

7<sup>th</sup> July 2021

## DIAMOND DRILLING CONFIRMS PORPHYRY POTENTIAL AT BIG HILL PORPHYRY AU-CU TARGET

**Sultan Resources Ltd**

ACN: 623652 522

### CORPORATE DETAILS

**ASX Code: SLZ**

### DIRECTORS

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MANAGING DIRECTOR

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NON-EXECUTIVE DIRECTOR

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- Initial 3 hole for 1,135.8m Diamond Drill programme testing outstanding IP, magnetic and geochemical anomalies at the at Big Hill Porphyry Au-Cu target completed
- Drilling has intersected interpreted porphyry-style alteration with disseminated pyrite, trace chalcopyrite and bornite, possibly indicative of being in the distal parts of an alkalic porphyry Au-Cu system;
  - Assay results are awaited
- Drilling confirms the targeted IP chargeability anomaly is caused by pyrite giving sufficient encouragement & vectors for further drill targeting within the larger 5km long by 2.5km wide Big Hill Magnetic Complex
- The Big Hill complex exhibits features akin to an Alkalic Porphyry Au-Cu system such as Cadia and Boda and displays:
  - Coincident Magnetic and IP anomalies
  - Complimentary low-level soil geochemical Cu – Au + pathfinder anomalies
  - Outlying high grade Cu-Au rock chip results (Gowan Green and Razorback)
  - Drilled porphyry-style alteration, veining and disseminated sulphides
- Analysis and interpretation of the drill data is ongoing to consider locations for additional drilling

Sultan Resources Limited (ASX: SLZ) (**Sultan** or **Company**) is pleased to announce that the initial 3 diamond drill hole section at the Company's Big Hill Porphyry Au-Cu prospect (see ASX Announcement 18/05/2021) has been completed. These are the first 3 holes of a possible 10-hole program designed to assess the potential for the prospect to host porphyry-style Cu-Au mineralisation. Drill hole design was based on interpretation of results from the Company's extensive surface exploration programs undertaken during the past 12 months since acquisition of the project.

Managing Director, Steve Groves commented:

*"The geological results from the first 3-hole section at Big Hill are extremely encouraging, and indicate that we are in the distal alteration halo of a potential buried alkalic porphyry Au-Cu system. Hydrothermal alteration-related disseminated pyrite explains the shallow strong IP anomaly targeted in the drilling. The style and intensity of alteration varies from hole to hole and will allow us to start constructing vectors towards the possible causal intrusion and potential wallrock zones of elevated Cu-Au mineralisation".*

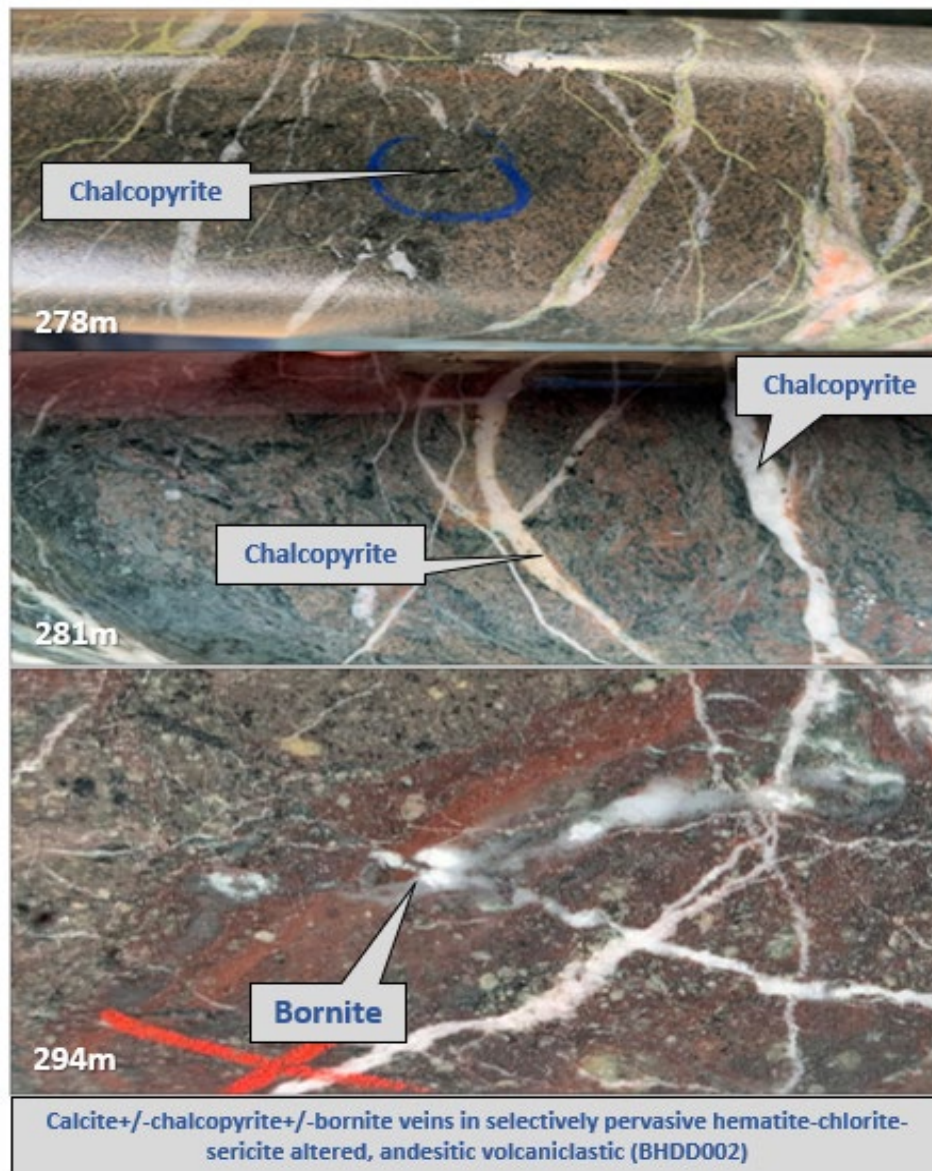


Figure 1: Examples of vein-hosted copper mineralisation (trace chalcopyrite & bornite) from hole BHDD002 in the first ever drill holes at Big Hill.

### Drill Program

The initial 3-hole section (1,135.8m) was designed to confirm interpretations from surface exploration results of the presence of a buried alkalic porphyry intrusive system with potential to host economic concentrations of Cu and Au mineralisation. No drilling has previously been completed in the Big Hill area and the initial 3 holes are truly exploratory in nature (Figure 2).

The holes targeted a prominent IP chargeability anomaly (see ASX Announcement 29/04/2021) that lies within a magnetic low and is coincident with low-level soil geochemical anomalism. Often in porphyry systems, IP chargeability anomalies represent broad zones of disseminated sulphides such as pyrite in an alteration 'halo', which might not be coincident with economic concentrations of Cu-Au mineralisation, however, indicate a system is present.

The aim of the initial three holes was to confirm that the IP anomaly is related to a pyrite 'halo', confirm porphyry related alteration and provide important 3-dimensional geological information to guide the position of up to 7 more holes towards achieving a significant mineralised intersection. The Company



is pleased to report this drilling has achieved those goals, giving confidence to proceed with additional drill testing.

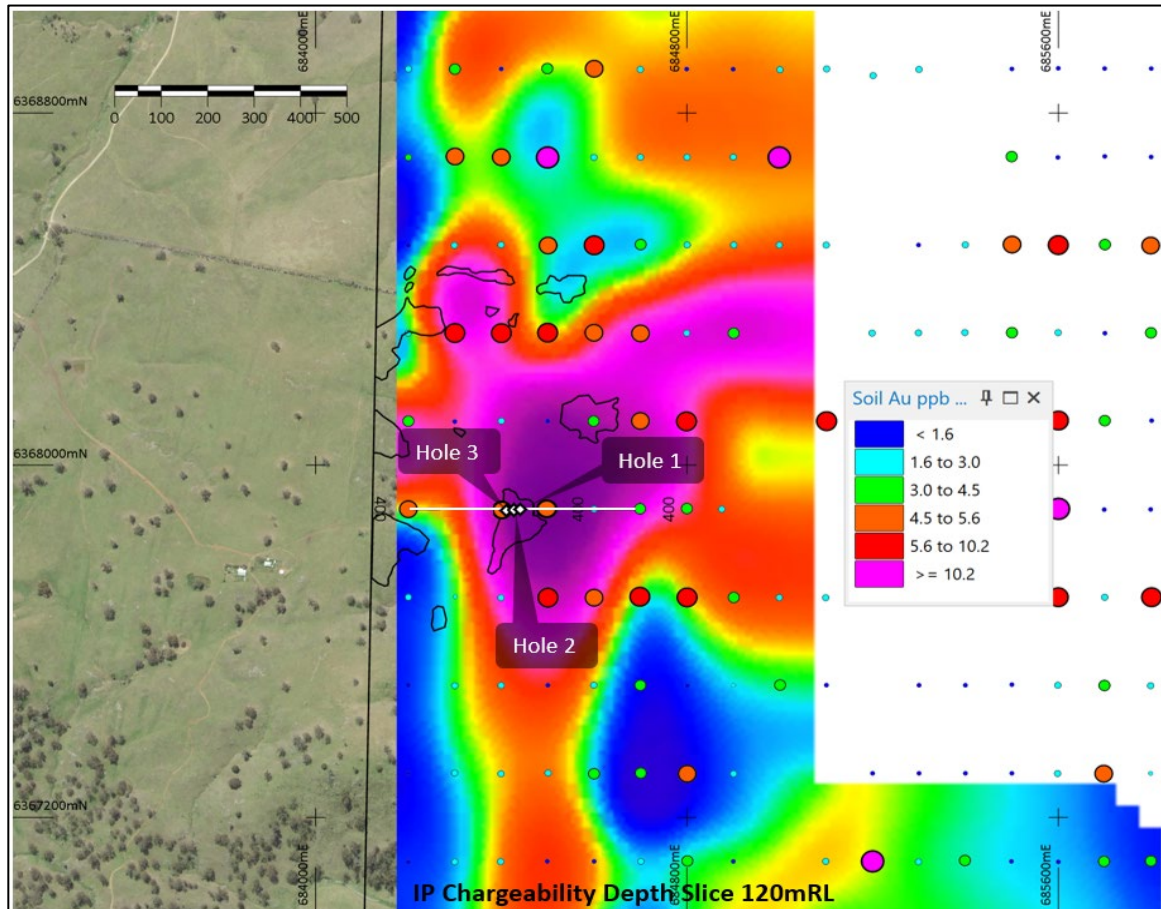


Figure 2: Big Hill - Plan view of the 3 initial drill holes (3 holes for 1135.8m) in relation the 120mRL IP chargeability depth slice

## Initial Results

### Hole 1

Drill hole BHDD001 has cut a strongly magnetic, polymictic, basaltic andesite volcanoclastic breccia, with rare basalt and micro feldspar porphyry dykes to 309.9m before ending in finely bedded pyritic volcanoclastic sandstone and siltstone. The andesitic volcanoclastic breccia has undergone selectively pervasive hydrothermal alteration, including:

- Early magnetite & hematite rich alteration facies (hematite-magnetite-chlorite-sericite-carbonate), with rare magnetite matrix breccias & magnetite veins.
- Propylitic alteration assemblages (epidote-chlorite-carbonate-feldspar-hematite), with weak hematite dusting of feldspars ('reddening') spatially associated with epidote-calcite veining.
- Minor late structurally controlled chlorite-sericite-carbonate-albite-pyrite alteration zones, with significant disseminated pyrite (1 to 3%) and rare pyrite veinlets.
- Various late epidote and carbonate rich veins present with **trace amounts of bornite, chalcopyrite** (Figure 4).

BHDD001 has confirmed a prospective geological setting which is analogous to the geological setting which hosts the Cadia Ridgeway Au-Cu porphyry deposit, including basaltic andesite volcanoclastic breccias (possible equivalent to the Forest Reef Volcanics) overlying finely laminated siltstones (possible equivalent to the Weemalla Formation). Although no economically significant Au or Cu assay results are expected from hole BHDD001, the alteration assemblages, including zones of disseminated





pyrite with sericite-chlorite-albite alteration, hydrothermal magnetite-hematite and trace amounts of bornite in late epidote-calcite rich veins are considered highly encouraging.



Figure 3: Big Hill maiden diamond drill hole BHDD001

## Hole 2

Drill hole BHDD002 has cut a strongly magnetic, polymictic, basaltic andesite volcanoclastic breccia to sandstone, with minor thin basalt, andesite and feldspar-pyroxene porphyry dykes & sills, with a distinct andesitic volcanoclastic breccia facies with limestone and monzonite porphyry clasts intersected at the start of the hole. The andesitic volcanoclastic breccia to sandstone has undergone selectively pervasive hydrothermal alteration (Figures 4 – 6), including:

- Early magnetite rich alteration facies (magnetite-chlorite).
- Propylitic alteration assemblages (feldspar/hematite-epidote-chlorite-carbonate-magnetite-pyrite), with moderate to strong hematite dusting of feldspars ('reddening') spatially associated with epidote-calcite +/- **trace chalcopyrite** veining.
- Hematite-chlorite-sericite-carbonate alteration assemblages, spatially associated with calcite-hematite +/- **trace chalcopyrite** +/- **trace bornite** veining.
- Structurally controlled chlorite-sericite-carbonate-albite-pyrite alteration zones, with significant disseminated to semi massive pyrite (1 to 20%), pyrite rich veinlets & breccias. The strong pyritic zones are consistent down hole and generally <10m thick.

Early-stage pink (potassium?) feldspar-calcite-chlorite veins are cut by epidote-calcite +/- **trace chalcopyrite** veins & calcite-hematite +/- **trace chalcopyrite** +/- **trace bornite** veining, and a poorly formed quartz-magnetite-pyrite-**chalcopyrite** vein was observed at ~216m. A significant fault breccia was cut at ~285m with quartz-carbonate-**chalcopyrite** vein clasts.



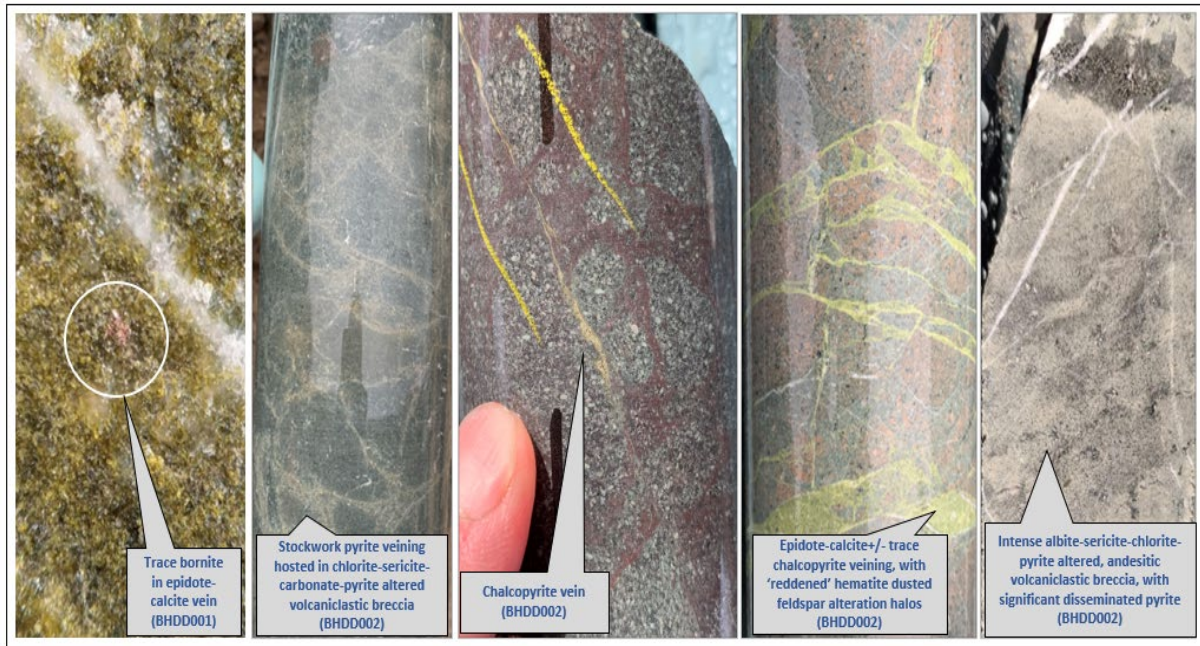


Figure 4: Examples of vein-hosted and disseminated copper mineralisation (chalcopyrite, trace bornite) from hole BHDD001 and BHDD002 and intense albite-sericite-chlorite-pyrite alteration (right).

From ~351m to end of hole the drill hole cut a monotonous sequence of non-magnetic, interbedded volcaniclastic sandstones and finely laminated pyritic siltstones. Disseminated and finely laminated pyrite is present to end of hole. This unit dips at ~30 degrees to the NW and can be correlated with the bottom of hole BHDD001 (Figures 8 & 9), providing an excellent understanding of the stratigraphy.

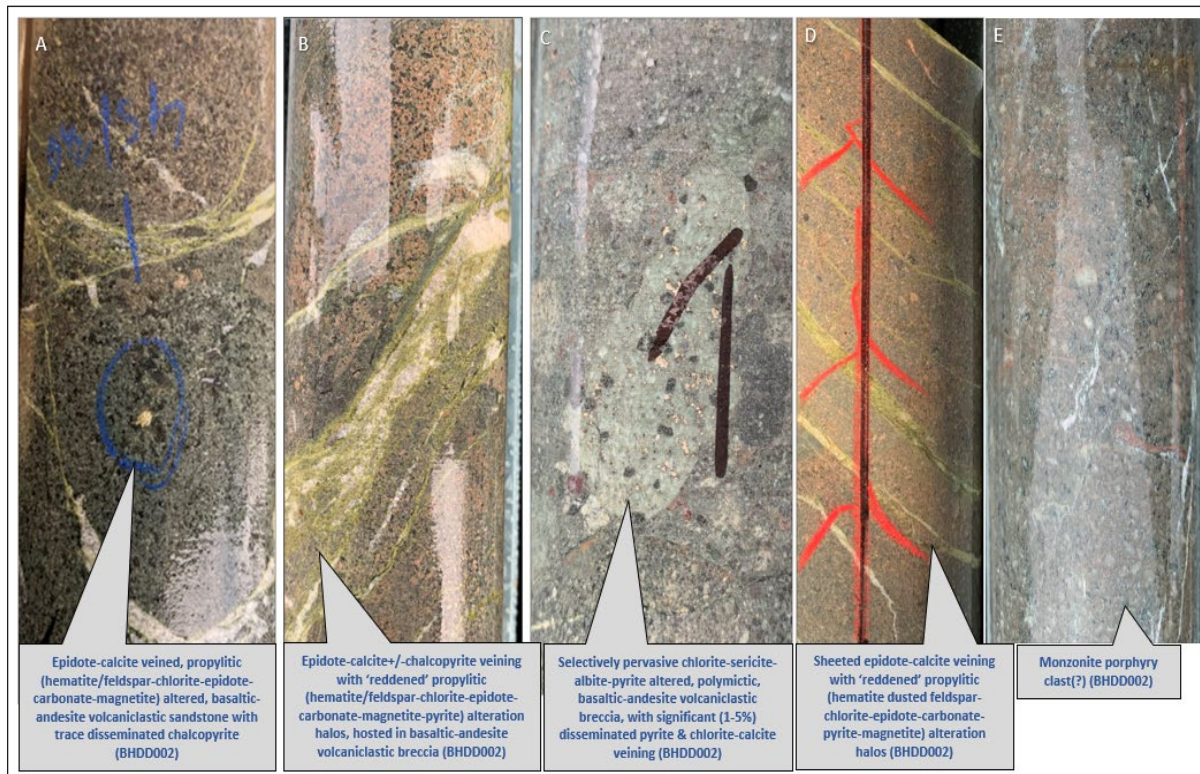


Figure 5: A,B,D - Examples of epidote calcite +/- trace chalcopyrite veining with 'reddened' propylitic (hematite/feldspar-chlorite-epidote-carbonate-magnetite-pyrite) alteration, C – selective pervasive chlorite – sericite-albite-pyrite altered polymictic basaltic andesite volcaniclastic breccia with significant (1-5%) pyrite; E – Monzonite porphyry clast.





The lithology types, alteration facies and mineralisation styles cut from surface to ~351m in hole BHDD002 are consistent with the distal parts of a Molong Belt type, wall rock hosted, alkalic Au-Cu porphyry system such as Boda and Kaiser. In particular the increase in hematite dusted feldspar alteration ('reddening') in hole BHDD02 (Figure 6) compared to hole BHD001 is considered highly encouraging and was an important down hole vector which contributed to the discovery of the Cadia Ridgeway Au-Cu porphyry deposit. Trace amounts of chalcopyrite and bornite are also considered highly encouraging however are not expected to produce economic Au-Cu assay results.

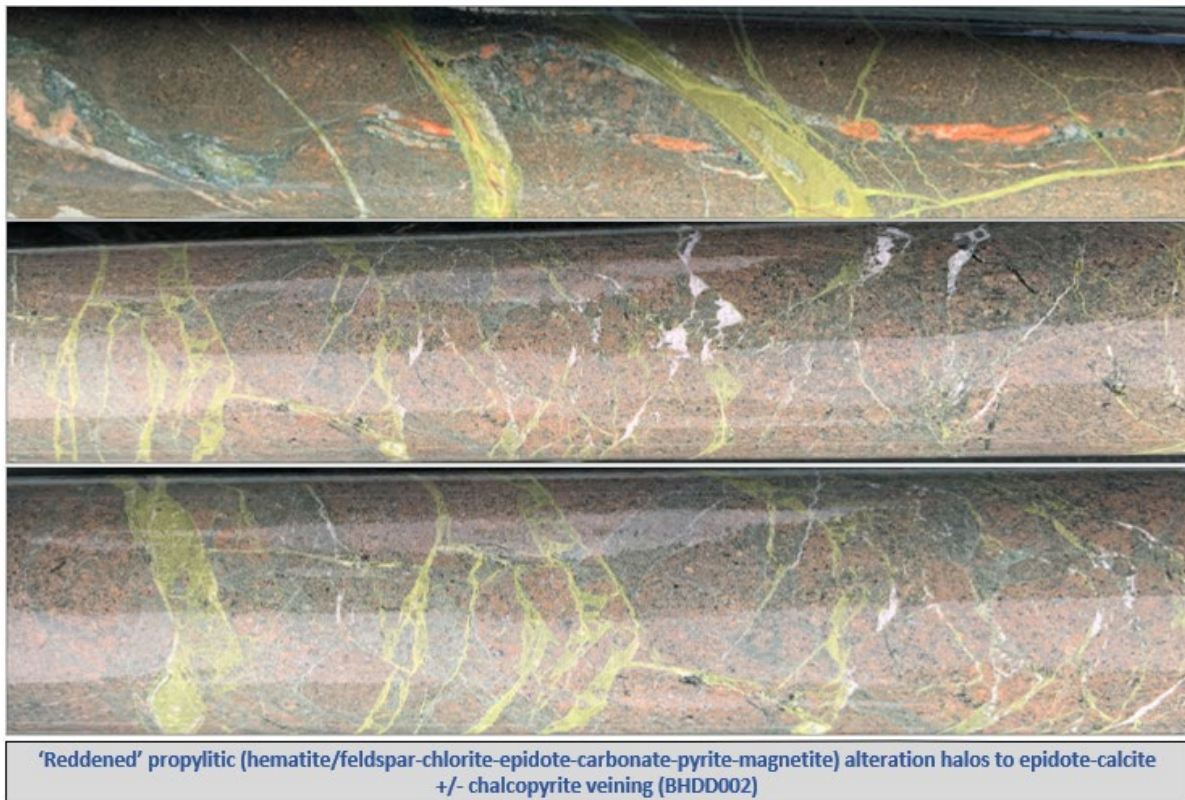


Figure 6: Examples of porphyry-style 'Reddened' propylitic (hematite/feldspar-chlorite-epidote-carbonate-pyrite-magnetite) alteration halos associated with epidote-calcite +/- trace chalcopyrite veining (BHDD002).

### Hole 3

Drill hole BHDD003 has intersected a strongly magnetic, basaltic-andesite volcano sedimentary sequence consisting of interbedded polymictic volcanoclastic breccia/conglomerate and volcanoclastic sandstone horizons from surface to 392.6m EOH (Figure 7). A distinct <2m thick limestone breccia facies ('marker horizon') is present within the volcanoclastics at ~32m and can be correlated with a similar volcanoclastic with limestone clasts in hole BHDD002 at ~11m down hole. The volcano-sedimentary package is intruded by numerous fine grained vesicular basalt, porphyritic basaltic-andesite and pyroxene – feldspar porphyry dykes and sills to EOH.

Encouraging hydrothermal alteration is recorded throughout hole BHDD003 including:

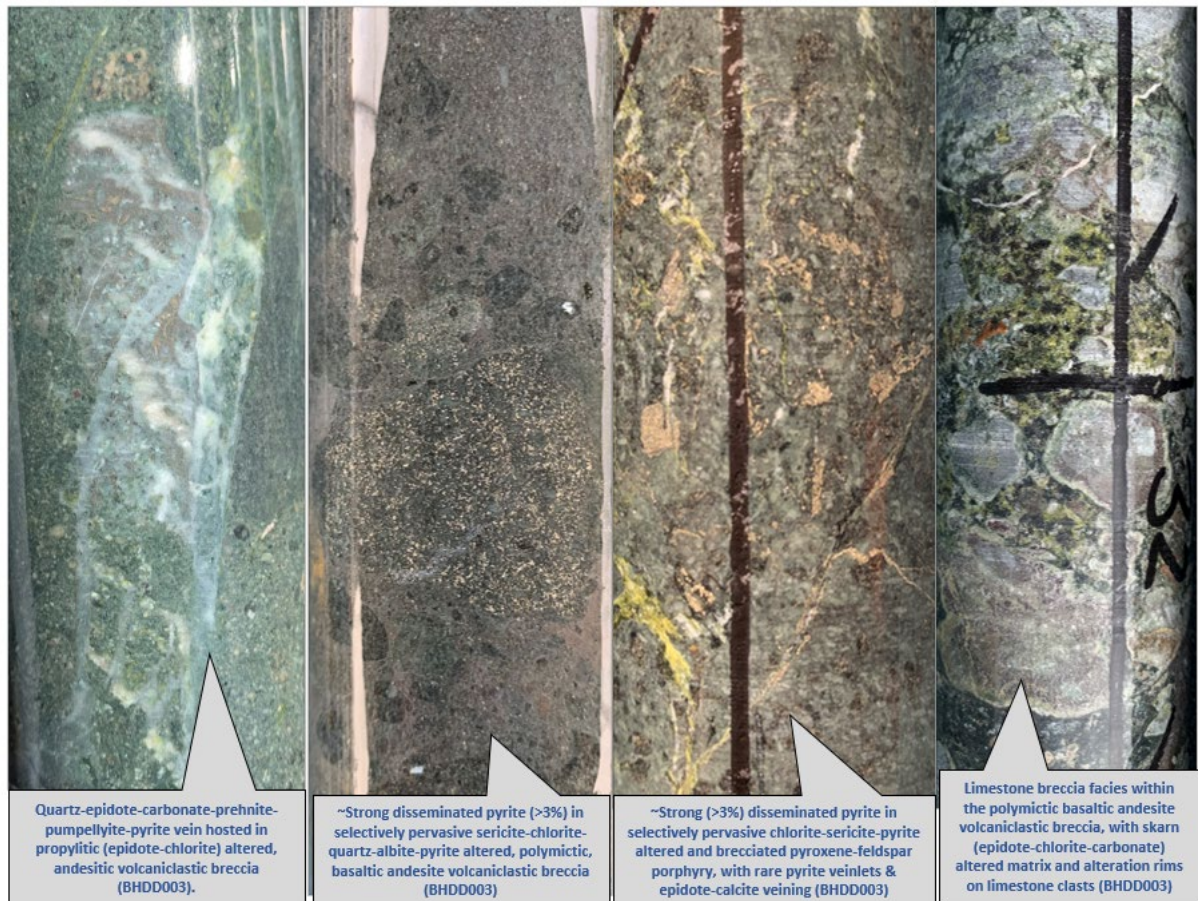
- Early magnetite and hematite rich alteration assemblages
- Late propylitic (epidote-chlorite-carbonate-hematite/feldspar) alteration that overprint the early magnetite-hematite zones, and
- Several narrow (<10m thick), pyrite rich, transitional phyllic to propylitic (sericite-chlorite-pyrite+/-albite-quartz) alteration assemblages.

The sericite-chlorite-pyrite+/-quartz-albite alteration zones are structurally or lithological controlled and contain significant (>1% to >3%) disseminated pyrite and can manifest as sericite-pyrite matrix



breccia infill. **Rare chalcopyrite** is observed, and minor calc silicate skarn (epidote-chlorite-carbonate) is observed in the limestone breccia at 32m.

Hole BHDD003 is defined by a higher density of porphyritic basalt-andesite & pyroxene-feldspar porphyry dykes and sills than holes BHDD001 & 002. The strong zones of hematite dusted feldspar ('reddening') surrounding epidote veins in hole BHDD002 have not been observed in hole BHDD003. These 'reddened' hematite dusted feldspar zones may help vector to a Au-Cu porphyry centre along strike in a similar manner to that documented in the discovery history of the Cadia Ridgeway Au-Cu porphyry.



**Figure 7:** Examples of the distinct limestone breccia with calc-silicate skarn matrix (far right) and disseminated pyrite in altered volcaniclastic rocks from BHDD003

## Discussion

The maiden drill program at Big Hill has intersected subtle & intricate hydrothermal alteration assemblages including:

- Early magnetite, hematite dusting of feldspar 'reddening', late pyrite-sericite & calc silicate skarn,
- Sulphide species with pyrite dominant over **trace chalcopyrite & bornite**, and
- Clasts of Monzonite Porphyry intrusions reworked in volcaniclastics
- Vein types including rare magnetite, rare pyrite veins, common epidote-carbonate-rich/quartz poor veins with trace sulphides.

These features are considered highly encouraging and are interpreted as marking the distal parts of an alkalic Au-Cu porphyry system. Visual observation from the initial 3-hole section have provided





sufficient encouragement for possible further drill targeting of additional priority magnetic, IP and soil geochemical anomalies along strike across the larger 5km x 2.5km Big Hill target area.

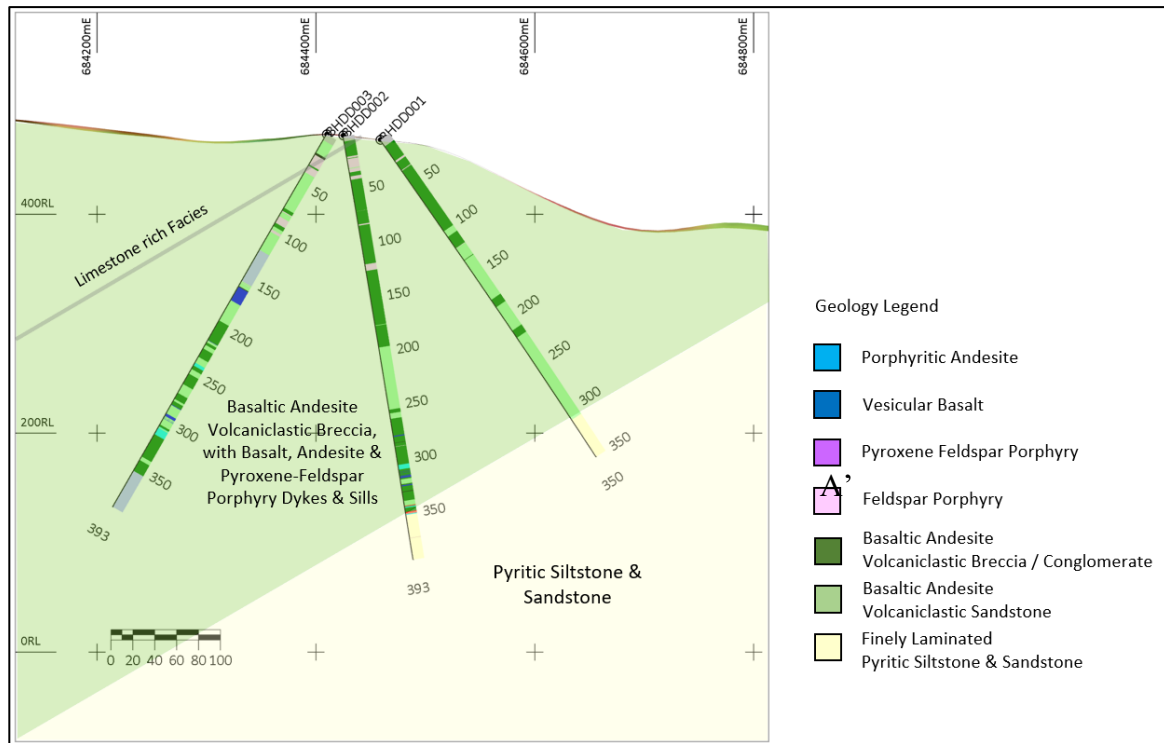


Figure 8: Big Hill Cross Section through 6,367,870mN, looking north, showing the hole traces of the 3 initial drill holes with logged down hole lithology.

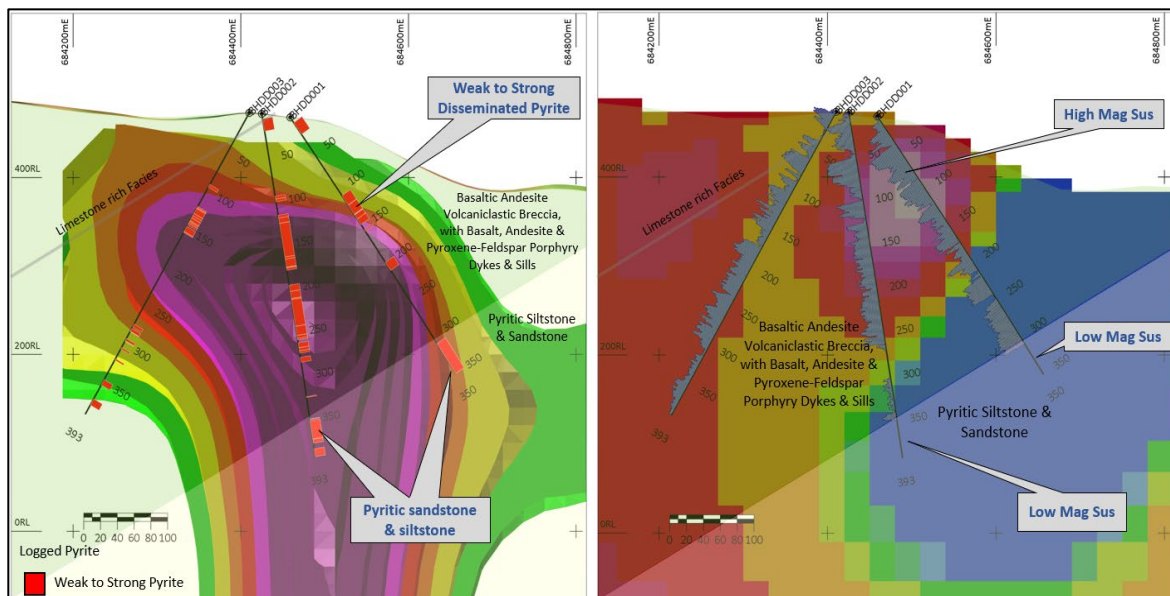


Figure 9: Cross sections 6,367,870mN showing the geophysical characteristics of the holes against the targeted inversion models with logged down hole disseminated pyrite on the IP Chargeability model (Left) and down hole magnetic susceptibility on 3D magnetic inversion model (Right)

## Next Steps

The highly encouraging initial results from the maiden Big Hill drill program have confirmed the porphyry potential of the Big Hill Magnetic Complex. A number of priority targets exist at the project, including further drilling at Big Hill as well as understanding outcropping skarn-style mineralisation





evident at Razorback and Gowan Green. Follow up drill locations at Big Hill will be considered upon receipt of assay results and interpretation of data from additional studies such as mapping, petrology, lithogeochemistry and Sulphur isotopes.

Given the early encouragement at Big Hill, Sultan is also reviewing the potentially related, outcropping Razorback Cu-Au skarn target for shallow Reverse Circulation drill testing and intends to finalise a program once all approvals and permits are in place, and drill contractors are secured.

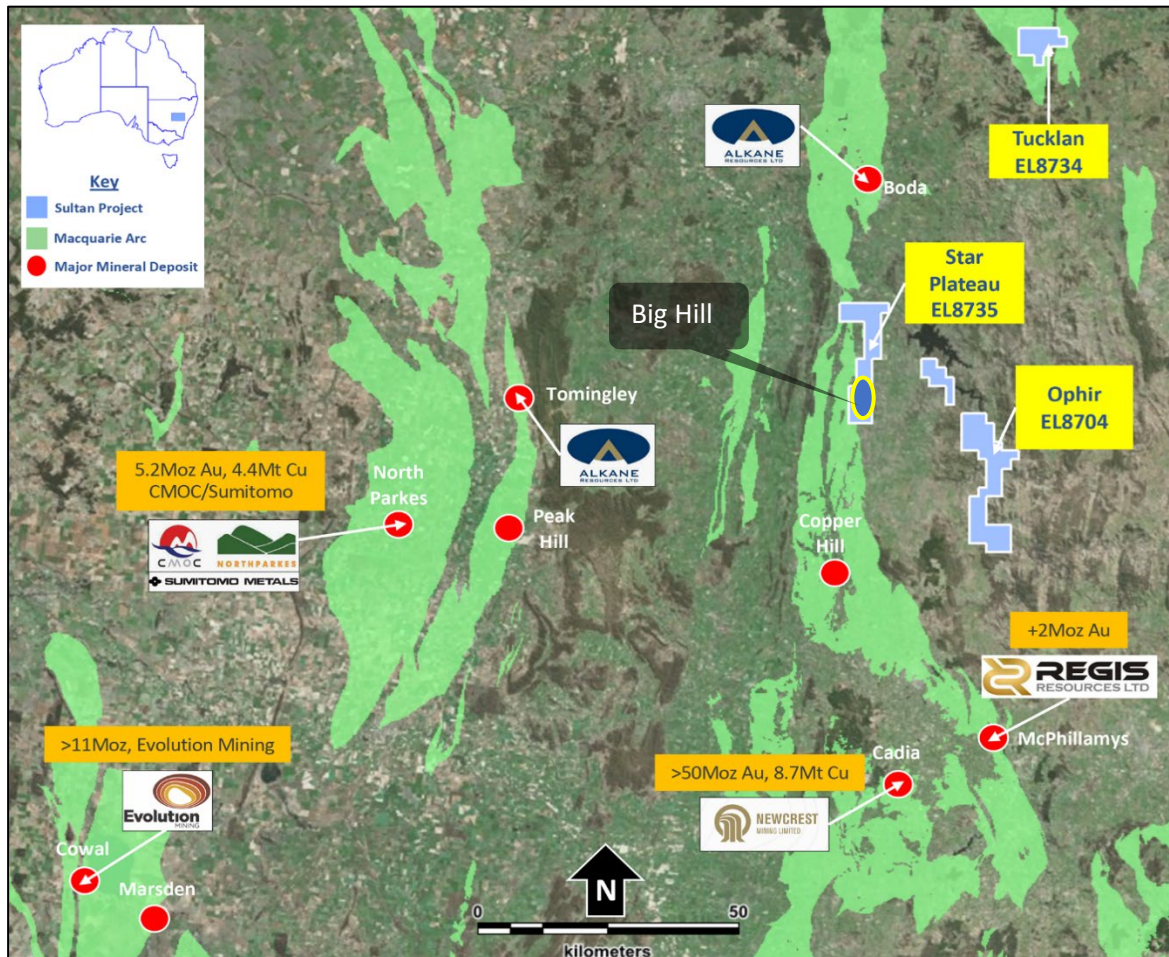


Figure 10: Location Map – Sultan’s Tenements over the prospective Macquarie Arc sequence

This announcement is authorised by Steve Groves, Managing Director

For further information contact:

**Managing Director**

Steve Groves

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#### Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on historical exploration information compiled by Mr Steven Groves, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Mr Groves is Managing Director and a full-time employee of Sultan Resources Limited. Mr Groves has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Groves consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



### **About Sultan Resources**

Sultan Resources is an Australian focused exploration company with a portfolio of quality assets in emerging discovery terranes currently targeted by successful explorers such as Newcrest Mining, Alkane Resources, Gold Road Resources, and Sandfire Resources. Sultan's tenement portfolio includes prospective targets for porphyry Au-Cu, structurally-hosted gold, Nickel, Cobalt and base metals and include tenements located in the highly prospective Lachlan Fold Belt of Central NSW as well as projects located within the southern terrane region of the Yilgarn Craton in south and south eastern Western Australia. Sultan's board and management strategy is for a methodical approach to exploration across the prospects in order to discover gold and base metals that may be delineated via modern exploration techniques and exploited for the benefit of the company and its shareholders.



## Appendix 1: Drill Hole Collar Details

Hole ID	Drill Type	Grid ID	GDA North	GDA East	GDA RL	GDA Azimuth	Dip	Final Depth
BHDD001	DD	MGAz55 GDA94	6367868	684459	469	90	-55	350.4
BHDD002	DD	MGAz55 GDA94	6367870	684425	469	90	-80	392.8
BHDD003	DD	MGAz55 GDA94	6367871	684410	469	270	-60	392.6

## Appendix 2: JORC Code, 2012 Edition Table 1 – Colossus Metals

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>Nature &amp; 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 &amp; 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>Diamond core was extracted from the inner tube and placed into plastic core trays at the drill rig. Core was transported to a core facility for processing and sampling. Recovery was assessed between core blocks and visual examination of the core in the trays. Orientation was completed by reconstructing the core in it's original position using v rails and the orientation marks placed on the core by the drillers and marking the orientation line up and down the section.</li> <li>Core was cut in half using an automatic Almonte core saw.</li> </ul> <p>Sampling was composited on 2m per samples of half core for the NQ2 core and 2m samples of half core for the HQ3 core</p> <p>Rock sampling program</p> <ul style="list-style-type: none"> <li>Rock chip samples were taken in the field by Colossus geologists during field inspection of the Big Hill porphyry target</li> <li>Rock samples were collected from surface outcrop and float</li> <li>Outcrop samples are resistant portions of the local geology and are considered to be in situ. Float samples are interpreted to have been sourced from local area..</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Samples weighing up to several kilograms were collected</li> </ul> <p>soil sampling program</p> <ul style="list-style-type: none"> <li>All soil sample points were located using a hand-held GPS with +/-5m accuracy utilising MGA zone 55 (GDA94) coordinate system. Surface organic matter was removed from the sample site using a hand pick and shovel and a 25cm x 25cm x 25cm deep hole was dug using a mattock, with a sample of primarily B soil horizon collected. The soil sample was screened using a 3mm mesh aluminium sieve and a 200-250 gram sub sample of -3mm fraction was retained in a labelled soil geochemical bag for analysis. Soil sample IDs and locations are stored digitally in a register which also notes sample content and conditions. External certified reference material / standards, blanks and duplicates are submitted every 50th, 51st and 52nd sample respectively for QAQC purposes.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) &amp; details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented &amp; if so, by what method, etc.).</i></li> </ul>	<ul style="list-style-type: none"> <li>All 3 drill holes were completed as HQ pre-collar / NQ diamond drill holes</li> <li>Both single shot and final multishot survey data was completed with the Boart Longyear TruShot system</li> <li>Core orientation was completed using Boart Longyear Truecore orientation system</li> <li></li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li><i>Method of recording &amp; assessing core &amp; chip sample recoveries &amp; results assessed.</i></li> <li><i>Measures taken to maximise sample recovery &amp; ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery &amp; grade &amp; whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole data, samples and geology logging is recorded on a purpose designed logging excel spreadsheet and stored on the company online storage site.</li> <li>Diamond core was extracted from the inner tube and placed into plastic core trays at the drill rig. Core was transported to a core facility for processing and sampling. Recovery was assessed between core blocks and visual examination of the core in the trays. Orientation was completed by reconstructing the core in it's original position using v rails and the orientation marks placed on the core by the drillers and marking the orientation line up and down the section.</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>All core has been meter marked, recovery completed,</li> <li>Core was cut using a manual core saw.</li> <li>Sampling was composited on 2m per sample of half core for the NQ2 core and 2m samples of half core for the HQ3 core N/A</li> </ul>
Logging	<ul style="list-style-type: none"> <li><i>Whether core &amp; chip samples have been geologically &amp; geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies &amp; metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length &amp; percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Geological logging of the diamond core has been completed and recorded on excel spreadsheet logging system</li> <li>All core has been meter marked, Recovery completed, Orientated, alpha and beta measurements on structures and vein sets, core photography and sampling has been completed and recorded on the company logging and sampling excel spreadsheet</li> </ul> <p>The description is qualitative and includes lithology, alteration and mineralisation</p>
Sub-sampling techniques & sample preparation	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn &amp; whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. &amp; whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality &amp; appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>Rock and soil sampling program</p> <ul style="list-style-type: none"> <li>The sample preparation for both rock and soils follows industry best practise involving oven drying, crushing and pulverisation</li> </ul> <p>Reverse Circulation and Diamond Drilling sampling</p> <ul style="list-style-type: none"> <li>The sample preparation for both RC and DD follows industry best practise involving oven drying, crushing and pulverisation</li> <li>All diamond core is half core, with half being sent for analysis and half being kept. Duplicates are collected every 50m and consist of quarter core</li> <li>External certified reference material / standards, blanks submitted every 50th, 51st sample respectively for QAQC purposes for diamond drilling samples.</li> <li>External certified reference material / standards, blanks and duplicates are submitted every 50th, 51st and 52nd sample respectively for QAQC purposes for reverse circulation samples.</li> </ul> <p>Both Reverse Circulation and Diamond drill core sampling are appropriate for the rock types intersected and follows industry best practice</p>



Criteria	JORC Code explanation	Commentary
<i>Quality of assay data &amp; laboratory tests</i>	<ul style="list-style-type: none"> <li><i>The nature, quality &amp; appropriateness of the assaying &amp; laboratory procedures used &amp; whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make &amp; model, reading times, calibrations factors applied &amp; their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) &amp; whether acceptable levels of accuracy (i.e. lack of bias) &amp; precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Reverse Circulation and Diamond drill samples are analysed for 48 elements including Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Be, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y Zn and Zr using method ME-MS61 (four acid ICP-MS). Gold will be analysed separately using ALS method Au-AA22, with a lower detection limit of 0.001 ppm.</li> <li>Soil Samples were analysed for 53 elements including Au, Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn &amp; Zr using method AuME-ST44.</li> <li>External certified reference material / standards, blanks and duplicates are submitted every 50th, 51st and 52nd sample respectively for QAQC purposes.</li> <li>QAQC samples are analysed on return of assay results, CRM are tested against certified values and pass is awarded if results fall within 3 standard deviations of the mean, a failure of results and/or investigation with the laboratory if results fall outside 3 standard deviations of the mean certified value. Duplicates are assessed paired against each other and blanks are checked for elevated elements of interest.</li> </ul>
<i>Verification of sampling &amp; assaying</i>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical &amp; electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>All data are verified by at least two experienced Colossus Metals geologists.</li> <li>Data are stored in a digital database and interrogated using the ioGas™ geochemical software suite.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li><i>Accuracy &amp; quality of surveys used to locate drill holes (collar &amp; down-hole surveys), trenches, mine workings &amp; other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> </ul>	<ul style="list-style-type: none"> <li>A handheld GPS was used to locate each sample point. Accuracy of +/- 5m is considered reasonable</li> <li>MGA94, Zone 55</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Quality &amp; adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Elevation were in AHD (MGA94, Zone 55)</li> </ul>
<i>Data spacing &amp; distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing &amp; distribution is sufficient to establish the degree of geological &amp; grade continuity appropriate for the Mineral Resource &amp; Ore Reserve estimation procedure(s) &amp; classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>HQ3 diamond core has been sampled on 2m intervals</li> <li>NQ2 diamond core has been samples on 2m composite intervals.</li> </ul> <p>The sample spacing and compositing is considered reasonable to provide sufficient geochemical results for the target types sought.</p>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures &amp; the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation &amp; the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed &amp; reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling was designed to intersect geophysical anomalies and interpreted prospective stratigraphy and was orientated in a manner to best achieve this</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	All geochemical samples were selected by geologists in the field delivered directly to the lab by Colossus,
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques &amp; data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement &amp; land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location &amp; 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 &amp; environmental settings.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The licences include EL8734, EL8704 and EL8735, which together cover a total area of approximately 326 km<sup>2</sup> within the Lachlan Fold Belt of central NSW.</li> <li>All licences are in good standing</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment &amp; appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration over EL8735 has been limited. Work reported was generally generative in nature and at a reconnaissance level. The most detailed exploration was undertaken by Clancy Exploration during the period 2006 – 2016 and is considered to have been performed to a high standard.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting &amp; style of mineralisation.</i></li> </ul>	<p>The Project lies halfway between the Cadia and Boda Cu-Au porphyries within the central Molong Belt of the Ord Macquarie Arc, East Lachlan, NSW. It is located on the Intersection of a major N-S striking arc parallel and NW-SE striking cross arc structural corridors,</p> <p>The Lachlan Orogen is approximately 700 km wide and 1000 km long and has disputed complex evolutionary history. The Macquarie Arc is part of the eastern sub-province of the Lachlan Orogen and is the host to numerous porphyry Au–Cu deposits. It consists mainly of subduction-related Ordovician intermediate and mafic volcanic, volcanoclastic and associated intrusive rocks and was accreted to Gondwana in the Early Silurian, and underwent rifting and burial in the Middle to Late Silurian.</p> <p>It consists of four structural belts, namely, the western (Junee-Narromine), the central (Molong), the eastern (Rockley-Gulgong) Belt, and southern (Kiandra) volcanic belts. These belts have most likely been formed by rifting and dismemberment of a single arc, which developed along the boundary between the Australian and proto-Pacific plates during the Ordovician and was subsequently dismembered during the Silurian.</p> <p>An entirely intra-oceanic setting is postulated for the Macquarie Arc (Crawford et al., 2007), with four phases of arc-type magmatism, the earliest in the Early Ordovician, and culminating in the Late Ordovician to Early Silurian. The four phases of volcanism in the Macquarie Arc relate to distinct groups of porphyritic intrusions that vary from monzodiorite-diorite through monzonite-granodiorite compositions and correspond with porphyry copper-gold and epithermal gold-silver mineralisation</p> <p><b>Lithology</b></p>





Criteria	JORC Code explanation	Commentary
		<p>The Big Hill target exhibits features consistent with an Alkalic intrusive complex, with mineralogy &amp; textures typical of the Cadia Intrusive Complex, including outcropping monzogabbro, diorite, monzodiorite &amp; mafic monzonite porphyry dykes &amp; small plugs or 'apophyses'.</p> <p>Intrusives have intruded interpreted Cadia and Boda equivalent stratigraphy being the Late Ordovician Oakdale Volcanics, including an upper volcanic dominant and lower volcano-sedimentary package equivalent to the Forest Reef Volcanics &amp; Weemalla Fm at Cadia and Kaiser Volcanics &amp; Bodangora Fm at Boda.</p> <p>An upper sequence consisting of basalt, andesite, trachyte &amp; latite lavas, volcaniclastics and sub volcanic intrusions including feldspar-pyroxene porphyry dykes has been recognised. The lower sequence dominated by finely laminated, interbedded, volcaniclastic siltstones and sandstones, with localised skarn horizons.</p>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>Easting &amp; northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip &amp; azimuth of the hole</i></li> <li>○ <i>down hole length &amp; interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material &amp; 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>	<ul style="list-style-type: none"> <li>• Eastings, Northings and RL were collected using a handheld GPS locate each drill collar. Accuracy of +/- 5m is considered reasonable</li> <li>• MGA94, Zone 55</li> </ul> <p>Elevation were in AHD (MGA94, Zone 55)</p>
Data aggregation methods	<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)&amp;cut-off grades are usually Material &amp; should be stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high grade results &amp; longer lengths of low grade results, the procedure used for such aggregation should be stated &amp; some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths & intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known &amp; 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').</li> </ul>	<ul style="list-style-type: none"> <li>Down hole length only and not true width of mineralisation intervals are reported as true width is unknown.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps &amp; sections (with scales) &amp; 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 &amp; appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See maps and figures accompanying this ASX release.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low &amp; high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Reference has been made to anomalous levels of geochemical pathfinder elements in the document. This interpretation has been determined by experienced Colossus Metals' geologists using the ioGas™ geochemical software. It is impractical to present every result for all 53 elements across the sample population in this document. A map showing the distribution of anomalous Cu has been included for reference.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful &amp; material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size &amp; method of treatment; metallurgical test results; bulk density, groundwater, geotechnical &amp; rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>The Induced Polarisation (IP) survey method is often used to determine the location of disseminated sulphides. Rocks containing sulphide minerals can be more readily charged than barren ground. An external current is applied, and charge separation can occur on sulphide grain boundaries. When the transmitted current is switched off the decay of the current can be measured.</li> <li>The IP survey was completed by Fender Geophysics. The oversight of the survey and auditing (QAQC) and processing of data acquired was conducted by Alan Ortel, an experienced geophysicist.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The IP survey array used was Dipole-Dipole with a 100m receiver dipole size and a 100m transmitter dipole size. The transmitter dipole was moved at 100m intervals, achieving a 100m station spacing. Five lines, (5), two 4.6km, two 4.4km and one 3km North-South orientated lines spaced at 200m intervals, and extend from 4.3 to 5km were completed over the Big Hill and Gowan Green prospect. Another eight (8), 1.8km lines orientated east west, in 200m intervals were completed from Big Hill moving south to cover the Razorback prospect. Data from both surveys have been inverted with final pseudosections and wireframe isosurfaces were provided as finished products from Geopotential Consulting Pty Ltd.</li> <li>The transmitter used is a GDD-Tx4, 5kVA transmitter system and the receiver used in a GDD-Rx32. The survey was collected with a frequency of 0.25Hz.</li> <li>The transmitter and receiver electrode positions are located to hand-held GPS accuracy, generally +/-3m (UTM projection GDA94 Zone 55).</li> <li>Other Geophysical data including the 2013, Clancy Exploration 1805 line-km helicopter-based magnetic and radioelement survey using Aerosystems have been referred to in interpreting the Big Hill Au-Cu data</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature &amp; 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 &amp; future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>The focus on future work will be to ultimately generate targets further for drilling. Work to enable this will include further soil sampling programs coupled with dipole-dipole IP geophysics to locate bodies of disseminated sulphides beneath the surface. If sufficient encouragement is gained from this work, then deeper RC or diamond drilling is anticipated.</li> </ul>