

### ASX ANNOUNCEMENT

ASX : AUZ

19 May 2014

# Bedrock conductor identified at Foothills prospect

Australian Mines Limited ("Australian Mines" or "the Company") is pleased to report that the Company's recently completed ground geophysics (electromagnetic or EM) survey over the Foothills prospect successfully identified a bedrock conductor situated within close proximity to oxide gold mineralisation intersected by shallow historic drilling.

Importantly, the interpreted EM anomaly is located near the intersection of two controlling geological structures – namely, the Foothills Shear and the Big Head Fault – and is only 150 metres southwest of known copper oxide mineralisation. The modelled depth of this bedrock conductor is approximately 120 metres below the surface, which is a depth that remains untested by historical drilling with the deepest previous drill hole reaching a vertical depth of 75 metres.

The Foothills prospect, situated 15 kilometres southwest of the Mt Magnet township, is the Company's primary focus within the broader Jumbulyer tenement package and the results from this recently completed ground geophysics survey further strengthens the Company's belief that the area has the potential to host high-grade gold-copper mineralisation.

Australian Mines will now look to undertake a reverse circulation (RC) drill program and corresponding down-hole EM survey at Foothills, which is designed to drill test this anomaly and identify any additional conductors that may be present at depth.

**Managing Director Benjamin Bell commented**, "We are very pleased to have received positive results from our early-stage exploration activities at the promising Foothills prospect. The identification of an EM anomaly in close proximity to known gold and copper mineralisation is very encouraging for the team. We believe there is a strong relationship between this EM anomaly, nearby gold-copper mineralisation and the regional geological structures, which we aim to confirm through follow-up exploration."

### \*\*\*ENDS\*\*\*

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**Figure 1:** Australian Mines' Foothills prospect is situated 15 kilometres from the town of Mt Magnet and approximately 450 kilometres northeast of Perth, Western Australia.



**Figure 2:** The moving loop electromagnetic (EM) survey at the Foothills prospect successfully identified a buried bedrock conductor. This conductor, highlighted in orange/red in this image, is located at the approximate intersection of the Foothills Shear and Big Head Fault, and approximately 150 metres southwest of copper oxide mineralisation. Follow-up drilling and a down-hole EM survey are proposed for this target.





Australian Mines (ASX: AUZ) is an Australian-listed resource company targeting gold and base metals deposits. The company is currently acquiring an interest in two key assets in Western Australia, which have demonstrated a potential to host mineralisation.

#### Marymia Copper-Gold-Nickel Project (Agreement to earn up to 80%)

Australian Mines recently signed a Heads of Agreement with Riedel Resources covering the Marymia copper-gold-nickel project, located 55 kilometres northeast and along strike of Sandfire Resources' world class DeGrussa copper-gold mine.

In addition to targeting VMS-style copper-gold mineralisation, Australian Mines will also be testing for nickel sulphide mineralisation across the Marymia project as historic drilling of the oxide zone has returned encouraging results including 8m @ 1.05% Ni from 16m, 4m @ 1.07% Ni from 28m, and 13m @ 0.74% Ni from 28m. (AUZ release: 30 April 2014).

Under the terms of the Agreement announced on 30 April 2014, Australian Mines may acquire a 51% interest in the Marymia project by making a cash payment to Riedel Resources of \$250,000 by 30 October 2014 and spending \$1 million on exploration within an initial two year period. Following the acquisition of the initial 51% Australian Mines may elect to acquire an additional 29% interest (taking the total to 80%) in the project by spending a further \$2 million on exploration within a further 36 month period.

#### Foothills Gold and Copper Project (Farm-In Agreement to earn up to 80%)

In March 2014, Australian Mines entered into a Farm-In and Joint Venture Agreement with Mount Magnet South for the Jumbulyer tenements near Mt Magnet. Included within this tenement package is the advanced Foothills prospect.

Historic scout drilling at Foothills had defined a zone of gold mineralisation extending over 100 metres and remaining open both along strike and at depth. Results returned from this drilling included 16m @ 6.6 g/t Au from 9m, 10m @ 3.3 g/t Au from 20m and 14m @ 2.6 g/t Au from 38m (AUZ release: 7 March 2014).

The Foothills prospect also appears to be an emerging copper target with historic drilling intersecting 19m @ 1.3 % Cu from 1m (AUZ release: 7 March 2014).

Under the joint venture agreement, Australian Mines may acquire a 60% interest in the project by spending \$1 million on exploration within an initial two year period. On expending \$1 million, Australian Mines may acquire an additional 20% interest in the project (for a total of 80%) by spending a further \$2 million on exploration within 48 months of the completion of the initial 60% acquisition (AUZ release: 7 March 2014).





### JORC Code, 2012 Edition

#### Section 1 Sampling Techniques and Data Criteria **JORC Code explanation** Commentary Outer-Rim Exploration Services completed a Nature and quality of sampling (e.g. cut Sampling ground-based moving loop electromagnetic channels, random chips, or specific specialised techniques survey over the Foothills gold and copper industry standard measurement tools prospect on behalf of Australian Mines in April appropriate to the minerals under investigation, 2014. such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should The transmitters for this geophysical survey were not be taken as limiting the broad meaning of 200 metre by 200 metre single turn loops sampling. (decreasing to 100 metre by 100 metre loops for the in-fill survey) with a SMARTem 24 system Include reference to measures taken to ensure used as the receiver. sample representivity and the appropriate calibration of any measurement tools or systems The line spacing for this survey was 100 to 200 used metres. The along line station spacing for the initial survey was 100 metres. This station spacing Aspects of the determination of mineralisation tightened to 50 metres for the in-fill survey lines. that are Material to the Public Report. At least two readings were acquired at each In cases where 'industry standard' work has station in order to ensure data repeatability. been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 Quality assurance and quality control (QA/QC) of m samples from which 3 kg was pulverised to the electromagnetic data was independently produce a 30 g charge for fire assay'). In other verified by Southern Geoscience Consultants in cases more explanation may be required, such Perth. as where there is coarse gold that has inherent sampling problems. Unusual commodities or Assay results related to historic drilling were mineralisation types (e.g. submarine nodules) sourced from ASX announcements released by may warrant disclosure of detailed information. Mount Magnet South NL (ASX code: MUM) on 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012. Australian Mines is unable to comment on the representivity and appropriate calibration of the analytical tools and analysis used during Mount Magnet South's previous drill programs. In their announcement of 21 November 2012, Mount Magnet South stated that all sampling complied with their quality assurance / quality control (QA/QC) program.



Drilling	Drill type (e.g. core, reverse circulation, open-	
techniques	nole nammer, 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	2
	oriented and if so, by what method, etc.).	

The historic Mount Magnet South drilling referenced in this report was reverse circulation. (Sourced from ASX announcements released by Mount Magnet South on 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012).

Drill sample recovery

- Method of recording and assessing core and chip sample recoveries and results assessed.
  - Measures taken to maximise sample recovery and ensure representative nature of the samples.
  - 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.
- Australian Mines is unable to comment on the method of recording and assessing drill chips, and sample recoveries from historic drilling at Foothills (P58/1281).

Based on Mount Magnet South's announcements of 21 November 2012 and 7 December 2012, it is assumed that the historic drill samples referenced in this report were taken at one metre intervals.

No records of sample recoveries were identified in previous reports and it is not possible to determine if a relationship exists between recovery and grade.

#### Logging

 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.

- Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.
- The total length and percentage of the relevant intersections logged.

• Historic drill chips at Foothills were geologically logged at one metre intervals.

Drill chips were not logged to any geotechnical standard and the data is insufficient to support Mineral Resource estimation at this stage.

Logging of reverse circulation drill chips is considered to be semi-quantitative given the nature of rock chip fragments and the inability to obtain detailed geological information.

From Mount Magnet South's historic reporting, 100% of the reverse circulation drill chips were logged.



Sub-sampling techniques and sample preparation

- If core, whether cut or sawn and whether quarter, half or all core taken.
- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
- For all sample types, the nature, quality and appropriateness of the sample preparation technique.
- Quality control procedures adopted for all subsampling stages to maximise representivity of samples.
- 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.
- Whether sample sizes are appropriate to the grain size of the material being sampled.

 Australian Mines is unable to comment on the manner in which historic drill chips were sampled, or the preparation techniques applied during collection.

Australian Mines is unable to comment on quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.

Australian Mines is unable to comment if field duplicates were collected, or whether sample sizes were appropriate to the grain size of the material being sampled.

Quality of assay data and laboratory tests

- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
- 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.
- 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.

 The survey parameters and geophysical equipment used by Outer-Rim Exploration Services for the moving loop electromagnetic survey at Foothills includes:

#### Survey Parameters

Configuration: in-loop Survey direction: east- west Station spacing: 100 metres (first-pass) 50 metres (in-fill lines)

#### Receiver

Receiver: SMARTem 24 dB/dt sensor: TRC-3 Component: X,Y,Z

### Transmitter

Transmitter: Geonics Transmitter loop: 200 metres (first pass) 100 metres (in-fill lines) Transmitter frequency: 1 Hertz

Transmitter current: 32.0 - 47.2 Amps

At least two readings were acquired at each station in order to ensure data repeatability.

The moving loop system is fully calibrated and daily tests were carried out to ensure data quality.



Australian Mines is unable to comment on the quality, nature and appropriateness of the assaying and laboratory procedures used by previous explorer Mount Magnet South during their drill programs.

#### Verification of sampling and assaying

- The verification of significant intersections by either independent or alternative company personnel.
- The use of twinned holes.
- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
- Discuss any adjustment to assay data.
- All primary analytical data acquired by Outer-Rim Exploration Services during the moving loop electromagnetic survey were recorded digitally and sent in electronic format to Southern Geoscience Consultants in Perth for independent quality control and evaluation.
- Australian Mines is unable to comment on the documentation, data entry procedures and data storage protocols used by the previous explorer, Mount Magnet South during their drilling programs.

No twinned hole drilling is proposed by Australian Mines at this stage.

Only historic assay data released by Mount Magnet South in their ASX announcements of 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012 have been used by Australian Mines. No adjustments have been made to historic assay values.

# Location of data points

- 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.
- Specification of the grid system used.
- Quality and adequacy of topographic control.
- The data points of Outer-Rim Exploration Services' moving loop electromagnetic survey were located using standard GPS positioning.

Drill hole collar locations were recorded using handheld Garmin GPS.

The expected accuracy is +/- 5 metres for easting and northings and 10 metres for elevation coordinates. Elevation values were in AHD.

The grid system used is Map Grid of Australia (MGA) GDA94 Zone 50.



Data spacing and distribution  Data spacing for reporting of Exploration Results.

- 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.
- Whether sample compositing has been applied.
- The line spacing for the moving loop electromagnetic survey was 100 to 200 metres. The along line station spacing for the initial survey was 100 metres. This station spacing tightened to 50 metres for the in-fill survey lines.
- Historic drill hole spacing within the Foothills prospect is approximately 20 metres along a series of short east-west and northeast-southwest orientated lines.

Reverse circulation holes were typically drilled at an angle (or dip) between 55 and 65 degrees. Drill hole 12FHRC003 was drilled at an angle of 80 degrees.

Historic drill data is not being used for estimating a Mineral Resource or modelling of grade at this stage in exploration.

Based on the information contained within Mount Magnet South's announcements of 21 November 2012 and 7 December 2012, it is assumed that no sample composting was applied to the historic drill samples.

#### Orientation of data in relation to geological structure

- Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.
- 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.
- Australian Mines is targeting shear-hosted Archaean gold and copper mineralisation at Foothills.

Two geological shears / faults have been interpreted to transect the Foothills tenement of P58/1281; namely, the northwest-trending Foothills Shear and the northeast-trending Big Head Fault.

The two main orientations of the historic drilling were designed to intersect these two geological structures at right angles in an attempt to minimise the risk of biased sampling.

The orientation of the drilling is deemed sufficient at this stage of exploration.



Sample security	•	The measures taken to ensure sample security.	•	Australian Mines is unable to comment on the chain of custody for historic drill hole sampling.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	All data acquired from the Foothills moving loop electromagnetic survey was independently reviewed by an experienced geophysicist at Southern Geoscience Consultants.
			•	No independent audit of the historic drilling assays has been completed to date.



impediments to exploration known to exist at the

time of writing.

## 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>The Foothills gold and copper prospect is located within the Western Australian prospecting licence of P58/1281. A mining lease application (M38/359) has been submitted by the registered owner of this tenement, Mount Magnet South NL, under Section 49 of the Western Australian Mining Act 1978. Conversion of this prospecting licence to a mining lease is currently pending.</li> <li>On 7 March 2014, Australian Mines announced it had entered into a Farm-In and Joint venture Agreement with Mount Magnet South (ASX code: MUM) in relation to the Jumbulyer project. Prospecting licence P58/1281 is one of 31 granted and pending tenements covered under this Agreement.</li> <li>Prospecting licence P58/1281 lies within the Yoweragabbie Pastoral Lease and is wholly contained within the Native Title Claim boundaries of the Badimia Traditional Owners (WC1996/098).</li> <li>Exploration activities on P58/1281 are permitted under an agreement dated 22 January 2007 between Mount Magnet South and the Yamatij Marlpa Barna Baba Maaja Aboriginal Corporation as agent for the Badimia. Australian Mines is permitted to operate under this agreement as the company is joint venturing with Mount Magnet South on this project.</li> </ul>
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Australian Mines Limitea
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Exploration done by other parties	•	Acknowledgment and appraisal of exploration by other parties.	•	<ul> <li>Previous exploration at Foothills (P58/1281) by Australian Mines' joint venture partner, Mount Magnet South has returned encouraging gold and copper intersections from reverse circulation drilling.</li> <li>Announcements outlining these historic drill results were released by Mount Magnet South on 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012.</li> <li>No previous ground geophysical surveys are known to have been conducted over the Foothills gold and copper prospect.</li> </ul>
Geology	•	Deposit type, geological setting and style of mineralisation.	•	The targeted deposit style at Foothills is shear- hosted Archaean gold and copper mineralisation. The Foothills prospect is located on the southern section of the Mount Magnet Archaean greenstone belt.
Drill hole Information	•	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. 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.		The moving loop electromagnetic survey described in this report is Australian Mines' maiden exploration activity at Foothills. Summaries of historic exploration results, including a tabulation of the Material drill holes for the project are outlined in the ASX announcements released by the previous explorer Mount Magnet South on 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012.



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>Based on the information contained within Mount Magnet South's announcement of 21 November 2012 and 7 December 2012, it is assumed that the mean grades of the historic drill results referred to in this report have been calculated using a 0.5 g/t gold lower cut-off grade, no upper cut-off grade and a maximum internal waste of four metres.</li> <li>No metal equivalents have been used in this report.</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>	<ul> <li>There is insufficient understanding of the bedrock geology at present to determine the true thickness of the reported drill intersections.</li> <li>The intersections included in this report are down hole lengths. The true widths of these intersections are not known.</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>	Appropriate maps are included in the body of this report.
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>	<ul> <li>Comprehensive reports of the historic Exploration Results relied on by Australian Mines in this report are provided in Mount Magnet South's ASX announcements of 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012.</li> <li>All Exploration Results acquired by Australian Mines at Foothills, being the results of the moving loop electromagnetic survey, have been included in this report.</li> </ul>

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Other substantive exploration data	<ul> <li>Other exploration data, it 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.</li> </ul>	<ul> <li>The moving toop electromagnetic survey referred to in this report is the first exploration activity conducted by Australian Mines within the Foothills tenement of P598/1281.</li> <li>Historic exploration has been undertaken at this location by Mount Magnet South with the results summarised in their ASX announcements of 19 September 2012, 21 November 2012, 27 November 2012 and 7 December 2012.</li> </ul>
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• Further work may include a reverse circulation drill program to test the nature of the interpreted buried conductor at Foothills.
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not</li> </ul>	Australian Mines may seek to case any drill hole with PVC piping to facilitate a down hole electromagnetic survey to be conducted at this gold and copper target.

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

commercially sensitive.

Information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Benjamin Bell who is a member of the Australian Institute of Geoscientists. Mr Bell is a full-time employee and Managing Director of Australian Mines Limited. Mr Bell has sufficient experience that 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 Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.