



ASX Announcement | 13 December 2023

RK Lithium Project - Feasibility Update Waste to By-product Testwork

HIGHLIGHTS

- PAM is collaborating with one of Thailand's largest cement producers.
- Testwork confirms concentrate processing residues can be used in cement manufacturing.
- Testwork helps waste management and produces a major ESG outcome for PAM.
- Testwork to be applied to lithium conversion residues.
- The cement producer benefits from a reduced carbon footprint.
- Testwork on siltstone waste confirms that it is chemically benign.
- PAM is aiming for similar outcomes for its mining and beneficiation residues.

Pan Asia Metals Managing Director, Paul Lock, commenting on the test work outcomes said: *"The positioning of the RK Lithium Project near major growth and industrial centres, allows us to consider alternatives to traditional mining and processing waste practices. Our objective is to secure projects which are strategically located near key infrastructure and industry, which helps facilitate the use of what would be otherwise waste streams to create valuable by-products and hence reducing the overall physical footprint of PAM's future mining operations. Testwork with a major Thai based cement manufacturer has confirmed that the residue from lithium concentrate processing has application in cement manufacturing, which will convert a processing waste stream into a carbon reducing by-product. Testwork will also be applied to residues from lithium chemical manufacturing and testwork by the cement manufacturer has confirmed that the siltstone waste from mining is chemically benign. We expect to be able to achieve similar outcomes with our mining and beneficiation residues, placing PAM at an advantage to other lithium producers. This is a major part of our ESG plan. Our positioning in Chile has the potential to achieve similar outcomes, particularly with residual salt.*

Battery and critical metals explorer and developer **Pan Asia Metals Limited (ASX: PAM)** ('PAM' or 'the **Company**') is pleased to announce successful test work on lithium concentrate processing residues and their application as Supplementary Cementitious Materials, converting a waste stream into a by-product which will help lower the carbon footprint of the cement industry – building on PAM's ESG credentials.

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PAM has been working with one of Thailand's largest cement manufacturers to determine use and economic value of residues from lithium concentrate processing from RK Lithium Project ore. Testwork to also be applied to residues from roasting and conversion to produce lithium chemicals.

This testwork has been successful, confirming these residues have application as Supplementary Cementitious Materials (SCM). Using SCM's in concrete reduces the requirement for cement clinker and lowers the carbon footprint of the cement industry, an ESG positive. There is also the potential for concretes with improved specifications for technically challenging applications.

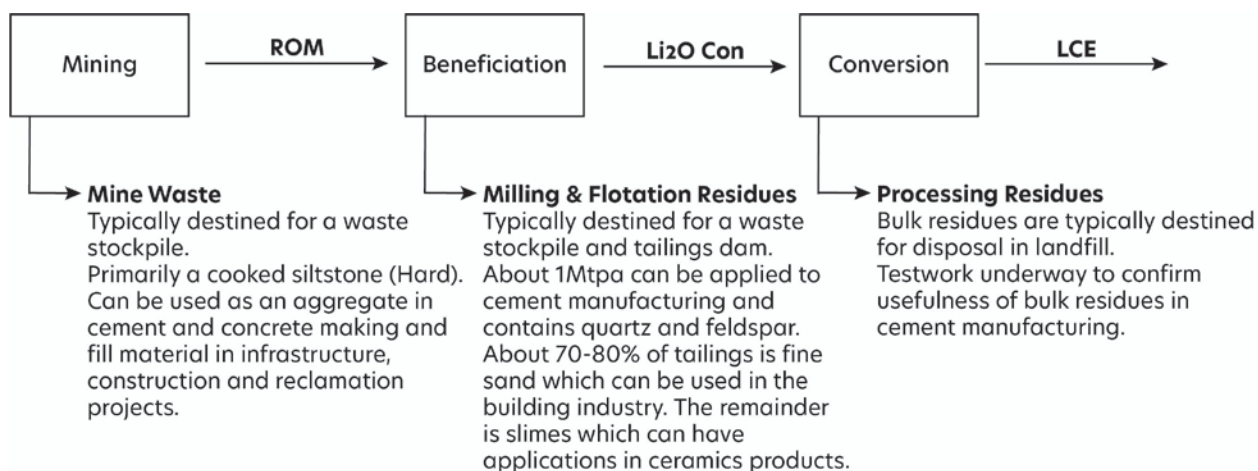
The success of this testwork is an important win for PAM, diverting an otherwise circa 1 million tpa waste stream from lithium concentrate processing into a valuable by-product, which helps lower the carbon footprint of one of the most carbon intensive industries, cement making. Importantly, testwork by the same cement manufacturer on siltstone waste from RK Lithium Project also confirmed that this waste is chemically benign.

By-product Strategy

Pan Asia Metals Limited (PAM) aims to secure battery and critical metal development projects which are strategically located near key infrastructure and industry, which helps facilitate the use of what would otherwise be waste streams to create valuable by-products and hence reducing the overall physical footprint of its future mining operations. This is an important part of PAM's ESG plan.

The RK Lithium Project is one such project, with the location of the anticipated mining operations in PhangNga Province, southern Thailand, and lithium conversion operations in Rayong, an industrial zone south of Bangkok, Thailand, and part of Thailand's Eastern Economic Corridor (EEC). Thailand's 20 plus auto manufacturers and its emerging EV and Li-Ion battery industries are located in the EEC.

As a result of the RK Project's location, PAM anticipates that all by-product and otherwise waste streams can be utilised in value adding initiatives, reducing the overall mining footprint of PAM's operations in Thailand. See Figure 1.



PAM is considering industrial uses for the residue streams generated by mining and minerals processing operations. Waste rock from mining and ore sorting rejects could be used as aggregates and for fill material in construction and land reclamation projects. Waste from lithium concentrate processing can be used in cement manufacturing and also has potential for quartz and feldspar by-products. The sand and slimes tailings from milling and flotation could be used in concrete mixes and in ceramics products.

Forward Work Plan

On the back of PAM's recently announced updated Mineral Resource for RK Lithium Prospect, PAM is formulating preliminary mine designs, mine planning and production scheduling. This will assist with project design and the preparation of a Mining Lease Application and with inputs into the Pre-Feasibility Study.

PAM has been conducting metallurgical test-work to investigating the recovery of lepidolite/muscovite to a concentrate. The concentrate produced in this testwork will then be used to test various downstream processing methods to produce a variety of lithium compounds and various potential by-products. PAM will also investigate the potential to recover Sn-Ta, sand and clay concentrates as well as the potential for chemical by-products such as Rb, Cs, K, Ca and Si compounds, and other by-products from waste streams.

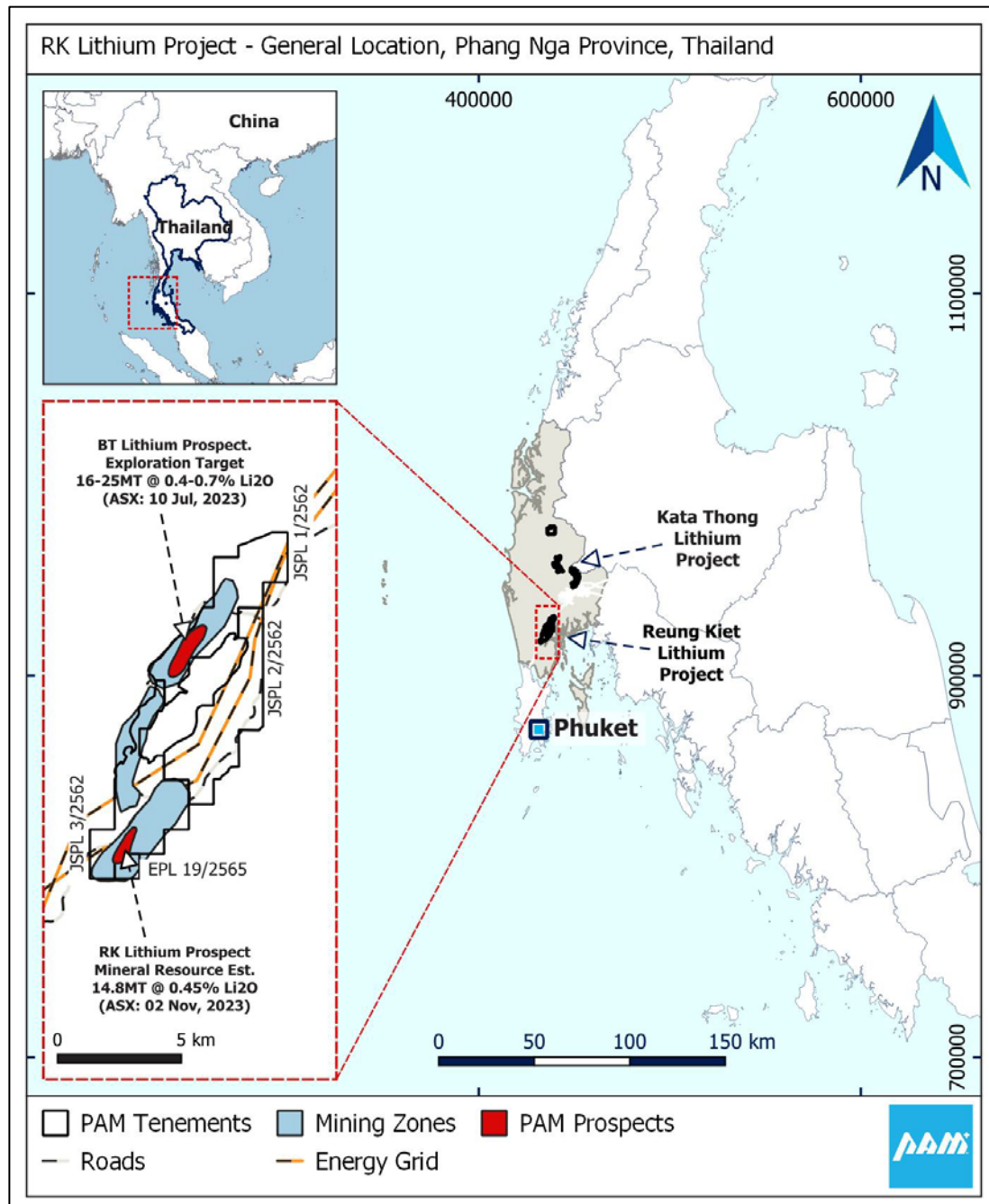
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Authorised by:

Board of Directors

ABOUT THE REUNG KIET LITHIUM PROJECT

The Reung Kiet Lithium Project is a lepidolite style lithium project located about 70km north-east of Phuket in the Phang Nga Province in southern Thailand. Pan Asia holds a 100% interest in 3 contiguous Special Prospecting Licenses (SPL) and 1 Exclusive Prospecting License (EPL) covering about 40km².



Regional map identifying the location of the RK Lithium Project



ABOUT PAN ASIA METALS LIMITED (ASX:PAM)

Pan Asia Metals Limited is the only publicly traded battery materials company with lithium projects in South-East Asia and South America, and with agreements with key battery and chemical producers in the Asian region to produce advanced battery chemicals.

PAM's Asian assets are strategically located in Thailand – the largest vehicle producer in the region. With Asia accounting for more than half of the global annual vehicle production, PAM is uniquely positioned to capitalize on the soaring demand for battery minerals in the region. PAM's South American assets are strategically located in the Atacama region of Chile, with both lithium brine and lithium clay assets located on key infrastructure 40km from the coast and 75km from Iquique with a large port and commercial airport.

PAM's dedication to producing innovative, high-value products with a minimal carbon footprint makes us an ideal partner for meeting our needs in both battery chemicals and sustainable energy. PAM is also a respected local company, with a strategy focused on developing an integrated supply chain to cost-effectively deliver relevant and in-demand products to the Li-ion battery market.

PAM is rapidly advancing its lithium projects through to feasibility and plans to expand its global lithium resource sustainably through its extensive holdings in Asia and South America.

To learn more, please visit: www.panasiametals.com

Stay up to date with the latest news by connecting with PAM on [LinkedIn](#) and [Twitter](#).

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Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Ms Millicent Canisius and Mr Anthony Wesson, both full-time employees of CSA Global. Mr Anthony Wesson is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy and Ms Millicent Canisius is a Member of the Australasian Institute of Mining and Metallurgy. Mr Anthony Wesson and Ms Millicent Canisius have sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking, to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Anthony Wesson and Ms Millicent Canisius consent to the disclosure of the information in this report in the form and context in which it appears.

The information in this report that relates to Exploration Targets and Exploration Results, is based on information compiled by Mr. David Hobby, is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Hobby is a full time employee, Director and Shareholder of Pan Asia Metals Limited. Mr. Hobby has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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 (JORC Code). Mr. Hobby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Various statements in this document constitute statements relating to intentions, future acts and events which are generally classified as “forward looking statements”. These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other important factors (many of which are beyond the Company’s control) that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed in this document. For example, future reserves or resources or exploration targets described in this document may be based, in part, on market prices that may vary significantly from current levels. These variations may materially affect the timing or feasibility of particular developments. Words such as “anticipates”, “expects”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “potential” and similar expressions are intended to identify forward-looking statements. Pan Asia Metals cautions security holders and prospective security holders to not place undue reliance on these forward-looking statements, which reflect the view of Pan Asia Metals only as of the date of this document. The forward-looking statements made in this document relate only to events as of the date on which the statements are made. Except as required by applicable regulations or by law, Pan Asia

Metals does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

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