28 JUNE 2017

#### **AUTHIER LITHIUM PROJECT UPDATE**

# **Highlights**

- Strong interest from downstream converters to purchase Authier concentrates
- Metallurgical optimisation program currently underway
- Biological survey started in June and hydro-geological program to start early July
- Focus on fast tracking Mining Lease application requirements
- SYA trading on very low comparative EV/tonne multiple compared to peer group

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce that work programs focused on enhancing the Authier project value and fast-tracking the permitting are underway.

The Company remains focused on rapidly developing Authier and capitalising on the strong pricing window available for new project entrants in the short-to-medium term. Authier is an advanced development project and cash flow generation opportunity with positive attributes, including:

- Well studied with the completion of a Pre-Feasibility study ("PFS") in February 2017 project pre-tax NPV CAD\$140 million and IRR 39%;
- Maiden JORC Ore Reserves 10.2 Mt @ 1.02% Li<sub>2</sub>0 (Proven Reserve 4.9Mt @ 0.97% Li<sub>2</sub>0 and Probable Reserve 5.3Mt @ 1.06% Li<sub>2</sub>0);
- Simple open-cut, truck and shovel mining operation;
- Proven process for recovery of spodumene into a saleable concentrate;
- World-class infrastructure and Quebec Government support;
- Low capital hurdle and attractive operating costs; and
- Potential to process and produce a lithium carbonate/hydroxide product through an integrated downstream processing facility at Authier.

Since the completion of the February 2017 PFS, the Company has completed another 4,100 metres of drilling and expanded the JORC Mineral Resource –see Table 1. Work programs are being progressed to expand the project value, including hydrogeological, geotechnical, and metallurgical assessments. Following completion of the programs, the February 2017 Pre-Feasibility Study will be updated, and a new Ore Reserve statement published. This will form the basis of the Definitive Feasibility Study which the Company will anticipate completing in early 2018. In addition, the Company is advancing its permitting activities including, the environmental and Mining Lease approvals.

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### Off-take and Project Value Adding Opportunities

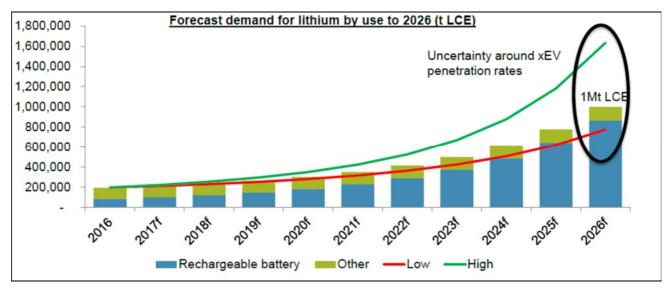
The Company is continue to explore a number of options for selling or value-adding the spodumene concentrate that will be produced from a future operation at Authier.

Strong demand for the lithium products has driven concentrate prices to record levels and many industry commentators like Roskill are projected this demand to continue strong into the future (see Figure 1). In response to this demand, the Company has received strong interest to supply both the Chinese and Canadian downstream converters.

In addition, the Company is actively evaluating value-adding opportunities in the downstream lithium sector. Currently there is significant financial margins being achieved by the processing of spodumene concentrates into lithium carbonate. The Company is evaluating the technical and economic viability of building a lithium carbonate and/or hydroxide production conversion facility to enhance the project value, and improve the long-term competitive position of the project. Quebec is uniquely positioned with a number of significant commercial and market advantages, including:

- High quality infrastructure, including globally competitive, low-cost gas and electricity prices. Electricity is sourced from renewable energy;
- Skilled, competitive cost labor force;
- Road and rail transport networks connecting to export ports;
- Supportive government that invests directly into mineral development projects (e.g. Nemaska and North American Lithium); and
- Located in close proximity to the US markets including, the Tesla Giga factory in Nevada, and other planned Giga factories in the United States.

Whilst the Company completes its Updated Pre-Feasibility Study it will continue to review all the options available and wants to ensure that the strategy it pursues generates the highest potential return for shareholders.



**Figure 1**: Potential demand scenario of up to 1Mt LCE by 2026 presented by Roskill at the May 2017 Montreal lithium conference. Source: "The impact of automotive electrification on



lithium: 1TWh and 1Mt LCE in 10 years", Robert Baylis, Roskill, 9<sup>th</sup> Lithium Supply and Markets Conference, 31<sup>st</sup> May 2011

### Hydrogeological Survey

A hydrogeology study will begin early next month and involve drilling a number of shallow water wells to assess hydrogeological conditions prevailing in the project area. The information will be used to assess the current quality of the groundwater and to make the assessment of the projects impact on the ground water quality in the area.

In addition, the data will be used to plan the pumping activities for the mine, and to provide information for the geotechnical engineering and geo-mechanics of the project. The program will improve the understanding of the project groundwater environment and is expected to mitigate the environmental risks attributable to the operation.

### Metallurgical Optimisation and Final Process Flow Sheet Design

Further metallurgical test work is being completed aimed at improving processing recoveries and concentrate grades, and targeting lower operating costs. The program is being managed by DRA/Metchem in Montreal and the test work completed at SGS Lakefield.

The program is initially addressing the impact of waste dilution on the concentrate grade. Previous metallurgical testing incorporated the anticipated 5% waste dilution in the ore. QEMSCAN analysis on the flotation concentrate indicates that mined waste material (amphibole) is reporting to the final flotation concentrate and some simple flow sheet modifications should be able to remove the amphibole. A concept stage testing program was undertaken on three concentrate samples using high intensity magnetic separation, and achieved a concentrate grade of 5.98% Li<sub>2</sub>0. A larger sample set is now being tested.

In addition, the Company is currently undertaking a roasting test of Authier concentrate to assess its performance characteristics in the critical alpha to beta conversion phase of producing lithium carbonate and/or hydroxide.

### **Environmental Survey Update**

A detailed environmental study was completed for Authier in 2013 by Dessau. The study reviewed available information across a number of disciplines, including geology and soils, hydrogeology, hydrology, air quality and noise, flora and fauna, socio-economic setting and archaeology. Following recent discussions with the environmental authorities, it was recommended that the biological environment species inventory and baseline surface water quality programs be updated given the lengthy period of time since the last survey.

An update of the environmental study commenced in June aim to gather relevant information about the fauna and the flora with the aim of mitigating the environment risks attributable to the operation which could be considered low. The program, coordinated by SNC-Lavalin, will continue over the next seven months and will focus on the following items:

- Vegetation inventory, including wetlands and species with special status;
- Inventory of fish and fish habitat;
- Inventories of wildlife species with special status; and
- Assessment of surface water quality.



# Stakeholder Engagement

At the social level, a stakeholder survey has been completed and a communication strategy to present the project to the local community and First Nations has been developed.

In the coming weeks, the community relations program will begin to be implemented. The preliminary program will address governmental consultation obligations and make sure environmental, social and economic issues to be raised by stakeholders are integrated into the project development. A list of potential constraints to the mining development, both from an objective perspective and based on the consultant's experience in the area will be prepared. Finally, a working sequence will also be developed in order to start building relationships with relevant stakeholders and rights holders (municipalities, municipality, Abitibiwinni First Nation, neighbours, and land users).

# **Mining Lease Application Process**

In addition, the outline of the mining lease was approved by the Ministère de l'Énergie et des Ressources Naturelles ("MERN"). On-going work programs required to approve the mining lease include, completion of Definitive Feasibility Study, a formal location survey and environmental certification which are both in progress.

# Recent JORC Mineral Resource Upgrade

The Company recently reported an expanded, JORC 2012 compliant Mineral Resource estimate, tabulated below. The contained lithium oxide Mineral Resource increased by 21% from 146,700 tonnes to 177,212 tonnes compared to the November 2016 estimate. The Measured and Indicated Mineral Resource categories represent 88% of the total Mineral Resource estimate. The expanded resource will be incorporated into the Updated Pre-Feasibility Study and a new Ore Reserve estimate.

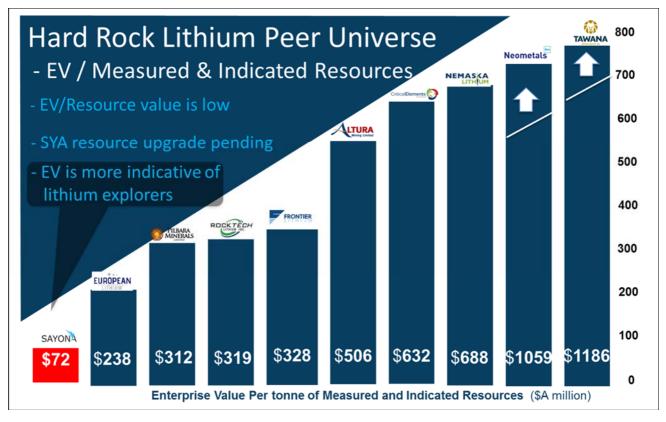
Table 1 – Authier JORC Mineral Resources Estimate (0.45% Li <sub>2</sub> 0 cut-off grade)			
Category	Tonnes (Mt)	Grades %Li <sub>2</sub> 0	Contained Li <sub>2</sub> 0
Measured	5.62	1.01%	56,762
Indicated	9.57	1.03%	98,571
Inferred	2.21	0.99%	21,879
Total	17.40	1.02%	177,212

Despite the completion of a PFS and reporting a maiden Ore Reserve, subsequent upgrade of the JORC Mineral Resource, the Company's market value of \$12.5 million is still at a substantial discount to the:

- Authier Pre-tax NPV of CAD\$140 million; and
- Average enterprise value per tonne of Measured and Indicated Resource multiples in the global sector AUD\$72 per tonne (see Figure 2).

The Company sees significant re-rating potential as it completes the Updated PFS and aligns with a strategic partner to move through the next phase of development towards production and cashflow.





**Figure 2**: Comparative industry EV/tonne Measured and Indicated Resource analysis. Source: Company data. PLS assumes completion of current equity offering.

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Sayona Mining Limited is an Australian, ASX-listed (SYA), company focused on sourcing and developing the raw materials required to construct lithium-ion batteries for use in the rapidly growing new and green technology sectors.

#### Reference to Previous ASX Releases

This document refers to the following previous ASX releases:

- "Expanded Authier JORC Resource", 14 June 2017
- Authier maiden JORC Ore Reserve estimate, 17 February 2017
- Authier Pre-Feasibility Study" 17 February 2017

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.