

ASX Announcement

18 October 2022

COMPLETION OF BIG SANDY SCOPING STUDY

HIGHLIGHTS

- **Scoping Study completed for the Big Sandy Lithium Project in Arizona, confirming AZL as being well positioned to become a long-term lithium producer in North America.**
- **The Scoping Study has confirmed the robust economics of the Project with the Company continuing to fast track the development of Big Sandy Project through the Company's recently established Lithium Research Centre.**
- **AZL is well capitalised to further advance the Project with current cash reserves exceeding \$50 million.**

Arizona Lithium Limited (ASX: **AZL, AZLO**) ("**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 completion of the Scoping Study ("Scoping Study", "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.

The Scoping Study represents another step in the process of evaluating extraction, treatment and transportation options, identifying key cost centres, that allow for evaluation and optimisation, thereby creating optimum value, while making the Project a global model for responsible and sustainable mining.

As announced on 1 February 2022, AZL commenced the Scoping Study for the Big Sandy Lithium Project, focusing on:

- Identifying key cost centres enabling process and project valuation optimisation;
- Examining methods to lower water use while creating a favourable environmental and carbon footprint; and
- Incorporating Environmental, Social and Governance (ESG) inputs into the analysis in order to fulfil Arizona Lithium's goal of minimizing its carbon footprint.

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. As announced in June 2022, AZL has signed a 5-year lease to establish a world class Lithium Research Centre, which is located on a 9,700m² property in Tempe, Arizona, approximately 15km southwest of Phoenix Sky Harbor International Airport. 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 completed the Scoping Study for the Big Sandy Project, which has confirmed the robust economics of the Project, well positioning AZL to become a long-term lithium producer in North America. Building on the work undertaken by Hazen Research on the initial design basis and flowsheet, the Scoping Study has further advanced the development of Big Sandy, which will be continued at our newly established Lithium Research Centre in Arizona. AZL remains strongly capitalised to fast track the Project over the coming period with over \$50 million in cash and I look forward to growing our technical team under the management of Phoenix based, Brett Rabe."*

FOR FURTHER INFORMATION PLEASE CONTACT:

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Big Sandy Lithium Project (Arizona)

The Big Sandy Project, 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 (37 HQ diamond holes totalling 2,881m) 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_2CO_3 ¹ (Table 1).

Table 1 – Big Sandy Project Mineral Resource Statement (above 800 ppm Li cut-off)

Resource Classification	Tonnes (Mt)	Li Grade (ppm)	Contained Li Metal (t)	Contained LCE (t)
Indicated	14.6	1,940	28,400	150,900
Inferred	17.9	1,780	31,900	169,900
Total	32.5	1,850	60,300	320,800

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^2 (Table 2).

Table 2 – Summary of Exploration Target

Zone	Resource Block	Grade Range Li ppm	Thickness Lower (m)	Thickness Upper (m)	Lower (Mt)	Upper (Mt)
North	B	1000 - >2,000	40	60	82,800,000	124,200,000
North	C	1000 - >2,000	20	35	27,000,000	47,250,000
North	D	1000 - >2,000	20	35	39,600,000	69,300,000
South	SMZ 1	1000 - >1,500	30	60	83,700,000	167,400,000
South	SMZ 2	1000 - >1,500	30	60	38,000,000	75,000,000
				TOTALS	271,100,000	483,150,000

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

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 a proposed 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.



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

Competent Persons Statement

The information in this announcement that relates to the Exploration Target is based on and fairly represents information compiled by Gregory L Smith who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking 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. Smith is a consultant to the Company and holds shares in the Company. Mr. Smith consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Information in this announcement which relates to Exploration Results relevant to the Exploration Target has been extracted from the Company's announcements released to ASX on 28 March, 28 August and 7 November, 2019.

Information in this announcement that relates to Mineral Resources have been extracted from the Company's announcement released to ASX on September 26, 2019. The Company confirms that it is not aware of any new information or data that materially affects this information as it relates to either the Mineral Resources or the Exploration Target.