ASX : LTR

ABN 39 118 153 825

ASX ANNOUNCEMENT **5 April 2017**

New High-Grade Lithium Discovery in Tanzania

Spodumene-related lithium trend with grades of up to 3.3% Li_2O and >100ppm Ta_2O_5 defined by rock chip sampling at the Mohanga Project

Highlights

- **Multiple plus 1.5% Li_2O values returned from rock chip sampling at the Tresor prospect with better results including:**
  - ***Sample ID 146948*** ***3.3% Li_2O***
  - ***Sample ID 146951*** ***2.6% Li_2O***
  - ***Sample ID 146953*** ***2.3% Li_2O***
- **A mineralized zone containing multiple pegmatites has been defined over a +500m strike length, a width up to 90m and is open along strike beneath shallow transported cover.**
- **High grade lithium zone up to 30m thick defined over minimum strike length of 150m.**
- **Numerous other potentially mineralized pegmatites mapped on the Project which require follow-up sampling.**
- **Planned exploration activities include additional trenching and soil sampling which will be used to design a maiden drill program.**

Liontown Resources Limited **(ASX: LTR)** is pleased to advise that it has identified high-grade, spodumene-related lithium mineralisation at its **Mohanga Lithium-Tantalum Project** in central Tanzania, East Africa (***Figure 1***).

The anomalous results come from the Tresor prospect, where rock chip sampling has recorded high grade lithium and tantalum assays (***see Appendix 1***) from a pegmatite zone which is interpreted to be up to 90m wide and at least 500m long, with the trend open along strike beneath transported cover (***see Figures 2 and 3***).

The high-grade (>1% Li_2O) lithium zone is up to 30m thick and at least 150m long; however, its full extent is unknown due to limited outcrop.

The spodumene mineralisation was not initially identified in the field due to weathering, poor exposure and relatively fine grain size; however, it has now been confirmed by XRD, microscopic and pathfinder geochemical analyses. No lepidolite or other lithium minerals have been observed in the prospective pegmatite trend.

Numerous pegmatites have been mapped in the Mohanga Project area and the latest results have given Liontown the confidence to progress exploration activities including additional trenching and soil sampling. A maiden drilling program will be designed based on the results of this work.

Liontown Resources Limited, Level 2, 1292 Hay Street, West Perth, Western Australia 6005
T: +618 9322 7431 F: +618 9322 5800 E: info@ltresources.com.au www.ltresources.com.au

In addition to targeting spodumene-related lithium mineralisation, further work will also be undertaken to fully assess the potential of the Mohanga Project to host Archaean greenstone-hosted gold mineralisation similar to that seen in the Lake Victoria Goldfield in northern Tanzania.

Previous soil sampling has recorded up to 120ppb gold at the Halo prospect (***Figure 1***), the source of which has not yet been defined.

The Mohanga Project, which Liontown acquired in late 2015, is located in central Tanzania approximately 40km NNE of the capital Dodoma and 400km WNW of Dar es Salaam (***see Figure 1***).

The Project is in the south eastern part of the Archaean Tanzanian Craton where it comprises a WNW-NW trending sequence of metasediments (quartzite, quartz-feldspar schist and graphitic schist), amphibolite schist and quartz-feldspar gneiss intruded by granite. Historic mapping recorded a number of pegmatite-hosted lithium occurrences - the only ones reported in Tanzania - and there has been no prior modern exploration for strategic or other metals.

The Mohanga Project comprises four tenements 100%-owned by Liontown and a fifth tenement which is subject to an option agreement (Hombolo Option) with a locally-based Tanzanian company (Central Mining Company). Further details of the land status are provided in Appendix 2.

DAVID RICHARDS
Managing Director

5th April 2017

For further information, please contact:

David Richards, Managing Director
Tim Goyder, Chairman
Liontown Resources Limited
Telephone +61 8 9322 7431

For media inquiries, please contact:

Nicholas Read
Read Corporate
Telephone: +61 8 9388 1474

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.

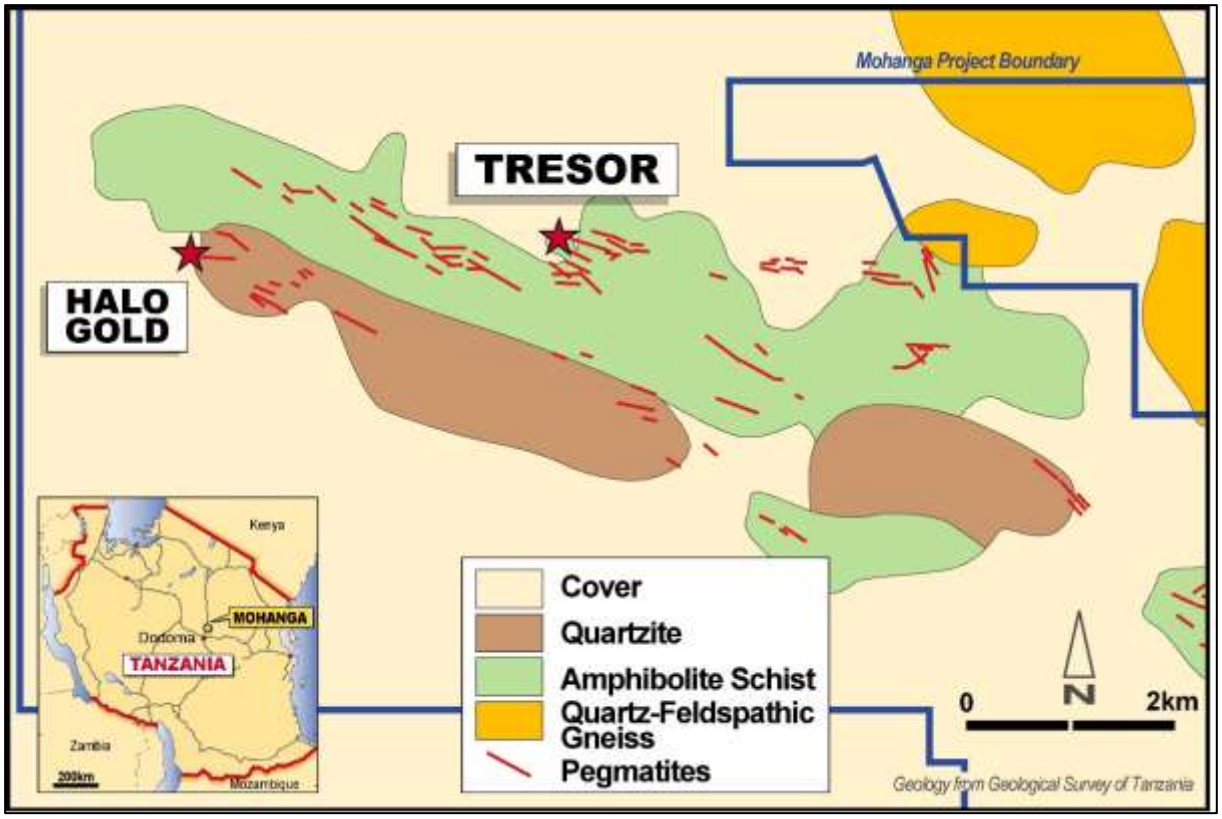

Figure 1: Mohanga Project – Geology and Location Plan

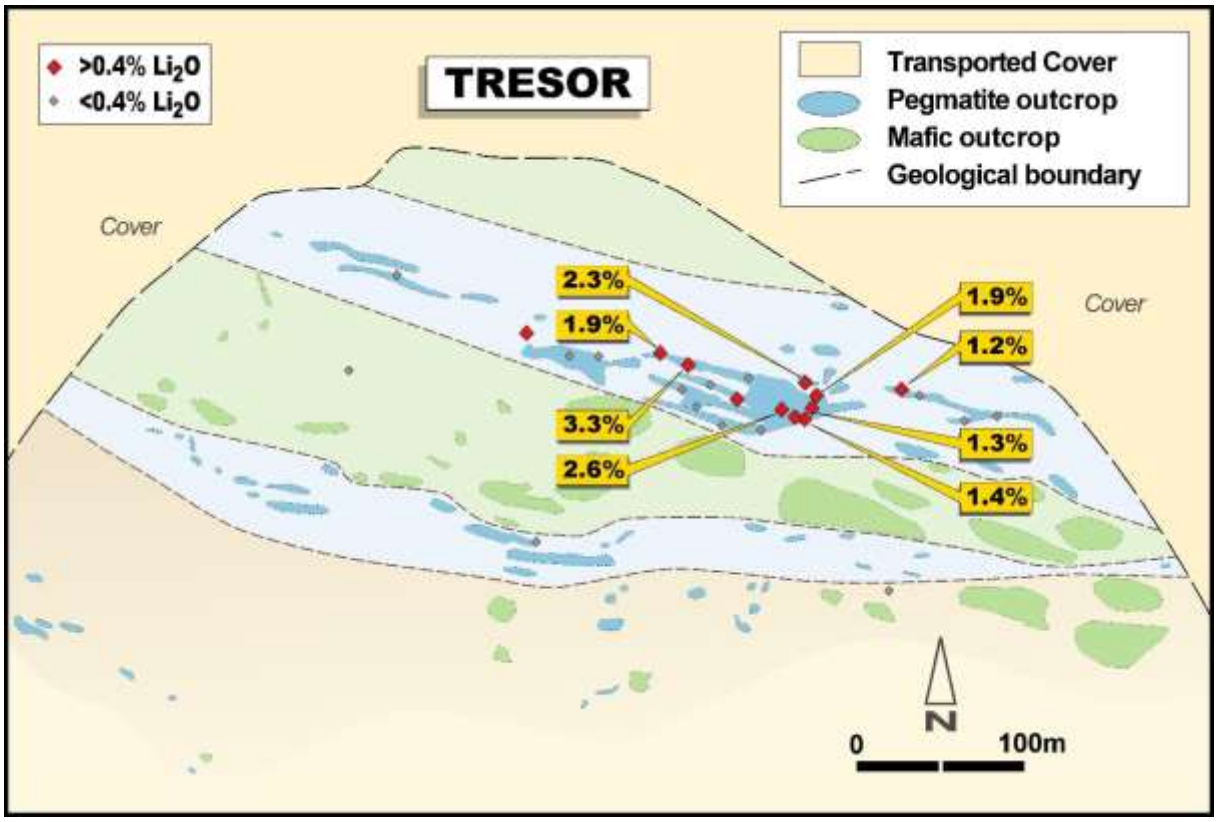

Figure 2: Mohanga Project – Tresor prospect showing local geology and better lithium in rock chip results.

Liontown Resources Limited, Level 2, 1292 Hay Street, West Perth, Western Australia 6005
T: +618 9322 7431 F: +618 9322 5800 E: info@ltresources.com.au www.ltresources.com.au

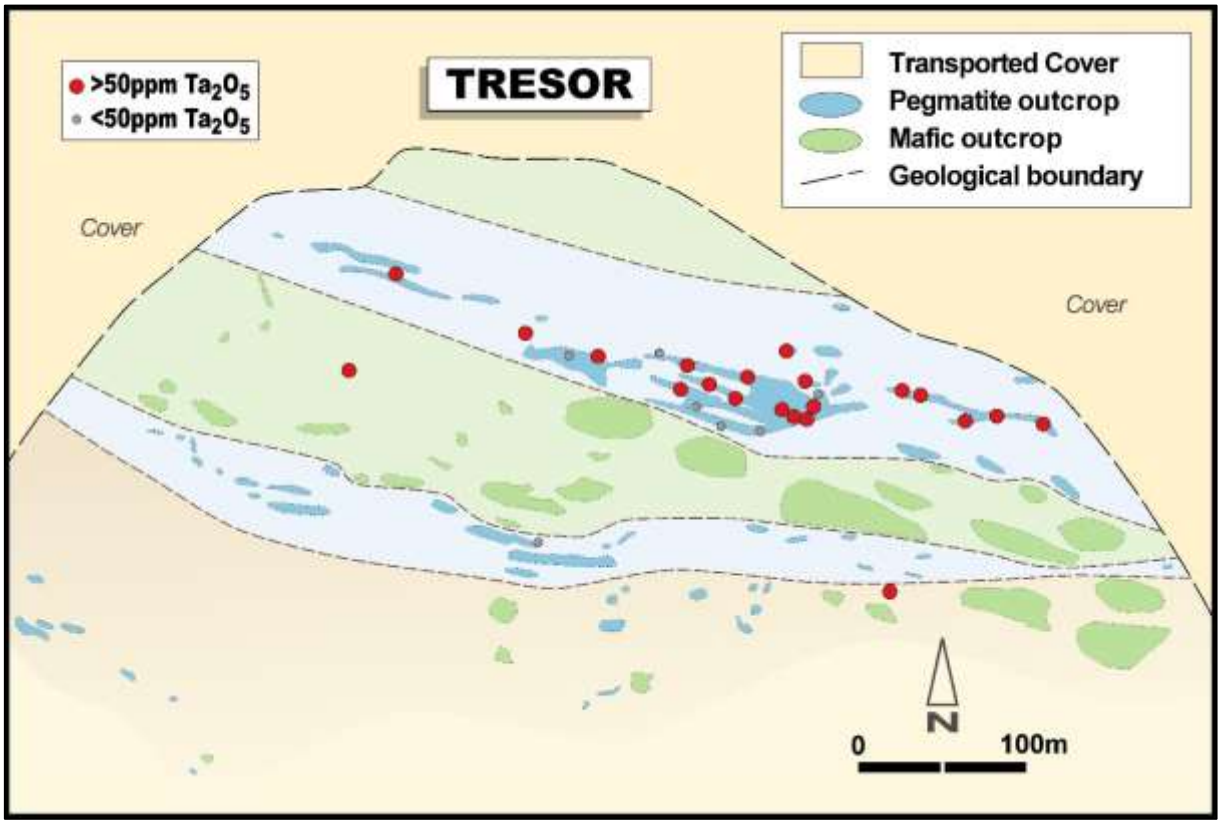

Figure 3: Mohanga Project – Tresor prospect showing local geology and better tantalum in rock chip results.

APPENDIX 1: Mohanga Project – Tresor prospect/rock chip statistics and results

Sample_ID	East	North	Li2O%	Ta2O5 (ppm)	Au (ppm)	Sample_ID	East	North	Li2O%	Ta2O5 (ppm)	Au (ppm)
146943	9612	53508	0.01	87	0.01	146957	9754	53504	0.22	59	0.06
146944	9636	53486	0.01	23	0.02	146958	9781	53489	0.24	63	0.03
146945	9645	53502	0.86	78	0.11	146959	9826	53487	0.02	62	0.05
146946	9629	53511	0.02	>100*	0.01	146960	9800	53492	0.33	87	0.06
146947	9621	53498	0.02	48	0.02	146932	9415	53519	0.01	235	0.01
146948	9616	53522	3.31	97	0.02	146934	9520	53541	0.41	88	0.15
146949	9652	53515	0.26	122	0.02	146935	9545	53528	0.07	39	0.09
146950	9659	53483	0.02	20	0.09	146936	9563	53527	0.03	64	0.1
146951	9672	53496	2.58	85	0.1	146937	9599	53529	1.95	46	0.01
146952	9675	53531	0.15	>100*	0.09	146938	9680	53491	0.9	77	0.32
146953	9686	53512	2.26	104	0.15	146939	9743	53507	1.16	173	0.04
146954	9692	53504	1.85	48	0.08	145712	9736	53388	0.04	55	0
146955	9690	53497	1.34	>100*	0.13	145713	9526	53417	0.06	30	0
146956	9685	53490	1.4	>100*	0.04	145759	9443	53576	-0.02	156	0

* Upper detection limit for Ta exceeded, assays pending for re-assaying by ore grade technique

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T: +618 9322 7431 F: +618 9322 5800 E: info@ltresources.com.au www.ltresources.com.au

APPENDIX 2 - MOHANGA - JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	No drilling completed to date. Trenches are oriented at right angles to the interpreted strike of the pegmatite being sampled. Samples are typically collected as continuous 0.5 to 5m chip samples along the floor of trench. Individual sample intervals are adjusted to reflect geological contacts. Rock samples comprise multiple chips considered to be representative of the horizon or outcrop being sampled. Trench and rock samples submitted for assay typically weigh 2-3kg. Soil samples comprise bulk samples which are sieved to -80# by the laboratory prior to assaying.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. *Aspects of the determination of mineralisation that are Material to the Public Report.* *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.*	Continuous channel sampling of trenching ensures sample representivity. Entire sample is submitted for sample prep.
Drilling techniques	*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).*	No drilling completed.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable.
	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.	Not applicable.
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.*	All trenches sampled are logged continuously from start to finish with key geological observations recorded.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is quantitative, based on visual field estimates.
	The total length and percentage of the relevant intersections logged.	See above.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	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.

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T: +618 9322 7431 F: +618 9322 5800 E: info@ltresources.com.au www.ltresources.com.au

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Blanks have been submitted every 50 samples to ensure there is no cross contamination from sample prep.
	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.	Measures taken include: • Systematic sampling across whole pegmatite zone; • Comparison of actual assays for blanks with theoretical values
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size (2-3kg) accepted as general industry standard.
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.*	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories. In addition, the sample prep laboratory in Mwanza is regularly visited to ensure high standards are being maintained. Samples are submitted for multi-element analyses by ALS technique ME-MS61 (48 elements/4 acid digest). Where results exceeded upper detection limits for Li and/or Ta, samples are re-assayed by ALS techniques ME-ICP81X (sodium peroxide fusion) for Li and ME-MS89 for Ta. The final techniques used for are 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.	None used
	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	Barren granitic material from a road quarry is submitted every 50 samples. Comparison of results indicates good levels of accuracy and precision. No external laboratory checks have been used.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	None undertaken
	The use of twinned holes.	Not applicable
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Access database 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. No hard copy data is retained. Alkali ratio fields shown for Greenbushes and Pilgangoora are based on historical records retained by Liontown consultants. Raw data is not available.
	Discuss any adjustment to assay data.	None required
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.*	All trench start points and geochemical samples are located using a hand held GPS. Trenches are surveyed using hand held compass and clinometer.
	Specification of the grid system used	The grid system used is ARC1960 Zone 36S; however, for reporting purposes, and to maintain confidentiality, local coordinates are used for reporting.
	Quality and adequacy of topographic control.	Nominal RLs based on regional topographic datasets are used initially; however, these will be updated if DGPS coordinates are collected.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Only reconnaissance trenching and sampling completed –spacing variable and based on outcrop location and degree of exposure.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and	Not applicable.

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Criteria	JORC Code explanation	Commentary
	Ore Reserve estimation procedure(s) and classifications applied.	
	Whether sample compositing has been applied.	None undertaken.
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.*	Sampling completed at right angles to interpreted trend of pegmatite units.
	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.	None observed.
Sample security	*The measures taken to ensure sample security.*	Company geologist supervises all sampling and subsequent storage in field. Same geologist delivers samples to ALS lab in Mwanza and receives an official receipt of delivery. ALS Mwanza organises transport to ALS in Brisbane.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	None completed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*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.*	The Mohanga Project comprises 5 granted prospecting licences (PL9067/2013, PL10724/2015, PL10803/2016, PL10905/2016 and PL10938/2016). The tenement package forms a combined, 251km^2 area located ~400km WNW of Dar es Salaam, Tanzania. All PLs with the exception of PL9067/2013 are wholly owned by Liontown Resources (Tanzania) Limited (LTR). PL9067/2013 is subject to a 4 year option agreement (Hombolo Option Agreement) with local Tanzanian company Central Mining Company Limited (CMC). Under the terms of the Hombolo Option Agreement, LTR may earn 100% equity in PL9067/2013. Principal terms of the Hombolo Option Agreement are: • Paying US$15,000pa to CMC on each anniversary of the Agreement; • Paying US$900,000 (plus CGT) to CMC anytime within 4 year option period to acquire Pl9067/2013; and • Paying CMC 1%NSR on future production (purchasable anytime for US$500,000) On mining, royalties are also payable to the Tanzanian government (4% NSR). There are no other material issues affecting the tenements
	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.	All tenements are in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No modern exploration has been recorded for the area prior to LTR acquiring the Project. Government mapping (1962-1963) records multiple lithium bearing pegmatites within the project area but no other data is available.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Mohanga Project is located in the SE part of the Archaean Tanzanian Craton where it comprises a WNW-NW trending sequence of metasediments (quartzite, quartz-feldspar schist and graphitic schist), amphibolite schist and quartz-feldspar gneiss intruded by syn-orogenic granite. A number of large pegmatites and small ultramafic intrusions have also been mapped. The Archaean lithologies form high ridges separated by broad soil covered plains.

Liontown Resources Limited, Level 2, 1292 Hay Street, West Perth, Western Australia 6005
T: +618 9322 7431 F: +618 9322 5800 E: info@ltresources.com.au www.ltresources.com.au

Criteria	JORC Code explanation	Commentary
		A number of lithium- bearing pegmatites have been recorded by government reports and rock chip sampling by LTR geologists has returned both lepidolite and spodumene related lithium mineralisation. Soil sampling has also recorded a number of gold anomalies indicating potential for orogenic-type gold deposits typical of Archaean granite/greenstone terranes elsewhere in the world.
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.*	See Tables and/or Appendices in previous ASX releases.
Data aggregation methods	*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.*	Reported trench intercepts have been calculated using lower cuts of 0.2% Li_2O and/or 100ppm Ta_2O_5. No top cuts used to date. Internal waste (i.e. <cut off) is limited to single samples between mineralised samples that exceed cut off grades.
	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.	Short intervals of high grade that have a material impact on overall intersection are highlighted separately (see attached appendices in previous ASX releases)
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	None reported
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *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').*	The relationship between true widths and the width of mineralised zones intersected in trenching has not yet been determined due to lack of structural data (i.e. dip).
Diagrams	*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.*	See Figures in body of report
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.*	Results for all sampling reported are listed in Appendices attached to previous ASX reports.
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.*	All meaningful and material data reported
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Trenching across main spodumene zone at Tresor • 500 x 50m soil sampling across parts of Project area not already covered.

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