

ASX Announcement 1 December 2015

### MASSIVE SULPHIDES AND STRONG OFFHOLE CONDUCTOR AT COLLERINA

- Hole 1 in the Collerina diamond drilling program has intersected massive sulphides in the main zone from a depth of 81m.
- The main zone has been identified over a 24m interval. Refer to Figures 1 &2 for photos of the core.
- The recently completed Down Hole EM survey has identified a strong off-hole conductor extending at depth and east of the recently reported 12m @ 5% Cu & 2% Zn in CORC019<sup>1</sup>.
- The EM conductor increases the potential strike length of the copper-zinc system at Collerina beyond 500m.
- The current program will test the new EM conductor with diamond drilling.

Helix Resources Limited (ASX:HLX) is pleased to advise that the maiden diamond drilling program has commenced at the Collerina Copper-Zinc Prospect.

The current drilling program was designed to target the high grade main zone to determine lithological and structural controls of the mineralisation and also test additional targets derived from the latest DHEM surveys.

Hole 1 (CODD001) targeted the main zone copper-zinc position close to the discovery hole CORC002 (14m @ 4% Cu²). Hole 1 intersected massive sulphides from 81.4m and visual copper mineralisation is present over a intercept of approximately 24m downhole (refer to Figures 1 and 2). Copper mineralisation in this hole is believed to be transition zone material.

Initial modelling of Down Hole EM from the recently drilled RC holes indicates the conductive material associated with the main zone horizon continues at least a further 50m beyond the eastern-most hole and is modelled to continue at depth, with an off-hole conductor present in front of CORC018.

Copper and zinc mineralisation at the Collerina Copper-Zinc Prospect is defined by drilling over a 500m length with the high grade zone (>3% Copper) defined over a strike exceeding 250m. It remains open in all directions.





Figure 1: Photos of core from 79.4m in CODD001 illustrating copper mineralisation in massive, semi-massive and vein type mineralisation from 81.4m – 99.8m





Figure 2: Photos of core from 99.8m in CODD001 illustrating copper mineralisation in massive, semi-massive and vein type mineralisation from 99.8m-105.5m, core photo finishes at 108.5m

Table 1: DDH Collar details – Collerina Copper-Zinc Prospect

Project	Site_ID	Easting	Northing	Dip	Azi	Total Depth	HoleType
EL6336	CODD001	505409	6455010	-70	204	120.8m	DDH



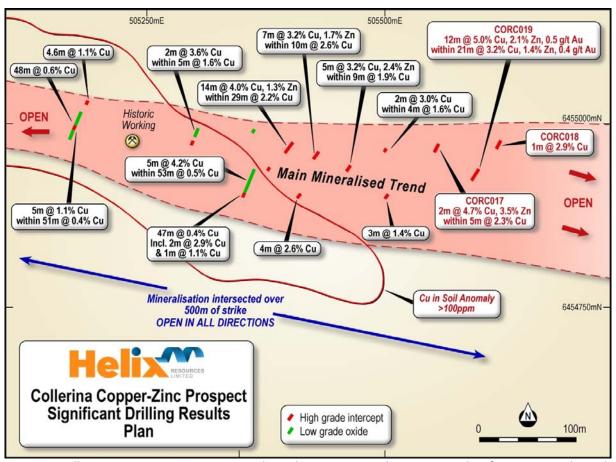


Figure 3: Collerina Copper-Zinc Prospect – High grade intercepts to date over a strike of 500m, open down dip and down plunge.<sup>1,2</sup>



### ABOUT THE COLLERINA COPPER-ZINC PROSPECT

The Collerina Copper-Zinc Prospect is located within a regionally significant VMS prospective belt between the Tritton Mine to the North and Tottenham deposits to the south on the eastern edge of the Girlambone Basin in Central NSW.

The Collerina Copper-Zinc Prospect was subject to small-scale mining in the early 1900's and a three hole drilling program by CRA in the 1980's; all three holes intersected copper mineralisation. No modern exploration had been undertaken on the Prospect until Helix's involvement, commencing in mid-2014.

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#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr M Wilson who is a full time employee of Helix Resources Limited and a Member of The Australasian Institute of Mining and Metallurgy. Mr M Wilson 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 M Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Details of the assumptions underlying any Resource estimations are contained in previous ASX releases or at <a href="www.helix.net.au">www.helix.net.au</a>

<sup>&</sup>lt;sup>1</sup>For full details of exploration results refer to ASX announcements dated 10 November 2015. Helix Resources is not aware of any new information or data that materially effects the information in these announcements.

<sup>&</sup>lt;sup>2</sup> For full details of exploration results refer to ASX announcements dated 15 December 2014, 4 February 2015, 1 April 2015. Helix Resources is not aware of any new information or data that materially effects the information in these announcements.



# JORC Code - Table 1

## Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The Collerina Prospect drilling used a commercial contractor for DDH drilling. The first hole was drilled to 120.8m The Hole was orientated to Grid SW (204), and was drilled at dips of 70°.</li> <li>The drill hole location was located by handheld GPS. Down hole surveys were conducted during drilling, using an in-rod down-hole system.</li> <li>DDH drilling was used to collect core samples over the entire hole length with 1m samples expected to be collected (~3kg). The 1m samples will be sent to a commercial laboratory, pulverized to produce a representative charge with gold and base metals assayed.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>DDH Drilling was the method chosen for the hole. the hole was drilled at an HQ size and will be oriented where possible</li> </ul>
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 sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The sample recoveries are observed during the drilling and any sample under-sized or over-sized was noted the geological logs.</li> <li>Core is checked by the geologist. Any issues are discussed with the drilling contractor.</li> </ul>



Criteria	JORC Code explanation	Commentary
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>All core will be geologically logged.</li> <li>Logging of records lithology, alteration, degree of oxidation, fabric,colour, RQD and magnetic susceptability, . All core intervals are stored in plastic trays, labeled with interval and hole number.</li> <li>The hole will be logged in full.</li> </ul>
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>	Samples are yet to be collected
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Samples Are yet to be collected
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> </ul>	Samples are yet to be collected



Criteria	JORC Code explanation	Commentary
	<ul> <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>	
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 Resource estimation.</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 picked-up using GPS.</li> <li>Grid system is GDA94 Zone 55.</li> <li>Surface RL data collected using GPS. Topography around the drilled area is a slight slope grading from Grid North-East to drainage west of the main drilled area. Variation in topography is less than 5m across the drilled area.</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>The Drill hole was targeting a zone of mineralisation to identify geological and structural controls.</li> <li>This was the fourth drilling program and first DDH program for the Project and therefore the amount of drilling remains insufficient to establish a JORC compliant resource.</li> <li>Samples are yet to be taken</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>Samples are yet to be taken.</li> <li>Massive sulphides including copper sulphides were intersected in the hole.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>When sampling, Chain of Custody is managed by the Company. Samples will be collected onsite cutting core. The bags are securely tied and freighted directly to the laboratory with appropriate documentation listing sample numbers and analytical methods requested.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No additional QA/QC has been conducted for the drilling to date.



### 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, 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>	The Collerina Prospect is located on EL6336 (Collerina Project), which is subject to a exploration and development agreement between the tenement owner, Augur Resources Limited and Helix Resources Limited, via its 100% owned subsidiary Oxley Exploration Pty Ltd, Helix has earned 100% of the precious and Basemetal rights which are subject to a 1.5% net smelter royalty retained by Augur. The tenement is in good standing, with a renewal due in October 2015. There are no known impediments to operating in this area.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Previous modern exploration on the Collerina Prospect was limited to mapping and three holes drilled by CRA in the 1980's. All three holes intersected copper mineralisation (refer Figure 1 &amp; 2). Historic shafts and pits are present in the area, which date back to small scale mining activities in the early 1900's.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The prospect is considered to be a base metal VMS style system consistent with the deposits and mines of the Girilambone-Tottenham district.</li> </ul>
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:</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 table 1 in the body of the text</li> <li>No material information was excluded from the photos of core provided</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</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</li> </ul>	No Results from this hole have been reported in this announcement



Criteria	JORC Code explanation	Commentary
	<ul> <li>and 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 mineralisatio n 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.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The hole was designed to drill close to CORC002 which reported 14m @ 4% Cu within 29m @ 2.2% Cu.</li> <li>Photo are shown as down hole length, with true width not definitive at this early stage.</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 body of announcement figure 3, CODD001 is located ~ 4m east of CORC002 on the diagram which returned 14m @ 4% Cu within 29m @ 2.2% Cu (Refer callout)</li> </ul>
Balanced reporting	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.	No Results from this hole have been reported in this announcement
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Previously reported activities on the Collerina Prospect included a threeo drilling programs of 2643m, soil auger sampling, mapping and rockchip sampling andsurface EM and DHEM Surveys. Refer to ASX announcements on <a href="https://www.helix.net.au">www.helix.net.au</a> for details</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout 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>	DDH Drilling is currently continuing on the Project.