# SAYONA MINING LIMITED

# RIU Explorers Conference Exploration

February 2018 ASX: **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 , 11 December 2017
- Authier Maiden JORC Ore Reserve, 11 December 2017
- Authier PFS, 11 December 2017
- Authier Downstream Concept Study Demonstrates Positive Economics, 30 August 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





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- 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 / early 2020
- Significant portfolio of lithium exploration properties in Australia and Canada

### **Corporate Summary**



Share Structure						
Trading Exchange	ASX: SYA					
Shares	1,475,046,728					
Shareholders	19% Directors 46% Top 20					

Capitalisation	
Price As at 13 Feb 2018	6.8¢
Market cap	AUD\$100m
Cash As at 31 Dec 2017	AUD\$3.5m
Debt	Nil



Research Coverage





### Board

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Dedicated to generating shareholder value by replicating past success

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 - &gt;\$600m 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>

### Authier Lithium Project



- Located 45km from Val d'Or in Quebec, Montreal (500km SE)
- Located in established mining district
- 100% owned

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- Simple deposit 26,000m of drilling
- Environmental studies completed. Permitting advanced
- Well studied PEA 2012, PFS 2017 – DFS underway



### World-Class Infrastructure





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

5km Sealed **road access** 

**20**km **Rail** access to export port

Experienced **local mining** workforce

Major new hub of lithium carbonate production Electricity 5¢ kWh and Gas \$3 /GJ





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

Conventional concentrator producing 96kt/yr of 6% Li20 concentrate



**Definitive Feasibility Study commenced.** Targeting completion Q2 2018



Permitting and environmental to be completed early 2018



Base case mine life **17-years** 



Low capital hurdle and competitive operating cost

First Phase Development based on a Fast Track Permitting Regime

### Authier JORC Ore Reserve & Resource



**Deposit well understood** – more than 26,000 metres of drilling in 150 holes

Majority of **Ore Reserve hosted in one large pegmatite** – 1.1km long, 200m deep and 35m wide – outcropping from surface

Lithium mineralisation **spodumene** 

Base case mine Life – 17 years

Deposit remains open in all directions

JORC Ore Reserve (0.45% cut-off)							
Tonnes (Mt)	Grades (Li20)	Contained (Li20)					
4.9	<b>0.97</b> %	47,821	PROVEN				
5.3	1.06%	55,904	PROBABLE				
11.6	1 <b>.02</b> %	102,725					

### JORC Mineral Resource (0.45% cut-off)

Tonnes (Mt)	<b>Grades</b> (Li20)	Contained (Li20)	
5.86	1.01%	59,186	MEASURED
10.19	1.03%	104,957	INDICATED
2.20	0.99%	22,796	INFERRED
18.1	1.02%	186,939	

### 2017 Pre-Feasibility Study Outcomes



Start-up capex of AUD\$65 million and and opex of US\$327/t

Pre-Tax NPV (8% real)	AUD\$ <b>227</b> m
Pre-Tax IRR	<b>56</b> %
Capital Payback	<b>2.5</b> years
Ave Annual EBITDA	AUD\$ <b>38</b> m
Ave Operating Margin	US\$ <b>287</b> /t
Price Forecast	US\$ <b>614</b> /t

### **Conventional Process Flow-Sheet**





- Conventional process
   flow-sheet crush, grind
   and flotation
- Cash Operating Costs
   A\$19.40/t ore life-of-mine
- 82% recovery to a
  6.00% Li2O concentrate
- 700,000 tpa processing capacity
- 96 Kt/yr Li2O concentrate
- **Dry Tailings** simplifies approvals

# Phase 3 Drilling Targeting Resource Expansion SAYONA



### **3,000 – 4,000** metres Drilling Program Objectives

- Upgrading the Mineral Resources categories
- Expand the Northern pegmatite
- Converting mineral resources to reserves
- Exploring for extensions to the mineralisation
- Collecting geotechnical data for Definitive Feasibility Study
- ✓ Metallurgical testing



MOU signed with **Hunan Changyuan Lico Co Ltd** - a subsidiary of Fortune 500 company, Minmetals Group – a battery materials manufacturer

Strategic alliance to explore **marketing, technical, and financial development** options for the Authier lithium project

MOU contemplates Hunan Changyuan purchasing all the Authier concentrates and assessing potential for downstream processing





- 1. Increase Production Capacity &/or Resource Size
  - Increase plant capacity to sell more concentrates and shorten minelife to maximise NPV
  - Further drilling to expand resource base (Phase 3 underway)
- 2. Integrated Refinery Model
  - Convert concentrates into lithium hydroxide or carbonate
  - Scoping study completed attractive economics Pre-Tax NPV \$795m
  - Leverages world-class infrastructure and low energy costs in Quebec
  - PFS and metallurgical test work to commence next quarter
  - Project site selection underway

Growth Options Funded from Phase 1 Concentrate Sales

### Authier Development Timetable



Milestones		017	2018			2019				2020		
		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												
Commission & Operation												
Downstream Concept study												
Downstream Testing												
Downstream Studies												

### **Tansim Project**



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- Option to acquire up to a 100% interest, project located 82km from Authier
- Spodumene pegmatites over 9km trend, selective rock samples to 2.87% Li2O
- Viau-Dallaire prospect includes pegmatite with channel sample up to 10.3m @1.40% Li2O



### WA Lithium – The Pilgangoora District





## Mallina Project – A New Spodumene System SAYONA



## Mallina Snapshot



$\checkmark$	Spodumene	<ul> <li>Eight new albite - spodumene pegmatites discovered in 2017</li> <li>Up to 1300m long and 20m in width</li> </ul>
✓	Maiden Drilling	<ul> <li>18 RC drillholes confirm pegmatite at depth but narrower zones of spodumene</li> <li>Up to 1m@ 1.62% Li2O and 5m@1.00% Li2O</li> <li>Spodumene affected by late magmatic potassic alteration</li> </ul>
$\checkmark$	2018 Targets	<ul> <li>Drill test Area C prospect. Advance the large number of lithium geochemical anomalies for drilling</li> </ul>







### Mallina – Area C Prospect



### **Spodumene pegmatites**

- 25km2 'hot spot'
- Three main clusters.....so far

### Area C Prospect

- Strong soil anomaly -1200m strike extent
- high grade spodumene rock to 4.60% Li2O
- Drill approvals in place

### Regional

 Remainder of 100km2 tenement untested



### The Pilbara Regional Strategy



### Exploring 1800km2 tenure

- Target late granites of the 'Golden Age', 2890Ma to 2830Ma
- Element zonation and Tantalum-Cesium-Rubidium +/- Ga-TI-Be pathfinder algorithm
- Reconnaissance sampling of granites and pegmatites to identify Li prospective fractionated areas
- Detailed mapping and sampling for albitespodumene pegmatites



## Sayona Investment Proposition





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



Base case pre-tax NPV of A\$227 million and low enterprise value per tonne of resources compared to industry peers



Opportunity to value-add Authier concentrates and create significant shareholder value - \$794m pre-tax NPV



West Australian exploration advancing spodumene pegmatite discoveries and unlocking value



Board and management team have **track record of delivering projects** 

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