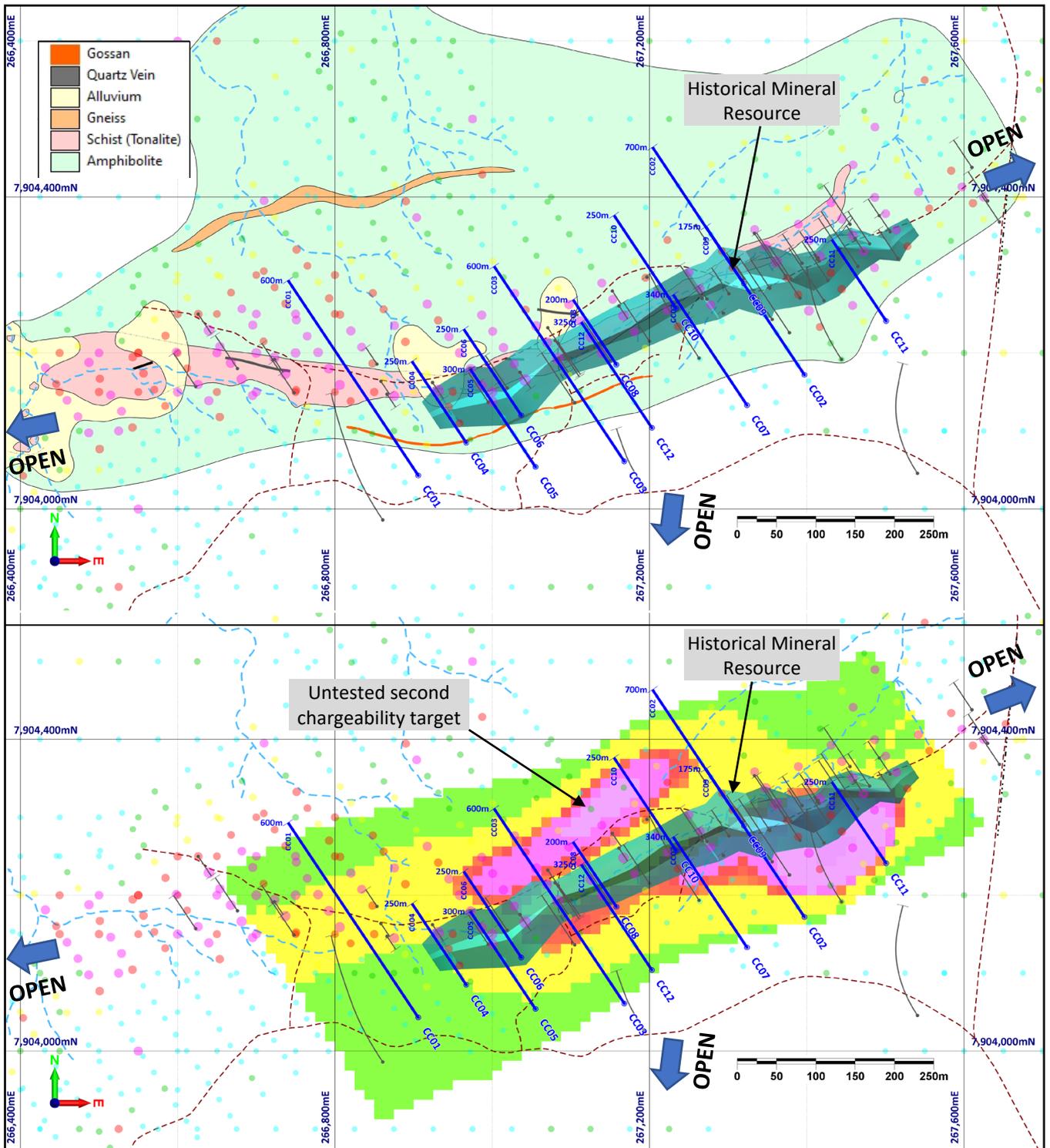


Figure 12. Plan views of Cockie Creek Prospect surface geology (top) and IP chargeability data (bottom). Gridded soil copper geochemistry, planned drill holes (blue traces) and wireframe of the historical Mineral Resource are shown in each plan.

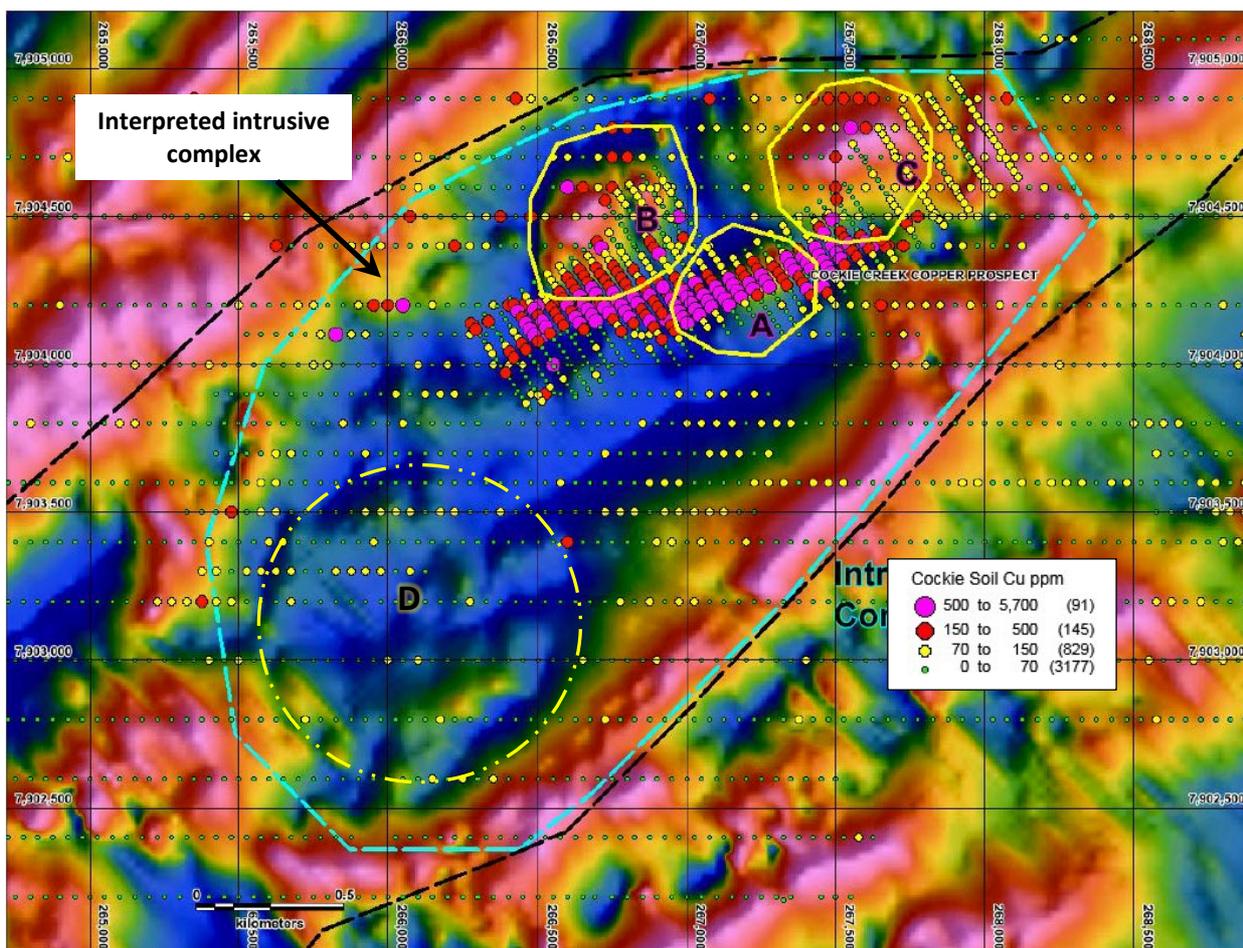


Figure 13. Cockie Creek thematic Cu soil data and interpreted porphyries on TDr VI NSSF processed airborne magnetics data, showing interpreted porphyry intrusions (A to D) within an interpreted intrusive complex.

### PORPHYRY Cu-Au-Molybdenite TARGET AT COCKIE

Cockie Creek is characterised by a tabular zone of disseminated copper-gold-molybdenum mineralisation that crops out at surface and extends for over 1.2 kilometres in strike length with a true width of up to 60 metres. The mineralisation shows good continuity and has only been drilled to shallow depths (Figures 11 and 12).

Directly beneath the mineralisation lies a strong IP chargeability anomaly that has not been adequately drilled. Recent geophysical modelling indicates that a second chargeability anomaly lies to the west of and parallel to the main anomaly. The western anomaly has not previously been drilled.

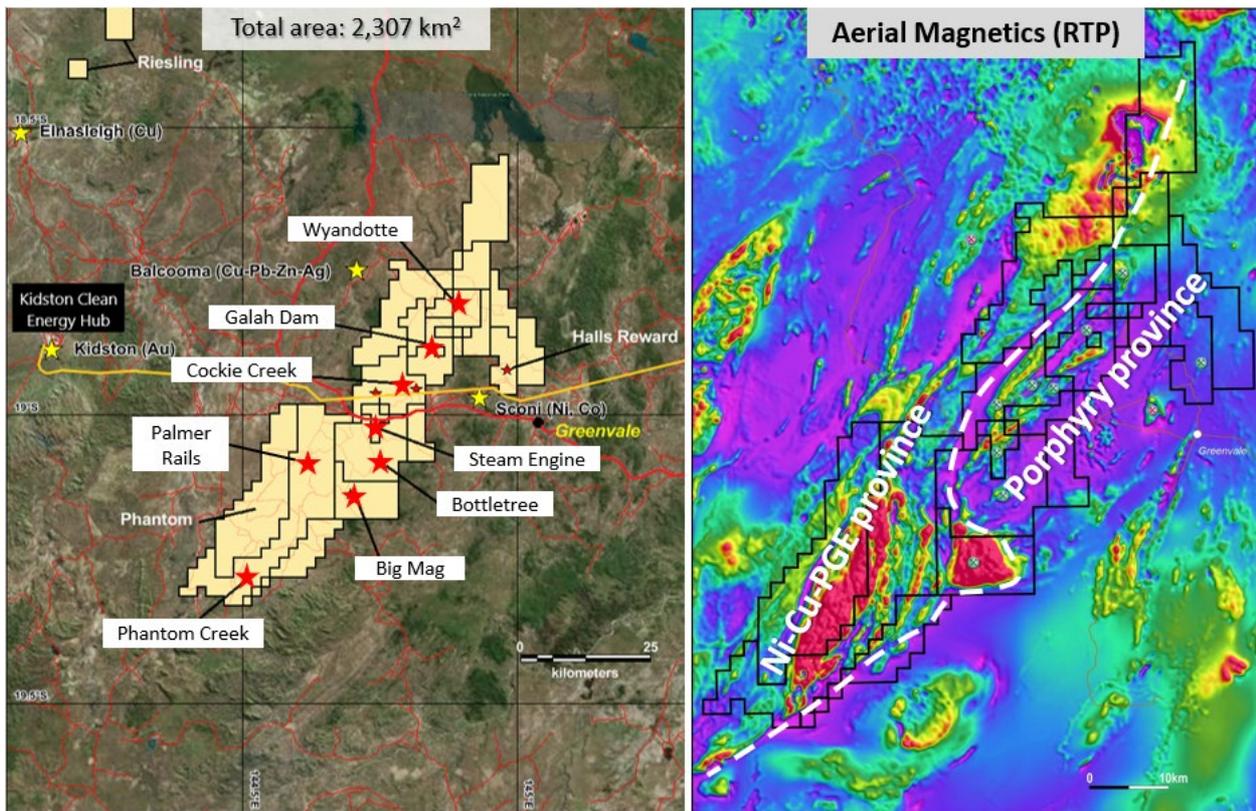
The main target at Cockie Creek is one or more deeper porphyry cores that are likely to be the source of the copper mineralisation. The mineralisation identified by the historic drilling potentially represents leakage into the wall rocks of a nearby mineralised porphyry system.

As appears to be the case at Bottletree, the likely wall rock-hosted mineralisation at Cockie Creek represents a potentially significant outcropping copper resource. **Copper grades are relatively high in porphyry deposit terms (Table 1), with historic results indicating increasing grades at depth. In addition, a significant zone of gold (3m @ 9.0 g/t Au from 80m) in historic hole CRC003 was returned just short of the western chargeable zone.**

Table 1. Cockie Creek Copper Prospect - Selected drillhole intersections from historical data.

Hole	EastMGA	NorthMGA	From (m)	To (m)	Length (m)	Cu (%)	Au (g/t)	Molybdenite (ppm)
CRC002	267380	7904295	0	68	68	0.74	0.12	92
CRC003	267267	7904270	80	83	3		9.0	
CRC009	267356	7904243	66	163	97	0.48	0.07	114
CRC010	267353	7904283	11	85	74	0.42	0.08	78
CRC011	267320	7904295	1	80	79	0.45	0.06	76
CRC014	267019	7904155	15	56	41	0.50	0.10	48
CRC017	267378	7904226	121	215	94	0.53	0.08	99
CRC023	267037	7904120	53	141	88	0.43	0.06	49
CRC026	266995	7904137	11	84	73	0.44	0.05	22
D1	267448	7904183	180	216	36	0.57	0.10	28
D3	267075	7904227	56	104	48	0.48	0.10	94
P11	267403	7904244	50	108	58	0.64	0.07	-
P12	267339	7904345	50	100	50	0.44	0.07	-
P16	267370	7904307	0	40	40	0.75	0.13	-

## Greenvale – Juxtaposed porphyry and magmatic Ni-Cu-PGE sulphide provinces

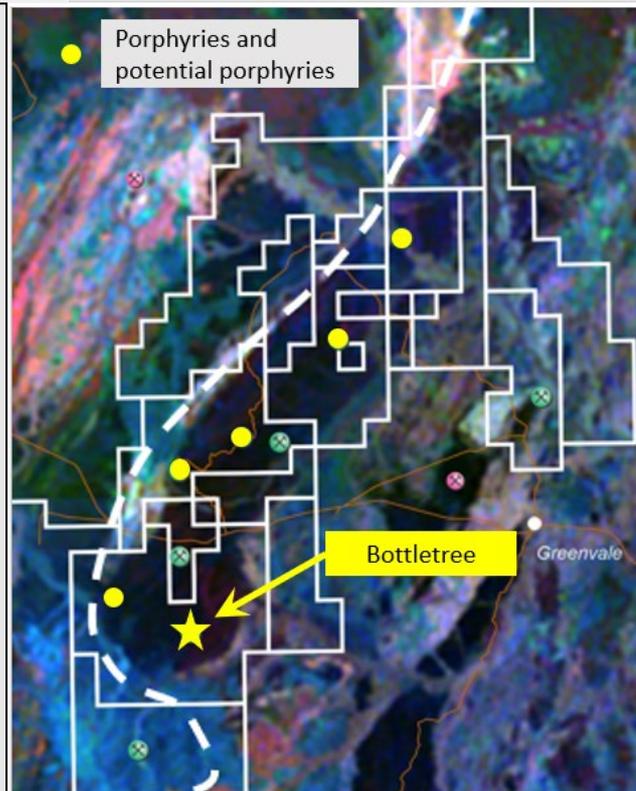


Superior has long recognised the copper potential within the Lucky Creek Corridor. However, recent exploration drilling at Bottletree, coupled with regional geological investigations over several years has enabled the characterisation of the Lucky Creek Corridor as a fossil island arc porphyry province, hosting numerous porphyry and potential porphyry systems recurring along a 50 km zone.

Superior is taking the lead with Tier-1 potential copper-gold porphyry exploration in this part of Australia.

Juxtaposed against the Greenvale Porphyry Province is a second province formed by a completely different geological genesis model. Originally formed at a much deeper crustal level, the Greenvale Magmatic Nickel-Copper-PGE Sulphide Province has been technically proven in terms of the presence of such mineralising systems. However, the province remains practically unexplored.

Superior enjoys a first mover advantage over the entire province, which presents as one of the best sulphide Ni-Cu-PGE propositions in Australia.



## About Superior Resources

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large copper, nickel-copper-cobalt-PGE, lead-zinc-silver and gold deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company is focused on multiple Tier-1 equivalent exploration targets and has a dominant position within the Carpentaria Zinc Province in NW Qld and Ordovician rock belts in NE Qld considered to be equivalents of the NSW Macquarie Arc. For more information, please visit our website at [www.superiorresources.com.au](http://www.superiorresources.com.au).

**Reporting of Exploration Results:** *The information in this report as it relates to exploration results and geology was compiled by Mr Peter Hwang. Mr Hwang is Managing Director and a shareholder of Superior Resources Limited. Mr Hwang is a Member of the Australian Institute of Geoscientists and 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 Hwang consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*

**Reliance on previously reported information:** *In respect of references contained in this report to previously reported Exploration Results or Mineral Resources, Superior confirms that it is not aware of any new information or data that materially affects the information, results or conclusions contained in the original reported document.*

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## APPENDIX 1

### Reported drill hole collar details

Hole ID	Easting (m)	Northing (m)	RL (m)	Depth (m)	Dip°	Azimuth°
CCDD001	267320	7904289	542	254.2	-60	327
CCDD002	267382	7904290	543	227.4	-60	327
CCDD003	267037	7904120	560	303.6	-70	327
CCDD004	267379	7904232	552	284.3	-60	327
CCDD005	266967	7904085	552	345.7	-60	327
CCDD006	267389	7904173	552	575.6	-65	330
CCDD007	267055	7904054	563	725.7	-70	331

## APPENDIX 2

### JORC Code, 2012 Edition (Table 1)

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (e.g. 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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling from surface comprised HQ diameter diamond core drilling to end of hole.</li> <li>• Diamond core samples will be obtained by splitting core in half using a core saw.</li> <li>• The drill bit sizes used in the drilling are considered appropriate to indicate the degree and extent of mineralisation.</li> <li>• 1m representative samples will be assayed for base metals, gold, silver and other elements at SGS laboratories in Townsville.</li> <li>• Assaying for gold will be via fire assay of a 50-gram charge.</li> <li>• Sample preparation at SGS laboratories in Townsville for all samples is considered to be of industry standard.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling from surface was performed using standard diamond drilling techniques.</li> <li>• Drilling was conducted by Deepcore Drilling Pty Ltd using a Crawler Mounted Boart Longyear LM90 Drill Rig with Rod Handler and a Crawler Mounted Boart Longyear LF130 Drill Rig with Rod Handler.</li> <li>• All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recovery was performed and monitored by Superior's contractors and Superior Resources' representatives.</li> <li>The volume of sample collected for assay is considered to be representative of each 1m interval.</li> <li>Diamond drill core recovery was logged. Recovery overall was close to 100%.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geological logging was conducted during the drilling of each hole by a geologist having sufficient qualification and experience for the mineralisation style expected and observed at each hole.</li> <li>All holes were logged in their entirety at 1m intervals.</li> <li>All logging data is digitally compiled and validated before entry into the Superior database.</li> <li>The level of logging detail is considered appropriate for resource drilling.</li> <li>Magnetic susceptibility data for each 1m sample interval was collected in the field.</li> <li>All core was logged for structure with structures being recorded in relation to a bottom line marked on the core and established using Reflex equipment. Logging included both and Alpha and Beta angles. Data from structural logging of planar features was converted to grid dips and dip directions as well as plan parameters to allow structures to be plotted on sections and allow structures to be projected to the ground surface by software.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul style="list-style-type: none"> <li>The sample collection methodology is considered appropriate for diamond drilling and will be conducted in accordance with standard industry practice.</li> <li>Diamond drill core will be split in half using a diamond saw with half of the sample being sent for assay and the remainder retained for reference. Core halving was done along the bottom line marked on the core for structural logging.</li> <li>The sample sizes are considered appropriate to the style of mineralisation being assessed.</li> <li>Quality Assurance (QA)/Quality Control (QC) protocols are instigated such that they conform to mineral industry standards and are compliant with the JORC code.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>(QA) processes with respect to chemical analysis of mineral exploration samples includes the addition of blanks, standards and duplicates to each batch so that checks can be done after they are analysed. As part of the (QC) process, checks of the resultant assay data against known or previously determined assays to determine the quality of the analysed batch of samples. An assessment is made on the data and a report on the quality of the data is compiled.</li> <li>Quality control will include determinations of duplicate samples every 50 samples or so to check for representative samples. There was a conscious effort on behalf of the samplers to ensure consistent weights for each sample. Comparison of assays of duplicates shows good reproducibility of results.</li> <li>The above techniques are considered to be of a high quality and appropriate for the nature of mineralisation anticipated. The 2-3kg sample size is appropriate for the rock being sampled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>All samples will be submitted to SGS laboratories in Townsville for gold and multi-element analysis.</li> <li>Samples will be crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method GO FAA50V10 using a 50-gram sample.</li> <li>Multi-element analyses will be conducted using a four acid digestion followed by an ICP-OES/MS finish for the following 31 elements: Ag, Al, As, Ba, Ca, Ce, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Molybdenite, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Ti, U, V, W, and Zn.</li> <li>Certified gold, multi-element standards and blanks will be included in the samples submitted to the laboratory for QA/QC.</li> <li>Additionally, SGS will use a series of its own standards, blanks, and duplicates for the QC of the elements assayed.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Some holes described in this report are holes that twin historical holes for the purpose of verification of historical assay results.</li> <li>Logs were recorded by field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central database.</li> <li>Laboratory assay files were merged directly into the database.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The data is routinely validated when loading into the database.</li> <li>No adjustments to assay data were undertaken.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The collar locations will be further defined using DGPS to give sub-one metre accuracy.</li> <li>The area is located within MGA Zone 55.</li> <li>Topographic control is currently from DGPS point data that has been merged with RL-adjusted contours.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Further drilling is necessary to establish a Mineral Resource that is compliant with JORC (2012).</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The majority of holes have been designed to drill normal to interpreted mineralisation trends. However, there has been insufficient drilling and geological interpretation to determine if there is a bias to sampling as a result of drilling oblique to or down dip on mineralised structures.</li> <li>No orientation sample bias has been identified at this stage.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are delivered directly to the SGS assay laboratory in Townsville by Superior's contractors.</li> <li>Sample security measures within the SGS laboratories are considered adequate.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the sampling techniques and data have been undertaken to date.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The areas reported for the Cockie Creek Prospect lie within Exploration Permit for Minerals 18987, which is held 100% by Superior Resources.</li> <li>Superior Resources holds much of the surrounding area under granted exploration permits.</li> <li>Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area.</li> <li>No regulatory impediments affect the relevant tenements or the ability of Superior Resources to operate on the tenements.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>All historical drilling reported in this report has been completed and reported in accordance with their current regulatory regime.</li> <li>Previous work on the prospect has been completed by MIM and Beacon Minerals Ltd.</li> <li>Soil geochemical survey data compiled by MIM was used in this report for the purpose of part characterising the Cockie Creek mineralisation.</li> <li>Compilation in digital form and interpretation of the results of that work in digital form has been completed by a Competent Person.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Cockie Creek Prospect is hosted in a quartz-biotite-hornblende schist unit enclosed within a metamorphosed basic volcanics sequence.</li> <li>Mineralisation style is disseminated and vein sulphide of probable intrusion-related hydrothermal origin.</li> <li>On the basis of observations made in holes CCDD001 to CCDD007, mineralisation at the Cockie Creek Prospect is considered to be porphyry-related. More geological, geochemical and drill data is required to fully understand the mineralisation system.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level) of the drill hole collar</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A drill hole collar table is included in Appendix 1 to this report.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> <li>● <i>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.</i></li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>● <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>● <i>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.</i></li> <li>● <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>● Exploration results will be reported as a length weighted average of all assays.</li> <li>● No metal equivalent values are planned to be reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>● <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>● <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>● <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</i></li> </ul>	<ul style="list-style-type: none"> <li>● Downhole length, true width not known until further drilling provides more information on the nature of the mineralised body.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>● <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>● Included.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>● <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>● Significant intersections have been included within the report.</li> </ul>
<b>Other substantive</b>	<ul style="list-style-type: none"> <li>● <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk</i></li> </ul>	<ul style="list-style-type: none"> <li>● Publicly available and historic soil geochemical data and airborne magnetic survey data was compiled, examined and interpreted to aid in the interpretation of geological observations made from the available drill core.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>exploration data</b>	<i>samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p>Specific upcoming activities include:</p> <ul style="list-style-type: none"> <li>• Progress the Cockie Creek drilling program to completion.</li> </ul>