

## ASX Announcement 31 January 2023

# RC drilling intersects shallow copper, diamond drilling continues at Canbelego

- Reverse circulation (RC) drilling intersects significant shallow copper (Cu) mineralisation<sup>1</sup> as observed in RC drill chips including:
  - 51 metres (m) of weak to strong chalcopyrite (copper sulphide mineral CuFeS<sub>2</sub>) veins from 84m including 2m of semi-massive chalcopyrite from 104m (CBLRC062)
  - 25m of medium to strong chalcopyrite veins from 108m downhole (CBLRC059)
  - 27m of weak to strong chalcopyrite veins from 80m downhole including 2m of semi-massive chalcopyrite from 103m (CBLRC060)
  - 12m of weak to strong chalcopyrite veins from 65m including 1m of massive chalcopyrite from 72m (CBLRC063)
- RC drilling program objective was to test for extensions of shallow high-grade copper mineralisation such as 16m at 3.21% Cu (CBLRC057)<sup>2</sup> ahead of an updated Mineral Resource estimate planned for late March 2023
- Diamond drilling of CANDD016C is in progress to test high-order conductive targets deeper on the Canbelego Main Lode following several unsuccessful attempts due to technical drilling challenges

**Helix Resources Limited** (ASX: HLX) ("Helix" or "the Company") is pleased to provide an update on its drilling activities at the Canbelego Copper Project located southeast of Cobar in central NSW, Australia.

*RC Drilling*: A RC drilling program which commenced on 17 January 2023 to test for extensions of shallow highgrade copper mineralisation at the Canbelego Main Lode is now complete. A total 906m was drilled in 7 holes.

Significant copper mineralisation was observed in 5 drill holes following up extensions of a high-grade interval (16m at 3.21% Cu from 117m in CBLRC057) reported in October 2022. Visual logs indicate weak, medium and strong copper mineralisation extending 60m up dip from CBLRC057 over downhole widths of 12m to 51m. This zone extends approximately 120m along strike to the south of the historic workings, with mineralisation open towards the workings as shown in **Figure 1**.

Assays are pending, but these observations are very encouraging for important extensions of shallow high-grade copper mineralisation which could add to the tonnes and grade of the existing 2010 Inferred Mineral Resource estimate<sup>3</sup> of 1.5 million tonnes at 1.2% Cu.

Preparations are underway to complete an updated Mineral Resources estimate in March 2023 subject to timely receipt of all required assay results.

- <sup>2</sup> Refer ASX Report 10 October 2022
- <sup>3</sup> Refer Appendix 1 for further details



BOARD & MANAGEMENT Non-Executive Chairman Peter Lester Non-Executive Director Kyle Prendergast Managing Director Mike Rosenstreich

#### CAPITAL STRUCTURE

Shares on Issue 2,323M Market Cap 20.9M Share Price \$0.009

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<sup>&</sup>lt;sup>1</sup> Refer Cautionary Note regarding reporting of visual mineralisation on page 2 of this report.



**Diamond Core Drilling:** The deeper diamond drilling program resumed on 13 January to test highly conductive geophysical targets interpreted as high-grade copper shoots, reported in December 2022<sup>4</sup>.

Drillhole CANDD016C is underway at approximately 550m depth approaching the target zone. Hole CANDD016A deviated away from the target point significantly despite several 'Navi-cuts' and other directional interventions to steer the hole back online. It did intersect significant zones of copper sulphide mineralisation<sup>5</sup> at the Main Lode shear position, but the observed mineralisation does not explain the intense downhole electromagnetic (DHEM) conductive response that defines the target.

A subsequent attempt to 'run-off' a daughter hole (CANDD016B) from 396m downhole was unable to achieve sufficient divergence from the parent hole (CANDD016) to attain the target trajectory and was abandoned.

CAND016C has been successfully wedged off from 280m downhole and is currently on track to hit the central position of the high-conductance target.

#### Commenting on the current drilling programs, Helix Managing Director Mike Rosenstreich said:

"Early indications from the RC drill logging – with significant copper mineral abundance observed, is very encouraging for us to extend the new shallow high-grade copper zone identified in October last year; 16m at 3.2% Cu. The team has identified large gaps in the historical drill coverage and saw the potential for extensions of this high-grade mineralisation up dip and north toward the historical workings. We are rushing these samples to the assay lab.

Deeper diamond drilling is continuing, and we are hoping to intersect high-grade copper shoots as indicated by very strong geophysical anomalies unlike anything we have recorded previously. I was on site for the past two weeks and have witnessed first-hand the unpredictable ground conditions the team have faced while steering the hole on target.

We appear to be tracking well with hole '16C. If our interpretations of the geophysical targets are correct, we may have some spectacular photos of copper mineralisation in drill core to share soon."

A video is available with the Managing Director discussing DHEM surveys with Mr Brett Rankin of High Powered Geophysical Services <u>https://www.helixresources.com.au/media/</u>.

The Company looks forward to providing further updates.

#### **Cautionary Note – Visual Estimates of Mineralisation**

References in this announcement to visual results are from RC drill chips and NQ diamond drill core. Fresh sulphide mineralisation consisted of chalcopyrite in stringers and veins, and semi-massive chalcopyrite and pyrite. Disseminated malachite, azurite and chalcocite are also present in the oxidised zone in some RC holes. Visual estimates of percentages are based on logged visual observations of the drill core surface and RC chips as presented in the core trays and RC chip trays and may not be representative of the entire sample interval. Laboratory assays are required for representative estimates of copper and other metal content abundance. Mineralised sections in drill core will be cut, and half-core sampled the for assays. All RC samples will be assayed in 1m intervals. Assay results for the RC holes are expected in February 2023, with the diamond core results to follow.

<sup>&</sup>lt;sup>4</sup> Refer ASX Reports 8 December & 19 December 2022

<sup>&</sup>lt;sup>5</sup> Refer Cautionary Note regarding visual estimates of mineralisation on page 2 of this report.

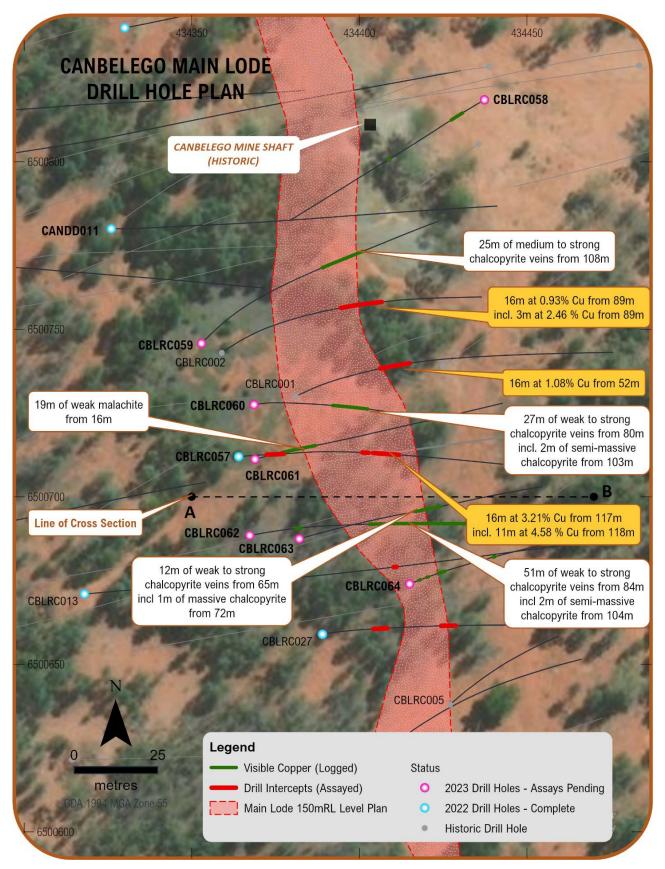


Figure 1 – Canbelego Main Lode Drill Plan (refer to Figure 2 for Cross Section A-B)



#### **TECHNICAL REPORT – CANBELEGO DRILLING**

The following section provides an update of the drilling at the Canbelego Main Lode, in particular observed copper mineralisation in the shallow RC drilling program just completed and in diamond hole CANDD016A.

#### Introduction

The Canbelego Copper Project lies along the regional scale Rochford Copper Trend. The Project falls within the 70:30 'contributing' joint venture (JV) with Aeris Resources Ltd (ASX: AIS) (Helix 70% and Manager, Aeris 30%).

The Rochford Trend has the potential to host 'Cobar-style' copper deposits analogous to the large-scale, highgrade mineralisation found at the nearby CSA Copper Mine, under offer from Metals Acquisition Corp (NYSE: MTAL.U).

In 2021, the JV drilled five diamond drillholes for nearly 2,000 metres around and beneath the Canbelego Mineral Resource<sup>2</sup> at Main Lode, after an 8-year exploration hiatus. Positive results led to further RC and diamond drilling highlighting high-grade shoot extensions on the Canbelego 'Main Lode' and identifying new, multiple, parallel lode positions, the 'Western Lodes' to the west of the Main Lode.

#### **RC Drilling**

A total of 906m of RC drilling was completed in 7 holes over 8 days commencing 17 January 2023. The objective was to follow-up a high-grade intercept of 16m at 3.2% Cu (CBLRC057) reported in October 2022 which highlighted the potential of extensions up dip and along strike to the north towards the historical underground workings. Historical drilling in the vicinity from the 1990's is not suitable for use in an updated Mineral Resource estimate due to uncertainties with the hole locations - a further reason for undertaking this RC program.

Significant copper mineralisation was observed<sup>6</sup> and logged in five of the seven RC holes including (**Table 1**):

- 51m of weak to strong chalcopyrite veins from 84m including 2m of semi-massive chalcopyrite from 104m (CBLRC062)
- 25m of medium to strong chalcopyrite veins from 108m downhole (CBLRC059)
- 27m of weak to strong chalcopyrite veins from 80m downhole including 2m of semi-massive chalcopyrite from 103m (CBLRC060)
- 12m of weak to strong chalcopyrite veins from 65m including 1m of massive chalcopyrite from 72m (CBLRC063)
- Malachite, azurite and chalcocite was also noted in several holes, indicating potential for shallow oxide copper resources

The visual results demonstrate the potential for near-surface oxide and sulphide copper mineralisation extending 120m south along strike from the historic workings. The copper mineralisation has drill widths of 12m to 51m within a steep west-dipping zone, which also hosts the high-grade copper intercept in CBLRC057. Significantly, the CBLRC057 intercept is down-dip of the visual intercepts in CBLRC062 and CBLRC063, indicating this zone extends down-dip for at least 60m from CBLRC063 and remains open for approximately 60m up-dip towards the surface (**Figures 2** and **3**).

Further details of the observed mineralisation are provided in **Table 1** and drill hole details are provided in **Table 2**.

<sup>&</sup>lt;sup>6</sup> Refer Cautionary Note regarding visual estimates of mineralisation on page 2 of this report.

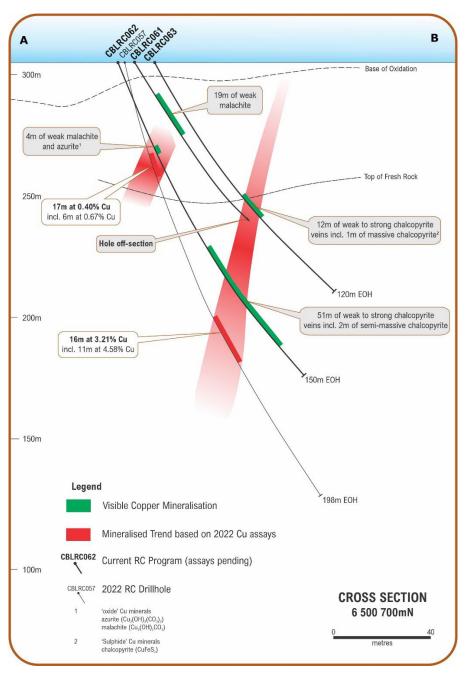


Figure 2 – Canbelego Main Lode Cross Section 6,500,700mN

#### **Diamond Drilling**

In December 2022 two deep "step-out" diamond drill holes were completed to test the continuity of high-grade copper mineralisation 200m down plunge from known drill intercepts and to create a platform for DHEM surveys to test for the continuity of high-grade shoots. These were the 'Parent' holes CANDD015 and CANDD016.

Both holes intersected the Canbelego Main Lode shear and visible copper sulphides were logged<sup>6&7</sup>. The DHEM surveying of both holes identified highly significant conductive anomalies of a scale and intensity never recorded on the project before. The central position of the modelled conductive plates effectively occurs equidistant from both the Parent drill holes collars (**Figure 3**). This further exacerbates the directional drilling challenges of the daughter holes to test the conductive plates in difficult ground conditions; an example is presented in **Figure 4**. Hence, several attempts were required for a successful test – with hole CANDD016C in progress, at 550m and on track.

<sup>&</sup>lt;sup>7</sup> Refer ASX Reports submitted 30 November 2022, 8 December 2022 and 18 December 2022.

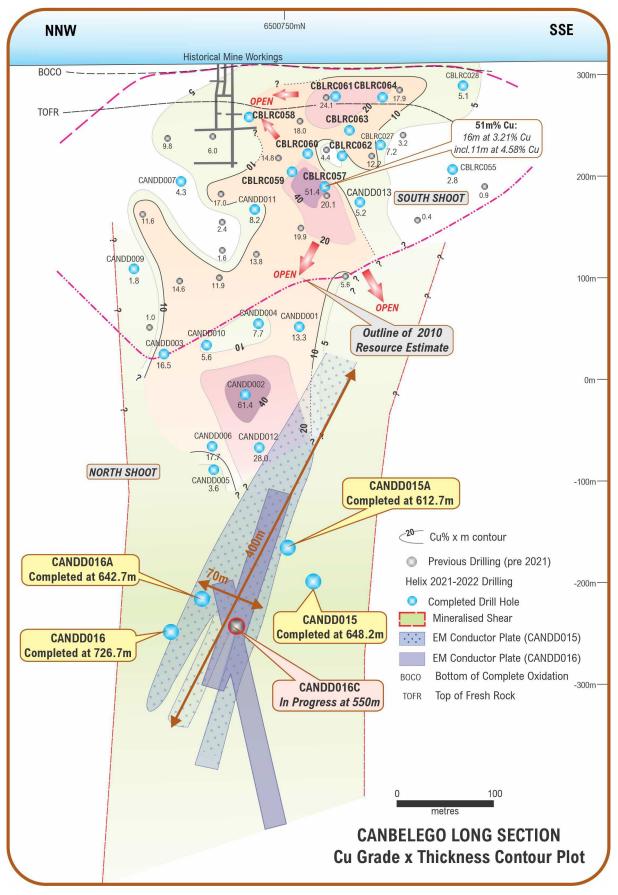


Figure 3 – Canbelego Long Section

Leading up to the current drill test - hole CANDD016A had to be suspended in mid-December due to a mechanical failure on the rig. On resumption of drilling on 13 January it deviated away from the target point despite several 'Navi-cuts' and other directional interventions to steer the hole back to its target trajectory. Despite this, it did intersect significant zones of copper sulphide mineralisation<sup>8</sup> at the Main Lode shear position, however the observed mineralisation does not explain the intense DHEM conductive response that defines the target.

A subsequent attempt to 'run-off' a daughter hole (CANDD016B) from 396m downhole was unable to achieve sufficient divergence from the parent hole (CANDD016) to attain the target trajectory and was abandoned. CAND016C has been successfully wedged off from 280m downhole and is currently at 550m and is on track to hit the central position of the high-conductance target, shown in **Figure 3**.

Geological logging of the first daughter hole from CANDD016, CANDD016A has been completed. The Main Canbelego Lode Shear Zone was intersected at 560m, which included a 25m downhole interval of weak to strong chalcopyrite veins with associated strong black chlorite alteration. Further details are provided in **Table 1**.

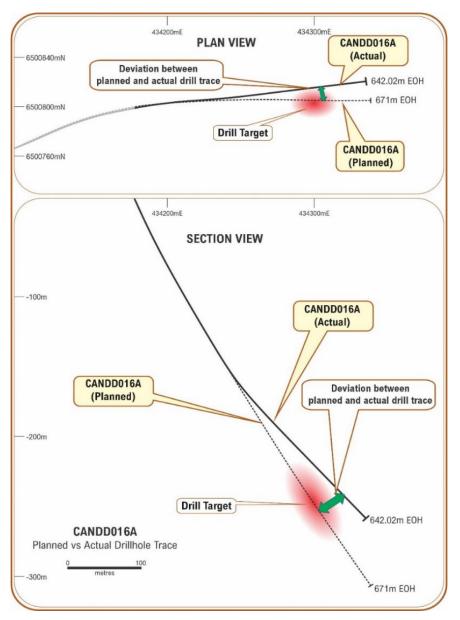


Figure 4 – Example of drill hole deviation for CANDD016A

<sup>&</sup>lt;sup>8</sup> Refer Cautionary Note in regard to visual estimates of mineralisation on page 2 of this report.



#### Hole ID **Preliminary Observations** From То Interval Strength **RC Drill Holes** 15 22 7 Weak Trace chalcocite in saprock CBLRC058 22 Medium 23 3% chalcocite in saprock 1 64 Medium 63 1 3% chalcopyrite veins in slightly weathered psammite 108 120 Strong Up to 5% chalcopyrite veins in chlorite altered psammite 12 CBLRC059 120 133 13 Medium Up to 2-3% chalcopyrite veins in chlorite altered psammite Trace chalcopyrite veinlets in chloritic mafic schist and Weak 80 103 23 psammite CBLRC060 103 105 2 Semi-massive pyrite-chalcopyrite in psammite Strong 105 107 2 Medium 2% chalcopyrite veins in chloritic psammite Trace laminated malachite, up to 1% malachite @25m, in CBLRC061 16 35 19 Weak moderately weathered interbedded psammite and pelite Traces of malachite and azurite, in moderately weathered 37 41 4 Weak psammite Patchy veinlets of chalcopyrite and pyrite, up to 2%, in 19 84 103 Weak interbedded psammite and pelite CBLRC062 Massive chalcopyrite with lesser pyrite, up to approximately 103 109 6 Strong 30% chalcopyrite from 104-106m, in chloritic psammite Occasional trace chalcopyrite and pyrite veinlets, in pelite 109 135 26 Weak interbedded with psammite 70 5 65 Weak Trace sulphide veinlets in psammite 70 72 2 Medium 3-5% chalcopyrite veins with minor pyrite in psammite CBLRC063 Massive sulphide with an estimated 30% chalcopyrite, 20% 72 73 1 Strong pyrite, in chloritic psammite 77 73 4 Weak Trace chalcopyrite veins in psammite 6 7 1 Weak Trace chalcocite in saprolite 11 12 Weak Trace chalcocite in saprolite 1 CBLRC064 18 22 4 Strong Semi-massive malachite, up to 30%, in gossanous saprock Trace malachite and chalcocite in moderately weathered 48 49 1 Weak psammite **Diamond Drill Hole** Trace of chalcopyrite in psammite with medium chlorite 560 564 4 Weak alteration Up to 5% disseminated chalcopyrite in quartz veins and 564 569 5 Strong psammite with strong chlorite alteration Up to 1% chalcopyrite in pelite with green-black chlorite 569 579 10 Weak CANDD016A alteration in veinlets and quartz veins 579 582 3 Weak Trace of chalcopyrite in psammite with silica alteration Up to 3% chalcopyrite in veinlets in psammite with silica 585 3 582 Medium alteration 622 625 3 Weak Up to 1% chalcopyrite within psammite

#### Table 1 – Logged visible copper mineralisation in recent RC and diamond core holes

Hole ID	Hole Type	Location	Status	Northing	Easting	Dip	Azimuth	RL	Total Depth
<b>RC Drill Holes</b>	-			-					
CBLRC058	RC	Main Lode	Assays Pending	6500818	434437	-60	240	305.5	120
CBLRC059	RC	Main Lode	Assays Pending	6500745	434352	-70	44	304.1	174
CBLRC060	RC	Main Lode	Assays Pending	6500727	434368	-76	79	302.2	150
CBLRC061	RC	Main Lode	Assays Pending	6500711	434368	-61	74	308.1	120
CBLRC062	RC	Main Lode	Assays Pending	6500688	434367	-70	79	309.1	150
CBLRC063	RC	Main Lode	Assays Pending	6500687	434382	-61	74	298.3	120
CBLRC064	RC	Main Lode	Assays Pending	6500645	434382	-61	68	275.8	72
Diamond Drill	Holes	•	•						
CANDD015	DD	Main Lode	Assays pending	6500625	434120	-76	60	314	648.2
CANDD016	DD	Main Lode	Assays pending	6500759	434083	-78	60	314	726.7
CANDD015A	DD	Main Lode	Assays pending	6500625	434120	-76	60	314	612.7
CANDD016A	DD	Main Lode	Assays pending	6500759	434083	-78	60	314	642.7
CANDD016B	DD	Main Lode	Abandoned						
CANDD016C	DD	Main Lode	In Progress	6500759	434083	-78	60	314	650

Table 2 – Drill Hole Details and Status (Grid: MGA94 Zone 55)

#### COMPETENT PERSON STATEMENT

The information in this report that relates to exploration results, Mineral Resource estimates and geological data for the Cobar projects is based on information generated and compiled by Mr Gordon Barnes and Mr Mike Rosenstreich who are both employees and shareholders of the Company. Mr Barnes is a Member of the Australian Institute of Geoscientists and Mr Rosenstreich is a Fellow of the Australasian Institute of Mining and Metallurgy. They both have sufficient experience that is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to each qualify as Competent Person(s) as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Barnes and Mr Rosenstreich have consented to the inclusion of this information in the form and context in which it appears in this report.

#### This ASX release was authorised by the Board of Directors of Helix Resources Ltd.



ABN: 27 009 138 738 ASX: HLX



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#### **Board of Directors:**

Peter LesterNon-Executive ChairmanKylie PrendergastNon-Executive DirectorMike RosenstreichManaging Director

**Company Secretary** Ben Donovan



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#### **About Helix Resources**

Helix Resources is an ASX-listed resources company which is 'all-in on copper' exploration in the prolific copper producing region of Cobar, NSW. The Company possesses a sizable ground position across two tenement groups which are largely untested despite being located within ~50km of significant copper producing operations. The western tenement consists of 30km of contiguous strike and the Company is advancing a pipeline of wholly owned copper opportunities, as well as the Canbelego JV Project (70% owned and operated by Helix and 30% owned by Aeris Resources Ltd ASX: AIS) where massive copper sulphides have been intersected. The eastern tenement group encompasses more than 150km of prospective strike and includes the 100% owned CZ copper deposit.

#### **APPENDIX 1: Canbelego Copper Deposit - Context**

The Canbelego Deposit is located 45km south-east of Cobar and 5km south of the historic Mt Boppy Mine along the Rochford Copper Trend. Historic production from the Canbelego Copper mine was reported (1920) to be ~10,000t of hand-picked ore grading 5% Cu with mining stopped at the water table at ~80 metres depth.

Canbelego is located on EL6105 which is a joint venture with local copper producer Aeris Resources (ASX: AIS). Helix holds 70% and is the Manager and AIS is a contributing, 30% partner.

Structural remobilisation is considered an important control on high-grade copper in these mineralised systems, termed Cobar-style base metal deposits. Copper mineralisation is developed as structurally controlled, sub-vertically plunging, semi-massive to massive sulphide shoots.

A mineral resource compliant with the 2004 JORC Code of 1.5Mt at 1.2% Cu (oxide, transition and fresh), 100% Inferred was reported in October 2010 as presented in Table A1. This Mineral Resource estimate is based on a total of 39 holes for 8,080 metres of RC and diamond drill core.

Other than results contained in this ASX release, Helix confirms that it is not aware of any new information or data that materially affects the Mineral Resource information included in Helix ASX release dated 7 October 2010 *Initial Copper Resources for Canbelego and Exploration Update*. All material assumptions and technical parameters underpinning the estimates in that release continue to apply and have not materially changed.

Classification	Туре	Tonnes	Copper	Gold	Contained Copper	<b>Contained Gold</b>
		Mt	%	g/t	t	Oz
Inferred	Oxide/Transition/Fresh	1.50	1.2	N/A	18,000	N/A
Total	Combined	1.50	1.2	N/A	18,000	N/A

#### Table A1: Canbelego\* (October 2010) (0.5% Cu cut-off)

(Rounding discrepencies may occur in summary tables)

Reported as 100% of deposit

### Appendix 2: JORC Code Table 1

January 2023 – Canbelego Drilling

#### Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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 sounds, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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 explanationmaybe 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.</li> </ul>	<ul> <li>Diamond Core Drilling (DD)</li> <li>Commercial drilling contractor Mitchell Services conducted the DD drilling. The holes are orientated approximately ENE and drilled with starting dips of 60° to 78°.</li> <li>Drill hole locations are determined using a hand-held GPS. Down-hole surveys were conducted using the Reflex multi-shot gyro system.</li> <li>Diamond core is sampled in 1m intervals, taking half core at various intervals (=/&lt;1m).</li> <li>The samples were collected and supervised by Helix staff.</li> <li>The samples were in the direct control of Helix staff and transported to the laboratory by Helix.</li> <li>Reverse Circulation (RC) Drilling</li> <li>Commercial drilling contractor Mitchell Services conducted the RC drilling. The holes were orientated approximately E (225°) and were drilled with starting dips of 60° or 70°.</li> <li>Drill hole locations were determined using a hand-held GPS. Down-hole surveys were conducted using the Reflex multi-shot gyro system.</li> <li>Holes were sampled at 1m intervals via a cyclone cone splitter into a numbered calico bag with weights typically from 1.5kg to 3kg for the lab sample, and a large plastic bag for the remaining sample.</li> <li>The lab samples were collected and always supervised by Helix staff.</li> <li>The lab samples were always under the direct control of Helix staff and were transported to the laboratory by a commercial transport contractor.</li> </ul>
Drilling techniques	• 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.).	<ul> <li>DD: HQ and NQ drill core was collected using triple tube and all other industry practice methods. Navi drilling, wedges and chrome barrels are used for directional drilling.</li> <li>RC: 5 ½ inch diameter drill bit.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <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 samplebias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recoveries are recorded by the driller on core blocks and checked by a geologist or field technician.</li> <li>Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking and depths are checked against the depths recorded on core blocks. Rod counts are routinely undertaken by drillers as a further cross-reference for depth and core recovery.</li> <li>Samples were checked by the geologist for consistency and compared to the sample interval data for accuracy.</li> <li>RC bulk bag samples are not weighed, however recoveries are monitored and recorded by the supervising geologist.</li> <li>When poor sample recovery is encountered during drilling, the geologist and driller attempt to rectify the problem to ensure maximum sample recovery.</li> <li>Sample recoveries at Canbelego are typically good for both RC and DD, apart from when voids are intersected. The void intervals are recorded on geological logs.</li> </ul>
Logging	<ul> <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> <li>The drill core is stored in core trays on pallets and the RC chips are stored in standard RC chip trays in numbered boxes on pallets.</li> <li>The drill core and RC chips are stored at Helix's secure facility in Orange.</li> <li>The drill core and RC chips are comprehensively logged and sampled by experienced Helix geologists or consultants, including lithology, alteration, degree of oxidation, structure, colour and occurrence and type of sulphide mineralisation.</li> <li>The visual estimate of the proportion of copper sulphide is from systematic logging of diamond drill core and RC drill chips. The amount of copper sulphide and the relative proportions of the copper sulphide species from metre to metre vary and a detailed estimate of this variability is not possible within the limits of acceptable accuracy. Metal grades of the core are determined by laboratory assay. The copper sulphide typically occurs as disseminations, blebs, stringers, laminations, vein fill and semimassive sulphide. Fine copper sulphide may be under-estimated, if present. Identification of the sulphide species and visual estimates of the proportions of those sulphide species present have been made by an experienced geologist with more than 10 years' experience in copper mineralisation in this region.</li> <li>Diamond core and RC chips are logged to an appropriate level of detail to increase the level of geological knowledge and increase the geological understanding of the deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <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> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drill core is cut with a Corewise automatic core cutter, and a half core sample is taken for laboratory analysis.</li> <li>The RC drilling rig is equipped with an in-built cyclone and cone splitting system, which provided one bulk sample of approximately 20kg to 30kg and a sub-sample of 1.5-3kg per metre drilled.</li> <li>All RC samples were split using the system described above to maximise and maintain consistent representivity. The majority of samples were dry.</li> <li>Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags.</li> <li>Field duplicates were collected by spear from green plastic bags. These duplicates were designed for laboratory checks.</li> <li>Certified Reference Material (CRM) standards and blanks are inserted into the sample stream at approximately 1:35.</li> <li>Laboratory duplicate samples are split with a riffle splitter.</li> <li>A 1.5kg to 3kg RC sample was collected from 1m intervals and is considered appropriate and representative for the grain size and style of mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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> <li>ALS Laboratory Services were used for Au and multi-element analysis work carried on out on 1m split RC samples and half core DD samples. The laboratory techniques below are for all samples submitted to ALS and are considered appropriate for the style of mineralisation at Canbelego:         <ul> <li>Crush and pulverize sample.</li> <li>Au-AA25 Ore Grade Au 30g FA AA Finish (only on selected samples)</li> <li>ME-ICP61 48 element 4 acid digest ICP-AES.</li> <li>OG62 Ore Grade finish for non-Au over range samples.</li> </ul> </li> <li>The QA/QC data includes standards, duplicates and laboratory checks.</li> <li>Duplicates for percussion drilling are collected from the one metre sample bag using a spear.</li> <li>QA/QC tests are conducted by the laboratory on each batch of samples with CRM standards.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <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> <li>Assays results are validated by standard database procedures and are verified by Helix management.</li> <li>Assay data are not adjusted.</li> <li>Geological data is logged into laptop using OCRIS mobile software. This software includes validation procedures to ensure data integrity.</li> <li>Logged data includes detailed geology (weathering, structure, alteration, mineralisation), sample quality, sample interval and sample number.</li> <li>QA/QC inserts (standards, duplicates, blanks) are added to the sample stream.</li> <li>Magnetic susceptibility data is collected using a datalogger.</li> <li>All logged data, the assay data received from the laboratory, and survey data is loaded into a secure database and verified.</li> </ul>
Location of data points	<ul> <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 Resourceestimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The drill collar positions were determined using a GPS (±5m).</li> <li>Grid system is MGA94 Zone 55.</li> <li>Surface RL data collected using GPS and verified by public Digital Elevation Models.</li> <li>Relief with the drilling zone ranges from 0m to 15m.</li> </ul>
Data spacing and distribution	<ul> <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> <li>Drilling has been conducted by Helix, Aeris (Straits) and historic drilling by companies in the 1970's.</li> <li>The drilling had been conducted in a manner consistent with the procedures set out in this JORC table.</li> <li>Assays used in the current resource were generated by Straits or Helix and include som re-sampling of the historic core.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>Surface sampling, the position of the drill holes and the sampling techniques and intervals are considered appropriate for the early-phase exploration of a system such as that identified at Canbelego.</li> <li>The distribution of copper is known to be variably enriched and depleted within the structurally controlled, sub vertical copper deposit at Canbelego.</li> <li>Drilling is designed to intersect mineralisation as close to perpendicular as possible.</li> <li>Drill hole deviation will influence true width estimates of mineralisation. True width of mineralisation will be further assessed with detailed logging of orientated structural data and when the resource model is updated.</li> <li>Drill hole intersections of mineralisation are not considered to be biased.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Chain of Custody is managed by Helix staff and its contractors. The samples were freighted directly to the laboratory, or transported directly by Helix staff, with</li> </ul>

Criteria	JORC Code explanation	Commentary
		appropriate documentation listing sample numbers, sample batches, and required analytical methods and element determinations.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No additional audits or reviews have been conducted for the drilling 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		
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overridingroyalties, 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> <li>The Canbelego JV Project is located on EL6105 approximately 10km SSW of the Canbelego township. Helix has earned a 70% interest in the project and is Manager of the JV, with JV Partner Aeris retaining 30% and contributing.</li> <li>The tenement is in good standing.</li> <li>This is no statutory, minimum annual expenditure. Rather a program-based exploration commitment is applicable.</li> <li>There are no known impediments to operating in this area.</li> <li>The drill area is situated in a grazing paddock and can be accessed all year round.</li> </ul>		
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Previous drilling, soil sampling and early geophysics was conducted by Straits (Aeris) and companies during the 1970's.</li> <li>Several small historic mines and workings are present throughout the tenement.</li> </ul>		
Geology	Deposit type, geological setting and style of mineralisation.	The project is prospective for structurally controlled copper.		
Drill hole Information	<ul> <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> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Refer to tables included with this report.</li> <li>The zones west of the Canbelego Main Lode have not been subject to previous drilling and represent new mineralised positions parallel to the Canbelego Main Lode.</li> </ul>		

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Assays included in intercept calculations are weighted by interval width.</li> <li>Mineralised intercepts for Cu are averaged within a contiguous interval above a specified Cu cut-off grade with a maximum of 2m of internal dilution.</li> <li>Cu intercepts were calculated for Cu cut-off grades of 0.1% Cu, 0.5% Cu and 1% Cu.</li> <li>No assay cut of high-grade material has been applied.</li> <li>No metal equivalent values have been calculated.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <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. 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').</li> </ul>	<ul> <li>Drilling is designed to intersect mineralisation as close to perpendicular as possible.</li> <li>Drill hole deviation will influence true width estimates of mineralisation.</li> <li>The true width of mineralisation will be further assessed on analysis of orientated structural data and when the resource model is updated.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Refer to Figures in this announcement.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	• The reporting is balanced, and all material information has been disclosed.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further DD and RC drilling, assaying and EM surveys will be undertaken. An update of the resource to JORC2012 standard is planned. Regional auger soil sampling is also planned.</li> </ul>