#### **14 NOVEMBER 2017**

#### 2017 International Lithium, Graphite & Cobalt Conference

Attached is a presentation to given by Mr Corey Nolan at the 2017 International Lithium, Graphite & Cobalt Conference in Hong Kong.

#### For more information, please contact:

Corey Nolan Chief Executive Officer Phone: +61 (7) 3369 7058

Email: info@sayonamining.com.au

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.

The Company's primary focus is the development of the advanced stage Authier lithium project in Quebec, Canada. Authier mineralisation is hosted in a spodumene-bearing pegmatite intrusion with more than 22,000 metres of drilling in 139 holes. The Authier JORC (2012) compliant Ore Reserve and Mineral Resource estimates are tabulated below at a 0.45% Li20 cut-off grade.

Authier JORC Ore Reserve 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>									
Proven Reserve	4.9	0.97%	47,821						
Probable Reserve	5.3	1.06%	55,904						
Total Reserves	10.2	1.02%	103,725						
Note: The Ore Reserve	e is based on the Febr	ruary 2017 Mineral Resou	rce estimate and						

Note: The Ore Reserve is based on the February 2017 Mineral Resource estimate and February 2017 Pre-Feasibility Study

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 Resources	17.4	1.02%	177,212						

Authier is amenable to simple open-cut mining and processing methods, and is situated in close proximity to development infrastructure. The Company is currently completing an updated Prefeasibility Study, due for completion in 3Q0217, prior to the commencement of a Definitive Feasibility Study which is planned to be completed in early 2018.

In addition, the Company controls a portfolio of lithium and graphite exploration projects in Western Australia.

**SAYONA MINING LIMITED** 

Phone: +61 7 3369 7058 Email: info@sayona,mining.com.au

Address: Suite 68, 283 Given Tce, Paddington QLD 4064 Post: PO Box 1357, Milton, Qld 4064, Australia www.sayonamining.com.au

ASX Code: SYA



### Disclaimer



#### **Forward Looking Statements**

This presentation may contain certain forward looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond Sayona Limited's control. Actual events or results may differ materially from the events or results expected or implied in any forward looking statement. The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward looking statements will be or are likely to be fulfilled. Sayona Limited undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this presentation (subject to securities exchange disclosure requirements). The information in this presentation does not take into account the objectives, financial situation or particular needs of any person. Nothing contained in this presentation constitutes investment, legal, tax or other advice.

#### **Reference To Previous ASX Releases**

This presentation refers to the following previous ASX releases:

- Authier JORC Resource Expanded , 23 November 2016
- Authier Maiden JORC Ore Reserve, 17 February 2017 and JORC Resource Update, 14 June 2017
- Authier PFS, 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.

#### **Downstream Concept Study**

The Concept Study referred to in this announcement has been undertaken to determine the potential viability of downstream processing Authier concentrates into lithium carbonate and/or hydroxide. It is based on a low level technical and economic assessment and was based on the AACE International Recommended Practice No. 18R-97, as a Class 4 estimate. The study has not been used as the basis for the estimation of Ore Reserves. Further technical and economic assessment including, metallurgical testing, Feasibility Study and permitting will be required to provide any assurance or certainty of an economic development case.

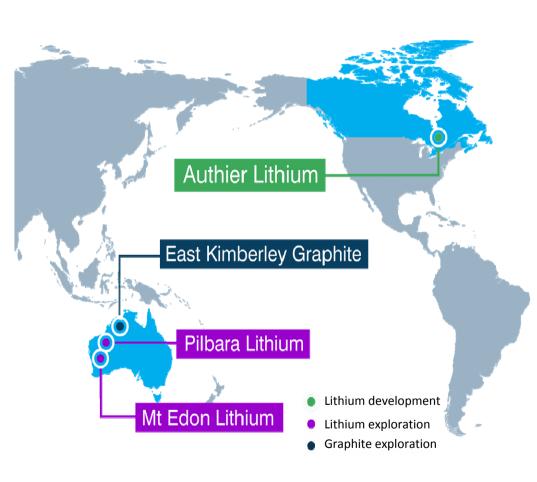
The Concept Study is based on the mine and concentrator assumptions (includes Ore Reserves) outlined in the February 2017 Authier Pre-Feasibility Study, Authier Updated JORC Resource report (14 June 2017), a report prepared by Wave International on the downstream capital and operating costs, Appendix – Project Design Criteria, and other material assumptions outlined elsewhere in this document. Whilst the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated in the Concept Study will be achieved.

To achieve the potential downstream process plant development outcomes indicated in this Concept Study, additional funding will be required. Funding will be required to complete metallurgical testing (\$100,000), feasibility studies and permitting (approximately \$1,000,000) and development (approximately \$223 to \$240 million depending on whether it is a lithium carbonate or lithium hydroxide plant). Investors should note that there is no certainty that the Company will be able to raise the funding when needed. It is also possible that such funding may only be available at terms that may be too dilutive to or otherwise affect the value of Sayona shares. It is also possible that Sayona could pursue other 'value realisation strategies such as sale, partial sale or joint venture of the project. If it does, this could materially reduce Sayona's proportionate ownership of the project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Concept Study.

The Company has concluded it has reasonable basis for providing forward looking statements included in this announcement and believes that it has a reasonable basis to expect it will be able to continue funding the feasibility activities for the project.

## Sayona - At a Glance





- Australian-based, ASX listed lithium exploration and development company
- Primary objective is to fasttrack development of the advanced Authier Lithium Project
- Targeting first production at Authier in late 2019
- Significant portfolio of lithium and graphite exploration properties in Australia

## **Corporate Summary**



Trading Exchange	ASX: SYA
Shares	1,462,229,614
Shareholders	19% Directors 44% Top 20

Capitalisation	
Price As at 10 Nov 2017	3 <b>.</b> 0¢
Market cap	AUD\$44m
Cash As at 10 Nov 2017	AUD\$5.0m

## Research Coverage









# Board



James Brown	<ul> <li>35 year's experience including, 22 years with New Hope Corporation. Extensive mine development &amp; operational experience</li> <li>Managing Director of Altura Mining - \$780m market cap</li> </ul>
Allan Buckler	<ul> <li>40 year's experience building mining operations in Australia and Indonesia. Former Director and Chief Operations Officer for New Hope Corporation</li> <li>Director of Altura Mining</li> </ul>
Dan O'Neill	<ul> <li>Geologist with 35 year's experience in technical and corporate roles</li> <li>Founding director of Orocobre Ltd. Director of Altura Mining</li> </ul>
Paul Crawford	<ul> <li>CPA with 35 years public company experience</li> <li>Previously Company Secretary of companies including, Orocobre Ltd (founding director), Elementos and ActivEx</li> </ul>

Sayona Mining Limited, ASX: SYA

# Management



#### Building in-house capability across all technical disciplines

	- calpain may are one one or an are alpain are
<b>Corey Nolan</b> CEO	<ul> <li>24 years experience in exploration, development, operations and corporate finance</li> <li>Started and managed a number of resource companies with projects in a range of commodities and countries</li> </ul>
<b>Jonathon Gagne</b> Canada Manager	<ul> <li>Mining Engineer with MBA and more than 10 years experience in operations and mine planning</li> <li>Joined Sayona from Glencore Zinc's open-cut mine planning division</li> </ul>
Authier Processing Engineer	Appointment to be announced soon
Authier Project Manager	Appointment to be announced soon

Sayona Mining Limited, ASX: SYA



# Mining in Quebec





- Canada's largest iron and zinc producer, and 2nd largest gold producer
- 25 mines in production
- \$8.7bn of mineral exports
- Number of new lithium mines and downstream processing facilities proposed
- NAL only spodumene conversion facility in the world outside China

North American Lithium (NAL) project,

35 km from Authier

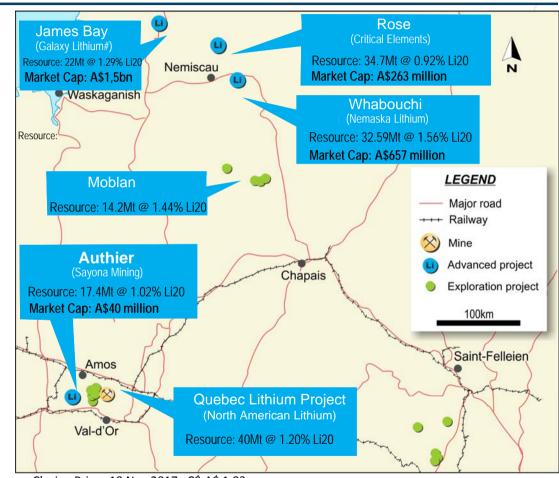
## Major Hard-Rock Lithium Province



Number of **globally significant lithium deposits** 

Challenges for Northern
Quebec lithium projects is
limited infrastructure,
environmental and
management of first nations

**Authier benefits** from close proximity to established infrastructure – cost benefit



Closing Prices 10 Nov 2017. C\$:A\$ 1.03

# Resource shown as James Bay only. Excludes other projects

## Supportive Government



**TOP rated mining jurisdiction** by Fraser Institute – No.6 in world

**Stable taxes** (profit sharing basis) and no royalties

Well **established permitting** regime

Modern, efficient infrastructure

**Strong Government Support –**Investment Partners in Mining





**Shareholders** 

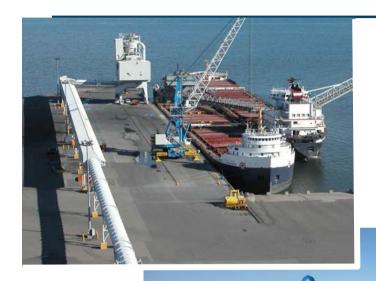






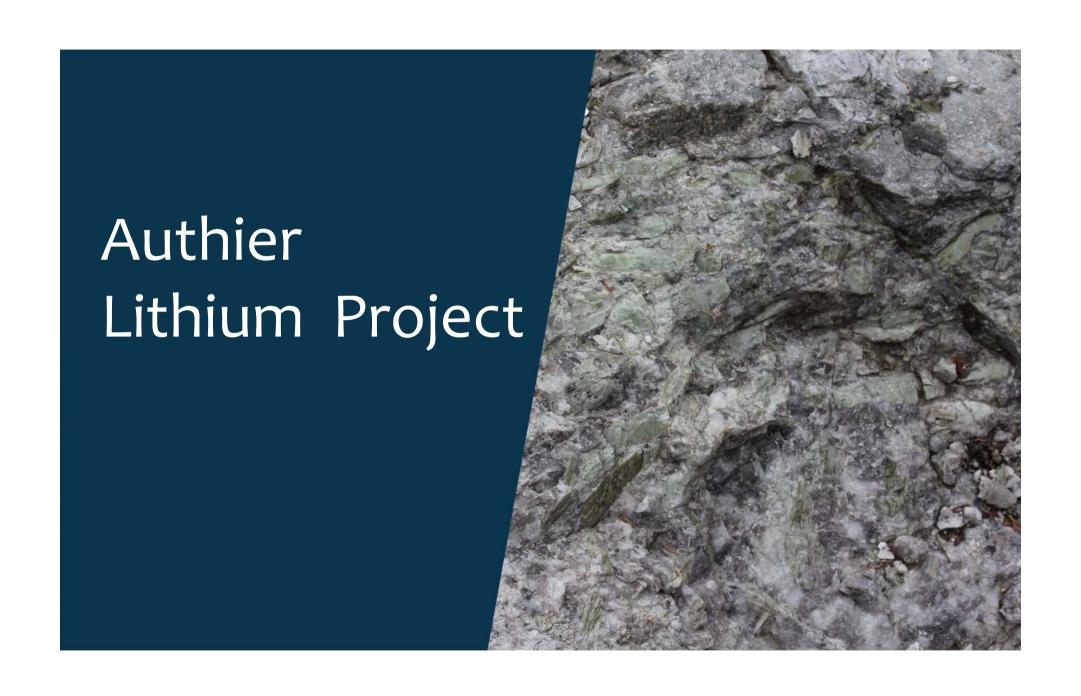
## World Class Infrastructure





- Port
  - Power
    - Rail
      - Airports
        - Labour





## Authier Lithium Project





- Located 45km from Val d'Or in Quebec, Montreal
- Hard-rock, spodumene lithium deposit
- 100% owned
- 26,000m of drilling
- Base-line environmental completed
- Well studied PEA 2012, PFS 2017, 4-phases of metallurgy

## Authier First Phase Development





Simple, low-cost, truck and shovel, open-cut mining operation



Conventional concentrator producing 100kt/yr of 6% Li20 concentrate



**Definitive Feasibility Study commenced.** Targeting completion 2Q2018



Permitting and environmental to be completed early 2018



Base case mine life 15 years



Low capital hurdle and competitive operating cost

First Phase Development based on a Fast Track Permitting Regime

## Authier Growth and Expansion Options



#### 1. Increase Production Capacity

- Increase plant capacity to sell more concentrates and shorten minelife to maximise NPV
- Invest into further exploration to expand the resource base

### 2. Integrated Refinery Model

- Convert Authier concentrates into lithium hydroxide or carbonate
- Scoping study completed attractive economics
- Leverages world-class infrastructure and low energy costs in Quebec
- PFS and metallurgical test work to commence next quarter
- Site selection process underway

## Growth Options Funded from Phase 1 Concentrate Sales

## 2017 Pre-Feasibility Study Outcomes



Start-up capex of CAD\$66 million and

and opex of US\$280/t

Pre-Tax NPV's	CAD\$ <b>140</b> m
Pre-Tax IRR	39%
Capital Payback	<b>2.2</b> years
Ave Annual EBITDA	CAD\$31m
Ave Operating Margin	US\$ <b>235</b> /t
Price Forecast*	US\$ <b>515</b> /t

- Price of US\$/t per tonne of concentrate based on a 5.75% Li20 concentrate
- #See ASX release, Authier Pre-Feasibility Study, 17 February 2017

### Maiden JORC Ore Reserve

	Tonnes (Mt)	<b>Grades</b> (Li20)	Contained (Li20)
PROVEN	4.9	0.97%	47,821
PROBABLE	5.3	1.06%	55,904
TOTAL	10.2	1.02%	102,725

PROVEN

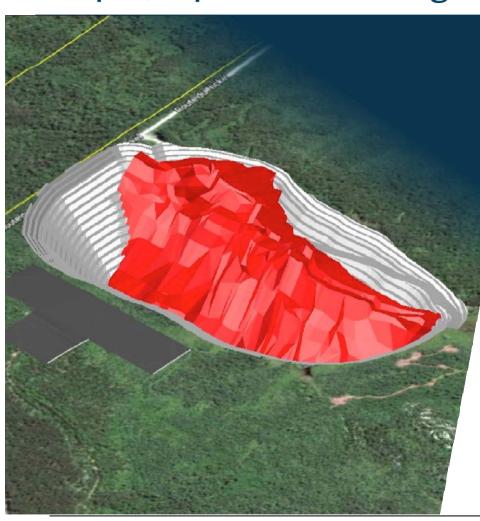
PROBABLE

The Ore Reserve has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012) at a 0.45% Li20 cut-off grade

Sayona Mining Limited, ASX: SYA

## Simple, Open-Cut Mining Operation

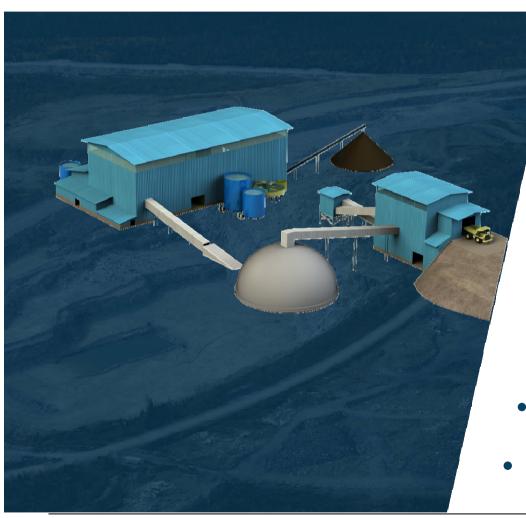




- Simple Mining Method
   Truck and shovel operation
- Competitive Mining Costs
   CAD\$2.90/tonne average
- Low CapexMining Fleet Leased
- Conservative geotechnical assumptions – 45° pit slope
- Life-of-Mine 15 years
- Large, thick tabular body
   LOM waste to ore ratio 6:1

### Conventional Process Flow-Sheet

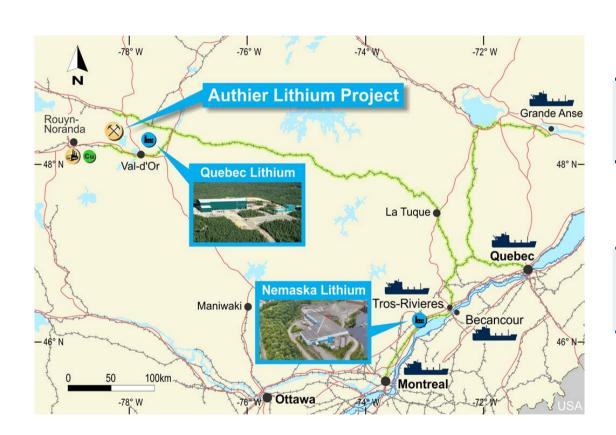




- Conventional process flowsheet - crush, grind and flotation
- Cash Operating Costs\$20 / tonne life-of-mine
- 80% recovery to a5.75% Li2O concentrate\*
- **700,000 tpa** processing capacity to produce
- 98 Kt/yr Li2O concentrate
- **Dry Tailings** simplifies approvals

### World-Class Infrastructure





5km Low cost **hydro power & gas** 

5km Sealed **road access** 

20km Rail access to export port

Experienced local mining workforce

Major new hub of lithium carbonate production

Electricity **5**¢ kWh Gas < \$**3** /GJ Post-PFS Resource Upgrade – New Reserve Planned

MEASURED

INDICATED

INFERRED

	Tonnes (Mt)	<b>Grades</b> (Li20)	Contained (Li20)					
MEASURED	5.62	1.01%	56,762					
INDICATED	9.57	1.03%	98,571					
INFERRED	2.21	0.99%	21,879					
TOTAL	17.4	1.02	177,212					

The resource has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012) at a 0.45% Li<sub>2</sub>0 cut-off grade.

## Optimisation Programs to Enhance Value



# **Work Programs**

- 1. Increased Ore Reserve following Mineral Resource upgrade
- 2. Metallurgical optimisation:
  - 6% Li20 concentrate produced
  - Improved processing recoveries
- 3. Geotechnical & dilution study enhancements

## **Value Outcomes**

- Longer mine life
- Capacity expansion potential
- Increased revenues
- Lower operating costs
- Higher NPV and IRR

Fast tracking Authier towards production - Definitive Feasibility Study underway

# Integrated Refinery Model



### **Concentrate Sales Strategy**

Sell **lower-value concentrates** to battery converters in Canada or China

Concentrate sells at >US\$750/t

#### Why go downstream?

- Substantially higher margins than concentrate operations
- Much higher prices for value-added products
- Significantly higher NPV's
- Opportunity to create significantly more shareholder value

### **Integrated Refinery Strategy**

Sell **value-added lithium** products to battery manufacturers

Lithium hydroxide sells for >US\$18,000/t

#### **Quebec location advantages**

- Low-cost energy
- Skilled low-cost, workforce
- Close to the US battery markets
- Favourable taxation regime
- Reagents readily available

# Integrated Refinery Model



Authier Downstream Processing Financial Highlights\* (Approximate Values Derived from the Scoping Study)

Description	Unit	Lithium Carbonate	Lithium Hydroxide
Annual Production Capacity	Tonnes	13,000	14,000
Ave Cash operating Costs*	C\$ per tonne	6,331	6,032
Ave Cash Operating Costs*	US\$ per tonne	4,812	4,585
Price forecast	US\$ per tonne	10,200	12,000
Initial Capital#	# C\$ million		240
Total Capital#	C\$ million	284	301
Pre-tax NPV @ 9%DR	C\$ million	426	794
Pre-Tax IRR	%	31	44
Exchange rate	CAD\$:US\$	0.76	0.76

<sup>\*</sup> Cash Operating Costs includes mining, processing, administration, royalties, transport, and downstream processing

<sup>#</sup> Capital expenditure includes all mine, concentrator and downstream process plant

<sup>\*</sup> Please see Scoping Study disclaimer on page 2 and ASX release, "Downstream Study Demonstrates Positive Economics", 30 August 2017

# Authier Development Timetable



Milestones	20	17		20	18		2019				2020	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
PFS Update												
Environmental												
Mining Lease												
Pilot Metallurgy												
Definitive Feasibility Study												
Engineering & Design												
Off-take												
Finance												
Construction												
Operation												
Downstream Concept study												
Downstream Testing												
Downstream Studies												

Sayona Mining Limited, ASX: SYA

## Investment Highlights





Authier is an advanced, de-risked project. DFS underway



Executing a plan to get into **production and generate cash flow** – low capital hurdle & competitive operating costs



Located in a **first world country** with **access to world-class, low-cost infrastructure** 



Integrated refinery model provides an opportunity to value-add Authier concentrates and create significant shareholder value



Base case pre-tax NPV of \$140 million and low enterprise value per tonne of resources compared to industry peers



Board and management team have track record of delivering projects

