

## ASX ANNOUNCEMENT

# Liontown confirms lithium potential at Lake Percy

*Initial fieldwork defines extensive pegmatite bodies with anomalous lithium values at surface*

### Highlights

- Detailed geological mapping defines large pegmatite bodies over 4.5km strike with surface widths up to 550m.
- Soil sampling returns anomalous lithium values coincident with the mapped pegmatites.
- Anomalous lithium associated with tantalum, tin and other elements typically hosted by rare metal pegmatites.
- Lake Percy located in the emerging Forresteria Lithium Province ~60km east of the world class Earl Grey lithium discovery being developed by Kidman Resources (ASX:KDR).

Liontown Resources Limited (ASX: LTR) is pleased to advise that it has identified extensive pegmatite bodies associated with strongly anomalous lithium values during initial fieldwork at the Lake Percy Lithium Project located approximately 440km east of Perth, WA (*Figure 1*).

The Lake Percy Project is located in the heart of the emerging Forresteria Lithium Province which includes the Mt Cattlin spodumene mine (currently being commissioned by Galaxy Resources) and the world-class Earl Grey discovery where Kidman Resources has recently completed a resource drill out.

An initial fieldwork campaign by Liontown has defined strongly anomalous lithium values coincident with very large pegmatites at Lake Percy (*Figure 2*) which is located near Poseidon Nickel's Lake Johnson/Maggie Hayes treatment plant.

The fieldwork which comprised detailed geological mapping and soil sampling complemented previous nickel exploration which had only partially defined the pegmatites which are poorly exposed and strongly weathered.

Given the strong weathering it is unlikely that spodumene (lithium pyroxene) will be preserved at the surface; however, Liontown's experience from the Bynoe Project in the NT, where the pegmatites are similarly altered, indicates that soil sampling is an effective tool for identifying primary lithium mineralisation at depth beneath leached bedrock.

Drilling at Bynoe beneath similar soil values has intersected significant widths (>20m) of >1% Li<sub>2</sub>O mineralisation (see ASX release dated 30<sup>th</sup> September 2016).

Liontown is strongly encouraged by the initial results given:

- The presence of known lithium mineralisation in the same greenstone belt approximately 20km to the south (*Figure 1*);
- The large size of the pegmatites which previous nickel drilling indicate locally exceed 100m true width; and
- The Project's location in an emerging lithium province which includes Kidman Resources' Earl Grey discovery approximately 60km to the west.

The Company will undertake further infill soil sampling before designing a maiden drilling program to test for primary lithium mineralisation.

## Liontown Lithium Portfolio

The Lake Percy Project is subject to a Joint Venture Agreement with White Cliff Minerals whereby Liontown can earn 70% equity by sole funding exploration expenditure totaling \$1.75million within a 4 year period.

Liontown has two other active lithium projects which are wholly owned or where the Company has rights to acquire 100%:

- The **Bynoe Lithium Project**, located in the Northern Territory close to Darwin, where a second phase of reverse circulation (RC) drilling totaling ~4,000m is nearing completion. An initial RC drilling program completed in mid-2016 discovered primary lithium mineralisation in a historic pegmatite field which had previously been mined for tin and tantalum. Work by Liontown and other parties in the area has continued to enhance the lithium potential of the region with numerous targets (>50) yet to be tested; and
- The **Kathleen Valley Project**, located in the Eastern Goldfields of Western Australia 680km northeast of Perth, where historical mapping and sampling has defined a large spodumene-bearing pegmatite swarm with high grade lithium (>2%Li<sub>2</sub>O) and tantalum (>250ppm Ta<sub>2</sub>O<sub>5</sub>) values recorded at surface. Individual pegmatite trends have been defined over 1.4km strike with widths up to 30m. There has been no previous testing of the swarm and Liontown is currently working on securing heritage clearances to enable initial drilling to commence.



DAVID RICHARDS  
Managing Director

27th October 2016

*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.*



Figure 1: Lake Percy Project – Location Plan and Regional Geology

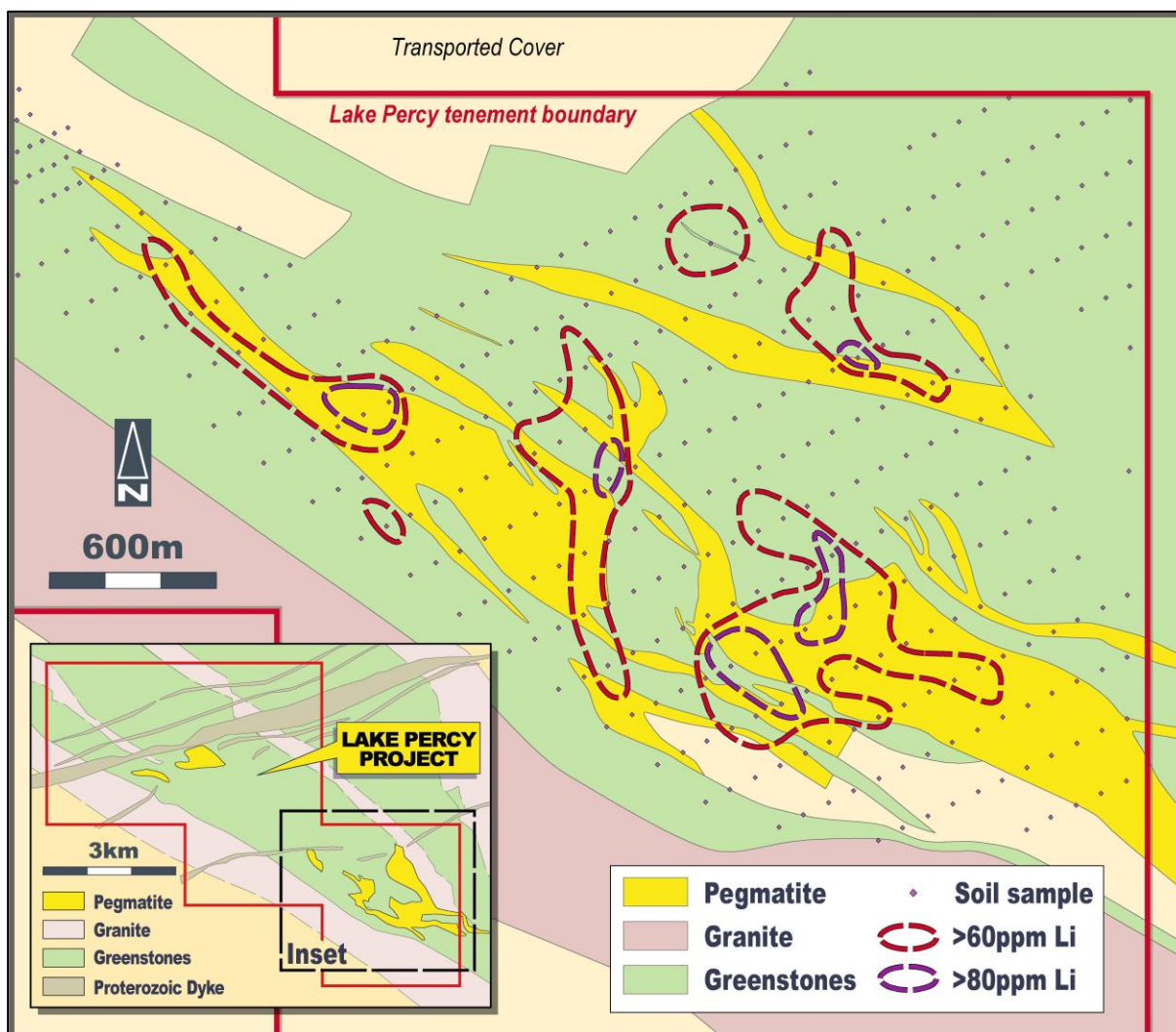


Figure 2: Lake Percy Project – Interpreted geology (based on recent mapping) showing lithium-in-soil anomalism coincident with pegmatites.

## APPENDIX 1 – LAKE PERCY - JORC TABLE 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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 collected from outcrop and spoil from historic trenches and drill holes. 1-2kg samples submitted for assay.  Soil samples comprise ~500g unsieved material which is submitted to lab for pulverising and assaying. Samples collected on 200x100m grid.
	<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>	Sample weights are considered adequate to be representative. Care is taken to avoid selective sampling of specific minerals.
<b>Drilling techniques</b>	<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.  Historic drilling techniques comprise RAB, RC and Core but details poorly documented.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable.
	<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>	Not applicable.
<b>Logging</b>	<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>	Not applicable.
	<i>The total length and percentage of the relevant intersections logged.</i>	Not applicable.
<b>Sub-sampling techniques and sample preparation</b>	<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>	Not applicable.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories; i.e.  Oven drying, jaw crushing and pulverising so that 85% passes - 75microns.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Not applicable.
	<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>	Duplicates collected approximately 1 per 25 samples and statistically compared to ensure  Blanks and standards will be used for drilling programs



Criteria	JORC Code explanation	Commentary
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are industry standard and considered representative
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories.  The assay techniques used are total.
	<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>	Duplicates collected approximately 1 per 25 samples and statistically compared to ensure  Blanks and standards will be used for drilling programs.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable
	<i>The use of twinned holes.</i>	Not applicable
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Access database.  Hard copies are stored in the local office and electronic data is stored on the Perth server. Data is exported from Access for processing by a number of different software packages.  All electronic data is routinely backed up.
	<i>Discuss any adjustment to assay data.</i>	None required
<b>Location of data points</b>	<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>	The grid system used is GDA/MGA94 Zone 51
	<i>Quality and adequacy of topographic control.</i>	Nominal RLs based on regional topographic datasets
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Rock chip sampling variable and dependent on exposure.  Soil samples collected on 200 by 100m grid
	<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.
<b>Orientation of data in relation to geological structure</b>	<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>	Sampling collected perpendicular to pegmatite trends
	<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.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Samples hand delivered to laboratory by Lione town personnel
<b>Audits or reviews</b>	<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
<b>Mineral tenement and land tenure status</b>	<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>	<p>The Lake Percy Project comprises granted exploration licence EL63/1222 which covers an area of ~41km<sup>2</sup> located ~430km east of Perth in Western Australia.</p> <p>The tenement is subject to a Joint Venture Agreement with ASX listed White Cliff Minerals Ltd. Liontown may earn up to 70% equity in the tenement by:</p> <ul style="list-style-type: none"> <li>• Spending \$1,000,000 on exploration within 3 years to earn 51%;</li> <li>• At its election, increase its equity to 70% by spending an additional \$750,000 before the 4<sup>th</sup> anniversary of the JV Agreement; and</li> <li>• Spending \$50,000 before having the right to withdraw from the Joint Venture</li> </ul> <p>There are no other material issues affecting the tenements</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>	The tenement is in good standing.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Previous exploration has largely focused on nickel sulphide mineralisation in the ultramafic units with almost no assaying for lithium or related elements and little attention paid to the pegmatites.</p> <p>Multiple phases of RAB/aircore, RC and diamond core drilling were completed prior to White Cliff Minerals acquiring the tenement. This historic data was collated by Norilsk in 2008 (Wamex item 79004).</p> <p>White Cliff Minerals has held EL63/1222 since 2009 and work has included data collation, desktop studies, aeromagnetic interpretation, moving and fixed loop EM, diamond core drilling, RC drilling, soil sampling and limited rock chip sampling.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The exploration licence 63/1222 covers approximately 10 kilometres of greenstone stratigraphy at the northern end of the Archaean Lake Johnson Greenstone Belt. The Greenstone Belt is bound to the east by the craton scale Koolyanobbing Shear Zone and to the west by granitoid that also intrudes the spine of the greenstone belt.</p> <p>The local stratigraphy includes a basal western high MgO ultramafic unit with an overlying sequence of intercalated mafic volcanic ultramafic flow rocks, magnetic pyroxenites and chert units. The tenement is cut by the regional scale east west trending Bineringie Proterozoic dyke and other smaller scale EWdykes.</p> <p>A number of large, strongly weathered pegmatites units intrude the greenstones.</p>
<b>Drill hole Information</b>	<p><i>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:</i></p> <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>	Not applicable.
<b>Data aggregation methods</b>	<i>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.</i>	Not applicable.

Criteria	JORC Code explanation	Commentary
	<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.
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<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 applicable.
<p><b>Diagrams</b></p>	<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
<p><b>Balanced reporting</b></p>	<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.
<p><b>Other substantive exploration data</b></p>	<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
<p><b>Further work</b></p>	<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"> <li>• Infill soil sampling of Li anomalous areas; and</li> <li>• RC drilling to test fresh bedrock for spodumene mineralisation</li> </ul>