ASX ANNOUNCEMENT

9 September 2015

COMPANY DETAILS

LITHIUM AUSTRALIA NL
ABN: 29 126 129 413
ASX CODE: LIT & LITCB

PRINCIPAL AND REGISTERED OFFICE
Suite 3
23 Belgravia Street
Belmont WA 6104

P +61 8 6145 0288
F +61 8 9475 0847

POSTAL ADDRESS
PO Box 588
Belmont WA 6984

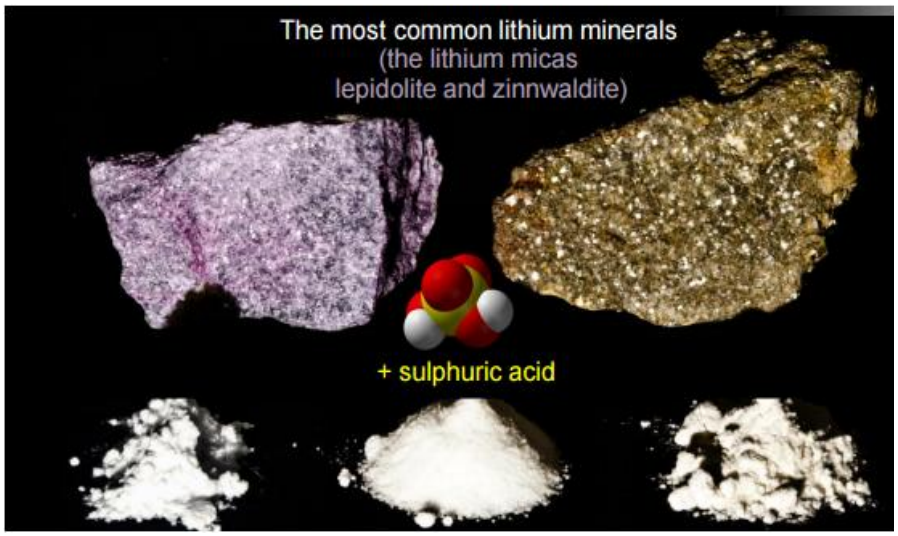
CORPORATE INFORMATION
(9 September 2015)
134M Ordinary Shares
37M Listed Partly Paid Shares
15M Unlisted Partly Paid Shares
5M Unlisted Options
8M Performance Rights
16M Performance Option Rights

For further information contact:
Lithium Australia NL
Adrian Griffin (MD)

Tel: +61 (08) 6145 0288
Email: info@lithium-au.com
Web: www.lithium-au.com

Lithium Australia (ASX:LIT) identifies process performance improvements

Lithium Australia NL recently completed a comprehensive analysis of the plant operating performance of lithium mica concentrates from the Lepidolite Hill, 80% Lithium Australia NL (ASX:LIT)and 20% Focus Minerals Ltd (ASX:FML) as announced to the ASX on 3 September 2015.



high-purity lithium carbonate ***lithium ion batteries*** | potassium sulphate ***fertilizer*** | aluminium chemicals ***aluminium production***

HIGHLIGHTS

Analysis of the products produced, and data generated during the plant run has identified some areas in which significant commercial improvements can be made, including:

- Reduced acid consumption
- Improved recovery
- Production of higher-value aluminium chemicals
- Recovery of silicon chemicals as value-added by-products
- Improved revenue potential

PLANT PERFORMANCE IMPROVEMENTS

The initial focus on improved performance commenced by analysis of lithium losses over time. The performance is visually represented in Table 1.

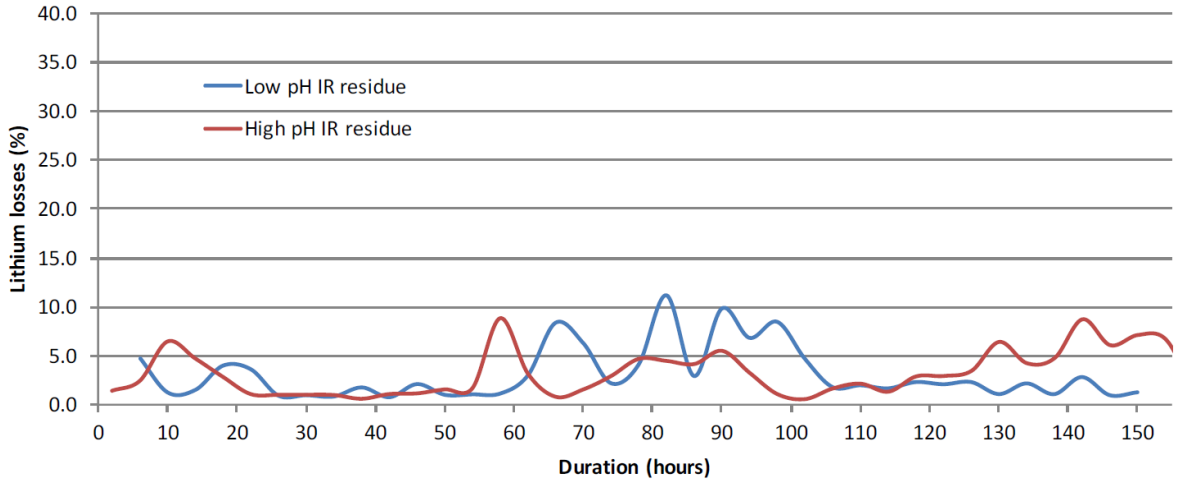


Table 1 – Lithium losses during the plant run

The period of higher losses occurred as a result of lithium reporting to products precipitated in the high-pH impurity removal circuit. The precipitates causing this loss can be minimized by minor adjustments to the precipitation cycle resulting in operating conditions as experienced during the period 25 to 55 hours. Potentially this will increase recoveries from leach liquor to in excess of 98%. Acid consumption can be reduced by optimizing grind size and introducing counter current flow conditions.

The main impurity in the lithium carbonate is entrained sodium sulphate. This can be removed by improving wash efficiency of the final product.

SIGNIFICANT COMMERCIAL IMPROVEMENTS

The processing of mica, to recover lithium, has a number of major advantages over other lithium recovery processes. One of the most significant advantages is the dissolution of all metals in the mica, and the ability to recover by-products. Initial financial evaluation of the process (ASX announcement 16 April 2015) based on the production of lithium carbonate, and ***ONLY*** a potassium sulphate (fertilizer) credit suggests the production of lithium carbonate from mica, at a cost below A$2000 per tonne, is realistic.

The ability to recover a range of other commercial by-products from the leach solutions will further improve the economics, potentially making the process the world's most economic means of producing lithium. LIT's technical partner, Lepidico Limited, has successfully recovered value added products in the form of lithium and aluminium chemicals.

LIT's Managing Director, Adrian Griffin said:

"The rapid progress of developing this processing system is a credit to all involved. The potential to improve recoveries to the extent demonstrated is the holy grail of hydrometallurgical processing. But that isn't where it ends – the ability to recover value added products from every major metal in the solution suggests we are on the verge of unveiling a lithium extraction process commercially unrivalled by anything else presently in production."

Adrian Griffin
Managing Director

MEDIA CONTACT:

Adrian Griffin	**Lithium Australia NL**	**08 6145 0288 | 0418 927 658**
Kevin Skinner	**Field Public Relations**	**08 8234 9555 | 0414 822 631**

ABOUT LITHIUM AUSTRALIA

Lithium Australia (LIT) has a technical alliance with Strategic Metallurgy Pty Ltd to commercialise disruptive lithium extraction technology based on the recovery of lithium from micas; minerals not generally used as a source of lithium chemicals. LIT has a non-binding Heads of Agreement with European Metals Holdings Limited to process lithium mineralisation at Cinovec in the Czech Republic on a 50/50 JV basis. Cinovec contains abundant lithium micas and is one of the world's largest hard-rock lithium occurrences. In addition, LIT has strategic alliances with Pilbara Minerals Limited, Focus Minerals Limited and Tungsten Mining NL, to investigate lithium and rare metals in prospective locations of Western Australia close to well-developed infrastructure. LIT also has lithium exploration assets near Greenbushes and Ravensthorpe in Western Australia. LIT is also evaluating other European opportunities.