

Highly Encouraging Results From Initial Metallurgical Testwork at the Kathleen Valley Lithium-Tantalum Project, WA

HIGHLIGHTS

- **Results confirm that a saleable Li_2O concentrate can be produced from the Kathleen Valley Project.**
- **Preliminary metallurgical test work delivers:**
 - **5.9% Li_2O from dense media separation concentrate;**
 - **36% mass rejection with two-stage dense media separation;**
 - **5.5% Li_2O from flotation concentrate;**
 - **Low iron (Fe_2O_3) content of <0.5%;**
 - **Predicted recovery of 79% Li_2O ; and**
 - **Preliminary Ta_2O_5 concentrate.**
- **Planned optimisation of the process conditions provides significant potential to achieve a chemical grade product – large scale test work and optimisation scheduled for Q1 2019.**
- **Results provide a strong foundation for the recently commenced Scoping Study.**

Liontown Resources Ltd (ASX:LTR) (“Liontown” or the “Company”) is pleased to report highly encouraging results from an initial metallurgical test work program conducted on composite diamond drill core samples from its 100%-owned Kathleen Valley Lithium-Tantalum Project in Western Australia.

Lithium oxide (“ Li_2O ”) grades of 5.9% from two-stage dense media separation (“DMS”) test work and 5.5% from flotation test work resulted in a combined concentrate product of 5.6% Li_2O at a predicted recovery of 79% and with a low iron content (<0.5% Fe_2O_3).

The test work programme was conducted at Nagrom’s metallurgical laboratory in Perth, Western Australia and supervised by Lycopodium Minerals Pty Ltd (“Lycopodium”), a well-established and highly credentialed engineering and project delivery company.

Given that the individual process units have not yet been optimised for recovery or grade, the results provide strong support for the ability to achieve a saleable Li_2O concentrate and increased confidence that a Ta_2O_5 concentrate can be produced from the Kathleen Valley Project. Further diamond core drilling is planned to provide material for this optimisation work.

Commenting on the results, Liontown’s Managing Director, Mr David Richards, said *“This is a very exciting time for the Kathleen Valley Project, as we take the next important steps to advance this high quality lithium-tantalum deposit from discovery and resource drill out towards commercial development.”*

“As stated in September, we have a Mineral Resource of ~21Mt @1.4% Li_2O and 170ppm Ta_2O_5 , with over 75% in the Measured and Indicated category, located on granted Mining Leases. We are in an established mining jurisdiction close to the sealed Goldfields Highway and adjacent to a powerline running west of the property. These preliminary test work results support our confidence in the project and form a solid base for our recently commissioned Scoping Study.”

Details of Metallurgical Test Work

The test work was commissioned on a 300kg composite sample, created from six diamond drill core holes which were sited to ensure collection of material representative of the Mineral Resource.

The test work flowsheet included the following:

- Crushing and screening to -6.3 +1mm followed by 2-stage heavy media separation to produce a 5.9% Li₂O grade concentrate and a throwaway tail;
- Pre-concentration of the middlings and -1mm fines to produce a tantalum concentrate; and
- Grinding of the tantalum tails to 150µm and de-sliming prior to froth flotation to produce a flotation concentrate containing 5.5% Li₂O with low levels of iron (Fe₂O₃ <0.50%)

The test work results are illustrated in **Figure 1** below.

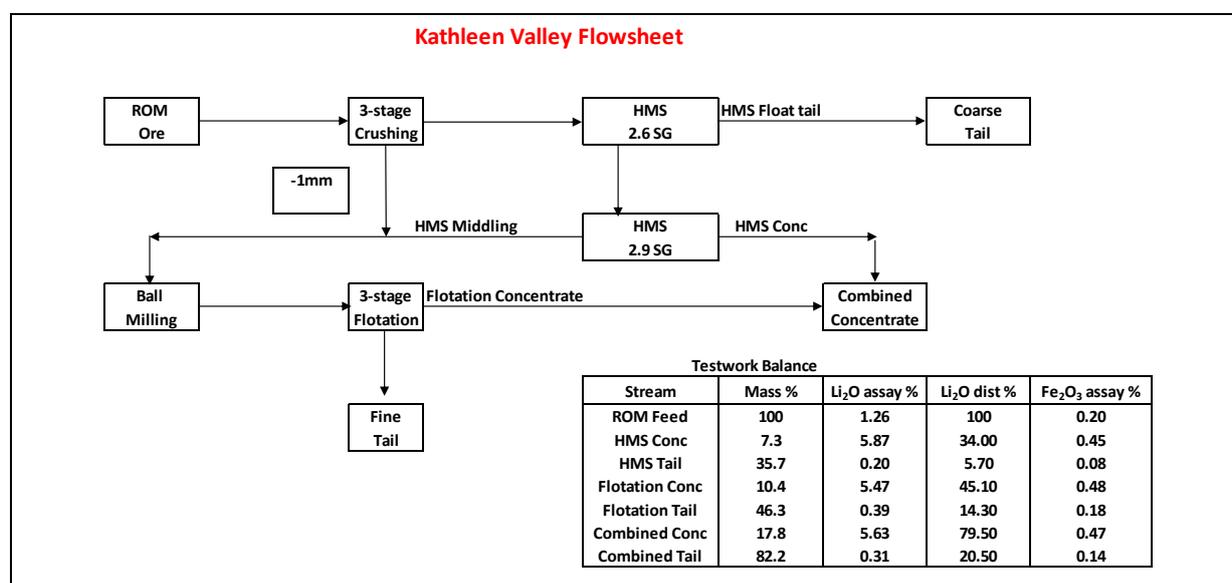


Figure 1: Kathleen Valley metallurgical test work flowsheet and results

While a tantalum concentrate was produced during the metallurgical test work programme, the low mass recovery precluded the implementation of subsequent upgrade process stages. However, the results support the inclusion of a tantalum concentrate recovery in the large scale test work programme scheduled for Q1 2019.

Kathleen Valley Overview

Liontown's 100%-owned Kathleen Valley Lithium Project is located on the western edge of the Norseman-Wiluna Belt within the Archaean Yilgarn Craton approximately 400km north of Kalgoorlie. The lithium mineralisation is hosted within spodumene-bearing pegmatites, which are part of a series of Lithium-Caesium-Tantalum (LCT)-type rare metal pegmatites that intrude mafic and sedimentary rocks in the region.

Eighteen mineralised pegmatites have been identified at the Kathleen Valley Project hosted by two pegmatite swarms – Kathleen's Corner and Mt Mann.

On September 4th 2018, Liontown announced a maiden Measured, Indicated and Inferred Mineral Resource, for the Kathleen Valley Project comprising **21.2Mt @ 1.4% Li₂O and 170ppm Ta₂O₅**. The Mineral Resource is set out in **Table 1**:

Table 1: Kathleen's Corner and Mt Mann Mineral Resource as at September 2018

Resource category	Million tonnes	Li ₂ O %	Ta ₂ O ₅ ppm
Measured	3.2	1.3	190
Indicated	12.7	1.4	160
Inferred	5.3	1.3	150
Total	21.2	1.4	170

- Reported above a Li₂O cut-off grade of 0.5%
- Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

Following release of the Mineral Resource estimate, Liontown commissioned a Scoping Study based on annual ore production of 1.5 – 2 Mtpa. The Study is being overseen by Lycopodium and, in addition to metallurgy, will also incorporate optimisation, engineering, hydrological, environmental and financial studies.

The results of the Scoping Study are scheduled for release in early Q1 2019.



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The Information in this report that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement "Maiden 21 million tonne Lithium-Tantalum Mineral Resource sets strong growth foundation for Liontown at Kathleen Valley" released on the 4th September 2018 which is available on www.ltresources.com.au.

The Information in this report that relates to metallurgical test work for the Kathleen Valley Project has been reviewed by Mr Aidan Ryan who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Ryan is an employee of Lycopodium Minerals Pty Ltd and has sufficient experience relevant to the style of processing response and type of deposit under consideration, and to the activities 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 Ryan consents to the inclusion in the report of a summary based upon 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.