



## ASX Announcement

### Aus Tin Mining Limited (ASX:ANW)

6 October 2017

## Exploration and Operations Update

### Highlights

- First sales of tin concentrate from Granville Tin Project
- Taronga Stage 1 Project development application anticipated to be considered in November 2017
- On-going field work undertaken at Mt Cobalt
- Exploration Licences granted enabling resumption of lithium exploration at Torrington

The Directors of Aus Tin Mining Limited (the **Company**) are pleased to provide an exploration and operations update for its various projects, with additional details to be provided in the September quarterly report due at the end of October.

### **Granville Tin Project**

The Company announced earlier today its first sale of tin concentrate from the Granville Tin Project under its off-take agreement with Traxys Europe (**Traxys**). The shipment, which was dispatched from Zeehan late yesterday, comprised approximately five tonnes of high grade tin concentrate assaying 62.7%Sn and will be used to pilot the logistics chain and commercial arrangements under the Traxys off-take agreement, and provide the receiving smelter with a “trial” parcel of tin concentrate ahead of future shipments.



**Figure 1 - Shipment Number 1 sold to Traxys Europe S.A**

During the last quarter the Company continued to operate under its existing user rights (Level 1) whilst completing outstanding documentation for the Level 2 operations as approved by the West Coast Council on 20<sup>th</sup> June 2017. Wet weather conditions have hampered the ability to commence physical construction on key Level 2 infrastructure, notably the new tailings storage facility and waste rock emplacements. A program of works at the Granville Processing Plant is on-going and during the quarter included the installation of additional gravity equipment and refurbishment of a rolls crusher.

## Taronga and Torrington Tin Project (NSW)

During the last quarter the Company completed a number of studies to address requests for additional information in relation to the Development Application and Environmental Impact Statement (EIS) for the Taronga Stage 1 Development. These studies have been submitted to the Glen Innes Severn Council (GISC) and subject to no further work being required, the GISC have indicated the Development Application may be considered at its November 2017 council meeting.

During the quarter the Company was granted EL 8637 and EL 8639 for Group 2 & 3 minerals exploration which substantially cover EL 7800 and EL 8407 for Group 1 minerals also held by the Company. The Company has previously reported the identification of lithium mineralisation at the Taronga and Torrington Tin Projects, specifically the occurrence of zinnwaldite. Zinnwaldite is a lithium silicate mineral in the mica group, and the Company considered it prudent to secure exploration rights for mica (Group 2) before progressing its lithium exploration program.

## Mt Cobalt (Qld)

During the quarter the Company continued a program of field work at Mt Cobalt, including a trial of a Shaw drill at the southern end of the 800m target zone but which was abandoned due to a slow penetration rate and low core recovery. Alternative drills are being evaluated.

Assay results from rock chips taken during previous field mapping were received with results greater than 0.1% Co provided below. Also refer Appendix 1

**Table 1 – Results of rock chip sample at Mt Cobalt**

Sample ID	Location	Co(ppm)	Cu (ppm)	Ni(ppm)	Mn (ppm)
AO15/DR8769	427572E; 7102311N	4970	801	4980	83200
AO16/DR8770	427572E; 7102310N	2620	380	9430	19800
AO17/DR8771	427572E; 7102333N	4590	545	4960	33000
AO33/DR8787	427659E; 7102427N	1260	138	3780	10250
AO37/DR8791	427668E; 7102408N	1480	232	2600	8170

## Commodity Prices

The forecast for both tin and cobalt prices remain positive underpinned by growing demand and supply constraints. Year to date the US Dollar tin price has ranged between US\$18,760/t and US\$22,225/t and overnight traded above US\$21,000/t on the back of declining LME stocks (1,970 tonnes). The US Dollar cobalt price continues to perform strongly rising 117 percent during the past 12 month to US\$59,000/t. Both commodities are integral to energy generation and storage applications.



**Figure 2 – 12 month US Dollar tin and cobalt prices**



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Electronic copies and more information are available on the Company website: [www.austinmining.com.au](http://www.austinmining.com.au)

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**About Aus Tin Mining (the Company)**

Aus Tin Mining Limited (ASX: ANW) has a vision to become a major Australian tin producer. The Company has recommenced production at the high grade Granville Tin Project located north of Zeehan (TAS) and the Company intends to expand the Granville Tin Project and undertake exploration to extend the Life of Mine. The Company is also developing the world class Taronga Tin Project located near Emmaville (NSW). The Company defined and announced its maiden JORC compliant resource for the Taronga Tin Project in late 2013 and test work and exploration activities on site have revealed potential credits for copper, silver, tungsten, molybdenum, lithium and rubidium. Highly prospective regional targets have also been established within the Company's broader tenement footprint, and within trucking distance of the proposed processing site at Taronga. Plans for a staged development of the Taronga Tin Project are in formation, together with the associated approvals processes.

The Company also maintains an active exploration program. The Company holds a portfolio of exploration licenses prospective for nickel, cobalt and copper (Kilkivan QLD); and tin, copper, silver, tungsten and lithium (Torrington NSW).

**Forward Looking Statement**

This announcement may contain certain statements and projections provided by or on behalf of Aus Tin Mining Limited (Aus Tin Mining) with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Aus Tin Mining. Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with exploration and/or mining which may be beyond the control of Aus Tin Mining which could cause actual results or trends to differ materially, including but not limited to price fluctuations, exploration results, reserve and resource estimation, environmental risks, physical risks, legislative and regulatory changes, political risks, project delay or advancement, ability to meet funding requirements, factors relating to property title, native title and aboriginal heritage issues, dependence on key personnel, share price volatility, approvals and cost estimates. Accordingly, there can be no assurance that such statements and projections will be realised. Aus Tin Mining makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

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Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in Aus Tin Mining Limited.

**COMPETENT PERSON STATEMENT**

The information in this presentation that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Nicholas Mather B.Sc (Hons) Geol., who is a Member of The Australian Institute of Mining and Metallurgy. Mr Mather is employed by Samuel Capital Pty Ltd, which provides certain consultancy services including the provision of Mr Mather as a Director of Aus Tin Mining. Mr Mather has more than five years experience which is relevant to the style of mineralisation and type of deposit being reported 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, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person(s) as to the form and context in which it appears.

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## Appendix 1

# 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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>These are continuous chip samples from rock exposures and in some cases floaters.</li> <li>The area has few exposed outcrops except close to old mine excavations. The samples have been selected on the basis of their grade being greater than 0.1% in order to demonstrate that such grades are present. It is assumed that similar grades can be found by drilling under adjacent scree cover.</li> <li>All assays have been by accredited laboratories, not by portable XRF or other in house techniques.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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>	NA
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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> </ul>	NA

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	
<b>Logging</b>	<ul style="list-style-type: none"> <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>	NA
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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>	NA
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All rocks were assayed by an accredited laboratory using aqua regia and MS-ICP. The samples greater than 50,000ppm Co and/or 10,000ppm Ni were reassayed by ALS using a specific ore grade technique OG-46</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Comparable grades have been previously reported by the Company</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Refer Table 1</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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>	NA
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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>	NA.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were bagged and tagged and shipped to the assay laboratory by independent third party transport.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The samples were taken by qualified personnel during field reconnaissance conducted in April 2017</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure</b>	<ul style="list-style-type: none"> <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,</li> </ul>	<p>Samples were taken from EPM 19366, wholly owned by Aus Tin Ltd.</p> <p>The permit is currently in good standing, and the site is not affected by landowner or environmental impediments.</p>

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<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>status</b>	<p>wilderness or national park and environmental settings.</p> <ul style="list-style-type: none"> <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>	
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>• Previous work was done and reported by DGR Global Ltd.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The mineralisation is classified as a lode or shear mineralised system hosting cobalt, copper, nickel, and gold . The better grades are expected to be controlled by discrete structures, and enrichments related to weathering..</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	NA
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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 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>	NA



<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	NA
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	Only results greater than 0.1%Co are reported
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	Follow-up drilling will be undertaken to test the exploration target.