



## ASX ANNOUNCEMENT

13 July 2018

# QUARTERLY ACTIVITIES REPORT – JUNE 2018

## HIGHLIGHTS

- ✦ Rincon Stage 1 industrial scale pilot plant operational and first lithium carbonate (LCE) product achieved
  - Works continuing to realise the principal Stage 1 milestone – to produce consistent battery grade LCE product whilst confirming the chemical process is efficient, cost effective and scalable for all development stages
- ✦ Maiden Inferred Mineral Resource of 207,957 tonnes of contained LCE product calculated from results of initial eight diamond drill-holes
  - Resource and brine aquifer remain open at depth – with excellent scope for resource expansion from additional drilling and continued tenement acquisitions
- ✦ Stage 2 development works continue to progress
  - Construction works on schedule for remaining ~24Ha of Stage 2 lithium brine evaporation ponds
  - Initial ~10Ha of completed Stage 2 evaporation ponds concentrating lithium brine
- ✦ Completed outright purchase of Rincon Lithium Project mining tenements previously under option, comprising a total of 2,572 hectares of significant lithium and associated infrastructure services, and mining easement right landholdings
- ✦ Continued engagement with Asian and other LCE end-users for potential off-take and Stage 3 investment

## KEY OBJECTIVES FOR SEPTEMBER 2018 QUARTER

- ✦ Continue Stage 1 industrial scale pilot plant lithium processing works to produce consistent battery grade LCE product
- ✦ Finalise JORC Resource estimate upgrade
- ✦ Finalise Preliminary Economic Assessment report
- ✦ Confirm Stage 1 LCE Product off-take agreement
- ✦ Complete construction works for additional ~24Ha of Stage 2 evaporation ponds
- ✦ Commence initial Stage 2 commercial scale processing plant development works



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### 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 a major Stage 1 target of completing construction of the industrial scale pilot plant and producing the first batch of lithium carbonate ("LCE") product. This was a significant and formative milestone for Argosy, when you consider the industrial scale nature of the plant and that Rincon Lithium Project development works commenced in February 2017.

During the Quarter, the Company also delivered a maiden JORC resource estimate from the initial drilling campaign, made substantial progress with Stage 2 development works, and continued works on the Preliminary Economic Assessment – all supporting the primary objective of establishing an efficient, cost effective and scalable chemical process solution for consistent production of battery grade LCE product, and then subsequent operational expansion for targeted development of Stage 2 works (up to 1,500tpa) and Stage 3 full commercial operations.

The milestones achieved this Quarter establish that the Company is genuinely delivering on its 'fast-track' lithium development strategy and Argosy remains confident of achieving key upcoming milestones.

### **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, and is located within the Salar del Rincon in Salta Province, 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 has established a well-defined pathway to target commercial production of battery grade LCE product.

### Stage 1 Industrial Scale Pilot Plant

During the Quarter, the Company advised that the recently constructed and commissioned Stage 1 plant had commenced operations and produced the first batch of LCE product. A significant milestone considering the industrial scale nature of the plant and Rincon Lithium Project development works only commenced in February 2017.

During the Quarter, Stage 1 pilot plant works primarily involved commissioning and test-works where fine-tuning the chemical process pathway with a target to reach production of in-specification quality battery grade LCE product, which is consistent and satisfactory for customer samples and subsequent initial commercial sales. The commissioning and test-works phase includes refining the chemical balances, formulations and equipment settings to not only ensure product quality consistency, but also to have the plant operating in the most effective and efficient manner to deliver into future sales agreements.

Our strategy and processing works do not follow a well-trodden path (given the very limited nature of lithium brine producers worldwide), and the very limited success of alternative processing solutions, thus the Company's primary focus is to ensure we are fully satisfied with

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all our processing works to realise the principal Stage 1 milestone – **to produce consistent battery grade LCE product whilst confirming the chemical process is efficient, cost effective and scalable for all development stages.**

The Company's in-house Stage 1 processing test-works have currently resulted in removal of more difficult impurities like sulphates, boron, calcium and magnesium to acceptable levels, and the current focus is ensuring targets for process recovery and re-agent use are met. In addition, current test-works are targeting to replicate results from varying batches of LCE product to ensure product quality consistency, which is critical for future product sales to battery and cathode manufacturers.

These processing works are highly complex and are a key driver for the Company, which, when successful will allow the Company to deliver on our ultimate project strategy - to build a sustainable lithium production company.

The Company's Rincon Lithium Project personnel, headed by the Company's MD – Mr Jerko Zuvela and its JV partner – Mr Pablo Alurralde, remain confident the Stage 1 plant works are progressing well and will achieve its milestone objectives. They are also hastened to complete the test-works as quickly as possible to continue our fast-track development of the Rincon Lithium Project.



Figure 1. Rincon Lithium Project – Stage 1 industrial scale pilot plant operations

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### Argosy Purchases Rincon Tenement Portfolio

During the Quarter, the Company executed purchase agreements for the mining titles (secured via binding and exclusive option rights), and fulfilled all the conditions to complete the 100% acquisition of those tenements – namely the Salonix properties, Mina Reyna and Mina Tincal, and bring them into full ownership of Puna Mining S.A. (of which Argosy has a current 77.5% interest), to complement the existing mining titles and mining easement rights, warehouse, plant and equipment that is all currently owned 100% by Puna Mining.

The Rincon Project comprises a total of 2,572 hectares of significant lithium and associated infrastructure services, and mining easement right landholdings, well equipped for future Stage 3 development and commercial production operations.

Argosy continues to have the right to ultimately earn a 90% interest in Puna Mining upon completing Stage 3 development of the Project.

The Company also continues to review and assess additional mining concessions prospective for lithium to further increase the Rincon Lithium Project landholding for a larger future production base.

### Drilling Operations and Resource Development

The Company has previously conducted two concurrent phases of drilling operations – resource exploration drilling utilising a diamond drill rig to collect drill cores for porosity assessment and to obtain brine samples for resource estimation, and production well drilling using a rotary drill rig for construction of wells for pumping of lithium brine into the Stage 2 evaporation ponds.

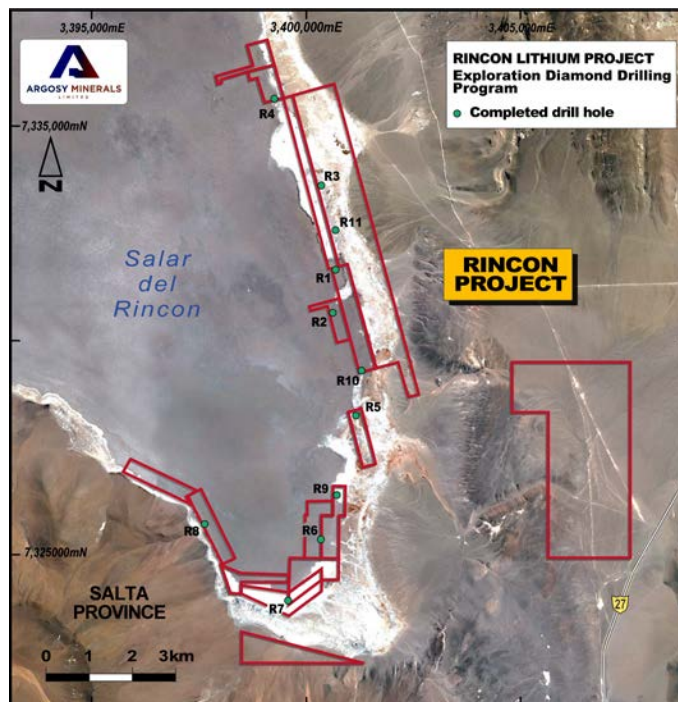


Figure 2. Rincon Lithium Project – Resource Diamond Drilling Program Drill-hole Location Map



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### JORC Resource Estimate

The Company announced its maiden JORC Code (2012) compliant Mineral Resource estimate during the Quarter (see announcement, 19 June 2018 - [Rincon Lithium Project Maiden JORC Mineral Resource](#)), resulting in an Inferred Resource of 207,957 tonnes of contained lithium carbonate equivalent (LCE) product estimated to occur within the brine aquifer(s) from the Company's Rincon Lithium Project.

The Resource estimate was based on drilling data and brine analysis results from the initial eight brine-exploration diamond drill bores (R1 to R8 in Figure 2), to depths of up to 102.5m in the south east of the Salar Del Rincon. The bores delineated an aquifer containing hypersaline brine with TDS ranging between 310,000 mg/L and 350,000 mg/L; the brine is enriched with respect to lithium. Weighted mean average lithium concentrations range between 324 mg/L and 369 mg/L, with a maximum recorded concentration of 490 mg/L.

The Company is very confident the Resource estimate will support our Project production targets that we expect to report within our Preliminary Economic Assessment, and together with additional drilling works, will also enable future upgrades to the maiden JORC Mineral Resource.

### Additional Resource Development Drilling

Following completion of the eight drill-hole resource exploration drilling program, and as part of the hydrogeological works for the PEA report, the Company has completed an additional three diamond exploration drill-holes - R9 to R11 (see Figure 2 and Table 1).

The Company is now awaiting the final laboratory analysis results from drill-holes R9 to R11 samples of the drill cores for porosity assessment and brine analysis, which will be used in conjunction with other hydrogeological works to produce an updated Resource estimate, that will be reported in accordance with JORC 2012 requirements.

Exploration Hole Number/Name	Easting GK3	Northing GK3	Elevation m	Total Depth (m)	Assay Interval m	Drilling method	Azimuth	Dip
1 R1	3,400,704	7,331,661	3740	102.5	85-100	Diamond	0	-90
2 R2	3,400,697	7,330,412	3740	102.5	3-102	Diamond	0	-90
3 R3	3,400,366	7,333,587	3740	102.5	42-96	Diamond	0	-90
4 R4	3,399,269	7,335,479	3740	102.5	3-78	Diamond	0	-90
5 R5	3,401,167	7,328,233	3740	102.6	48-72	Diamond	0	-90
6 R6	3,400,345	7,325,338	3740	81.5	0-69.5	Diamond	0	-90
7 R7	3,399,581	7,323,909	3740	102.5	0-102.5	Diamond	0	-90
8 R8	3,397,632	7,325,709	3740	101.0	36-99	Diamond	0	-90
9 R9	3,400,732	7,326,379	3740	100.5	tbc	Diamond	0	-90
10 R10	3,401,256	7,329,149	3740	147.0	tbc	Diamond	0	-90
11 R11	3,400,691	7,332,554	3740	100.0	tbc	Diamond	0	-90

Coordinates are from hand held GPS measurements in Zone 3 of the Argentine Gauss Kruger coordinate system, using the POSGAR datum

Table 1. Rincon Lithium Project – updated drill-hole location details

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### *Additional Production Well Drilling*

The Company has previously completed two rotary drill-holes that are utilised as production wells, both wells being completed to a depth of 102.5m. These wells have been operational and supplying lithium brine to the constructed Stage 2 evaporation ponds.

The Company is also currently conducting additional hydrogeological works with respect to brine aquifer investigations in association with the PEA, including shallow exploration and test bores with pumping tests, to provide more information on the geological and hydrogeological properties of the fractured halite aquifer.

These works are to provide data input into modelling works within the PEA that will provide a mine-life estimate for lithium brine operations at the Project.



**Figure 3. Rincon Lithium Project – Drilling Operations**

### PEA Works

The Company has engaged independent consultants to prepare a PEA for the Rincon Lithium Project, and is very encouraged by the works to date. The main items of the PEA will comprise:

- Hydrogeological data, with life of mine modelling, production and brine pumping parameters, mineral resources, bore-field details;
- Capital and operating costs;
- Processing and engineering works;
- Financial analysis; and
- Marketing analysis.



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The Company has made good progress on these works outlined above.

The hydrogeological works for the PEA are being conducted primarily to estimate the mine-life model for the current Project area, which the Company is targeting a sustainable long-term lithium processing operation at a commercial production rate. As noted above, the additional three exploration diamond drill-holes have been completed and approximately four to six shallow production wells are currently in progress. Upon finalisation of these drilling works and subsequent results, the Company's hydrogeological consultants will be able to prepare and finalise the data for the PEA report.

The capital and operating costs, processing and engineering works, and preliminary financial analysis works are being conducted by the Company's engineering consultant. Works are advanced and currently being prepared for finalisation over the coming month, pending receipt of the hydrogeological data.

The marketing analysis is being prepared by an international lithium market and forecast consulting company. These works are advanced and awaiting final inputs prior to being finalised and submitted into the final PEA report.

### Stage 2 Evaporation Pond Works

Argosy previously confirmed it had commenced site works for the construction of ~24 hectares of additional Stage 2 lithium brine evaporation ponds. These works will result in an additional eight evaporation ponds to complement the nine Stage 2 ponds currently in operation. The Company will then have a combined total of ~34 hectares of Stage 2 evaporation ponds.

The Company's contractor (who also completed the Company's already constructed evaporation ponds) has progressed construction works on the additional ~24 hectares of evaporation ponds during the current Quarter and the Company is targeting that these additional Stage 2 evaporation ponds are constructed and operational for peak solar evaporation and lithium concentration by the start of the upcoming summer season.



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Figures 4-5. Rincon Lithium Project – Stage 2 Evaporation Ponds



Off-take Arrangements and LCE Samples to International Customers

Argosy has made arrangements with a number of international cathode and battery industry participants to provide them with samples of battery grade LCE material produced from Rincon for their own quality confirmation and testing.

Argosy will be in a unique position to provide high quality product samples to potential customers at this time in our development plan.

The Company has made significant progress on a preliminary off-take arrangement for Stage 1 product, subject to process test-works and provision of customer samples, and is





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also working towards arranging potential medium and long-term off-take agreements with the highest quality major battery and cathode industry participants, as a result of our fast-track development strategy and industrial scale pilot plant operations testing to prove the quality of our targeted battery quality LCE product.

### Strategic Investor Update

In conjunction with the battery quality LCE product samples Asian end-users have requested, the Company has previously held several meetings with Japanese, Korean, Chinese and Middle Eastern groups to discuss Argosy's development strategy and propositions for the Rincon Lithium Project. The Company continues to engage such parties regarding the potential to consider strategic investment funding, off-take or other value-adding commercial agreements in consideration for Stage 3 development of the Project.

Argosy notes that any meetings or considerations in regard to any potential transactions are preliminary and there is no certainty that any agreement will be reached. The Company will update shareholders upon any further developments in this regard.

### Corporate

The Company held its Annual General Meeting on Monday, 14 May 2018.

### Schedule of Tenements

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

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%)
Mining easement right (File 4128) <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.



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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.

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### 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% 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.

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

