

**7 July 2021**

**TESTS CONFIRM AUTHIER PRODUCT DELIVERS  
HIGH PURITY 99.99% LITHIUM HYDROXIDE**

**Highlights**

- **Testing shows Authier spodumene capable of being processed into high purity 99.99% lithium hydroxide**
- **Novonix Battery Technology Solutions analysing Authier product for performance comparisons with commercial lithium-ion batteries**
- **Sayona advancing downstream processing in Québec to supply fast-growing North American battery market.**

**Emerging lithium producer Sayona Mining Limited (ASX:SYA; OTC:DMNXF)** has achieved another milestone in advancing downstream processing in Québec, following confirmation that spodumene from the Company's Authier Lithium Project can be refined to produce high purity, 99.99% lithium hydroxide\*.

Spodumene samples from Authier were processed into lithium hydroxide by Australian hydroxide technology provider ICS Lithium, using its sustainable, closed loop refining system. The samples were then analysed at CSIRO's Mineral Resources laboratories in Perth, Western Australia, which confirmed their exceptional purity.

One of the world's largest research and development groups, CSIRO's Mineral Resources division provides independent verification and certification services for the materials and infrastructure industries.

A portion of the lithium hydroxide sample has been dispatched to Novonix Battery Technology Solutions in Nova Scotia, Canada, to be processed along with other cathode-precursor materials into NMC622 lithium-ion batteries using Novonix's pilot cell line.

The Novonix tests will evaluate the sample's conformity with lithium-ion battery standards and its performance in commercial cells, highlighting the project's ability to deliver a high-purity product suitable for leading battery cathode makers in North America.

Welcoming the results, Sayona's Managing Director, Brett Lynch said: *"This trial has highlighted that Authier spodumene can be refined into high purity lithium hydroxide. This is an essential requirement to meet the needs of battery manufacturers and enhances the market value of our product.*

*"Our acquisition of North American Lithium [NAL] has given us the ability to fast-track a move into downstream processing and we look forward to advancing this for the benefit of Québec and our shareholders."*

Testing at Novonix will continue through the Northern Hemisphere summer, with initial results expected shortly.

Novonix (ASX:NVX; OTCQX:NVNXXF) is developing 'million mile' battery technologies with revolutionary anode and cathode materials. It has designed and manufactured high precision battery testing equipment for Tier 1 battery makers and OEMs in 15 countries, including Bosch, Dyson, Honda, Panasonic, LG Chem and SK Innovation.

Novonix continues to progress agreements with Sanyo and Samsung SDI and is currently the only qualified producer in North America of high-grade anode material suitable for lithium-ion batteries for electric vehicles and energy storage systems.

Sayona formed a collaboration last year with ICS Lithium, which has developed and widely patented a closed loop process for the refining of spodumene concentrates into battery-grade lithium hydroxide, as preferred by leading automakers.

The ICS Lithium Process foreshadows substantial benefits, including potentially lower capital costs and substantially lower operating costs together with environmental benefits. Significantly, the Process has the potential to allow sulfuric acid-based carbonate plants to be converted into clean ICS-Process hydroxide plants at lower cost than a greenfields plant. Sayona is considering this potential option for the NAL operation.

The ESG (environmental, social, governance) benefits are further enhanced by Québec 's sustainable, low-cost hydropower and its proximity to the North American battery market, with Québec and Canada having committed to phasing out sales of new gasoline vehicles by 2035 and EV makers accelerating investments in Ontario and continent-wide.

This announcement is authorised by Sayona's Board of Directors.

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*\* Disclaimer: The purity of the material is defined as the weight of  $\text{LiOH}\cdot\text{H}_2\text{O}$  in the sample divided by the total sample weight, comprised of lithium values as  $\text{LiOH}\cdot\text{H}_2\text{O}$ -plus-impurities, expressed as a percentage. To five figures the sample purity is 99.990%.*

*The analysis does not extend to anions other than the hydroxide ion  $\text{OH}$ . It does not determine levels of chloride, carbonate or nitrate, while sulphur present is assumed to be as sulphate ion. Sodium and potassium values are likely to be present as nitrates while any carbonate present would arise from contamination from atmospheric  $\text{CO}_2$ ; the processing facilities cannot entirely exclude exposure of samples to the atmosphere.*

*Impurity levels are generally so low that they are at the threshold of measurement capabilities by the analytical equipment employed, so variations are to be expected in repeat analyses on material from the one sample batch.*

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### **About Sayona Mining**

Sayona Mining Limited is an emerging lithium miner (ASX:SYA; OTC:DMNXF), with projects in Québec, Canada and Western Australia. In Québec, Sayona's assets comprise the Authier Lithium Project and its emerging Tansim Lithium Project, supported by a strategic partnership with American lithium developer Piedmont Lithium Inc. (Nasdaq:PLL; ASX:PLL). Sayona and Piedmont have also successfully undertaken a joint bid to acquire North American Lithium, which hosts a former lithium mine and concentrator.

In Western Australia, the Company holds a large tenement portfolio in the Pilbara region prospective for gold and lithium. Sayona is exploring for Hemi-style gold targets in the world-class Pilbara region, while its lithium projects are subject to an earn-in agreement with Altura Mining Limited.

For more information, please visit us at [www.sayonamining.com.au](http://www.sayonamining.com.au)