

10 October 2018

## **Bryah Basin Exploration Update**

- Air Core Drilling programme between the Wodger and Big Billy Prospects completed
- Gradient array IP surveys planned at Wodger and Forrest Prospects to improve geological understanding
- Geological re-interpretation and soil sampling results over the prospective Karalundi Formation at the Cashman Project nearing completion
- Critical review of all historical ground and down-hole EM surveys underway results to assist with the planning of VTEM target follow-up
- RC drilling programme scheduled for Wodger and Forrest this quarter

Western Australian base metals explorer **Auris Minerals Limited** ("**Auris**" or "**the Company**") (**ASX: AUR**) is pleased to provide the following update on exploration activities across the Company's key exploration tenements within the Bryah Basin of Western Australia.

#### **Wodger-Big Billy Aircore Drilling Completed**

Auris is pleased to advise the previously reported (see ASX release dated 14 September 2018) aircore drilling programme between the Wodger and Big Billy Prospects has now been completed. A total of 83 holes for 7,328m were drilled along the prospective strike between the Wodger and Big Billy Prospects. Holes were drilled at 100m intervals along 300-400m-spaced traverses. Due to the drill holes being considerably deeper than originally planned (average depth 88m vs planned 50m), fewer holes were drilled in this programme. The Company is currently awaiting the receipt of all assays, with geological logging of drill chips suggesting a reinterpretation of the thickness of the prospective Narracoota Formation.

Follow-up gradient array IP surveys are due to start next week at both the Wodger and Forrest Prospects. These surveys will target disseminated mineralisation, as has been intersected in drill holes at both prospects, with the aim of recognising similar mineralisation, which could prove to be a useful vector towards higher-grade massive sulphides.

Further drilling is scheduled to be undertaken at both the Wodger and Forrest Prospects this quarter.

## **Cashman Project Soil Sampling and Geological Interpretation**

As previously reported (see ASX release dated 17 July 2018), Auris is in the final stages of completing a detailed 1:25,000-scale geological interpretation of the southern Cashman Project area. In addition, a soil sampling programme over the prospective Karalundi Formation has also been completed with results expected to be received in the coming weeks.

It is anticipated that these soil sampling results, along with the revised geological interpretation, will provide a much more detailed geological understanding of the project area, enabling further exploration targets to be generated.

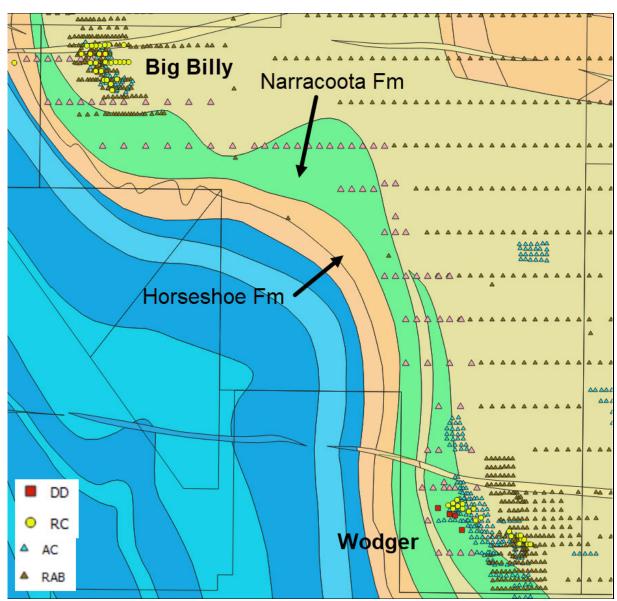


Figure 1: Aircore drill coverage of the interpreted Narracoota Formation (green). The recently drilled holes are shown as pink triangles. Drilling continued westwards into the Horseshoe Formation (orange)

#### **Feather Cap Aircore Drilling Programme Results**

Auris can also report that assays from the 5,000m aircore drilling programme (see ASX release dated 17 July 2018) have also been received. Peak copper values of 622ppm and 638ppm Cu were recorded within the Narracoota Formation, and best gold values of 0.55g/t and 0.44g/t were reported from contiguous samples at the top of FCAC072.

The programme was designed to test a new geological model, in which the target is interpreted to occur at the top of the prospective Narracoota Formation, in the same stratigraphic position as the Horseshoe Lights deposit, on a northwest-trending synclinal fold axis. Bottom-of-hole samples in almost half of the holes drilled were mafic volcanics (Narracoota Formation), with the remainder being fine-grained clastic sediments, including black shale and mudstone.

Auris is currently evaluating all geological data at Feather Cap prior to planning follow-up activities.

-ENDS-

For and on behalf of the Board.

### **Mike Hendriks**

**Chief Operating Officer** 

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#### **ABOUT AURIS MINERALS LIMITED**

Auris is exploring for high-grade copper-gold discoveries in Western Australia's prospective Bryah Basin. Auris has consolidated a ~1,350km² copper-gold exploration portfolio in the Bryah Basin, which is divided into five well-defined project areas: Forrest, Doolgunna, Morck's Well, Cashmans and Horseshoe Well.

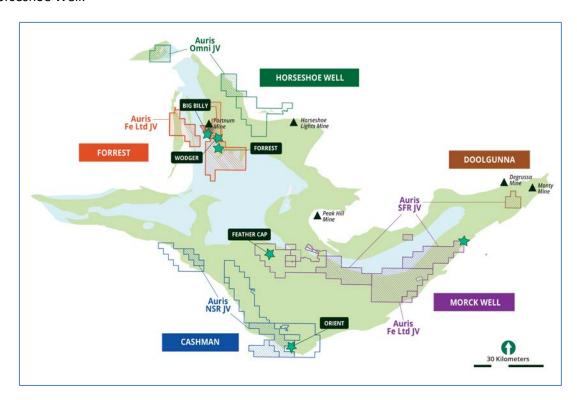


Figure 2: Auris's copper-gold exploration tenement portfolio, with Sandfire, Northern Star (NSR), Fe Ltd and OmniGeoX JV areas indicated

#### Notes:

- 1. The Forrest Project tenements have the following outside interests:
  - Auris 80%; Fe Ltd 20% ((Fe Ltd (ASX:FEL) interest is free carried until a Decision to Mine)
  - Westgold Resources Ltd (ASX:WGX) own the gold rights over the Auris interest.
- 2. The Cashman Project tenements E51/1391, E51/1837-38, E52/2509 have the following outside interests:
  - Auris 51%; Northern Star 49% (ASX:NST) with Auris earning 70%
- 3. The Horseshoe Well Project tenements E52/3248, E52/3291, E52/2509 have the following outside interests:
  - Auris 85%; OMNI Projects Pty Ltd 15% (OMNI free carried until a Decision to Mine)

#### **Competent Person's Statement**

Information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared and compiled by Nick Franey MSc (Mineral Exploration) who is a Member of the Australasian Institute of Geoscientists. Mr Franey is General Manager Geology for Auris Minerals Limited. Mr Franey 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 Exploration Results, Mineral Resources and Ore Reserves. Mr Franey consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

# APPENDIX EXPLORATION UPDATE JORC Code, 2012 Edition Table 1

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
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 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 (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.</li> </ul>	<ul> <li>A geologist is on hand at all times to supervise aircore AC drilling.</li> <li>Select samples (1m) from each hole are analysed by a portable XRF instrument, to monitor geochemistry at the bedrock interface.</li> <li>All AC drill samples are logged at 1m intervals prior to formal sampling.</li> <li>AC samples are 4m composites, collected by spear technique – provided there is no obvious change in lithology or other feature of interest (when samples are collected at 1m intervals).</li> <li>Standard sampling protocols/procedures have been written to ensure all sampling is done properly and consistently.</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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	<ul> <li>AC drilling was completed with a vehicle-mounted aircore rig, with a 375CFM/ 200PSI Sullair compressor.</li> <li>Collars are surveyed by handheld GPS.</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>	Any abnormal recoveries are noted during the logging process and captured in the database.

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>	•	All AC drill samples are logged at 1m intervals (prior to any sampling). The usual geological criteria (lithology, colour, grain size, veining, sulphides, etc.) are logged and captured to the database.
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>	•	Routine 4m composite samples are collected, unless specific features of interest are noted (e.g., sulphides, etc.) - when samples will be collected at 1m intervals.  Samples are collected by spear technique from 1m sample piles.  Samples submitted to the ALS laboratory in Perth are oven dried, and crushed to 6mm and 2mm sequentially. A coarse split is pulverised until 90% passes -75µm, prior to analysis.
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>	•	All samples are submitted to the ALS Laboratory in Perth for a full multi-element analysis by ICP-MS/OES (Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo, Re, Mn, Co, Cd, Cr, Ni, Se, Te, Ti, Zr, V, Sn, W and Ba) after a four acid digest. Gold is determined by the same method after an aqua regia digest, using a 25g sample. These are appropriate methods of analysis/assay for VMS- and orogenic gold-type mineralisation. Quality control samples include certified reference materials (CRMs) or standards (of an appropriate low level of contained copper and gold), sourced from OREAS, quartz sand used as a blank, and field duplicate samples. At least one QC sample is added to every 25 samples in a batch.
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)</li> </ul>	•	All logs and analytical data reports are reviewed by the GM Geology, Auris. If adjustments or amendments are ever necessary, the original data are preserved in the database.  No AC holes are twinned.

Criteria	JORC Code explanation	Commentary
	protocols.  Discuss any adjustment to assay data.	
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>All AC drill collar locations are located using a handheld Garmin GPS 64S, with has an approximate accuracy +/- 3 metres (MGA94 zone 50).</li> <li>Topography is flat, so accuracy is deemed sufficient for purpose (the definition of a geochemical anomaly).</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>AC drilling is usually undertaken at 100m intervals along lines, at a nominal spacing (400-800m). Infill drilling will be undertaken, as deemed necessary.</li> <li>Analytical results from AC drilling may be weighted by sample length to compare best values from different holes. Analytical data from AC drilling is never composited.</li> <li>Attention is focused on the values from top-of-hole samples (equivalent to surface sampling), bottom-of-hole samples (the bedrock-regolith interface) and best-in-hole values.</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>AC drilling is usually undertaken to define anomalous patterns (akin to soil sampling beneath regolith cover), rather than to help determine a Mineral Resource estimate. As such, the orientation of geological structures is usually not known at the time of drilling.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Appropriate security measures are taken to ensure the chain of custody between drill rig and laboratory.</li> <li>Samples are stored on-site until they are transported to the laboratory by a licensed freight company (Toll West), a designated contractor or an Auris employee. All samples are securely packed into bulker bags and sealed prior to transport.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Dr Nigel Brand of Geochemical Services         Ltd has provided advice and conducted         reviews of geochemical data on         request.     </li> <li>Other experts are consulted, as         required, from time to time.</li> </ul>

## **Section 2 Reporting of Exploration Results**

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>	<ul> <li>Auris has consolidated a ~1,350km² copper-gold exploration portfolio in the Bryah Basin, split into five "project areas": Forrest, Doolgunna, Morck's Well (East &amp; West), Cashmans and Horseshoe West.</li> <li>Tenement numbers are: Forrest E52/1659, E52/1671, P52/1493-6; Doolgunna E52/2438; Morck's Well (East) E52/1672, E51/1033, E51/1871, E52/1613; Morcks Well (West) E52/1910, E52/2472, E52/3275, E52/3327, E52/3350, E52/3351, E52/1497, E52/1503-4; Cashmans E51/1641, E52/2509, E52/3500, E51/1120, E51/1837-8, E51/1391, E51/1053; Horseshoe West E52/3166, E52/3291, E52/3248.</li> <li>All tenements are 100% Auris, except for the following: Forrest (all tenements, except P52/1493) Auris 80%, Fe Ltd (ASX: FEL) 20% free carried until Decision to Mine, and Westgold Resources Ltd (ASX:WGX) own all gold rights; Doolgunna &amp; Morcks Well East (all tenements) subject to farm-in agreement with Sandfire Resource NL (ASX:SFR); Cashmans E51/1391, E51/1837-38 &amp; E52/2509 Auris 51%, Northern Star (ASX:NST) 49%, with Auris earning to 70%; Horseshoe West E52/3291, E52/3248 Auris 85%, OMNI Projects Pty Ltd 15% (free carried until Decision to Mine).</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Various parties have explored and/or mined in the Bryah Basin (including Homestake Australia, Cyprus Gold, Dominion Mining, Mines & Resources Australia, Perilya and Montezuma Mining). Prior to the De Grussa Cu-Au discovery in 2009, the exploration target was almost exclusively gold. PepinNini Minerals (PML) farmed into some tenements to secure iron ore rights. There are few historical records preserved, so it is not possible to assess the quality of previous work (although undoubtedly better exploration methods are available nowadays).
Geology	Deposit type, geological setting and style of mineralisation.	The Proterozoic Bryah Basin is volcano-sedimentary sequence, interpreted to have formed in a back-

Criteria	JORC Code explanation	Commentary
		<ul> <li>arc setting, on the margin of the Yilgarn Craton.</li> <li>The principal exploration targets in the basin are volcanogenic massive sulphide (VMS) Cu-Au deposits, and orogenic Au deposits.</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:         <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>	No new drill holes are reported in this press release.
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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No drilling or sampling reported.</li> <li>Standard minimum grade truncations for key elements in DD and RC drill intercepts are as follows:         <ul> <li>Copper (Cu) = 0.1%</li> <li>Gold (Au) = 0.1g/t</li> <li>Silver (Ag) = 1g/t</li> </ul> </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.</li> <li>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>	No drilling or sampling reported.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts	Maps and sections are included in the ASX announcement.

Criteria	JORC Code explanation	Commentary
	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.	
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.	The accompanying document is considered to be a balanced report with a suitable cautionary note.
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.	A comprehensive review of all historical exploration data is ongoing. New geological interpretations of the western Bryah Basin are being prepared and will provide context for all future reviews and assessments of data.
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>	New work programmes are being planned.