

## Strategic Partnership for Lithium Extraction with Leading US Environmental Biotech Company Cemvita

### HIGHLIGHTS

- **AZL signs strategic partnership with Cemvita to develop commercial-scale applications for bioextraction of lithium from sedimentary ore.**
- **Cemvita's technology has significant potential to improve lithium recovery, lower extraction costs, and improve ESG performance.**
- **Research and development work will take place at AZL's new Lithium Research Centre using ore from AZL's Big Sandy Lithium Project in Arizona.**

Arizona Lithium Limited (ASX: **AZL, AZLO, AZLOA**, OTC: **AZLAF**) ("**Arizona Lithium**", "**AZL**" or "**the Company**"), a company focused on the sustainable development of the Big Sandy Lithium Project ("**Big Sandy**", "**Project**"), is pleased to announce the signing of a Letter of Intent (LOI) for a strategic partnership with Cemvita Factory (Cemvita) to utilize Cemvita's portable organic lixiviant production plant at the Company's newly established Lithium Research Centre. Recently, AZL announced the completion of the Scoping Study which has confirmed Big Sandy as being well positioned to become a long-term lithium producer to supply the rapidly growing demand for electric vehicles in North America.

Cemvita intends to revolutionize the mining industry by lowering the carbon footprint using industrial biotechnology. Cemvita's Biomining team works with companies to optimize existing bioprocesses and develop new methods in mineral processing and extractive metallurgy, to lower the energy and carbon intensity of the mining industry and enable extraction of the minerals required for a renewable energy future. Processes that can be enhanced by the latest industrial biotech apply across the entire mining supply chain including mining and mineral pre-processing, in-situ recovery, leaching, beneficiation, remediation and recycling. Cemvita will be piloting the bio-extraction technology on Big Sandy sedimentary ore at the Lithium Research Centre.

In the recently announced Scoping Study, the key cost centres that were identified will now attract greater focus for evaluation and optimisation, thereby creating optimum value, while making the Project a global model for responsible and sustainable lithium project development. One such area was in leaching, where successful application of Cemvita's technology could improve selectivity for leaching lithium from sedimentary ore over traditional non-selective inorganic acids and lixiviants.

Arizona Lithium will fast track the development of the Big Sandy Project, with further processing and extraction test work to be undertaken at the Company's recently established Lithium Research Centre. The Lithium Research Centre will function as a technology incubator focused on the extraction of lithium from a variety of ores and brines, as well as the production of battery-grade lithium chemicals for current and future battery technologies.

**AZL Managing Director, Paul Lloyd, commented:** "*We are very pleased to have signed this partnership with Cemvita. We are focused on our responsibility to our shareholders and to the environment and believe that both of these stakeholders will greatly benefit from the successful implementation of Cemvita's technology. We aim to be a model for sustainable development and be the pioneer for Lithium producers to use technology like Cemvita's. We are excited to see the initial results of the partnership in the next 3-6 months, at which time we will assess further partnership potential.*"

**Cemvita's Vice President Mining Biotech, Marny Reakes, commented:** "Cemvita is excited to be working with AZL at their research centre in Arizona to pilot our nature-inspired technology for the extraction of lithium from sedimentary ore."

**Charles Nelson, Chief Business Officer of Cemvita added:** "Our goal is to help enable the most environmentally friendly end-to-end process of mining lithium through the application of our technology to the sector. This includes utilizing cleaner methods of extraction with the option of layering Cemvita's other beneficial technologies such as CO<sub>2</sub>-based fuels and decarbonizing processing in the mining space."

Material terms of the LOI are set out in Appendix A.

This announcement has been authorised for release by the Board of Arizona Lithium Limited.

## FOR FURTHER INFORMATION PLEASE CONTACT:

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## Big Sandy Lithium Project (Arizona)

The Big Sandy Project, as a very shallow, flat lying mineralised sedimentary lithium resource and with excellent available infrastructure, has the potential to be developed with a very low environmental footprint.

Arizona Lithium's successful 2019 drill program at Big Sandy resulted in the estimation of a total Indicated and Inferred JORC resource of 32.5 million tonnes grading 1,850 ppm Li for 320,800 tonnes Li<sub>2</sub>CO<sub>3</sub><sup>1</sup>. This represents 4% of the Big Sandy Project area that contains an estimated exploration target of between 271.1Mt to 483.15Mt at 1,000 - >2,000ppm Li<sup>2</sup>.

*Note that the potential quantity and grade of the estimated geological potential (Exploration Target) is conceptual in nature. There has been insufficient exploration to estimate a mineral resource and it is uncertain whether future exploration will result in the definition of a mineral resource. It has been estimated using a range of thicknesses for the mineralised sediments calculated from drill intercepts, surface sampling and geological mapping. The grade estimates a range of values demonstrated from drilling and surface sampling.*

The Permit of Exploration (POE) that includes 145 exploration holes and a bulk sample at the Company's Big Sandy Lithium project in Arizona is awaiting Bureau of Land Management (BLM) approval. Community involvement is welcomed to ensure mutually beneficial outcomes for all stakeholders and the Company is very confident that drilling program can be completed without environmental impact and to the satisfaction of all stakeholders.

<sup>1</sup> Announcement Sept 26, 2019, Big Sandy Lithium Project, Maiden Mineral Resource  
<sup>2</sup> Announcement Nov 7, 2019, Big Sandy Lithium Project, Exploration Target Update



**Figure 1- Arizona Lithium Project Portfolio, including major Li-battery infrastructure in close proximity to Big Sandy and Lordsburg Lithium Projects**

## Cemvita

Cemvita Factory is on a mission to reimagine the heavy industries such as oil & gas and mining for the net-zero economy. This is done through application of Cemvita technologies to enable the sustainable extraction of natural resources, carbon negative production of chemicals and fuels, and closed-loop renewal of waste as feedstock.

Visit [www.cemvitafactory.com](http://www.cemvitafactory.com) for more information.

## APPENDIX A

Material terms of the Letter of Intent between the Company and Cemvita are as follows:

Term	Description
Obligation to complete	The parties have no obligation under the Letter of Intent (LOI) to consummate a transaction until the satisfactory completion of due diligence, the negotiation of definitive documentation and other conditions to be negotiated by the parties.
Term of partnership	There is no term for the partnership. This is to be negotiated between the parties and would be agreed if a transaction is consummated.
Formal agreements	The intention is for the parties to enter into formal definitive agreements following the satisfactory completion of due diligence and commercial negotiations. In addition to the definitive agreements services to be performed by Cemvita will be governed by a master services agreement to be negotiated on standard terms.
Termination provisions	The LOI may be terminated at any time by mutual agreement of the parties or automatically if the parties have not entered into definitive agreements by 30 June 2023 (unless an extension to this time is agreed by the parties).