

ASX ANNOUNCEMENT

Liontown defines 10 priority lithium targets at the Bynoe Lithium-Tantalum Project (Northern Territory) ahead of maiden drilling program

Highlights

- Priority targets include the >390m long Hang Gong pegmatite.
- Strongly weathered spodumene mineralisation identified on old mine dumps.
- Additional tenement acquired over northern part of Bynoe pegmatite field increasing the total project area to ~88km².
- RC drilling program scheduled to commence in May 2016.

Liontown Resources Limited (ASX: LTR) is pleased to advise that it has made strong progress with initial exploration work at the Bynoe Lithium-Tantalum Project in the Northern Territory identifying 10 priority targets ahead of planned maiden drilling program in May 2016.

Liontown's **Bynoe Project** includes 63 of the rare metal pegmatites documented by the NT Geological Survey in the region (**Figure 1**). A comprehensive review of historic data has identified 10 pegmatites (**Figure 2**) as being priority RC drill targets based on size potential and/or presence of lithium minerals or anomalism.

Assays for lithium in previous work, which dates from the late 1970s, are limited and restricted to rock chip sampling, soil sampling and shallow auger sampling completed since the year 2000. (Importantly all exploration work prior to Liontown acquiring the project targeted tin and tantalum mineralisation).

All of the targets are open along strike where they are obscured by transported cover. The targets include:

- the Hang Gong pegmatite which is >390m long, up to 60m wide at surface and where strongly weathered spodumene (**Figure 3**) has been observed on old mine dumps; and
- the Sandras pegmatite which is >300m long, up to 40m wide and coincident with a 1km long, strong lithium-in-soils anomaly (**Figure 4**).

A Mine Management Plan (MMP) seeking authority for Liontown to undertake an initial 20-25 hole, 2,000-2,500m RC drilling program has been submitted to the NT Department of Mines and Energy and, assuming timely processing by the Government, drilling is scheduled to commence in May 2016.

In addition to defining priority drill targets, Liontown has acquired a third tenement (EL29699) covering the northern part of the Bynoe pegmatite field (**Figure 1**). The 8km² EL was purchased from private group Au Exploration Pty Ltd for \$5,000 cash and includes an untested pegmatite which is more than 350m long.



DAVID RICHARDS
Managing Director

14 April 2016

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The Information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company.

Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken 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 Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

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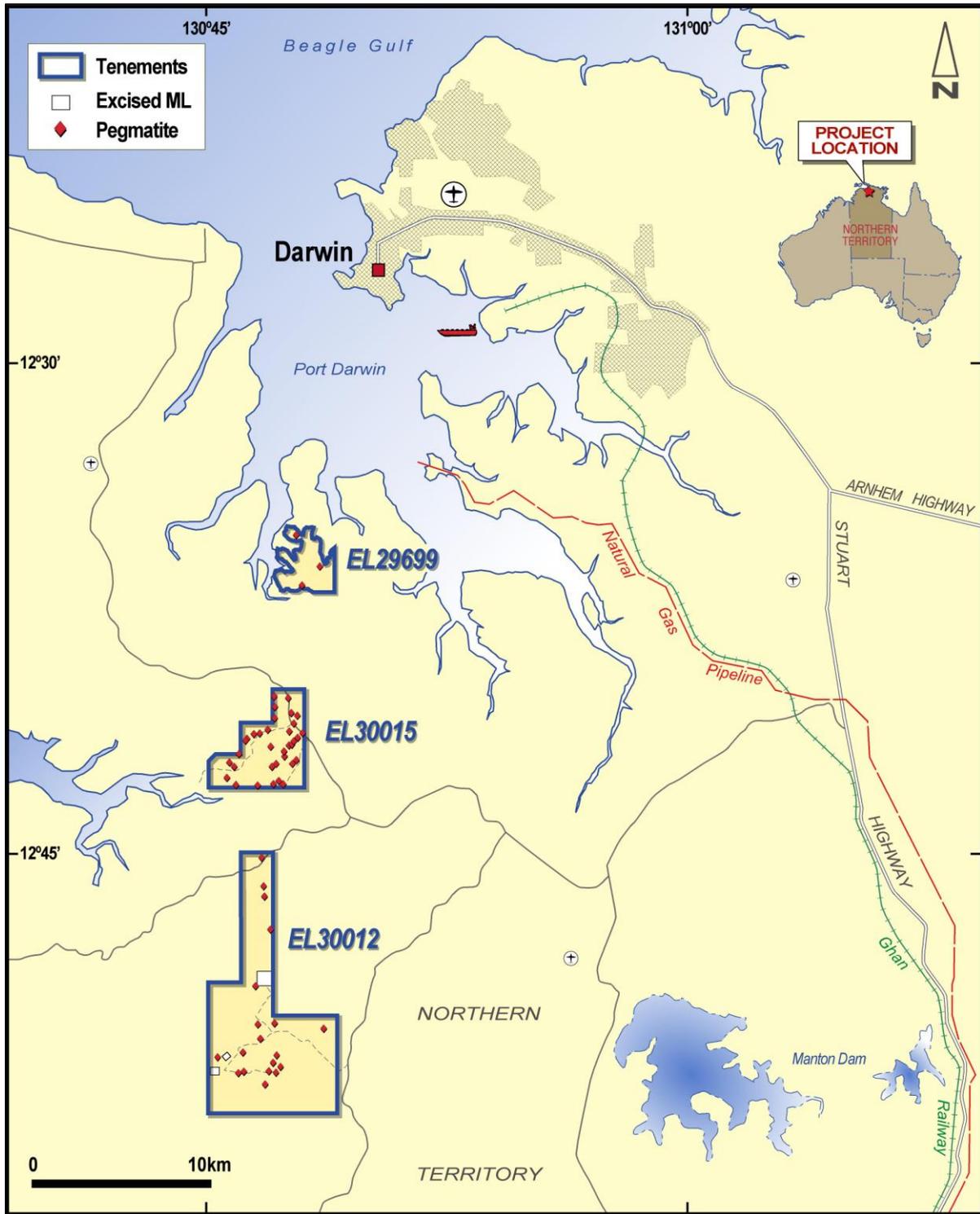


Figure 1: Bynoe Project – Location and Tenure Plan

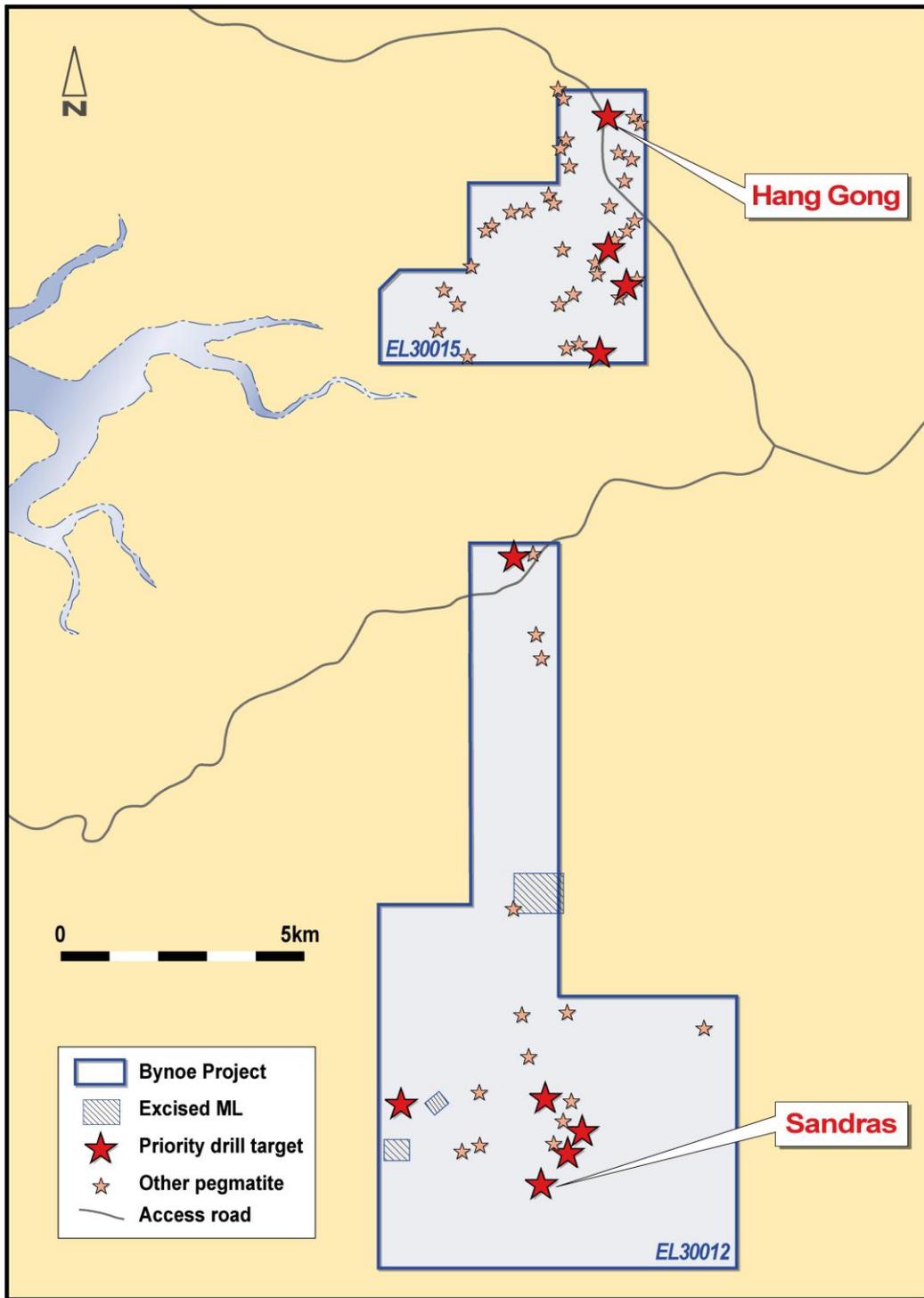


Figure 2: Bynoe Project – Drill Targets

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Figure 3: Bynoe Project/ Hang Gong Prospect – Photo from showing weathered spodumene in sample from old mine dump

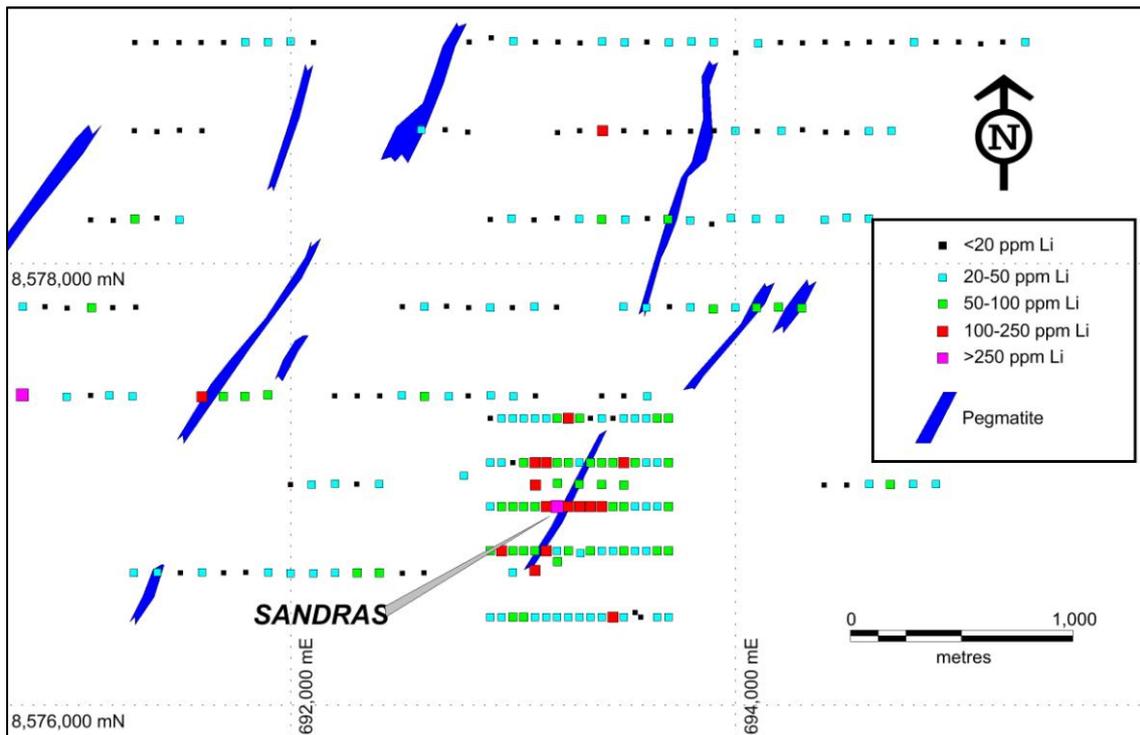


Figure 4: Bynoe Project/Sandras Prospect – Plan showing historic lithium-in-soil geochemistry

APPENDIX 1 - BYNOE - JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	Rock samples comprise multiple chips considered to be representative of the horizon or outcrop being sampled. Samples submitted for assay typically weigh 2-3kg. Historic sampling and drilling techniques not described in detail.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i>	Not applicable.
Drilling techniques	<i>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).</i>	No drilling completed by Liontown. RC drilling techniques completed by Greenbushes in 1995 not documented
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	See above
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	See above.
	<i>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.</i>	See above
Logging	<i>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.</i>	Not applicable.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Greenbushes logging appears qualitative
	<i>The total length and percentage of the relevant intersections logged.</i>	Greenbushes appears to have logged entire holes
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	See above.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	See above.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	See above.
	<i>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.</i>	See above
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	See above

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Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Greenbushes used XRF and ICP techniques to assay for Ta, Nb and Sn but no other details provided
	<i>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.</i>	None used
	<i>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</i>	See above.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	See above
	<i>The use of twinned holes.</i>	See above
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Historic data compiled into Access Database for processing by a number of software packages (e.g. MapInfo, Micomine).
	<i>Discuss any adjustment to assay data.</i>	None required
Location of data points	<i>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.</i>	Not applicable.
	<i>Specification of the grid system used</i>	Recent data located using GDA94 Zone52 Historic data located using MGA84 Zone 52 and local grids.
	<i>Quality and adequacy of topographic control.</i>	Recent data located using hand held GPS Techniques used to locate 1995 drilling not described
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Not applicable.
	<i>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.</i>	Not applicable.
	<i>Whether sample compositing has been applied.</i>	None undertaken.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable
	<i>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.</i>	Not applicable.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples collected by Liontown personnel couriered to ALS Mt Isa sample preparation facility by reputable freight company
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	None completed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	The Bynoe Project comprises 3 separate, granted exploration licences (EL29699, EL30012 and EL30015) and 2 smaller tenements (MLN16 and EMP28651) which are located entirely within EL30015. The combined tenement package covers a total area of ~88km ² area and is located 20-50km SSW of Darwin in the Northern Territory. EL30012 and 30015 are subject to an Option Agreement with private company Orema Pty Ltd. Liontown may earn 100% equity

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		<p>in the tenements by:</p> <ul style="list-style-type: none"> • Paying A\$10,000 cash on signing of the Agreement (completed); • Paying A\$100,000 anytime within 19months of the execution date of the Agreement <p>MLN16 and EMP28651 were purchased from A & SF Maddalozzo Pty Ltd for \$75,000 cash plus transaction costs such as stamp duty. Maddalozzo will continue to have access to EMP28651 to collect material from surface dumps to supply gardening businesses in Darwin, conditional on not interfering with Liontown's activities.</p> <p>EL29699 was purchased from Au Exploration Pty Ltd for \$5,000 cash plus transaction costs.</p> <p>There are no other material issues affecting the tenements</p>
	<p><i>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.</i></p>	<p>All tenements are in good standing.</p>
<p>Exploration done by other parties</p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>There has been multiple, sporadic but intensive periods of prospecting, exploration and small scale mining within the Bynoe Project area since the late 1880s. All previous work has focussed on tin and tantalum with no systematic assaying for lithium.</p> <p>Modern exploration and/or small scale mining has been carried out by Greenbushes Tin (1979 -1996), North Queensland Resources (1989-1990), Australian Coal and Gold Holdings (1982-1987), Julia Corporation (2000), Talison Minerals (2004-2008) and Arnhem Resources Pty Ltd (2005-2008/EL246390).</p> <p>Exploration work completed included compilation of historical data; acquisition of landsat imagery, aerial photography and digital topography; soil and rock chip geochemistry; geological mapping; trenching; surveying, shallow RAB/auger drilling and limited RC drilling.</p> <p>In 1987, Greenbushes constructed a pilot plant to treat Sn/Ta ore from several sources but this shut down soon after due to decreasing commodity prices. A number of other parties trialed small scale mining without success.</p> <p>Approximately 55 Sn/Ta bearing pegmatites have been defined; however, it is possible that some of these pegmatites represent separate outcrops of the same body exposed sporadically along and across strike.</p> <p>All previous work has focussed on either alluvial/elluvial material or the upper, weathered portion of the bedrock which would be suitable for free digging. Depth of weathering is approximately 20m depth and any spodumene would be totally altered to kaolinite with the lithium completely depleted.</p> <p>Historic exploration reports have been reviewed and results summarised; however, the digital capture and compilation of data collected by previous explorers and miners is still in progress.</p>
<p>Geology</p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The Bynoe Project is located in the western part of the early Proterozoic Pine Creek Geosyncline where it comprises a sequence of greenschist metamorphic grade sandstones and siltstones with occasional lenses of conglomerate. Multiple tin and tantalum-bearing pegmatites have been emplaced into the sediments within the contact aureole of the Two Sisters Granite (located to the south and west), a paleoproterozoic intrusion which is interpreted to be the source of the rare metals.</p> <p>The pegmatites typically comprise a border zone of fine grained muscovite and quartz followed inward by a wall zone of coarse grained muscovite and quartz which is in turn followed by an intermediate zone of quartz-feldspar-muscovite. A core zone of massive quartz occurs locally. The intermediate zone contains the bulk of the tin and tantalite mineralisation and is also where the</p>

Criteria	JORC Code explanation	Commentary
		<p>lithium is expected to be hosted.</p> <p>The pegmatites are located in a north trending, 15km wide belt.</p> <p>The pegmatites are strongly weathered to 10-20m depth and often poorly exposed with feldspar completely altered to kaolinite.</p> <p>Dimensions of the pegmatites vary in scale from narrow fracture fillings to massive bodies up to 50m wide and >200m long.</p>
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> 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. 	See appendices attached to ASX releases.
Data aggregation methods	<p>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.</p>	See appendices attached to ASX releases.
	<p>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.</p>	Not applicable.
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	Not applicable.
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	Not yet determined.
Diagrams	<p>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.</p>	See Figures in body of report
Balanced reporting	<p>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.</p>	Not applicable.
Other substantive exploration data	<p>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.</p>	All meaningful and material data reported
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p>	<ul style="list-style-type: none"> Ground truthing to validate previous exploration data; Geological mapping and prospect assessment; and RC drilling to test fresh bedrock for primary Li mineralisation