

QUARTERLY REPORT FOR THE PERIOD ENDING 31 DECEMBER 2022

HIGHLIGHTS

- **Agreement to acquire 100% of Prairie Lithium Corporation, one of Canada's most advanced lithium brine companies, and one of the most advanced Direct Lithium Extraction (DLE) projects globally.**
- **Prairie's JORC Inferred Mineral Resource is 4.1 million tonnes of lithium carbonate equivalent (LCE) at 111 mg/L Li, the highest quality inferred lithium brine resource in Canada discovered to date, representing a 1,200% increase to AZL's global lithium Resource, now 4.4MT of LCE (inferred and indicated).**
- **Strategic Alliance Terms Sheet with Navajo Transitional Energy Company, LLC ("NTEC"), wholly owned by the Navajo Nation, to manage all permitting and contract mining services at Big Sandy.**
- **Acceleration of Big Sandy with the commencement of the Definitive Feasibility Study ("DFS"). The Scoping Study, completed late last year identified unique opportunities using new extraction technology that will be fast-tracked for development and inclusion in the DFS.**
- **Strategic equity investment of US\$1.25m in Midwest Lithium AG, for approximately 11.5% of Midwest, with Midwest to benefit from AZL's significant US lithium experience and Lithium Research Centre.**
- **Letter of Intent for a strategic partnership with Cemvita Factory to utilize Cemvita's portable organic lixiviant production plant at the Company's newly established Lithium Research Centre.**

Arizona Lithium Limited (**ASX:AZL**) ("**AZL**", **Arizona Lithium**" or the "**Company**") is pleased to provide an overview of the Company's activities for the period ending 31 December 2022 ("**Quarter**", "**Reporting Period**") to accompany the Appendix 5B.

Arizona Lithium Managing Director, Paul Lloyd, commented: *"We are pleased to have had another successful Quarter, with the AZL team working diligently to deliver a new acquisition, continued advancements in the sustainable development of Big Sandy with the commencement of the DFS, a strategic investment in the lithium industry and further developments with AZL's lithium research centre."*

The Acquisition of Prairie Lithium is transformational for AZL, as we continue to advance the Company as a leader in lithium development and processing in North America. With a significantly increased resource which totals 4.4MT of LCE (inferred and indicated), Arizona Lithium is well positioned with one of the largest lithium resources in the industry to continue to create shareholder value in 2023 and beyond.

Throughout the Quarter, major developments were achieved at Big Sandy, with AZL entering a Strategic Alliance Terms Sheet with NTEC, wholly owned by the Navajo Nation, to manage all permitting and contract mining services at Big Sandy, representing a significant breakthrough in the sustainable development at Big Sandy.

The commencement of the DFS at the Big Sandy Project signifies another monumental step, with unique opportunities identified using new extraction technology that will be fast-tracked for development and inclusion in the DFS.

The strategic \$US1.25m investment into US based explorer Midwest Lithium AG was another key decision and we believe it will create synergies between both parties, with Midwest benefiting from AZL's significant US lithium experience and lithium research centre, whilst also providing AZL shareholders with exploration upside through exposure to Midwest's exploration programs.

Our partnership with Cemvita was another key deal during the Quarter and we believe that Cemvita's technology will further assist in the sustainable development of Big Sandy through the use of their low carbon footprint industrial biotechnology.

With a strong foundation, we look forward to an exciting 2023 for Arizona Lithium, as we continue to create long-term shareholder value."

ACQUIRING CANADA'S HIGHEST GRADE LITHIUM BRINE RESOURCE

In December 2022, AZL entered into a binding pre-acquisition agreement (the "Acquisition Agreement") with its wholly-owned subsidiary, 2477827 Alberta Corporation ("CallCo"), its wholly-owned subsidiary, 2477955 Alberta Corporation ("CanCo"), and Prairie Lithium Corporation ("Prairie" or "Prairie Lithium"), a privately held company, pursuant to which AZL has agreed to acquire, either directly or indirectly through CanCo, all of the shares of Prairie Lithium ("Prairie Lithium Shares") (the "Transaction").

The acquisition represents a 1,200% increase to AZL's global lithium Resource, now 4.4MT of LCE (inferred and indicated). The acquisition also includes a proprietary direct lithium extraction technology that removes lithium from brines and ore bodies (encouraging results with Big Sandy material).

Prairie is the owner of a lithium project located in the Williston Basin of Saskatchewan, Canada, and a proprietary lithium extraction process technology that selectively removes lithium from Brine. Prairie's project holds the highest quality Inferred lithium brine resource in Canada discovered to date, with 4.1MT LCE total JORC Inferred Mineral Resources at 111 mg/L Li¹, with significant expansion potential.

Located in one of the world's top mining friendly jurisdictions, the projects have easy access to key infrastructure including electricity, natural gas, fresh water, paved highways and railroads. The projects also aim to have strong environmental credentials which should result in less use of freshwater, land and waste, aligning with AZL's sustainable approach to lithium development.

The Prairie Lithium Ion Exchange (PLIX) is an ion-exchange material that selectively extracts lithium from brine, using equipment which is anticipated to be readily available at commercial scale. PLIX may have a global application, with the process currently being tested on lithium resources from around the world (including encouraging results with Big Sandy). While Prairie Lithium continues to develop, scale and operate its own DLE technology, Prairie is also testing other DLE technologies to ensure it deploys the most cost effective extraction technology.

Prairie's experienced Board and management team have a proven lithium track record, providing an experienced technical team to help fast track the sustainable development of Big Sandy and the Company's Lordsburg Lithium Brine Project, a drill-ready project located in South-West New Mexico. The Acquisition strongly complements AZL's strategy of developing a world class Lithium Research Centre in Tempe, Arizona, a lithium technology incubator specialising in the extraction of lithium from a variety of ores and brines.

¹ Refer to Appendix 1 (Summary of 72 subsurface mineral permits where Prairie Lithium has 100% working interest across the Duperow Formation), Appendix 2 (Summary Table of Drill Holes) and the JORC 2012 Table 1 Report annexed to this announcement for further details.

STRATEGIC ALLIANCE WITH NAVAJO

During the Quarter, AZL entered a Strategic Alliance Terms Sheet with Navajo Transitional Energy Company, LLC (“NTEC”), a limited liability company wholly owned by the Navajo Nation. The Strategic Alliance Terms Sheet outlines the key terms of how it is proposed that NTEC will manage the development of Big Sandy from the permitting requirements for additional exploratory drilling through to Definitive Feasibility Study (DFS) and mine construction. The Terms Sheet allows the commencement of initial work by both parties on the development of the Big Sandy project while providing time for further mutual due diligence and the development of a final definitive agreement (as the Strategic Alliance Terms Sheet is non-binding and does not contain all material terms).

NTEC is a world class energy company that owns the Navajo Mine, operates mines in Montana and Wyoming, and aims to promote the development of the Navajo Nation’s resources and new sources of energy, power, and transmission.

NTEC will manage all permitting and contract mining services at the Big Sandy Lithium Project and become a substantial AZL shareholder by meeting certain mining development milestones. Vern Lund, Managing Director of NTEC, will also join the AZL Board, further strengthening the Strategic alliance.

COMMENCEMENT OF DFS STUDY AT BIG SANDY

During the Reporting Period, AZL announced the acceleration of Big Sandy with the commencement of the Definitive Feasibility Study (“DFS”). The Scoping Study, completed in October 2022, identified unique opportunities using new extraction technology that will be fast-tracked for development and inclusion in the DFS. AZL’s Lithium Research Centre, located in Tempe, Arizona, will be the base of operations for technology development and collaboration with process equipment and battery manufacturers.

The DFS will feature design and development of the following:

- **Minimisation of the carbon footprint associated with transportation of raw materials and finished products** - AZL currently owns and operates a Nikola Tre BEV electric semi-truck that will be used to develop performance and economic data for a full-scale fleet.
- **Alternative lixivants to strong inorganic acids** - As indicated in the announcement dated 28 October 2022, AZL has formed a strategic partnership with Cemvita to develop commercial scale application of biolixivants for lithium extraction from sedimentary ore. The DFS will include the design and production of the biolixivants required to support the Project.
- **Development of a chemically stable and structurally sound leached tailing that can be used as direct backfill for mining and reclamation activities** - To this extent, AZL has already started development of prototype filtration and cake washing equipment with an industry-leading filtration equipment manufacturer.
- **Progressive reclamation of mining and tailing facilities** - With the development of a chemically stable tailing, the mining plan will incorporate a progressive and sustainable reclamation strategy thereby significantly reducing the duration of the disturbance attributed to mining-related activities.
- **Direct conversion of a mid-stream lithium compound to battery-grade lithium carbonate and lithium hydroxide** - Conversion will be designed to take place in modular plants that can be located anywhere in the EV supply chain, with the mid-stream product able to be used to directly produce any lithium compound required by the battery manufacturer.
- **Application of direct lithium extraction (DLE)** - Early test work has demonstrated that DLE technology can be used to reject leached contaminants at a higher level of efficiency than conventional technology. An option for design and production of DLE media at commercial scale will also be included in the DFS.

- **Reduction of water consumption.** A water conservation strategy will be incorporated into the framework of the project, in particular, water loss attributed to evaporation will be eliminated or minimised.

STRATEGIC US\$1.25M INVESTMENT IN MIDWEST LITHIUM AG

In November 2022, AZL announced a strategic equity investment of US\$1.25m in Midwest Lithium AG (“Midwest”), for approximately 11.5% of Midwest. The investment by AZL is part of a broader US\$2.5m capital raise Midwest is currently completing, which is expected to be used for surface exploration, ground expansions, property acquisition, permitting and working capital.

Midwest holds a significant land position in the Black Hills of South Dakota, one of North America’s only proven hard rock spodumene lithium producing districts in the US including a number of historical mines. The district holds over 24,000 pegmatite bodies of which between 2-5% are believed to carry lithium mineralisation; the pegmatites are all located around a large local granitic intrusion known as the Harney Peak Granite. Visible spodumene and other lithium minerals are easily identified around the district.

The Black Hills are home to some of the first spodumene processing plants worldwide proving that spodumene in the region can be easily extracted through conventional DMS and flotation methods. The region also has a rich mining background holding one of America’s most important mines, the Homestake, which produced over 40Moz of gold over its continuous +125 year mine life, with a number of other large-scale mines and smaller quarries also operating in the area.

The Black Hills area in South Dakota is rapidly becoming the lithium exploration hot spot in the USA. The AZL technical team are attracted to the area and see opportunities to develop projects on a similar timeline to the Big Sandy project in Arizona. Companies such as Iris Metals Ltd (ASX:IR1, market capitalisation of \$148 million AUD) and Patriot Lithium Ltd (ASX:PAT awaiting ASX listing) and United Lithium Corp (TSX:ULTHF, market capitalisation of \$19 million CAD) are active in the Black Hills area with substantial landholdings.

STRATEGIC PARTNERSHIP FOR LITHIUM EXTRACTION

In October 2022, AZL announced 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.

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.

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

FOR FURTHER INFORMATION PLEASE CONTACT:

Mr Paul Lloyd
 Managing Director
 Arizona Lithium Limited
 Tel: +61 419 945 395
 Email: paul@arizonalithium.com
 Level 2, 10 Outram Street
 West Perth WA 6005

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_2CO_3^2 . 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^3 .

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.



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

² Announcement Sept 26, 2019, Big Sandy Lithium Project, Maiden Mineral Resource
³ Announcement Nov 7, 2019, Big Sandy Lithium Project, Exploration Target Update

Appendix 1: Schedule of Mining Tenements

The following information is provided pursuant to Listing Rule 5.3.3 for the quarter ended 31 December 2022.

Project	Claim Number	Location	Interest
Big Sandy	WIK-001 to WIK-112	Arizona, USA	100%
Big Sandy	BSL-001 to BSL-146	Arizona, USA	100%
Big Sandy	BSLII 001 to BSLII 053	Arizona, USA	100%
Lordsburg	LLP-211 to LLP-274	New Mexico, USA	100%
Lordsburg	LLP-283 to LLP-298	New Mexico, USA	100%
Lordsburg	LLP-307 to LLP-322	New Mexico, USA	100%
Lordsburg	LLP2-1 to LLP2-96	New Mexico, USA	100%

There were no acquisitions or disposals during the Quarter.

Appendix 2: Exploration Expenditure and Payments to Related Parties

In line with its obligations under ASX Listing Rules 5.3.1 and 5.3.5, Arizona Lithium Limited notes the following in relation to the period ended 31 December 2022 as advised in the Appendix 5B:

- exploration and evaluation expenditure primarily relates to metallurgical test work and the scoping study on the Big Sandy Lithium Project and setup and operating costs of the Lithium Research Centre; and
- the only payments to related parties of the Company pertain to payments to an executive director for salary and superannuation, non-executive director fees and consultancy fees.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

ARIZONA LITHIUM LIMITED

ABN

15 008 720 223

Quarter ended ("current quarter")

31 DECEMBER 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(951)	(1,745)
(b) development	-	-
(c) production	-	-
(d) staff costs	(195)	(380)
(e) administration and corporate costs	(392)	(1,035)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	371	560
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other	-	-
1.9 Net cash from / (used in) operating activities	(1,167)	(2,600)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	(492)	(2,276)
(d) exploration & evaluation	-	-
(e) investments	(1,950)	(1,950)
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other	-	-
2.6	Net cash from / (used in) investing activities	(2,442)	(4,226)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	11,994
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	43	222
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(871)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	43	11,345
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	50,372	42,265
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,167)	(2,600)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,442)	(4,226)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	43	11,345

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(9)	13
4.6	Cash and cash equivalents at end of period	46,797	46,797

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,297	4,872
5.2	Call deposits	45,500	45,500
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	46,797	50,372

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	115
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

Amounts shown at item 6.1 comprise of payments to related parties (or their associates) for director and administration fees paid during the quarter, including fees for services performed.

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	-	-
7.5 Unused financing facilities available at quarter end		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,167)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(1,167)
8.4 Cash and cash equivalents at quarter end (item 4.6)	46,797
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	46,797
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	40
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: N/A	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: N/A	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: N/A	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 30 January 2023

Authorised by: The Board of Arizona Lithium Limited

(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.