ASX ANNOUNCEMENT

SAYONA MINING LIMITED

30 AUGUST 2017

LITHIUM CARBONATE/HYDROXIDE CONCEPT STUDY DEMONSTRATES POSITIVE TECHNICAL AND ECONOMIC VIABILITY

- **Positive Concept Study confirms opportunity to unlock value at Authier processing concentrates into high-value products used in the lithium-ion battery industry**
- **Potential to partly finance downstream operations by the sale of spodumene concentrate in the early years whilst the permitting and downstream feasibility study are completed**
- **Significant competitive advantages in raw material supply, infrastructure, energy and reagent supply and costs, in Quebec**
- **Competitive capital and operating costs compared to benchmark new projects**

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to report the positive results of a downstream processing Concept Study for the production of lithium carbonate and/or lithium hydroxide at the Authier lithium project in Quebec, Canada.

The Concept Study prepared by engineering consultants, Wave International ("Wave"), has demonstrated the potential technical and economic viability of constructing a lithium carbonate and/or hydroxide facility in Quebec.

The study evaluated the option of converting Authier's annual spodumene concentrate into either 13,000 tonnes of lithium carbonate or 14,000 tonnes of lithium hydroxide, utilising conventional processing technology, and leveraging the world-class infrastructure, low energy and reagent costs. Lithium carbonate and hydroxide are both high-value products used in the lithium-ion battery industry.

The Concept Study demonstrates that the Authier downstream project has the potential to be competitive on both capital and operating costs compared to benchmarked projects. The Company will explore options to either acquire or partner with other companies that have deposits in Quebec, as significant economies of scale are achievable at larger scale.

The next step in the project development plan is to convert Authier concentrates into lithium carbonate, complete of a Pre-Feasibility Study, permitting and site selection. This process will run in parallel with the completion of the mining and concentrate processing Definitive Feasibility Study, and strategic partnering process.

Chief Executive Officer, Corey Nolan, commented: *"The positive results from the Concept Study signals a new phase of value creation for the Authier project. In the short term, the Company is committed to developing a low capital expenditure concentrate sales operation and capitalising on the projected high price environment for concentrates near term. The cash flows could then be applied to funding the equity required to construct the downstream processing plant. This would unlock the inherent value in the project at a time when lithium carbonate/hydroxide prices are trading near at all time price highs based on the strong demand growth for lithium-ion batteries. Please also refer to the cautionary contained within".*

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Cautionary Note

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 (see Figure 1 below). 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.

Technical Study Overview

In February 2017, the Company completed a Pre-Feasibility Study (including a Maiden Ore Reserve statement) assessing the technical and economic viability of selling spodumene concentrates into the global seaborne traded market[1]). In August 2017, the Company commissioned an evaluation of the technical and economic viability of building a lithium carbonate and/or hydroxide production conversion facility using Authier spodumene concentrates to enhance the project value, and improve the long-term competitive position of the project.

[1] see ASX release, Authier Pre-Feasibility Study Demonstrates Excellent returns and significant Upside Potential, 16 February 2017 and ASX release, Authier Maiden JORC Ore Reserve, 16 February 2017

The downstream study was prepared by Wave International (Wave), a highly experienced resource industry development consulting group with over a decade of experience in the lithium industry. Wave are one of only a handful of consultants globally who have successfully studied, designed and delivered spodumene concentration plants, as well as having successfully delivered studies and detailed design for downstream lithium conversation plants. The experience of Wave and its key personnel includes projects such as James Bay (Canada), Greenbushes, Mt Cattlin and Bald Hill.

The study has assessed the alternative processing options, process flow sheet selection, operating and capital cost estimates, financial analysis, and recommendations for the next phase of development.

The Concept Study is based on a low level technical and economic assessment and was based on the AACE International Recommended Practice No. 18R-97, Class 4 estimate.

	Primary Characteristic	*Secondary Characteristic*			
ESTIMATE CLASS	**LEVEL OF PROJECT DEFINITION** Expressed as % of complete definition	**END USAGE** Typical purpose of estimate	**METHODOLOGY** Typical estimating method	**EXPECTED ACCURACY RANGE** Typical variation in low and high ranges [a]	**PREPARATION EFFORT** Typical degree of effort relative to least cost index of 1 [b]
Class 5	0% to 2%	Concept Screening	Capacity Factored, Parametric Models, Judgment, or Analogy	L: -20% to -50% H: +30% to +100%	1
Class 4	1% to 15%	Study or Feasibility	Equipment Factored or Parametric Models	L: -15% to -30% H: +20% to +50%	2 to 4
Class 3	10% to 40%	Budget, Authorization, or Control	Semi-Detailed Unit Costs with Assembly Level Line Items	L: -10% to -20% H: +10% to +30%	3 to 10
Class 2	30% to 70%	Control or Bid/ Tender	Detailed Unit Cost with Forced Detailed Take-Off	L: -5% to -15% H: +5% to +20%	4 to 20
Class 1	50% to 100%	Check Estimate or Bid/Tender	Detailed Unit Cost with Detailed Take-Off	L: -3% to -10% H: +3% to +15%	5 to 100

Notes: [a] The state of process technology and availability of applicable reference cost data affect the range markedly. The +/- value represents typical percentage variation of actual costs from the cost estimate after application of contingency (typically at a 50% level of confidence) for given scope.
[b] If the range index value of "1" represents 0.005% of project costs, then an index value of 100 represents 0.5%. Estimate preparation effort is highly dependent upon the size of the project and the quality of estimating data and tools.

Figure 1: AACE International Recommended Practice No. 18R-97

Key Highlights from Concept Study

The Concept Study has confirmed the technical and financial viability of processing Authier spodumene concentrates into value added battery products including, lithium carbonate and lithium hydroxide. The positive Concept Study demonstrates the opportunity to create substantial long-term sustainable shareholder value at a competitive capital cost.

Table 1: 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	223	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	

* Cash Operating Costs includes mining, processing, administration, royalties, transport, and downstream processing

Capital expenditure includes all mine, concentrator and downstream process plant

Authier Project Strategy

In February 2017, the Company completed a Pre-Feasibility Study (see highlights in Table 2) and reported a maiden Ore Reserve (see Table 3) demonstrating the technical and economic viability of constructing a mine and concentrator to produce spodumene concentrate at Authier.

Table 2 - Authier Lithium Project PFS Highlights

Description	Unit	Results
Average Annual Ore Feed to the Plant	tonnes	700,000
Annual Average Spodumene Production	tonnes	99,000
Life-of-Mine and processing operations	years	13/15
Life-of-Mine Strip Ratio	waste to ore	6:1
Average Spodumene Price based on 5.75% Li_20	US$/tonne	515
Development Capital Costs	C$ million	66
Total Life of Mine Capital Costs	C$ million	113
Total Net Revenue (real terms)	C$ million	978

Total Project EBITDA (real terms)	C$ million	449
Average Life of Mine Cash Costs (Montreal Port FOB basis)	C$/tonne	367
Net Present Value (real terms @ 8% discount rate)	C$ million	140
Pre-Tax Internal Rate of Return	%	39
Project Payback Period	years	2.2
Exchange Rate	CAD:USD	0.76
Source: Authier Pre-Feasibility ASX release, 16th February 2017		

Table 3 - Authier JORC Ore Reserve Estimate (0.45% Li_20 cut-off grade)

Category	Tonnes (Mt)	Grades (%Li_20)	Contained Li_20
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 estimate is based on the details published in a separate ASX release "Authier JORC Reserve Estimate", 16 February 2017.

However, the Company believes an opportunity exists to potentially enhance the value of the Authier project by further processing of the Authier concentrates into valuable products for the lithium-ion battery supply chain.

The rationale for considering downstream processing, includes:

- There is a significant price premium paid for value-added lithium products. Currently, lithium carbonate and lithium hydroxide prices in the Chinese market are US$18,100/t and US$21,000/t[2], respectively; and
- Spodumene concentrates are low grade (typically containing between 5 and 6% Li_20) and it is less economically efficient to transport a concentrate that contains a high proportion of waste material.

In addition, Quebec is uniquely positioned with a number of significant commercial and market advantages for value-adding concentrates, including:

- High quality infrastructure, including roads, rail, and port access;
- Globally competitive, low-cost gas and electricity prices. Electricity is sourced from renewable energy;
- Skilled, competitive cost labour force;
- Sulphuric acid, a key reagent for processing, is available from a copper smelter at Rouyn Noranda, 80 kilometres west of the Authier project site;

[2] Curran & Co

- 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 battery factories in the United States.

In addition, currently all the world's hard-rock lithium concentrates are imported and processed into value-added products in China. China's policy incentives for investment into battery manufacturing for electric vehicles and storage systems, and export tax regime for lithium products, is restricting supply of battery raw materials to western battery manufacturers like Korea, Japan and Europe. The Company believes it can be an alternative, stable source of lithium new supply outside China.

Next steps

Based on the positive outcomes of the study, the next steps for the downstream project, include:

- Progress to the Pre-Feasibility Stage. This process is expected to take 3-4 months. Target accuracy of operating and capital cost estimates is +/-25%;
- Detailed study of the lithium carbonate and lithium hydroxide supply and demand market dynamics to ascertain proposed production mix for the Authier project;
- Further metallurgical test work including bench scale production of lithium carbonate and hydroxide;
- Site selection assessment;
- Off-take and strategic partnering process to facilitate securing development finance. This would include both debt and equity options, and forward product sales;
- Consultation with the stakeholders in the Abitibi district; and
- Establish the permitting regime for the project with the Environmental authorities.

The Company is currently finalising the Updated PFS for Authier mine and concentrate project and planning the next phase of assessment for the downstream operations.

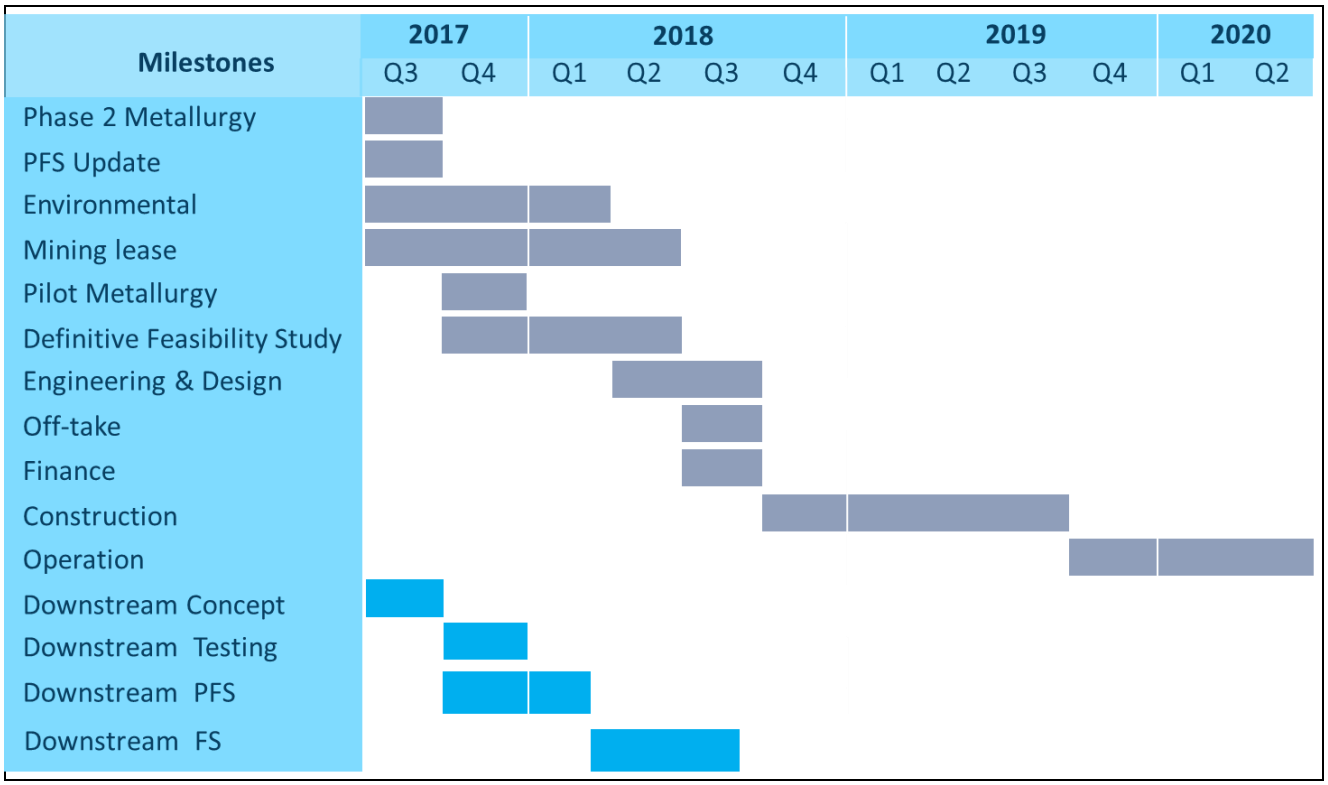


Figure 2: Current schedule for the mine and concentrator, and downstream feasibility study

Market Opportunity

Lithium concentrate produced from Authier will be classed as Chemical Grade specification. The principal markets for Chemical Grade concentrates are battery, lubricants, aluminum smelting and pharmaceuticals applications. The lithium market is currently experiencing a major demand shift driven by the increasingly critical role of the lithium-ion battery technology for storage applications in the automotive, consumer electronics and electricity storage/distribution sectors. The electrochemistry of lithium based batteries provide higher voltage, higher power density and lower discharge rates with no memory effect, when compared to competing technologies.

The lithium-ion battery or rechargeable market represented 42% of total lithium consumption or 81,300 tonnes of Lithium Carbonate Equivalent ("LCE") in 2016, a year-on-year increase of 38%3. Most industry commentators are forecasting the consumption of lithium in volume terms will continue to be driven heavily by the rechargeable battery sector. In a recent presentation, Roskill estimated that the total consumption of lithium could approximately 5 times from 200,000 tonnes in 2016 to 1,000,000 tonnes LCE by 2026[4] - see Figure 3. Key macro demand drivers include, carbon emissions legislation aimed at reducing the reliance on fossil

[3] UBS, Lithium & Graphite: Driving Disruption, 15 June 2017
[4] Source: Robert Baylis, Roskill, 9th Lithium Supply and Markets Conference, 31st May 2017

fuels, government incentives, environmental concerns, technological advancements, and the improved product offerings utilising lithium-ion batteries.

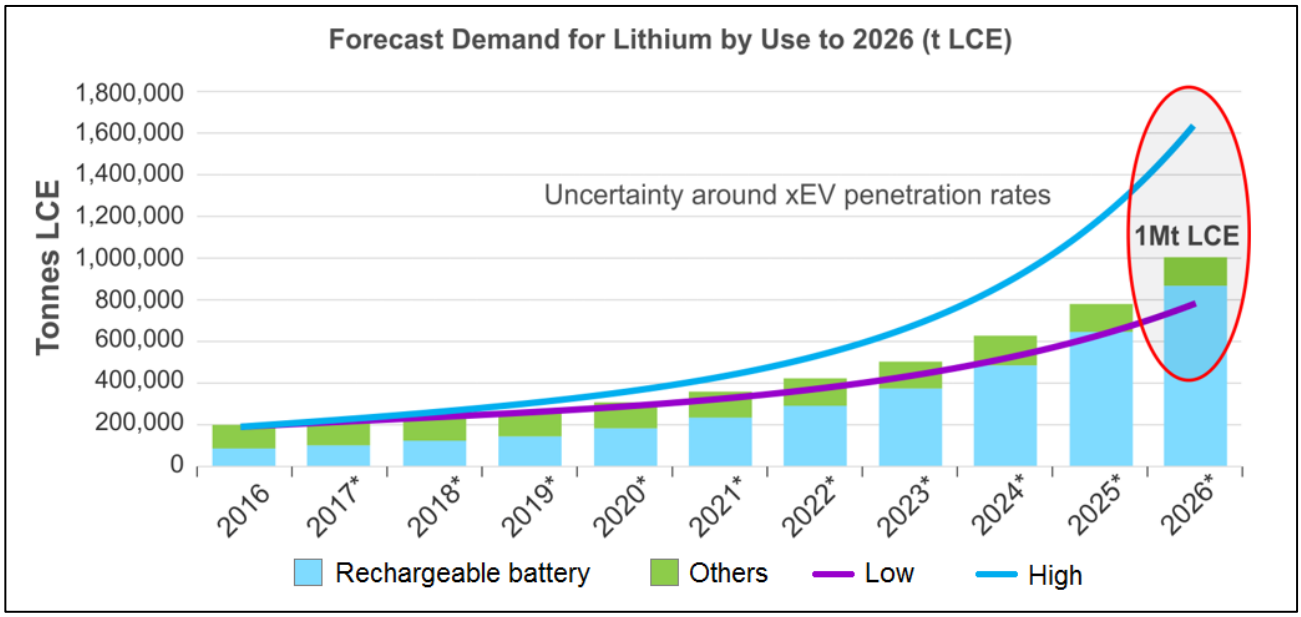


Figure 3: Forecast demand for lithium by use to 2026 (t LCE)

According to Deutsche Bank[5], within the battery segment, key drivers include:

- Electric vehicles ("EV") – the adoption of electric vehicles is poised to rapidly expand over the next decade. Forecast global EV penetration (including hybrids and plug-in-hybrids) to increase from 4% of 2015 global auto sales (of which EV accounted for 0.6%) to 14% market share by 2025, of which EV makes up 2.6% of sales. This implied the EV market would grow from 0.5 million units in 2014 to 3 million global sales within ten years. This represents growth in lithium demand from 25Kt LCE in 2015 to 205kt in 2025 (23% CAGR over the next ten years);
- Grid scale battery storage – whilst at an early-stage, lithium-ion batteries have the capability to increase energy reliability in undeveloped grids, balance short term grid fluctuations, reduce grid congestion and load shift power requirements from peak periods. The introduction of the Tesla power wall has the potential to revolutionise this market as pricing becomes more affordable. Forecasts battery use in energy storage will grow to 50GWhpa by 2025, a 46% CAGR over 10 years. As a result, lithium demand will increase from virtually nil in 2015 to 34kt LCE in 2025; and
- Consumer electronics – lithium-ion batteries remain the dominant technology for consumer electronic applications. This segment could raise annual consumption from 42kt in 2014 to 63kt LCE by 2020, representing a CAGR of 3.5%. This will be driven by the increased power intensity of mobile headsets as the developing world transitions to smart phones.

[5] Deutsche Bank, Welcome to the Lithium-ion Age, Industry Report, 9 May 2016

Both high purity 'battery grade' lithium hydroxide and lithium carbonate are used in the production of cathode materials for lithium-ion batteries. Historically, the cathode chemistry employed in lithium-ion battery manufacturing predominately used lithium carbonate (45%[6]). This was primarily due to the cost of producing lithium hydroxide from lithium carbonate which was typically sourced from brine or mineral converters. However, there is a growing preference for lithium hydroxide for use in the lithium-ion battery due to the superior energy storage characteristics, energy density and higher concentration of electrolyte in the battery.

Figure 4 outlines Roskill's forecast for the cathode chemistry in a passenger vehicle battery. Nickel-manganese-cobalt (NMC) and nickel-cobalt-alumina (NCA) is emerging as the materials of choice of many car manufacturers. LFP is in widespread use in commercial vehicles and some passenger EVs, especially in China where a ban on other materials has now been lifted. Higher energy density cathode materials with mid/high nickel content are at the forefront of extended range EVs, and will require increasing amount of lithium hydroxide.

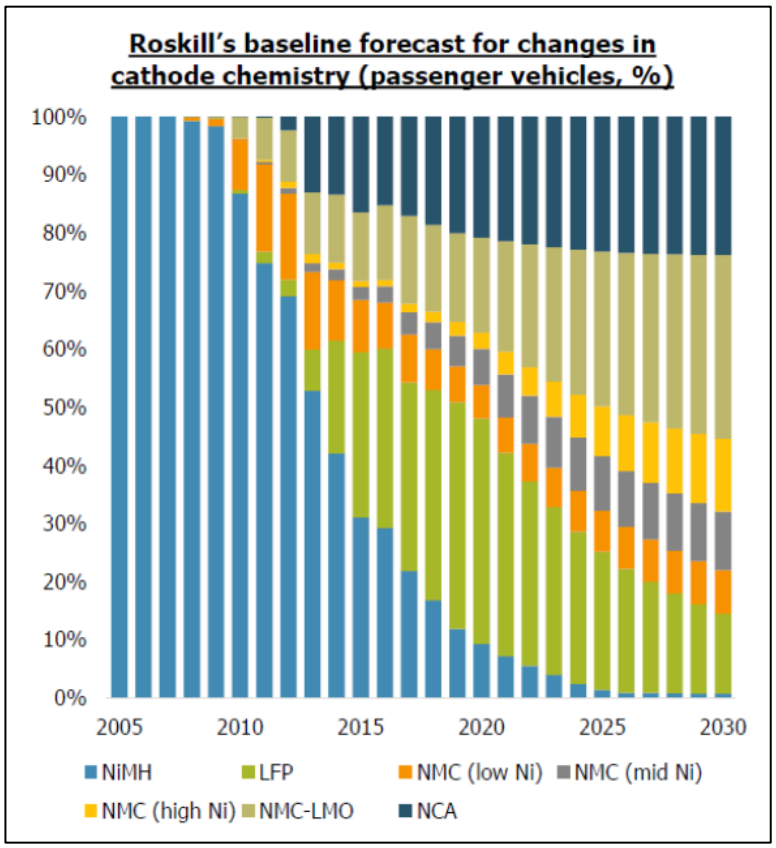


Figure 4: Roskill's baseline forecast for changes in cathode chemistry for passenger vehicles. Source: Source: Robert Baylis, Roskill, 9th Lithium Supply and Markets Conference, 31st May 2017

[6] Canaccord Genuity, Start Me Up – Electric Vehicle and grid storage to drive lithium demand, 17 May 2016

Due to these characteristics, lithium-ion batteries using lithium hydroxide cathodes are preferred for use in high performance applications such as electric vehicles. Given that the lithium-ion battery demand is expected to be dominated by electric vehicle uptake, it is expected that lithium hydroxide will display the highest relative demand growth of the various lithium compounds.

Through the Company's ongoing discussions with potential offtake parties, recent feedback from consumers of lithium products has indicated a preference for the source material to be from a primary lithium source (either brine or spodumene). As Authier is a pure spodumene project, it anticipates its lithium chemicals will well regarded in the marketplace.

Pricing Assumptions

Current Chinese pricing according to Curran & Co is US$18,100/t for lithium carbonate and US$21,000/t for lithium hydroxide, well above the price assumptions used in the Concept Study (see Figure 5). The financial analysis assumed real long-term prices of US$10,200/t for high-purity 'battery grade' lithium carbonate and US$12,000/t for lithium hydroxide. The long-run pricing analysis reflects current estimates from a number of broking and investment firms – see Figure 6.

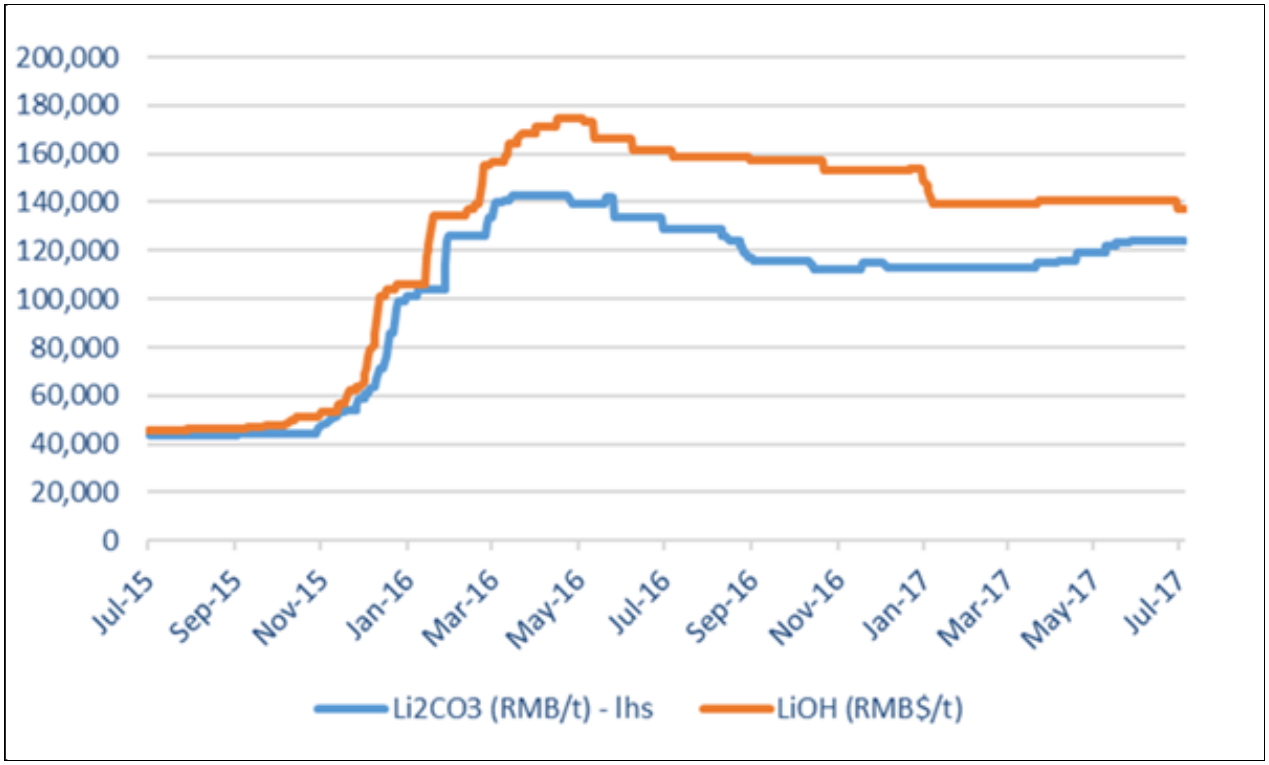


Figure 5: Chinese lithium carbonate and hydroxide prices over the last two years. Source: Curran & Co

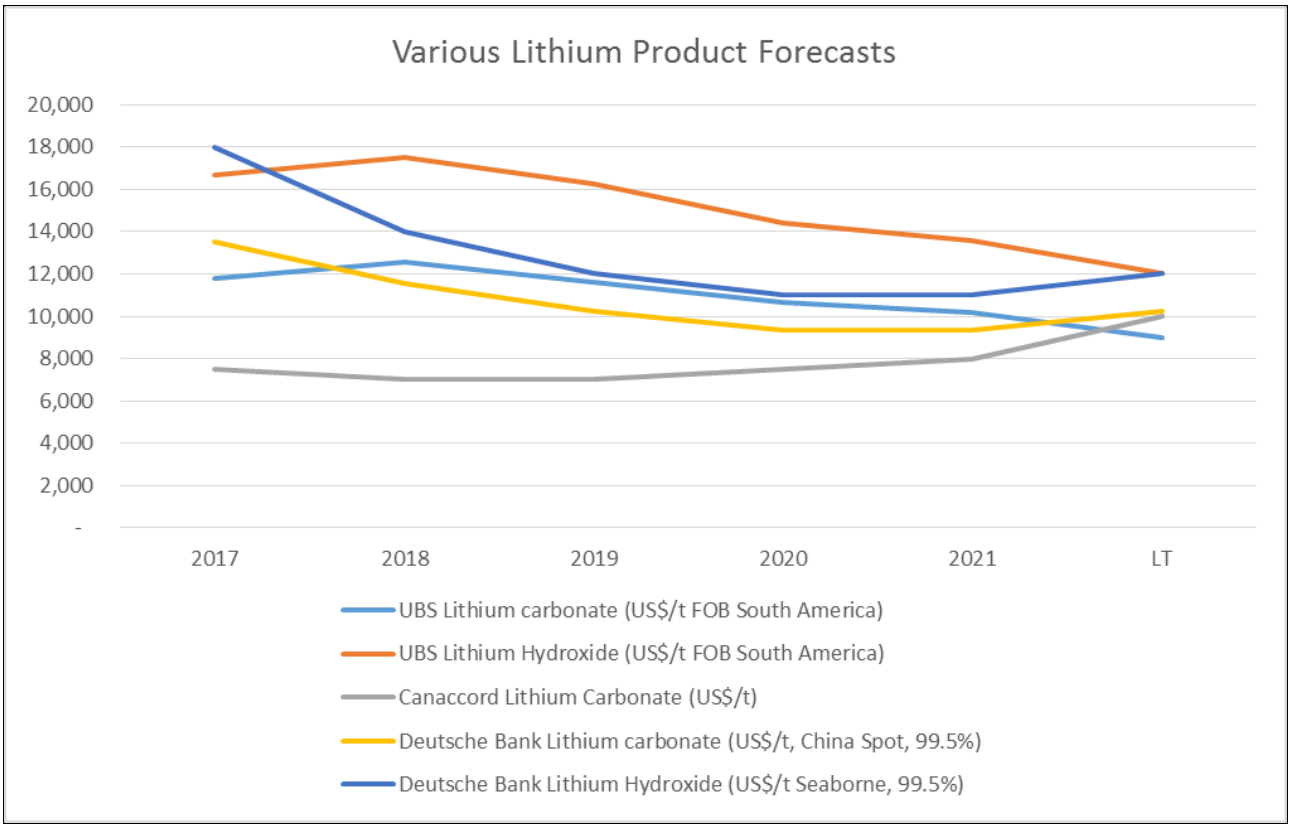


Figure 6: Various independent price forecasts for lithium carbonate and hydroxide

Thermal Conversion of Authier Spodumene Concentrates

The Company recently completed a testing program, performed by SGS Lakefield in Canada, demonstrating the conversion of Authier lithium concentrate into traditionally extractable beta spodumene (a form of spodumene amenable to further processing) was achievable, at high conversion rates (see ASX release, Thermal Conversion of Authier Concentrates, 3 July). This provides confidence that lithium products could be produced from Authier concentrates.

Three flotation concentrate samples were transformed from alpha to beta spodumene in a decrepitating kiln. The lithium was the extracted from lithium sulphate through sulphuric acid roasting and then leached with water to be transformed into aqueous lithium sulphate - further purification is required to produce a lithium carbonate end product. Up to 96.8% of the lithium was recovered in the process from a 5.98% Li_20 concentrate.

Processing Options

Lithium is sold in a number of forms. Lithium carbonate (Li_2CO3) and lithium hydroxide (LIOH) are the largest lithium product markets based on volume, representing approximately 50% and 20% respectively (see Figure 7).

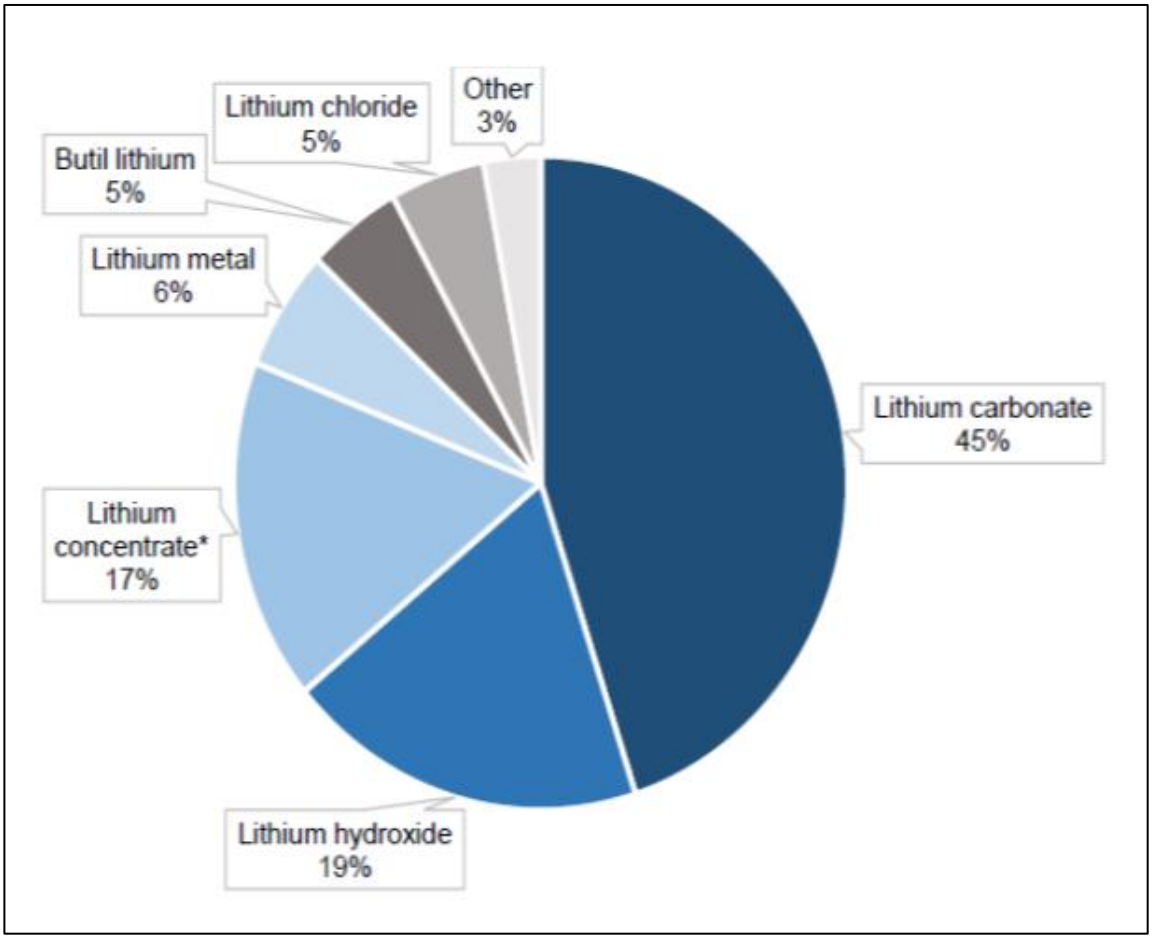


Figure 7: Distribution of Lithium sales per type of lithium form. Source: Canaccord

Spodumene concentrate from Authier needs to be refined into high purity lithium products before they can be used in the battery supply chain. The concentrate product is converted to lithium carbonate through an intensive thermal and hydrometallurgical process involving roasting, leaching, purifying and ion exchange.

Most conventional flow sheets to produce lithium carbonate or lithium hydroxide involve the production of lithium sulphate (see Figure 8). The process involves the comminution of the spodumene concentrate to reduce the particle size and then decrepitation and/or roasting (at 1080 degrees Celsius) using sulphuric acid, and leaching to produce lithium sulphate (or chloride depending on process). The lithium sulphate is then purified to remove impurities like aluminium, iron, calcium, etc.

The process route then varies depending on the end product being produced:

- Lithium carbonate – the purified lithium sulphate liquor is evaporated to upgrade the lithium grade, and then soda ash is added to crystallise out the lithium carbonate. The lithium product is dried and micronized prior to bagging; and
- Lithium hydroxide – lithium sulphate liquor is reacted with sodium hydroxide to form lithium hydroxide.

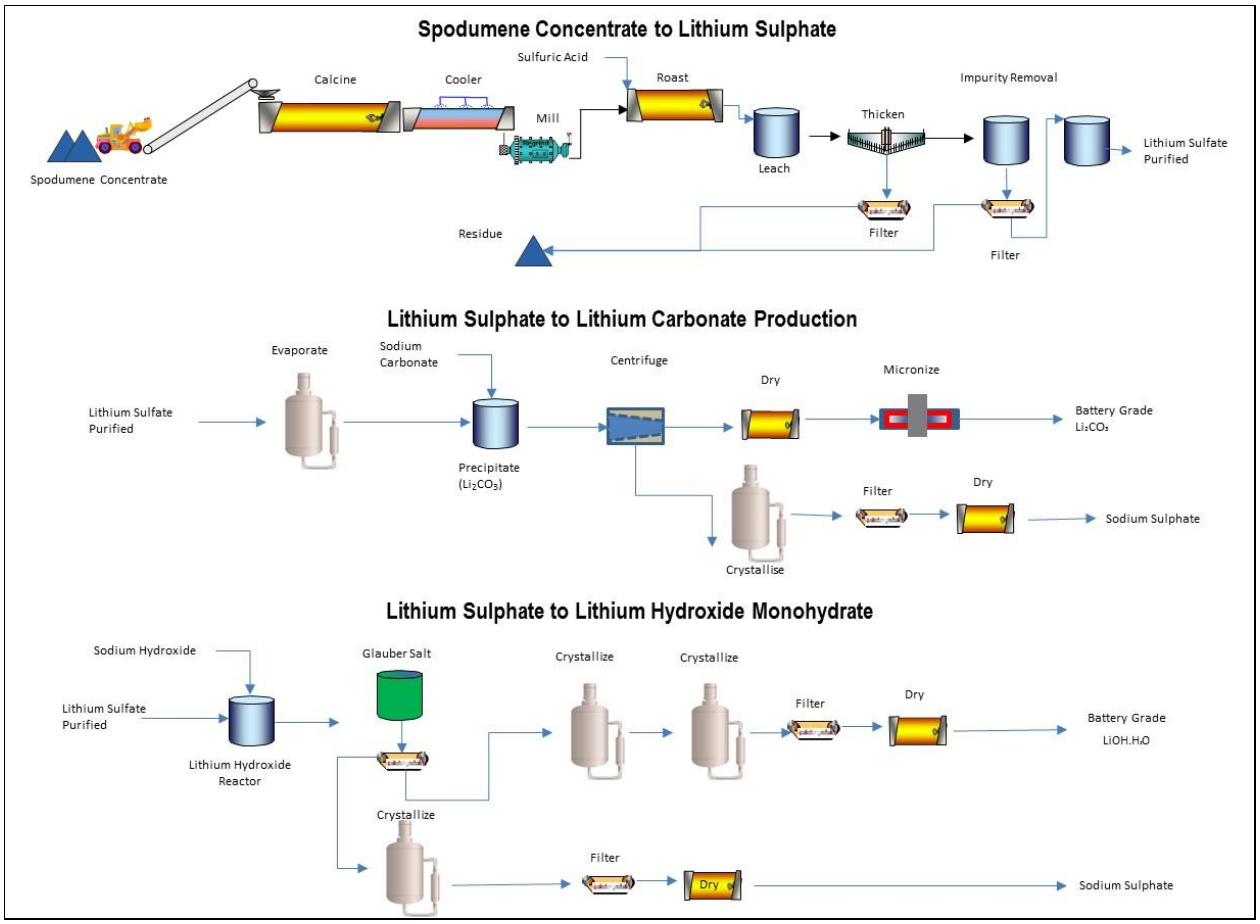


Figure 8: Conventional sulphate process routes for the production of lithium carbonate and lithium hydroxide. Source: Wave International

For this study, the Company has elected to pursue the traditional sulphation process route on the basis that:

- The sulphation route has been proven, resources exist with knowledge of the process, and there are no IP barriers;
- Existing producers utilise this process route, enabling Sayona to potentially partner with an established producer;
- Major process package vendors exist who can guarantee process performance for key areas of the plant, de-risking process performance; and
- Authier is ideally positioned to respond quickly to the increasing supply side of the market, therefore a lengthy technology development process does not align with this unique strategic positioning.

Further consideration to technological variations will be completed as part of a Pre-Feasibility Study.

Downstream Plant Site Selection

The selection of the downstream plant site is a critical decision, and one based on a multiple of factors, including:

- Proximity to power;
- Proximity to labour skilled in the operation of heavy industrial or chemical plants;
- Proximity of the mine;
- Proximity to infrastructure including roads, rail and ports;
- Locally available reagents (e.g. sulphuric acid);
- Environmental considerations; and
- Designated use of the proposed site (i.e. land already zoned for heavy industrial use, or an existing industrial precinct).

At this stage, a site has not been selected but is likely to be within the Abitibi district given the close proximity to infrastructure, skilled labour, and key raw materials (see Figure 9). The district already has a fully permitted lithium mine, concentrator and lithium carbonate production facility (Quebec Lithium). The mine which was previously on care and maintenance due to financial troubles is now being re-commissioned (see www. na-lithium.com).

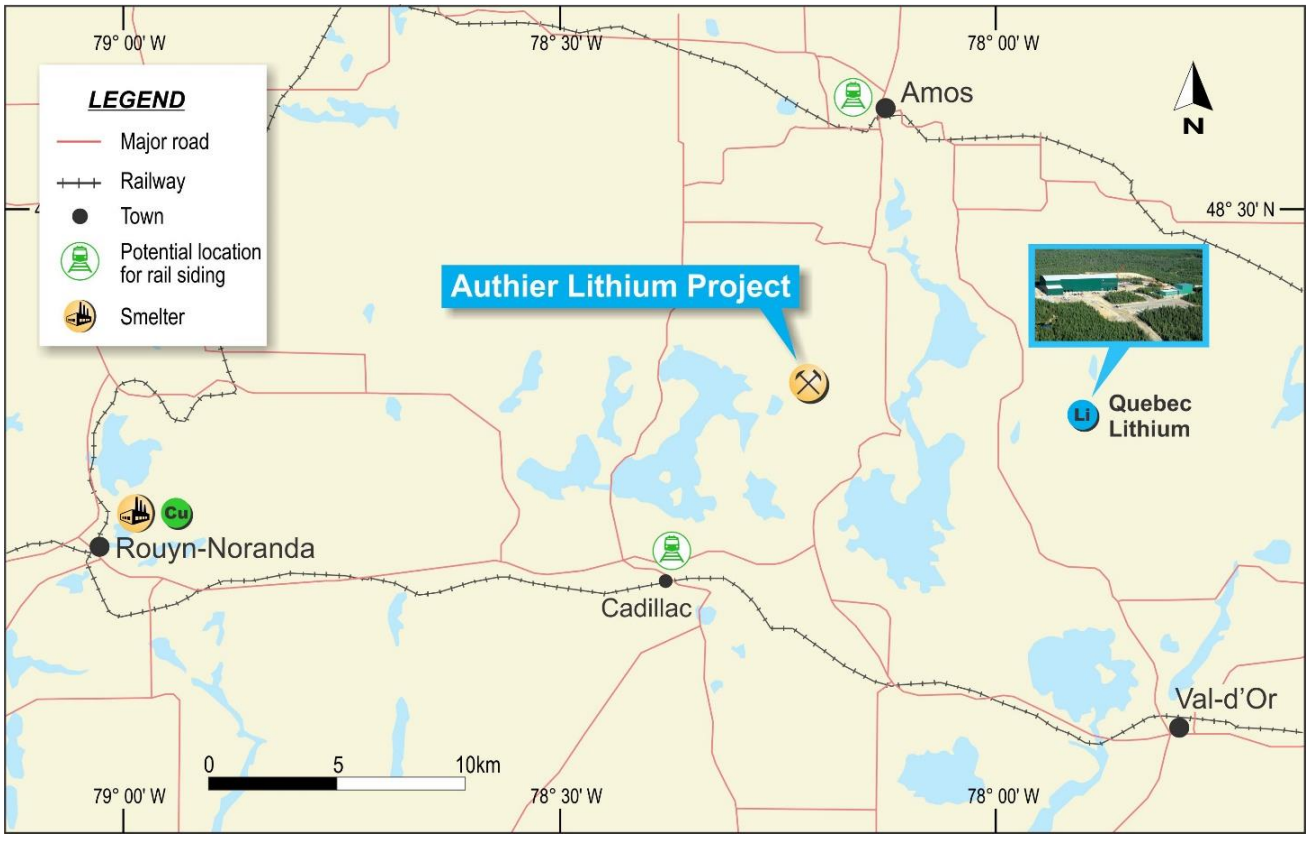


Figure 9: Location of the Authier mine relative to other critical infrastructure in the Abitibi district

Estimated Production

The study has evaluated the option of converting Authier's annual spodumene concentrate production of nominally 100,000 tonnes per annum[7] (grading 5.75%), based on an 88% processing recovery, into:

- 13,000 tonnes per year of lithium carbonate; or
- 14,000 tonnes per year of lithium hydroxide.

The annual production estimates are derived from the Company's JORC Mineral Resource estimate (see ASX release, Authier JORC Resource Expanded, 14 June 2017) tabulated below. The Mineral Resource Estimates declared on the June 14th 2017 has been used as the basis for the production target. This estimate was prepared by a Competent Person in the accordance with the 2012 JORC Code & Guidelines.

Table 4 - Authier JORC Mineral Resources Estimate (0.45% Li_20 cut-off grade)

Category	Tonnes (Mt)	Grades %Li_20	Contained Li_20
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**

For this Concept Study, the mine plan assumes that a Mineral Resource amount of 14.4 Mt grading 0.96 %Li_2O is processed which represents 41% and 59% of the Measured and Indicated Resources, respectively. No Inferred Resources have been used in the mine plan.

The production target and financial information in this release are based on a Concept Study. The Concept Study referred to in this announcement is based on low-level technical and economic assessments, and is insufficient to support, or to update, an estimate of Ore Reserves or to provide assurances of an economic development case at this stage, or to provide certainty that the conclusions of the Concept Study will be realised.

Capital Cost Estimate

As part of the economic evaluation of the downstream project, a nominal capital cost estimate has been produced for both the lithium carbonate and lithium hydroxide options (note capital costs for the mine and concentrator operations are outlined in the February 2017 ASX Release, Authier PFS Demonstrates excellent returns and upside potential).

The basis of these estimates is Wave International standard Lithium Carbonate flowsheet, with database vendor equipment costs applied, which are then factored up to arrive at a total capital cost estimate. The flowsheet and equipment cost have then been adjusted to estimate the capital cost to produce Lithium Hydroxide.

[7] See ASX release, Authier Pre-Feasibility Study, 17 February 2017

These estimates have then been benchmarked against nominal capital cost data which Wave has seen through its experience for other (larger capacity plants), and factored for comparative purposes to validate the concept study outcomes.

Table 5 – Capital Cost Estimate for the Lithium Carbonate and Hydroxide Plants (Approximate Values Derived from Scoping Study)

Plant Area	Lithium Carbonate	Lithium Hydroxide
In-directs	1.2	1.4
Mechanical equipment	49.0	54.0
Plant infrastructure	6.1	6.8
Earthworks	2.4	2.7
Concrete	9.8	10.8
Steelwork	12.2	13.5
Platework	2.4	2.3
Pipework	8.6	9.5
Electrics	12.2	13.5
EPCM	18.4	20.3
Total	**122.5**	**135.0**
Site infrastructure (allowance)	12.2	13.5
Variation and growth allowances (concept study)	30.6	33.8
Total (C$)	**165.3**	**182.3**
Total (US$)	**125.6**	**138.5**

The capital cost has also been benchmarked on the basis of capital intensity compared to other proposed new lithium development projects around the world – see Figure 10.

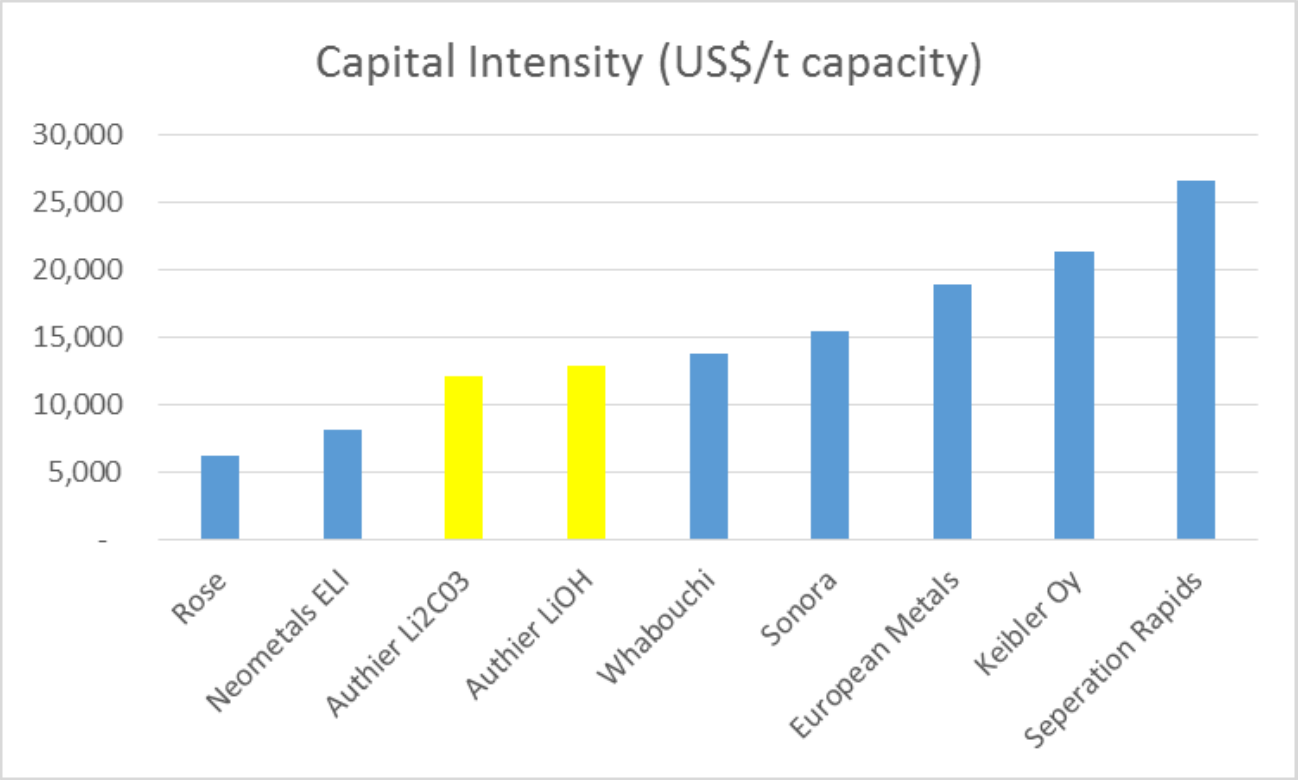


Figure 10: Capital intensity of new lithium development projects. Source: Various public reports

Operating Cost Estimate

The operating cost estimate is based on a mass balance for a typical sulphation plant using Canadian cost estimates (see Table 6). At this stage, no laboratory testing, process modelling or flowsheets have been developed for the Authier project (note operating costs for the mine and concentrator operations are outlined in the February 2017 ASX Release, Authier PFS Demonstrates excellent returns and upside potential). This work will be completed during a Pre-Feasibility level study.

Changes to the flowsheet due to capital cost constraints, nature of the feed concentrate or other factors such as winter proofing, environmental requirements, and site location can all significantly affect operating costs and could impact the viability and direction of the project.

Table 6 outlines the key operating cost items expected for the Authier project.

Table 6 – Key Operating Cost (Source: WAVE International)
(Approximate Values Derived from Scoping Study)

Cost Item	Consumption	Notes
Concentrate	100kt/yr 5.75%	2017 Authier Pre-Feasibility Study
Gas	5 Gj/t concentrate	Sourced locally from Gaz Metro
Sodium carbonate	2 t/t Li2CO3	Sourced locally
Sulphuric acid	0.25 t/t concentrate	Available from Glencore Horne smelter
Limestone	0.1 t/t concentrate	Sourced from Graymont
Sodium hydroxide	0.1 t/t Li2CO3 / 2 t/t LiOH	Sourced from Univar
Electricity	7,500 Kw	Readily available at 5c kWh
Direct employees	100	Local skilled available

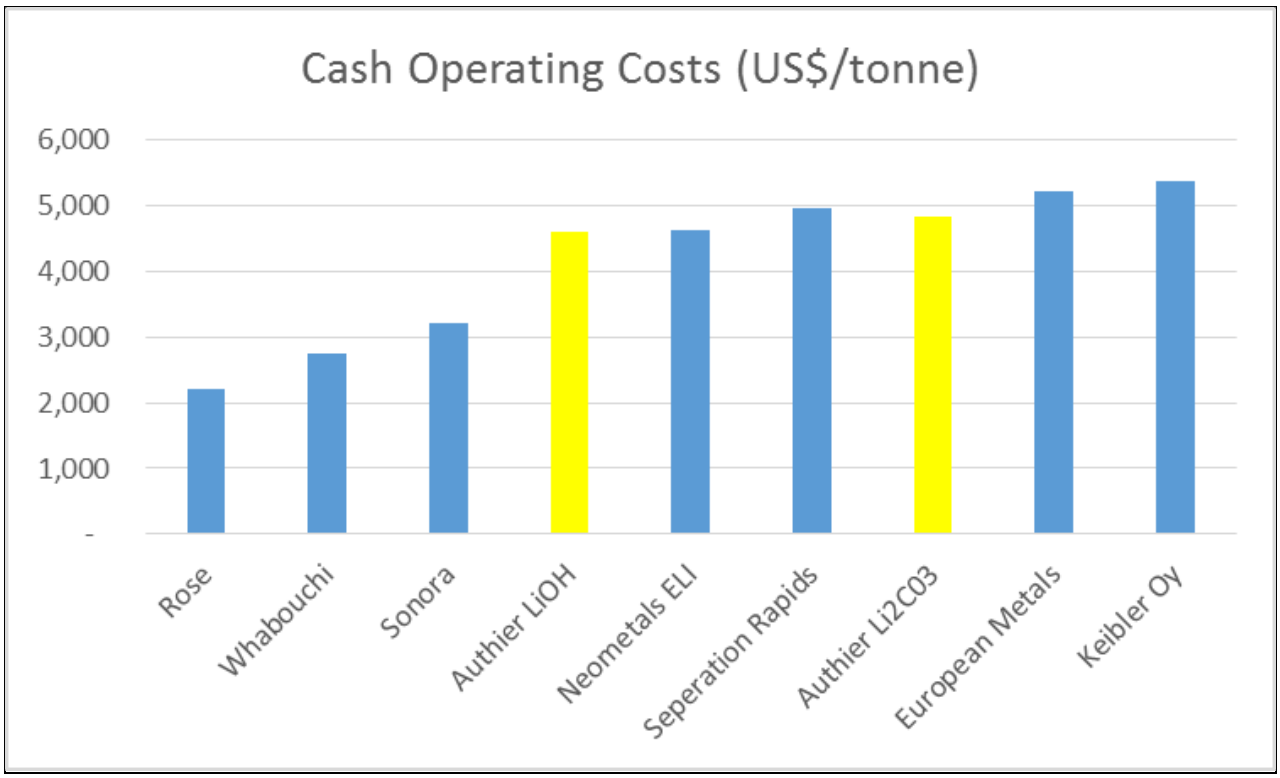


Figure 11: Cash Operating Costs of new lithium development projects. Includes costs of concentrate. Source: Various public reports

Financial Analysis

The summary financial analysis is tabulated below and key non-operating and capital assumptions outlined below.

Table 7: 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	223	240
Total Capital#	C$ million	284	301
Pre-tax NPV @ 9%DR	C$ million	426	793
Pre-Tax IRR	%	31	44
Exchange rate	CAD$:US$	0.76	
* Cash Operating Costs include all costs including mining, processing, administration, royalties, transport, and downstream processing Costs # Capital expenditure includes all mine, concentrator and downstream processing costs			

Summary of the main assumptions:

1. Exchange rates - An exchange rate of 0.76 USD per CAD was used to convert the USD market price projections into Canadian currency. The sensitivity of the base case financial results to variations in the exchange rate was examined. Those cost components which include U.S. content originally converted to Canadian currency using the base case exchange rate were adjusted accordingly;
2. Corporate tax - The current Canadian tax system applicable to Mineral Resource Income is used to assess the project's annual tax liabilities. This consists of federal and provincial corporate taxes as well as provincial mining taxes. The federal and provincial corporate tax rates currently applicable over the project's operating life are 15.0% and 11.9% of taxable income, respectively. The marginal tax rates applicable under the recently adopted mining tax regulations in Quebec (originally proposed as Bill 55, December 2013) are 16%, 22% and 28% of taxable income and depend on the profit margin. The analysis for the Concept Study and Mine/Concentrator PFS is done on a pre-tax basis;
3. Discount rate – a discount rate of 9% has been applied to the NPV calculations;
4. Inflation – All the forecasts within the financial analysis are on a real basis, i.e. with no inflation adjustments; and
5. Royalties – The Quebec Government does not impose any royalties on mineral production. However, Authier is subject to a number of vendor royalty payments and a 2% Gross revenue royalty was assumed in the cut-off grade calculations and financial modelling undertaken for the PFS mine sales.

Sensitivity Analysis

Key sensitivities of the variables for the lithium carbonate and hydroxide plants are tabulated below.

Lithium Carbonate

Price Assumptions Sensitivities Table							
Price sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 38,061,893	$ 167,514,884	$ 296,967,875	$ 426,420,866	$ 555,873,857	$ 685,326,848	$ 814,779,839
IRR - before tax	11%	18%	24%	31%	37%	42%	48%
Li2CO3 sales price $USD	$ 6,300	$ 7,200	$ 8,100	$ 9,000	$ 9,900	$ 10,800	$ 11,700

Reagents Assumptions Sensitivities Table							
Reagents sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 462,779,888	$ 450,660,214	$ 438,540,540	$ 426,420,866	$ 414,301,192	$ 402,181,518	$ 390,061,844
IRR - before tax	32%	32%	31%	31%	30%	30%	29%
Total reagents cost CAD$/T Li2CO3	$ 879	$ 1,005	$ 1,130	$ 1,256.00	$ 1,382	$ 1,507	$ 1,633

Energy Assumptions Sensitivities Table							
Energy sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 442,087,961	$ 436,865,596	$ 431,643,231	$ 426,420,866	$ 421,198,501	$ 415,976,136	$ 410,753,771
IRR - before tax	31%	31%	31%	31%	30%	30%	30%
Total energy cost CAD$/T Li2CO3	$ 378	$ 432	$ 486	$ 540.00	$ 594	$ 648	$ 702

Downstream Opex (exc Reagents and energy) Sensitivities Table							
Downstream Opex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 469,145,003	$ 454,903,624	$ 440,662,245	$ 426,420,866	$ 412,179,487	$ 397,938,108	$ 383,696,728
IRR - before tax	33%	32%	31%	31%	30%	29%	29%
Opex cost CAD$/T Li2CO3	$ 2,111	$ 2,412	$ 2,714	$ 3,015.00	$ 3,317	$ 3,618	$ 3,920

Mining and Concentration Opex Assumptions Sensitivities Table							
Mine opex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 517,336,487	$ 487,031,280	$ 456,726,073	$ 426,420,866	$ 396,115,659	$ 365,810,452	$ 335,505,245
IRR - before tax	35%	33%	32%	31%	29%	28%	26%
Mine and concentration opex CAD$/T conc	$ 251	$ 287	$ 323	$ 359.00	$ 395	$ 431	$ 467

Concentrate Grade Assumptions Sensitivities Table							
Con grade sensitivity	**87.0%**	**91.3%**	**95.7%**	**100.0%**	**104.3%**	**108.7%**	**113.0%**
NPV @ 9% - before tax	$ 416,076,095	$ 419,823,885	$ 423,310,200	$ 426,420,866	$ 429,275,043	$ 431,961,845	$ 434,385,424
IRR - before tax	30%	30%	31%	31%	31%	31%	31%
Con grade	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%

Beneficiation Recovery Assumptions Sensitivities Table							
Bene recovery sensitivity	**90%**	**94%**	**98%**	**100.0%**	**103%**	**106%**	**110%**
NPV @ 9% - before tax	$ 319,895,316	$ 362,499,888	$ 405,112,063	$ 426,420,866	$ 458,387,322	$ 490,357,539	$ 532,990,093
IRR - before tax	26%	28%	30%	31%	32%	34%	36%
Recovery	72%	75%	78%	80%	82%	85%	88%

Development Capex Assumptions Sensitivities Table							
Development Capex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 489,199,086	$ 468,273,013	$ 447,346,939	$ 426,420,866	$ 405,494,793	$ 384,568,719	$ 363,642,646
IRR - before tax	43%	38%	34%	31%	28%	26%	24%
Development capex CAD$	$ 182,127,860	$ 208,146,126	$ 234,164,392	$ 260,182,657	$ 286,200,923	$ 312,219,189	$ 338,237,455

Other Capex Assumptions Sensitivities Table							
Other Capex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 434,544,166	$ 431,836,399	$ 429,128,632	$ 426,420,866	$ 423,713,099	$ 421,005,333	$ 418,297,566
IRR - before tax	31%	31%	31%	31%	31%	30%	30%
Development capex CAD$	$ 42,789,986	$ 48,902,841	$ 55,015,696	$ 61,128,551	$ 67,241,406	$ 73,354,261	$ 79,467,117

Lithium Hydroxide

Price Assumptions Sensitivities Table								
Price sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 274,915,447	$ 447,793,846	$ 620,672,244	$ 793,550,642	$ 966,429,040	$ 1,139,307,438	$ 1,312,185,836
IRR - before tax	22%	30%	37%	44%	50%	56%	62%
LiOH sales price $USD	$ 8,400	$ 9,600	$ 10,800	$ 12,000	$ 13,200	$ 14,400	$ 15,600

Reagents Assumptions Sensitivities Table							
Reagents sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 841,506,182	$ 825,521,002	$ 809,535,822	$ 793,550,642	$ 777,565,462	$ 761,580,282	$ 745,595,102
IRR - before tax	46%	45%	44%	44%	43%	42%	42%
Total reagents cost CAD$/T LiOH	$ 1,022	$ 1,168	$ 1,314	$ 1,460.00	$ 1,606	$ 1,752	$ 1,898

Energy Assumptions Sensitivities Table							
Energy sensitivity							
NPV @ 9% - before tax	$ 809,682,614	$ 804,305,290	$ 798,927,966	$ 793,550,642	$ 788,173,318	$ 782,795,994	$ 777,418,670
IRR - before tax	44%	44%	44%	44%	43%	43%	43%
Total energy cost CAD$/T LiOH	$ 343	$ 392	$ 441	$ 490.00	$ 539	$ 588	$ 637

Downstream Opex (exc Reagents and energy) Sensitivities Table							
Downstream Opex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 838,730,476	$ 823,670,531	$ 808,610,587	$ 793,550,642	$ 778,490,697	$ 763,430,753	$ 748,370,808
IRR - before tax	45%	45%	44%	44%	43%	43%	42%
Opex cost CAD$/T LiOH	$ 1,845	$ 2,108	$ 2,372	$ 2,635.00	$ 2,899	$ 3,162	$ 3,426

Mining and Concentration Opex Assumptions Sensitivities Table							
Mine opex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 884,466,263	$ 854,161,056	$ 823,855,849	$ 793,550,642	$ 763,245,435	$ 732,940,228	$ 702,635,021
IRR - before tax	47%	46%	45%	44%	43%	42%	40%
Mine and concentration opex CAD$/T conc	$ 251	$ 287	$ 323	$ 359.00	$ 395	$ 431	$ 467

Concentrate Grade Assumptions Sensitivities Table							
Con grade sensitivity	**87.0%**	**91.3%**	**95.7%**	**100.0%**	**104.3%**	**108.7%**	**113.0%**
NPV @ 9% - before tax	$ 783,205,871	$ 786,953,661	$ 790,439,977	$ 793,550,642	$ 796,404,819	$ 799,091,621	$ 801,515,200
IRR - before tax	43%	43%	44%	44%	44%	44%	44%
Con grade	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%

Beneficiation Recovery Assumptions Sensitivities Table							
Bene recovery sensitivity	**90%**	**94%**	**98%**	**100.0%**	**103%**	**106%**	**110%**
NPV @ 9% - before tax	$ 648,371,602	$ 706,437,124	$ 764,510,850	$ 793,550,642	$ 837,113,839	$ 880,681,096	$ 938,776,810
IRR - before tax	38%	40%	43%	44%	45%	47%	49%
Recovery	72%	75%	78%	80%	82%	85%	88%

Development Capex Assumptions Sensitivities Table							
Development Capex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 861,518,862	$ 838,862,789	$ 816,206,715	$ 793,550,642	$ 770,894,569	$ 748,238,495	$ 725,582,422
IRR - before tax	60%	53%	48%	44%	40%	37%	34%
Development capex CAD$	$ 168,098,000	$ 192,112,000	$ 216,126,000	$ 240,140,000	$ 264,154,000	$ 288,168,000	$ 312,182,000

Other Capex Assumptions Sensitivities Table							
Other Capex sensitivity	**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	$ 802,054,365	$ 799,219,790	$ 796,385,216	$ 793,550,642	$ 790,716,068	$ 787,881,493	$ 785,046,919
IRR - before tax	44%	44%	44%	44%	44%	43%	43%
Development capex CAD$	$ 42,789,986	$ 48,902,841	$ 55,015,696	$ 61,128,551	$ 67,241,406	$ 73,354,261	$ 79,467,117

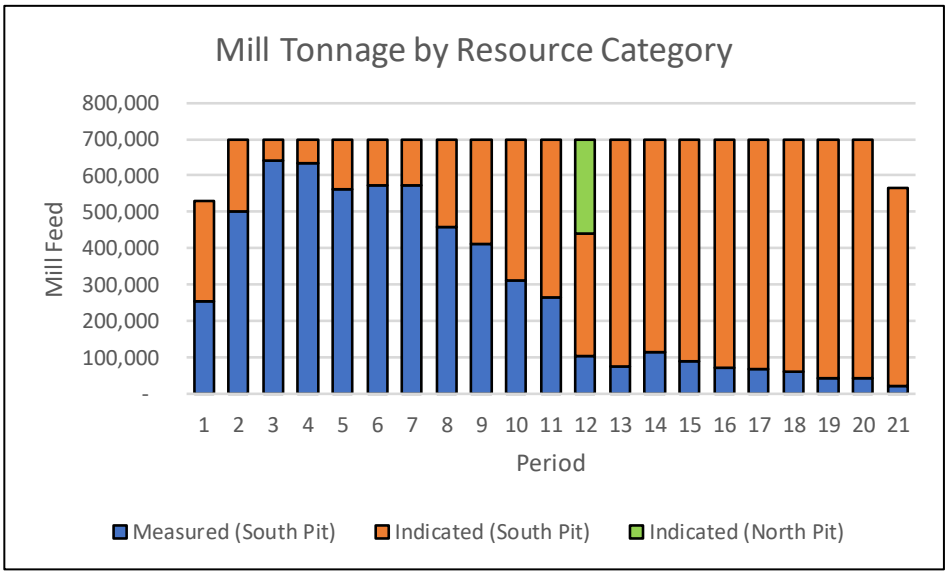
Permitting, Social and Environmental Considerations

A detailed environmental study was completed at the proposed Authier mine and concentrator site in 2013 by Dessau. An update of the environmental study commenced in June 2017 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 five months.

At this stage, no site has been selected for the proposed downstream plant site. The Company envisages building the downstream operation within an industrial or chemical park (not similar to the strategy of Nemaska Lithium which is building its downstream processing facilities in an old factory) and transport the concentrates from the mine to the plant. Once a site is selected the Company will begin its permitting, environmental and social activities.

Appendix – Project Design Criteria

<table>
<tr><td>Mineral Resource Estimate</td><td>The Mineral Resource Estimates declared on June 14th 2017 has been used as a basis for the production target. This estimate was prepared by a Competent Person in the accordance with the 2012 JORC Code & Guidelines.
From this resource, the Concept Study assumes processing an amount of 14.4 Mt grading at 0.96 %Li_2O, composed of 41 % and 59 % of Measured and Indicated material respectively.</td></tr>
<tr><td>Site Visit</td><td>Mr. Gustavo Delendatti, the Competent Person for the Mineral Resource Estimates as part of this study has been on a site visit. Mr Delendatti has been involved with more than 8,000 metres of diamond drilling at Authier and compiled a number of Mineral Resource estimates for the project.</td></tr>
<tr><td>Study Status</td><td>The production target and financial information in this release are based on a Concept Study. The Concept Study referred to in this announcement is based on low-level technical and economic assessments, and is insufficient to support, or to update, an estimate of Ore Reserves or to provide assurances of an economic development case at this stage, or to provide certainty that the conclusions of the scoping study will be realized.</td></tr>
<tr><td>Capital Costs</td><td>The following Table provides a summary of the pre-production capital as estimated for the scoping study.
<table>
<tr><th colspan="3">Capital Cost Estimate for the Lithium Carbonate and Hydroxide Plants</th></tr>
<tr><th>Plant Area</th><th>Lithium Carbonate</th><th>Lithium Hydroxide</th></tr>
<tr><td>In-directs</td><td>1.2</td><td>1.4</td></tr>
<tr><td>Mechanical equipment</td><td>49.0</td><td>54.0</td></tr>
<tr><td>Plant infrastructure</td><td>6.1</td><td>6.8</td></tr>
<tr><td>Earthworks</td><td>2.4</td><td>2.7</td></tr>
<tr><td>Concrete</td><td>9.8</td><td>10.8</td></tr>
<tr><td>Steelwork</td><td>12.2</td><td>13.5</td></tr>
<tr><td>Platework</td><td>2.4</td><td>2.37</td></tr>
<tr><td>Pipework</td><td>8.6</td><td>9.5</td></tr>
<tr><td>Electrics</td><td>12.2</td><td>13.5</td></tr>
<tr><td>EPCM</td><td>18.4</td><td>20.3</td></tr>
<tr><td>Total</td><td>122.5</td><td>135.0</td></tr>
<tr><td>Site infrastructure (allowance)</td><td>12.2</td><td>13.5</td></tr>
<tr><td>Variation and growth allowances (concept study)</td><td>30.6</td><td>33.8</td></tr>
<tr><td>Total (C$)</td><td>165.3</td><td>182.3</td></tr>
<tr><td>Total (US$)</td><td>125.6</td><td>138.5</td></tr>
</table></td></tr>
<tr><td>Estimation Margin of Error</td><td>It is not possible to ascribe a single margin of error assessment over the numbers in the Scoping Study. However, Capital and operating cost have an estimate accuracy level of Class 4 per table on page 3.</td></tr>
</table>

Mining Factors or Assumptions	The mining Scoping Study has been prepared based on a conventional truck and hydraulic excavator operation, with an average total material movement of 5.06 Mtpa over the mine life to achieved the required 0.7 Mtpa mill feed rate. The main mining fleet would compromise of 63 tonnes trucks loaded by a 140 tonne excavator. Mining cut-off grades were set to 0.60 %Li2O (years 1 to 3), 0.70 % Li2O (year 4) and 0.30 %Li2O (years 5 and over). A mining dilution of 5.0 % and no ore loss were considered. Mill feed is planned to be 14.4 Mt grading at 0.96 %Li2O with a waste to ore stripping ratio of 6.4. The mine plan, using a 5x5x5 meters block model, was based on Whittle optimized pit shell combined with 3 internal cutbacks. Slope angles of 55 degrees and 45 degrees were used for the North and South walls respectively. Bench heights of 5.0 meters were also assumed to calculate the mining operating costs. The percentage of Measured and Indicated resources relate to the production schedule is given in the Table below. Note that Inferred material was not considered for the Concept Study. 
Metallurgical Factors or Assumptions	A recently completed a testing program, performed by SGS Lakefield in Canada, demonstrating the conversion of Authier lithium concentrate into traditionally extractable beta spodumene (a form of spodumene amenable to further processing) was achievable, at high conversion rates. This provides confidence that lithium carbonate could be produced from Authier concentrates. Up to 96.8% of the lithium was recovered in the process from a 5.98% Li20 concentrate.

<table>
<tr><td></td><td>The study has evaluated the option of converting Authier's annual spodumene concentrate production of nominally 100,000 tonnes per annum (grading 5.75%), based on an 88% processing recovery, into:
13,000 tonnes per year of lithium carbonate; or
14,000 tonnes per year of lithium hydroxide.</td></tr>
<tr><td>Environmental</td><td>A detailed environmental study was completed at the proposed Authier mine and concentrator site in 2013 by Dessau. An update of the environmental study commenced in June 2017 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 five months.</td></tr>
<tr><td>Infrastructure</td><td>The concentration plant will be located directly at the mine site. Other standard infrastructure, such as administration office, maintenance garage, etc., will also be erected at the mine site.

At this stage, no site has been selected for the proposed downstream plant site. The Company envisages building the downstream operation within an industrial or chemical park. Once a site is selected, Sayona will begin its permitting, environmental and social activities.</td></tr>
<tr><td>Costs</td><td>The Tables below detail the key operating cost items as well of the resulting average cash operating cost per tonne of lithium compound produced over the life of the mine.

<table>
<tr><th colspan="3">Key Operating Cost Items (Source: WAVE International)</th></tr>
<tr><th>Cost Item</th><th>Consumption</th><th>Notes</th></tr>
<tr><td>Concentrate</td><td>100kt/yr 5.75%</td><td>2017 Authier Pre-Feasibility Study</td></tr>
<tr><td>Gas</td><td>5 Gj/t concentrate</td><td>Sourced locally from Gaz Metro</td></tr>
<tr><td>Sodium carbonate</td><td>2 t/t Li2CO3</td><td>Sourced locally</td></tr>
<tr><td>Sulphuric acid</td><td>0.25 t/t concentrate</td><td>Available from Glencore Horne smelter</td></tr>
<tr><td>Limestone</td><td>0.1 t/t concentrate</td><td>Sourced from Graymont</td></tr>
<tr><td>Sodium hydroxide</td><td>0.1 t/t Li2CO3 / 2 t/t LiOH</td><td>Sourced from Univar</td></tr>
<tr><td>Electricity</td><td>7,500 Kw</td><td>Readily available at 5c kWh</td></tr>
<tr><td>Direct employees</td><td>100</td><td>Local skilled available</td></tr>
</table></td></tr>
</table>

	Operational Cost Summary **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 Exchange rate / CAD$:US$ / 0.76 * Cash Operating Costs include all costs including mining, processing, administration, royalties, transport, and downstream processing Costs. These costs were based on a combination of results from Sayona Pre-Feasibility Study and current pricing for similar projects.
Revenue Factors	The financial analysis assumed real long-term prices of US$10,200/t for high-purity 'battery grade' lithium carbonate and US$12,000/t for lithium hydroxide. The long-run pricing analysis reflects current estimates from a number of broking and investment firms. Current Chinese pricing according to Curran & Co is US$18,100/t for lithium carbonate and US$21,000/t for lithium hydroxide.
Market Assessment	Lithium concentrate produced from Authier will be classed as Chemical Grade specification. The principal markets for Chemical Grade concentrates are battery, lubricants, aluminum smelting and pharmaceuticals applications. The lithium market is currently experiencing a major demand shift driven by the increasingly critical role of the lithium-ion battery technology for storage applications in the automotive, consumer electronics and electricity storage/distribution sectors. The electrochemistry of lithium based batteries provide higher voltage, higher power density and lower discharge rates with no memory effect, when compared to competing technologies. The lithium-ion battery or rechargeable market represented 42% of total lithium consumption or 81,300 tonnes of Lithium Carbonate Equivalent ("LCE") in 2016, a year-on-year increase of 38%8. Most industry commentators are forecasting the consumption of lithium in volume terms will continue to be driven heavily by the rechargeable battery sector. In a recent presentation, Roskill estimated that the total consumption of lithium could approximately 5 times from 200,000 tonnes in 2016 to 1,000,000 tonnes LCE by 20269. Key macro demand drivers include, carbon emissions legislation aimed at reducing the reliance on fossil fuels, government incentives, environmental concerns, technological advancements, and the improved product offerings utilising lithium-ion batteries.

[8] UBS, Lithium & Graphite: Driving Disruption, 15 June 2017
[9] Source: Robert Baylis, Roskill, 9th Lithium Supply and Markets Conference, 31st May 2017

Economic

The Concept Study has confirmed the technical and financial viability of processing Authier spodumene concentrates into value added battery products including, lithium carbonate and lithium hydroxide.

The economic returns, modelled in real Canadian $ as at Q3 2017, are driven by the following key assumptions:

- Production to begin in 2020
- DFS and engineering to be completed by 2019
- Execution phase would last approximately 24 months
- Commissioning period of 6 months

The Concept Study resulted in the following economic returns.

Authier Downstream Processing Financial Highlights			
Description	**Unit**	**Lithium Carbonate**	**Lithium Hydroxide**
Annual Production Capacity	Tonnes	13,000	14,000
Pre-tax NPV @ 9%DR	C$ million	426	794
Pre-Tax IRR	%	31	44
Exchange rate	CAD$:US$	0.76	

A discount rate of 9.0 % has been assumed for the model.

A sensitivity analysis, presented in the following figures, was produced on the following main items:

Lithium Carbonate Scenario		Sensitivities Controls						
Price Assumptions Sensitivities Table		70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
Price sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 38.06	$ 167.51	$ 296.97	$ 426.42	$ 555.87	$ 685.33	$ 814.78
IRR - before tax	%	11%	18%	24%	31%	37%	42%	48%
Li2CO3 sales price $USD	$	$ 6,300	$ 7,200	$ 8,100	$ 9,000	$ 9,900	$ 10,800	$ 11,700
Reagents sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 462.78	$ 450.66	$ 438.54	$ 426.42	$ 414.30	$ 402.18	$ 390.06
IRR - before tax	%	32%	32%	31%	31%	30%	30%	29%
Total reagents cost CAD$/T Li2CO3	$	$ 879	$ 1,005	$ 1,130	$ 1,256.00	$ 1,382	$ 1,507	$ 1,633
Energy sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 442.09	$ 436.87	$ 431.64	$ 426.42	$ 421.20	$ 415.98	$ 410.75
IRR - before tax	%	31%	31%	31%	31%	30%	30%	30%
Total energy cost CAD$/T Li2CO3	$	$ 378	$ 432	$ 486	$ 540.00	$ 594	$ 648	$ 702
Downstream Opex sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 469.15	$ 454.90	$ 440.66	$ 426.42	$ 412.18	$ 397.94	$ 383.70
IRR - before tax	%	33%	32%	31%	31%	30%	29%	29%
Opex cost CAD$/T Li2CO3	$	$ 2,111	$ 2,412	$ 2,714	$ 3,015.00	$ 3,317	$ 3,618	$ 3,920
Mine opex sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 517.34	$ 487.03	$ 456.73	$ 426.42	$ 396.12	$ 365.81	$ 335.51
IRR - before tax	%	35%	33%	32%	31%	29%	28%	26%
Mine and concentration opex CAD$/T conc	$	$ 251	$ 287	$ 323	$ 359.00	$ 395	$ 431	$ 467
Con grade sensitivity		**87.0%**	**91.3%**	**95.7%**	**100.0%**	**104.3%**	**108.7%**	**113.0%**
NPV @ 9% - before tax	M$	$ 416.08	$ 419.82	$ 423.31	$ 426.42	$ 429.28	$ 431.96	$ 434.39
IRR - before tax	%	30%	30%	31%	31%	31%	31%	31%
Con grade	%	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%
Bene recovery sensitivity		**90%**	**94%**	**98%**	**100.0%**	**103%**	**106%**	**110%**
NPV @ 9% - before tax	M$	$ 319.90	$ 362.50	$ 405.11	$ 426.42	$ 458.39	$ 490.36	$ 532.99
IRR - before tax	%	26%	28%	30%	31%	32%	34%	36%
Recovery	$	72%	75%	78%	80%	82%	85%	88%
Development Capex sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 489.20	$ 468.27	$ 447.35	$ 426.42	$ 405.49	$ 384.57	$ 363.64
IRR - before tax	%	43%	38%	34%	31%	28%	26%	24%
Development capex CAD$	M$	$ 182.13	$ 208.15	$ 234.16	$ 260.18	$ 286.20	$ 312.22	$ 338.24
Other Capex sensitivity		**70.0%**	**80.0%**	**90.0%**	**100.0%**	**110.0%**	**120.0%**	**130.0%**
NPV @ 9% - before tax	M$	$ 434.54	$ 431.84	$ 429.13	$ 426.42	$ 423.71	$ 421.01	$ 418.30
IRR - before tax	%	31%	31%	31%	31%	31%	30%	30%
Development capex CAD$	M$	$ 182.13	$ 208.15	$ 234.16	$ 260.18	$ 286.20	$ 312.22	$ 338.24

Price Assumptions Sensitivities Table

Price sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 38,061,893	$ 167,514,884	$ 296,967,875	$ 426,420,866	$ 555,873,857	$ 685,326,848	$ 814,779,839
IRR - before tax	11%	18%	24%	31%	37%	42%	48%
Li2CO3 sales price $USD	$ 6,300	$ 7,200	$ 8,100	$ 9,000	$ 9,900	$ 10,800	$ 11,700

Reagents Assumptions Sensitivities Table

Reagents sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 462,779,888	$ 450,660,214	$ 438,540,540	$ 426,420,866	$ 414,301,192	$ 402,181,518	$ 390,061,844
IRR - before tax	32%	32%	31%	31%	30%	30%	29%
Total reagents cost CAD$/T Li2CO3	$ 879	$ 1,005	$ 1,130	$ 1,256.00	$ 1,382	$ 1,507	$ 1,633

Energy Assumptions Sensitivities Table

Energy sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 442,087,961	$ 436,865,596	$ 431,643,231	$ 426,420,866	$ 421,198,501	$ 415,976,136	$ 410,753,771
IRR - before tax	31%	31%	31%	31%	30%	30%	30%
Total energy cost CAD$/T Li2CO3	$ 378	$ 432	$ 486	$ 540.00	$ 594	$ 648	$ 702

Downstream Opex (exc Reagents and energy) Sensitivities Table

Downstream Opex sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 469,145,003	$ 454,903,624	$ 440,662,245	$ 426,420,866	$ 412,179,487	$ 397,938,108	$ 383,696,728
IRR - before tax	33%	32%	31%	31%	30%	29%	29%
Opex cost CAD$/T Li2CO3	$ 2,111	$ 2,412	$ 2,714	$ 3,015.00	$ 3,317	$ 3,618	$ 3,920

Mining and Concentration Opex Assumptions Sensitivities Table

Mine opex sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 517,336,487	$ 487,031,280	$ 456,726,073	$ 426,420,866	$ 396,115,659	$ 365,810,452	$ 335,505,245
IRR - before tax	35%	33%	32%	31%	29%	28%	26%
Mine and concentration opex CAD$/T conc	$ 251	$ 287	$ 323	$ 359.00	$ 395	$ 431	$ 467

Concentrate Grade Assumptions Sensitivities Table

Con grade sensitivity	87.0%	91.3%	95.7%	100.0%	104.3%	108.7%	113.0%
NPV @ 9% - before tax	$ 416,076,095	$ 419,823,885	$ 423,310,200	$ 426,420,866	$ 429,275,043	$ 431,961,845	$ 434,385,424
IRR - before tax	30%	30%	31%	31%	31%	31%	31%
Con grade	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%

Beneficiation Recovery Assumptions Sensitivities Table

Bene recovery sensitivity	90%	94%	98%	100.0%	103%	106%	110%
NPV @ 9% - before tax	$ 319,895,316	$ 362,499,888	$ 405,112,063	$ 426,420,866	$ 458,387,322	$ 490,357,539	$ 532,990,093
IRR - before tax	26%	28%	30%	31%	32%	34%	36%
Recovery	72%	75%	78%	80%	82%	85%	88%

Development Capex Assumptions Sensitivities Table

Development Capex sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 489,199,086	$ 468,273,013	$ 447,346,939	$ 426,420,866	$ 405,494,793	$ 384,568,719	$ 363,642,646
IRR - before tax	43%	38%	34%	31%	28%	26%	24%
Development capex CAD$	$ 182,127,860	$ 208,146,126	$ 234,164,392	$ 260,182,657	$ 286,200,923	$ 312,219,189	$ 338,237,455

Other Capex Assumptions Sensitivities Table

Other Capex sensitivity	70.0%	80.0%	90.0%	100.0%	110.0%	120.0%	130.0%
NPV @ 9% - before tax	$ 434,544,166	$ 431,836,399	$ 429,128,632	$ 426,420,866	$ 423,713,099	$ 421,005,333	$ 418,297,566
IRR - before tax	31%	31%	31%	31%	31%	30%	30%
Development capex CAD$	$ 42,789,986	$ 48,902,841	$ 55,015,696	$ 61,128,551	$ 67,241,406	$ 73,354,261	$ 79,467,117

Social

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.

The community relations program will begin to be implemented in the upcoming weeks. 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).

Classification

Resources were classified in accordance with the Australian Code for the Reporting of Explorations Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification of Mineral Resources was completed based on the geological complexity, estimation performance, number of drill samples, drill hole spacing

	and sample distribution. The Competent Person is satisfied that the results appropriately reflect his view of the deposit.
Audit or Review	The content of the desktop study, prepared by Wave international, was review internally. No material issues were identified during the process.

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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.

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_20 cut-off grade)			
Category	**Tonnes (Mt)**	**Grades (%Li_20)**	**Contained Li_20**
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 is based on the February 2017 Mineral Resource estimate and February 2017 Feasibility Study			

Authier JORC Mineral Resources Estimate (0.45% Li_20 cut-off grade)			
Category	**Tonnes (Mt)**	**Grades (% Li_20)**	**Contained Li_20**
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 Pre-feasibility 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.

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.

FORWARD LOOKING STATEMENTS

This announcement contains 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 in this announcement. 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 announcement has been prepared by Sayona Mining Limited. The document contains background information about Sayona Mining and is current at the date of this announcement. The announcement is in summary form and does not purport to be all inclusive or complete.

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