

13 September 2018

## **PROCESS WORKS UPDATE**

### **CONFIRMATION OF SUCCESSFUL CHEMICAL PROCESS**

### **99.8% LITHIUM CARBONATE PRODUCT ACHIEVED**

#### **HIGHLIGHTS**

- Confirmation that the chemical process developed is successful and scalable for producing 'battery quality' LCE Product for future development stages
- Processing works have achieved 'battery quality' LCE Product with a 99.8%  $\text{Li}_2\text{CO}_3$  content value
- Current processing works have focussed on;
  - Optimising the production process for confirming the Stage 2 and Stage 3 commercial plant designs; and
  - LCE product refinement and testing to determine the optimal product quality from the Stage 1 plant
  - Plant equipment efficiencies for optimised LCE Product output
- Approximately 1.2 tonnes of primary/raw lithium carbonate material has been produced to date and utilised for process testworks/product refinement
  - From these works, ~175kg of 'battery quality' LCE product has been produced
  - This includes ~70kg of 'battery quality' LCE product samples being provided to the preferred potential off-take party for quality confirmation and verification
- Potential off-take party conducted recent site visit and inspection

Argosy Minerals Limited (ASX: **AGY**) ("**Argosy**" or "**Company**") is pleased to provide an update on recent process works from the Stage 1 plant at its Rincon Lithium Project, located in Salta Province, Argentina.

The Company and its JV Partner consider a key strategic component of the principal Stage 1 milestone has been achieved – a successful and scalable chemical process solution to produce 'battery quality' lithium carbonate (LCE) product, and this exclusive chemical process technology is effectively proven to be utilised for future development stages at the Rincon Lithium Project.

This milestone has been achieved through a lengthy process test-works phase, which continued post the production of the initial 'battery quality' LCE product (announced on 6 August 2018) – with the intent to produce a better specification LCE product for provision of customer samples to our preferred potential off-take party.

Argosy Managing Director, Jerko Zuvela said "***We are delighted at this significant milestone – proof of concept achieved via a successful and scalable chemical process solution that***

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*ultimately sets up the Company for progress toward development of Stage 3 at the Rincon Lithium Project.*

*We look forward to delivering our upcoming major upcoming milestones to our shareholders to show the long-term sustainability of our project."*

To date, the process works have produced ~1.2 tonnes of primary/raw lithium carbonate material that has been used for test-works and product refinement, which has resulted in production of ~175kg of 'battery quality' LCE Product. This product, tested in-house, recorded the  $\text{Li}_2\text{CO}_3$  content value up to 99.8%.

Of this product, the Company is preparing representative customer samples totalling ~70kg, with an average specification of 99.7%  $\text{Li}_2\text{CO}_3$  content value, to be provided to our preferred potential off-take party, who recently conducted a project visit and inspection, for their own quality confirmation and verification. Pending customer acceptance of our product specification, the Company will look to finalise the preliminary off-take agreement for Stage 1 product.



Figure 1. Rincon Lithium Project – 'Battery Quality' LCE Product

The Company will continue process works to ensure Stage 1 plant equipment efficiencies are optimised to complete the final Stage 1 milestone - to produce consistent ongoing 'battery quality' LCE product.

The Company has identified complementary plant equipment to assist in gaining more efficient product output, given the batch-scale nature of the Stage 1 pilot plant, and will be implementing this as necessary over coming months.

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This milestone further establishes that the Company is genuinely delivering on its 'fast-track' lithium development strategy and provides additional options to consider accelerating the scale-up development timeframe of the project. Argosy remains confident of achieving key upcoming milestones to further demonstrate the long-term sustainability of the Rincon Lithium Project.

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.

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**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.

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



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### Competent Person's Statement

The information contained in this ASX release relating to Exploration Results has been prepared by Mr Jerko Zuvela. Mr Zuvela is a Member of the Australasian Institute of Mining and Metallurgy and 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. Mr Zuvela is the Managing Director of Argosy Minerals Ltd and 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.

Chemical Engineer's Statement: The information in this announcement that relates to lithium carbonate processing and test-works is based on information compiled and/or reviewed by Mr Pablo Alurralde. Mr Alurralde is a chemical engineer with a degree in Chemical Engineering from Salta National University in Argentina. Mr Alurralde has sufficient experience which is relevant to the lithium carbonate processing and testing undertaken to evaluate the data presented.

JORC Code, 2012 Edition – Table 1  
Section 1 Sampling Techniques and Data  
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or</li> </ul>	<ul style="list-style-type: none"> <li>To determine the quality of the lithium carbonate, twenty samples of individual solid samples (produced from the pilot plant) are made within each production lot and they are usually analysed in the form of a composite and, if necessary, individually to verify the sampling method.</li> <li>The analysis performed on the samples includes determination of physical and chemical properties on liquid and solid samples.</li> <li>For the chemical determinations, the techniques used are common laboratory gravimetry and titrations, and also ICP analysis.</li> <li>For the physical determinations - pH meters, conductimeters, densimeters, laboratory thermometers, analytical scales, and drying stoves are used.</li> <li>The representativeness of the samples is ensured by sampling on the recirculation in the case of liquid samples of the stirred reactors, and by</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<i>mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	the composite method in the case of solids separated in the filters.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The brine is pumped from the project area within the salt lake into the Stage 1 evaporation ponds. The raw liquid brine is then concentrated within the evaporation ponds for a period of ~1 year, and then collected for processing works at the Stage 1 pilot plant site.</li> <li>• The volume of brine to produce the product was not measured. The concentrated lithium brine is transported to the pilot plant site and utilised to conduct on-going test works to produce LCE Product.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the</i></li> </ul>	<ul style="list-style-type: none"> <li>• The samples are stored in separate boxes and transported by the company's professional staff in trucks from the Rincon Salar to the Puna Mining laboratory, co-located at the site of the Stage 1 pilot plant.</li> <li>• The samples are received in the laboratory and electronically recorded in a database of the central processor of the laboratory.</li> <li>• The sampling of the process of the</li> </ul>





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	<p>sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</p> <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>concentrated brine received in the Stage 1 pilot plant is carried out on each of the unit operations necessary to separate the final product, thus obtaining various liquid and solid samples that are registered, labeled and analysed at the in-house laboratory.</p> <ul style="list-style-type: none"> <li>To determine the representativeness of this sampling method, it is possible to carry out the analysis of the individual samples and their comparison with the composite. No significant statistical discrepancies were observed to date.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The Puna Mining in-house laboratory in Salta Province, Argentina is used as the primary laboratory to conduct the testing of the product samples collected as part of the processing testworks.</li> <li>The analyses performed on the samples include determination of physical and chemical properties on liquid and solid samples.</li> <li>All equipment is calibrated with externally certified standards.</li> <li>Repeativity tests were carried out in each of the equipment, determining a standard variation within the limits accepted for this type of equipment, less than 3%.</li> <li>Quality control procedures include the use of duplicates and targets in each of the sample extraction processes carried out, providing a continuous verification and control of the results obtained.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>The samples are received in the laboratory and electronically recorded in a database of the central processor of the laboratory.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The samples are stored in separate boxes and transported by the company's professional staff in trucks from the Rincon Salar to the Puna Mining in-house laboratory, co-located at the site of the Stage 1 pilot plant.</li> <li>• The samples are received in the laboratory and electronically recorded in a database of the central processor of the laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No 3<sup>rd</sup> party audits or reviews have been conducted at this point in time.</li> </ul>

Section 2 - Reporting of Exploration Results  
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties,</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Rincon properties are located in the south of the Rincon Salar, adjacent to properties owned by the Enirgi Group Corp. The properties are mining licences that are owned directly by Puna Mining</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p><i>native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<p>S.A. (with whom Argosy has a JV over these properties). The properties are located in the province of Salta in northern Argentina at an elevation of approximately 3740masl.</p> <ul style="list-style-type: none"> <li>The Project comprises up to 2,572ha of mineral properties in Salta province in Argentina, within, around and outside the southern edge of the Rincon Salar.</li> <li>The properties are believed to be in good standing, with payments made to relevant government departments.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration has been carried out in adjacent properties by the Canadian company Enirgi Group Corp. who have conducted a feasibility study and defined an extensive resource and reserve on their adjacent properties (see announcement July 7, 2016).</li> <li>The properties owned by Puna Mining have been previously explored or exploited for borates.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The sediments within the salar consist of halite, clay and sand which have accumulated in the salar from terrestrial sedimentation and evaporation of brines within the salar. These units are interpreted to be essentially flat lying, with unconfined aquifer conditions close to surface and semi-confined to confined conditions at depth</li> <li>Brines within the salar are formed by solar concentration, with brines hosted within the different sedimentary units</li> <li>Geology was recorded during the drilling program.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p>metres) of the drill hole collar</p> <ul style="list-style-type: none"> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> </ul> <ul style="list-style-type: none"> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>



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	<i>be practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

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