

**ASX ANNOUNCEMENT**

29 January 2019

**QUARTERLY ACTIVITIES REPORT – DECEMBER 2018**

**HIGHLIGHTS**

- ◆ PEA confirmed potential for long-life, sustainable commercial scale operation at Rincon with strong project economics. Base case scenario key PEA metrics include:
  - ▶ 16.5-year mine life producing ~10,000tpa high value  $\text{Li}_2\text{CO}_3$  product
  - ▶ Outstanding economics, with pre-tax NPV of ~US\$399M and IRR of ~53%
  - ▶ Project development cost of ~US\$141M, with 2.1 year payback
  - ▶ Average annual pre-tax free cash flow during commercial production of ~US\$74M and EBITDA margin of 61%
  - ▶ Attractive cash cost amongst global LCE producers of ~US\$4,645/tonne direct cash cost of production (excluding by-product credits)
- ◆ Upgraded JORC Code (2012) compliant Indicated Mineral Resource estimate of 245,120 tonnes of contained  $\text{Li}_2\text{CO}_3$ 
  - ▶ Indicated Mineral Resource estimated to a vertical depth of 102.5m below ground level, with weighted mean average lithium concentration of 325mg/L, with a maximum recorded concentration of 490mg/L
- ◆ Independent product sample testing by Alex Stewart International laboratory in Argentina confirmed results of 99.5%  $\text{Li}_2\text{CO}_3$  content
- ◆ Strategic and highly prospective tenements comprising 209.5Ha secured to increase Rincon Lithium Project landholding
- ◆ A total of ~38 hectares of lithium brine evaporation ponds constructed
- ◆ Strong progress with Asian based LCE end-users for potential off-take and commercial scale investment

**KEY OBJECTIVES FOR MARCH 2019 QUARTER**

- ◆ Continue Stage 1 industrial scale pilot plant lithium processing works to produce customised 'battery quality' LCE product and scale up for increased production
- ◆ Execute Stage 1 LCE Product off-take agreement
- ◆ Progress towards commercial stage funding solution
- ◆ Firm-up scale and progress with next stage of commercial development

For personal use only



## ASX ANNOUNCEMENT

### EXECUTIVE SUMMARY

Argosy Minerals Limited ("Argosy" or the "Company") continued its fast-track development strategy at the Rincon Lithium Project in Argentina, achieving significant milestones during the Quarter, including completion of the highly anticipated Preliminary Economic Assessment ("PEA") – providing outstanding outcomes and confirming potential for a long-life, sustainable commercial scale operation at Rincon with strong project economics.

In addition, an upgraded JORC Code (2012) compliant Indicated Mineral Resource estimate, containing 245,120 tonnes of lithium carbonate to a vertical depth of 102.5m, was confirmed.

Also, through our local JV Company – Puna Mining S.A. ("Puna"), executed separate binding Purchase Agreements to acquire three tenements – Mina San Jose, Mina Jujuy and Mina San Marcos, comprising an additional tenement area of 209.5 hectares.

Argosy advised it had completed construction of a combined total of ~38 hectares of lithium brine evaporation ponds, which are operational and providing concentrated lithium brine for use in the Company's operating Stage 1 industrial scale pilot plant.

The Company confirmed it had conducted independent verification testing (at the Alex Stewart laboratory in Argentina), from the same batch of test samples as provided to the Asian parties, which confirmed the specified 99.5%  $\text{Li}_2\text{CO}_3$  content, achieving comparable results to those from the Company's in-house laboratory.

Argosy has provided the PEA and associated reports to potential strategic investor and/or off-take groups for their review, so that the Company can ascertain interest from such strategic parties for potential full commercial or modular scale project development and associated capex funding/investment. In addition, the Company recently attended strategic meetings in Asia to further advance the Stage 1 product off-take arrangements and progress toward a funding solution for next stage commercial project development.

The milestones achieved this Quarter establish that the Company is genuinely delivering on its 'fast-track' lithium development strategy and provide additional options to consider accelerating the scale-up development timeframe of the project. Argosy remains confident that key upcoming milestones will prove successful to demonstrate the long-term sustainability and continue toward commercial scale development at the Rincon Lithium Project.

### **Rincon Lithium Project – Argentina** (77.5% JV interest, earning up to 90%)

The Rincon Lithium Project is the flagship asset in Argosy's lithium development strategy, located within the Salar del Rincon in Salta Province, Argentina, in the world renowned "lithium triangle". The Project is a JV partnership with pre-eminent lithium processing expert Pablo Alurralde. His extensive historical works within the Project area and the Salar, together with the recent works in partnership with the Company have established a well-defined pathway to target commercial production of battery grade LCE product.

A brief summary of works conducted during the Quarter is noted below.

## ASX ANNOUNCEMENT

### Preliminary Economic Assessment

The PEA, equivalent to a JORC Scoping Study, provided outcomes that are considered outstanding and confirm or surpass the Company's original expectations. The base case scenario ("BCS") selected by the Company - based on actual costs incurred for construction of the Stage 1 industrial scale pilot plant and 38 hectares of evaporation ponds, and in successfully producing battery grade lithium carbonate (thus certainty on construction (capex) and reagent (opex) costs - outlined a Li<sub>2</sub>CO<sub>3</sub> ("LCE") production scenario of 10,000 tonnes per annum with a 16.5-year mine life, a long-term Li<sub>2</sub>CO<sub>3</sub> price forecast of US\$13,000/t (based on Benchmark Mineral Intelligence's independent assessment), and determined an initial capital cost of ~US\$140.9 million and US\$4,645/t direct operating cost (excluding by-product credits).

Key highlights for the BCS include an approximate pre-tax net present value ("NPV") of US\$399 million using a 10% discount rate, providing an approximate IRR of 53% and EBITDA margin of 61%.

Financial analysis input	Parameters
Annual production rate	10,000tpa
Life of mine	16.5-years
Estimate currency	Fixed US Dollars
Li <sub>2</sub> CO <sub>3</sub> price	US\$13,000/t
Pre-development capital expenditure	US\$140.9M
Sustaining capital (annual)	4.5% of installed equipment value
Direct operating cost	US\$4,645/t
Working capital	Allowance for three months' operating costs per year
Plant and equipment salvage value	10% of capital expenditure realised in final year of operation
Royalties	3% of realised revenue
NPV discount rate	10%
Pre-development capital expenditure contingency	15%
Ramp-up - application of costs and revenue	<ul style="list-style-type: none"> <li>▪ All capital expenditure items for the processing plant and services are assumed to be incurred in production year 1</li> <li>▪ All capital expenditure for non-process infrastructure is assumed to be incurred in production year 1</li> <li>▪ Revenue from production and sale of LCE is assumed to commence from production year 1</li> </ul>
Ownership	The PEA financial outcomes are based on a 100% ownership structure - Argosy currently owns a 77.5% interest in Puna Mining S.A. and will ultimately own a 90% interest in Puna Mining S.A. in consideration for funding the capital expenditure for the commercial stage operation.

**Table 1. Rincon Lithium Project - PEA Parameters with Financial Analysis Inputs for BCS**

The outstanding PEA outcomes combined with the initial success of the Company's Stage 1 industrial-scale pilot plant confirm the technical and economic robustness of developing an enlarged integrated mining and chemical processing operation to produce high-value battery grade Li<sub>2</sub>CO<sub>3</sub> product in commercial quantities.

### Strategic Investment, Off-take Arrangements and LCE Samples to International Customers

With the major 2018 project milestones accomplished - these being:

- constructing and commissioning the Stage 1 industrial scale pilot plant and associated site works,
- developing an exclusive and proprietary successful industrial scale chemical process solution to produce ≥99.5% Li<sub>2</sub>CO<sub>3</sub> product using the Stage 1 pilot plant; and

For personal use only



## ASX ANNOUNCEMENT

- the PEA (and associated Indicated Mineral Resource estimate) completed,

the Company will continue to focus on securing a strategic relationship/partnership(s) to ensure the successful commercial development of our Rincon Lithium Project. The Company is also cognisant of immediate funding requirements for the ongoing day-to-day operations and will consider these funding options in light of the broader discussions with potential strategic and interested parties to ensure continued progression with project development.

The key criteria for such strategic engagements is to provide battery quality LCE product samples preferentially customised for the specific requirements of the end-user and associated customer verification/testing, and confirm viability of an economic pathway for long-term commercial scale production of LCE product via independent validation of estimated project capital expenditure items and on-going operational costs.

Noting these key criteria, and with the PEA results currently being reviewed by potential strategic investor groups, Argosy has conducted advanced discussions with these strategic parties for potential full commercial or modular scale capex funding/investment, and their requirements for such.

The Company has held on-going discussions with a Japanese conglomerate, with both parties currently considering various matters to ensure a successful and long-term relationship. This involved a recent meeting in Tokyo with key executives of this group.

In addition, the Company is concurrently discussing such potential strategic partnership with a consortium of South Korean groups interested in commercial scale long-term product off-take and an accompanying capex funding solution.

Current factors under consideration with these groups involves project feasibility, LCE product specification requirements, scale of an initial and longer-term commercial operation and associated funding requirements, structure and framework of the strategic relationship and related product off-take arrangements, and securing a long-term off-take agreement.

Independently, the Company is moving toward closing an off-take arrangement for Stage 1 product with the Japanese group. Most items for such have been resolved and the parties have in-principle determined to conclude the arrangement, pending a few outstanding items.

Further, the Company continues its processing works to produce additional product test samples to preferred potential customers in Asia as part of the on-going customer testing and product customisation process, to ensure future customer sales are of a consistent quality and specification, and any product impurities are systemised at the customers end, for their own product manufacturing requirements and meeting their own customers specifications.

The product test samples are being processed to set product specifications as determined with potential customers. The Company notes it is critical to ensure our LCE product is fit for purpose and tailored to supply individual customer requirements.

For personal use only

**ASX ANNOUNCEMENT**

The product qualification process the Company is working to, which is an industry norm and to which all cathode and battery manufacturers must adhere to, will ensure the Company is placed in a strong position for future product sales. Argosy is one of the first new LCE product suppliers to conduct this process, and reinforces the strong position the Company is in to establish its credentials well before many other lithium companies, given the stage of development achieved by Argosy at the Rincon Project.

The Company is currently installing and testing complementary plant equipment to assist in gaining efficient product output, given the batch-scale and manual nature of the Stage 1 pilot plant, to then target ongoing, steady-state operations from the pilot plant to produce customised LCE Product for supply to the selected off-take customer(s).

In parallel with the strategic investment considerations, Argosy will look to make a decision on the scale of next stage commercial development (pending funding solution), to then commence development works for the selected production strategy.

JORC Resource Upgrade

The Company completed hydrogeology and mineral resource estimate works to support the PEA, including a JORC Code (2012) compliant upgraded Indicated Mineral Resource estimate containing 245,120 tonnes of lithium carbonate (based on specific yield/drainable brine volumes), to a vertical depth of 102.5m. The aquifer sequence has a weighted mean average lithium concentration of 325mg/L, with a maximum recorded concentration of 490mg/L.

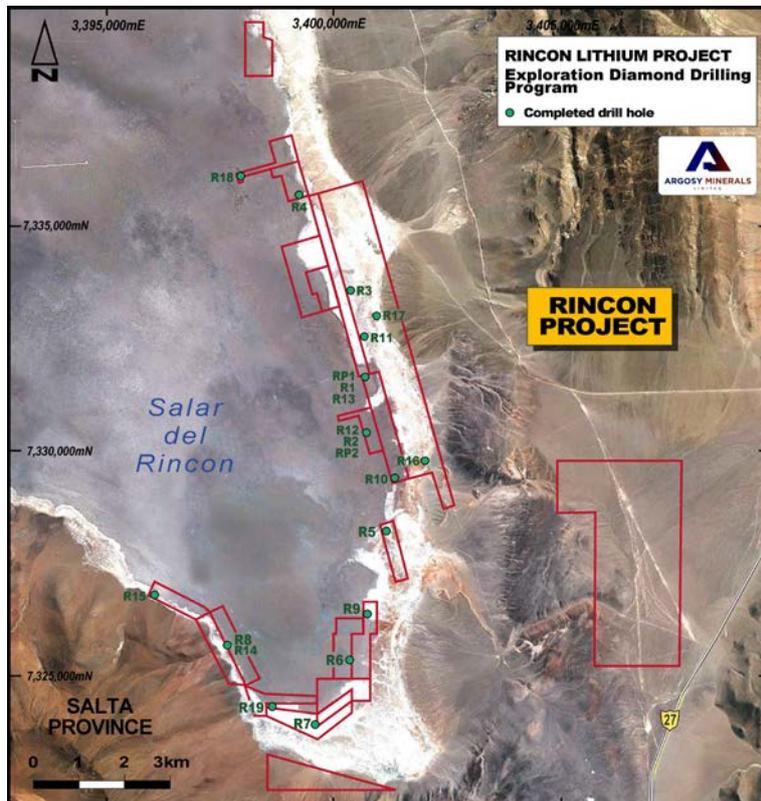


Figure 1. Rincon Lithium Project – Drill-hole Location Map

For personal use only

## ASX ANNOUNCEMENT

The Indicated Mineral Resource estimate forms the basis for the sustainable commercial production targets and long-term life of mine modelling outlined in the PEA outcomes.

The Company is confident future resource upgrades may be achieved via deeper drilling within the existing project area. With the current estimated mine-life established from the PEA works, the Company feels expanding the resource is not an immediate priority.

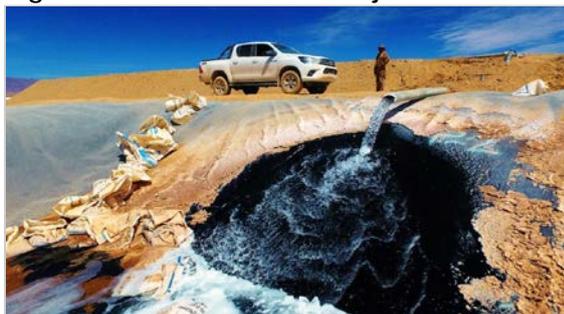
### Lithium Brine Evaporation Pond Works

Argosy completed construction of a combined total of ~38 hectares of lithium brine evaporation ponds, which are operational and providing concentrated lithium brine for use in the Company's operating Stage 1 industrial scale pilot plant. The current area of evaporation ponds are now capable of generating concentrated lithium brine at a scale that can support processing operations for a plant capacity of ~1,500 – 2,000 tpa (former Stage 2 scale) of lithium carbonate product.

The Company is conducting lithium brine pumping operations into the new evaporation ponds. The new smaller ponds, which will be utilised for storing concentrated lithium brine from the larger ponds (in the latter stages of the ~12 month lithium brine concentration period), are planned for lining during the March 2019 Quarter.



Figures 2 - 4. Rincon Lithium Project – Additional Evaporation Ponds Constructed with Pumping Operations



For personal use only



# ARGOSY MINERALS LIMITED

## ASX ANNOUNCEMENT

### Strategic Tenement Acquisitions

Argosy, through its local JV company Puna, executed separate binding Purchase Agreements with Ricardo Salome Guitian, Hernan Omar Viveros, Daniel Viveros, and Martin Viveros (as agent) to acquire three additional tenements – Mina San Jose, Mina Jujuy and Mina San Marcos, comprising a total tenement area of 209.5 hectares.

The Company's Rincon Lithium Project now comprises up to 2,794.4 hectares of significant lithium and associated infrastructure services/mining easement landholdings for future development and commercial production operations.

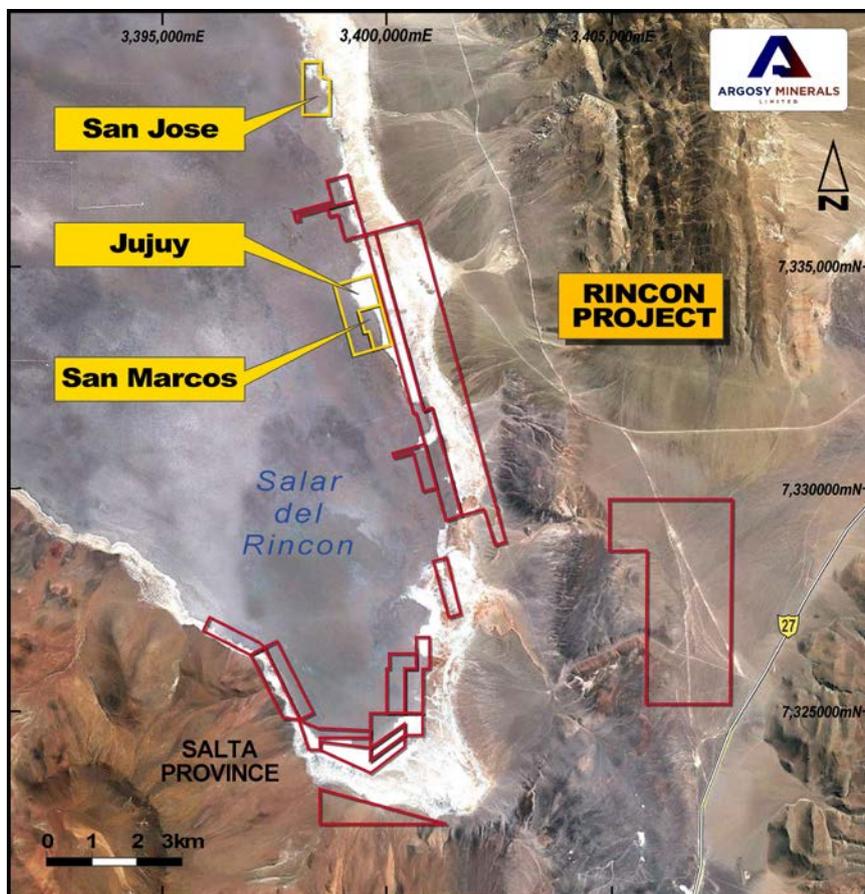


Figure 5. Rincon Lithium Project – New Tenement Acquisitions

### Lithium Product Market Update

The lithium product market has recently experienced price volatility, predominantly in China, as noted by LCE product pricing vagaries from newer producers, facilitated by low quality product being produced. In addition, Chinese LCE product customers are now relying upon poor quality lithium carbonate supply entering the market at marginal prices from lithium brine producers in Qinghai Province of China.



For personal use only

## ASX ANNOUNCEMENT

The current Chinese viewpoint suggests a preference for such low quality product, with in-country product refinement occurring to improve the product specification, or used for conversion to battery quality lithium hydroxide product.

Outside of China, the decreases in lithium carbonate prices have been most prevalent into technical grade markets, with major South American producers still recording strong prices into the battery sector.

As of December 2018, international contract lithium product prices for  $\text{Li}_2\text{CO}_3$  supplied from Chile and Argentina were quoted at an average of ~US\$13,500 per tonne, FOB South America with specification of 99.5%  $\text{Li}_2\text{CO}_3$  (source: Benchmark Mineral Intelligence, "BMI").

Given Argosy is working on and achieving such product specification, the Company is confident in the long term, sustainable lithium price forecasts, as supplied by BMI.

The Company's view on the supply side for lithium carbonate, and reinforced by BMI analysis, suggests obstacles to expanding lithium carbonate production in Chile continued during December 2018, with SQM remaining behind their target of reaching 70,000tpa LCE capacity by year-end and Albemarle only just approaching capacity production at La Negra II. Albemarle's expansion plans threaten to be delayed longer-term by ongoing negotiations with Chilean development agency CORFO over the terms of their 2016 expansion agreement. With new supply from Chile slow to reach the market and a broader focus on developing hydroxide capacity in 2018, the biggest carbonate supply expansions have come from Chinese producers. However with the majority of the China's brine producers out of operation until Q2 due to seasonal restrictions, supply growth could be limited in H1 2019. Nevertheless, the expansions seen in 2018 have cemented China as a leading exporter of lithium carbonate for the first time, with sales reaching record highs at over 2,100 tonnes in November, taking 2018 exports to over 10,000 tonnes.

The key takeaway that the Company has formed in the short to medium term is that 'battery quality' lithium products sourced from reputable international suppliers (outside China) via longer term contracts will not enter into an over-supply position, given the continued rising demand for such product by Asian end-users (this being the window within which Argosy aims to enter full commercial production). In addition, new supply is not entering the market as quickly as predicted or estimated.

The Company considers it is in a much stronger and unique position for its current engagement with potential customers due to being the only new "uncontracted" participant able to actually offer potentially high value, premium quality LCE product.

### Corporate

The Company's financial reporting period ended on 31 December 2018, and the Company will lodge its annual financial report during the March 2019 Quarter.

### Schedule of Tenements

The schedule of tenements held by the Company at the end of the Quarter is shown below.



**ARGOSY MINERALS**  
LIMITED

**ASX ANNOUNCEMENT**

Tenement	Location	Beneficial Percentage held
File 7272 (Telita) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 14342 (Chiquita 2) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 22850 (Romulo) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 22955 (Frodo) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 1414 (Talisman) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 1904 (Nelly) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 1905 (Angelica) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 2889 (Maria) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 2890 (Irene) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 6343 (Tigre) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 6345 (Puma) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 100561 (Praga I) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 100562 (Praga II) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 100625 (Praga III) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 10626 (Praga IV) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 17902 (Reyna) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 62308 (Tincal) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 6681 (San Marcos) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 7215 (Jujuy) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
File 14970 (San Jose) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
Mining easement right (File 4128) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)
Mining easement right (File 15698) <sup>1</sup>	Salta, Argentina	77.5% (JV, earning up to 90%)

<sup>1</sup> Interest in mining tenement held 100% by Puna Mining S.A.

**ENDS**

For more information on Argosy Minerals Limited and to subscribe for regular updates, please visit our website at [www.argosyminerals.com.au](http://www.argosyminerals.com.au) or contact us via [admin@argosyminerals.com.au](mailto:admin@argosyminerals.com.au) or Twitter @ArgosyMinerals.

**For further information:**

Jerko Zuvela  
Managing Director

T | +61 8 6188 8181

E | [admin@argosyminerals.com.au](mailto:admin@argosyminerals.com.au)

W | [www.argosyminerals.com.au](http://www.argosyminerals.com.au)

Argosy confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Argosy confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



For personal use only



# ARGOSY MINERALS LIMITED

## ASX ANNOUNCEMENT

The PEA information in this announcement is extracted from the report entitled "Argosy Delivers Exceptional PEA Results for Rincon Lithium Project" dated 28 November 2018, and the Mineral Resources information in this announcement is extracted from the report entitled "Argosy Upgrades Lithium Rincon Lithium Project JORC resource" dated 13 November 2018, both announcements are available at [www.argosyminerals.com.au](http://www.argosyminerals.com.au) and [www.asx.com](http://www.asx.com).

### Competent Person's Statement – Rincon Lithium Project

The information contained in this ASX release relating to Exploration Results and Mineral Resource Estimates has been prepared by Mr Duncan Storey. Mr Storey is a Hydrogeologist, a Chartered Geologist and Fellow of the Geological Society of London (an RPO under JORC 2012). Mr Storey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Duncan Storey is an employee of AQ2 Pty Ltd and an independent consultant to Argosy Minerals Ltd. Mr Storey consents to the inclusion in this announcement of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from exploration at the Rincon Lithium Project.

**Forward Looking Statements:** Statements regarding plans with respect to the Company's mineral properties are forward looking statements. There can be no assurance that the Company's plans for development of its mineral properties will proceed as expected. There can be no assurance that the Company will be able to confirm the presence of mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties.

### ABOUT ARGOSY MINERALS LIMITED

Argosy Minerals Limited (ASX: AGY) is an Australian company with a current 77.5% (and ultimate 90%) interest in the Rincon Lithium Project in Salta Province, Argentina.

The Company is focused on its flagship Rincon Lithium Project – potentially a game-changing proposition given its location within the world renowned "Lithium Triangle" – host to the world's largest lithium resources, and its fast-track development strategy toward production of LCE product.

Argosy is committed to building a sustainable lithium production company, highly leveraged to the forecast growth in the lithium-ion battery sector.

### Appendix 1: AGY's Argentina Project Location Map



For personal use only