

Disruptive lithium processing technology company completes due diligence for acquisition

Boisterous developer of disruptive lithium processing technologies, [Lithium Australia NL](#) (ASX: LIT), has just completed its due diligence for the acquisition of advanced cathode material producer, the Very Small Particle Company (VSPC). VSPC owns proprietary processes for the production of lithium ion battery cathode material, a comprehensive pilot plant, and advanced laboratory and testing facilities which will enable Lithium Australia to engage with the direct production of battery cathode materials, opening up yet more marketplace for the company to occupy.

The VSPC technology is adaptable to the production of a wide range of cathode materials and provides a simple and cost-effective means of producing cathodes within an environment of outstanding quality control. The process can precipitate lithium carbonate, or lithium hydroxide, from hard-rock mineral solutions, potentially removing two process steps involved in their manufacture, resulting in a revolutionary process which capitalises on the value-add generated by progressing from lithium chemicals to cathode materials.

Lithium Australia is investigating the seamless production of cathode materials from hard-rock minerals using hydrometallurgical front-end processes including LIT's 100% owned SiLeach® process and the LMax® process (owned by Lepidico Ltd) for which Lithium Australia has exclusive rights in Western Australia. The company is close to the completion of engineering studies on both LMax® and SiLeach® processing plants and anticipates a commitment to construct such plants, nominally sized at an output of 2500 tpa lithium carbonate equivalent early in the new year.

Lithium Australia look set to achieve producer status within the next year, and on a much grander scale than anticipated. The company's storm of acquisition and agreement over the last month puts them within spitting distance of their goal of producing commercial lithium chemicals at an operating cost in the lowest quartile, as well as gaining access to the cathode materials sector just in time for the projected spike in demand caused by the rise of electric vehicles and grid storage systems.

The company intend to acquire a minimum 75% stake in VSPC, but have also signed a MoU with Poseidon Nickel Ltd to evaluate joint exploration and lithium processing opportunities at Lake Johnston and Ravensthorpe in southern Western Australia. These recent additions to the company's disruptive technological edge position Lithium Australia to gain a considerably larger market share than if they were to rely only on their innovative processing technology alone.

Lithium Australia's 100% owned SiLeach technology allows them to extract metals from a range of silicate ores via a hydrometallurgical process. Conventionally, feedstock must undergo an extremely energy-intensive roasting process at temperatures of more than 1,000°C; the SiLeach process, however, occurs rapidly at about 90°C, providing a minimal plant footprint and driving down capital costs. The process has the potential to supersede the dominant method of extraction for a number of metals, reducing costs and mitigating environmental impact across the board.

With this collection of processes, lithium micas, heretofore forgotten, can now be considered an economical source of the battery-essential metal. Furthermore, the SiLeach process allows for the recovery of lithium and cobalt from discarded batteries, creating access to a raw materials already extracted and refined. Now that the VSPC deal is almost complete, Lithium Australia are set to achieve strategic 'fullcircle' capability in terms of lithium extraction,

processing and cathode production from unconventional source materials, and are taking position as a market-leading recycler of discarded, end-of-use lithium-ion batteries to boot. The sheer number of options available to this company creates a robust investment indeed, and their commitment to sustainability makes it all the more likely to succeed over the very long term; however, the time to buy is right now.