



# AZL positions for extraction disruption

Arizona Lithium Ltd (AZL) managing director Paul Lloyd predicts M&A activity, potentially involving major oil and gas players, will shift the lithium sector towards direct lithium extraction (DLE) within the next 18 months.

"With far superior recoveries and the selective nature of DLE, the product will become dominant in the North American market," Lloyd told **Paydirt**.

"We do see that there is a structural shift about to happen in the lithium market as DLE goes into commercial application. The product will be sorted out by downstream processors and the costs of production will be in the lowest quartile."

AZL increased the resource of its Prairie lithium brine project in Saskatchewan by 38% to 5.7mt LCE in August. It is reportedly the highest-grade lithium brine resource in Canada.

A PFS will be completed at Prairie by the end of the year and a DLE pilot plant will be operational in November. Well tests last April found higher than expected extraction rates.

"Higher sustainable production rates like this further decrease the future capital and operating costs associated with wellfield infrastructure," Lloyd said.

A \$10 million capital raise in July will help to fast-track production at Prairie, which could be achieved in as little as 18 months, according to Lloyd. Despite the region being regarded for its oil and gas production,

AZL has not encountered any oil or hydrogen sulphide at Prairie.

Lloyd said a timeline set out for development of the Prairie resource was very achievable due to "the large resource being located in a currently producing oil and gas region with a very pro-business provincial government."

Last year the company secured \$12 million in funding to purchase land for a lithium processing plant and expand AZL's lithium research centre in Arizona. This "technology incubator" is developing methods of lithium extraction from both ores and brines, as well as production methods for battery-grade lithium chemicals.

Lloyd said North America presented Australian lithium companies with a wealth of opportunity due to the sheer size of the market and a permissive regulatory framework.

"The Prairie project is ideally located," Lloyd said.

"Significant government incentives, mature infrastructure and no political risk make [North America] a fantastic place to develop world class lithium projects. We are close to the Lithium Research Centre and just over the US/Canada border. Some other projects may have exploration windows and other difficulties to deal with, but Prairie does not have any of those types of challenges. Our Canadian staff do not see minus 30C as a major hurdle."

Lloyd said the company was in "the right

place at the right time" to secure funding for the development of Prairie.

AZL previously secured funding of \$32.5 million in March 2022 for the development of a research facility at its Big Sandy project, as well as land acquisition, drilling and a PFS.

A JORC resource of 32.5mt including a higher-grade zone of 12.7mt at 2,360 ppm LCE for Big Sandy was announced in 2019.

Several strategic partnerships – with US biotech company Cemvita Factory and Navajo Transitional Energy Company LLC (NTEC) – were signed in 2022 to assist with Big Sandy's development. NTEC is managing permitting and mining operations at the project and will include a DFS and mine construction.

"NTEC owns the Navajo mine, holds a 7% interest in the Four Corners Power Plant and owns and operates mines in Montana and Wyoming.

"NTEC was awarded both the 'Sentinels of Safety' award by the National Mining Association and the National Award for Excellence in Surface Mining Reclamation by the Office of Surface Mining Reclamation and Enforcement," Lloyd said in an ASX announcement.

Lithium expertise is helping Lloyd's team to understand the market. He said there were many DLE players developing extraction technology with varied efficiencies.

AZL's chief technical officer Brett Rabe has been working in lithium brine operations for more than a decade and his expertise, along with AZL's equipment at the LRC, were crucial for the company when evaluating the emerging DLE industry, according to Lloyd.

"Our CTO worked in DLE before they came up with that name. We have our own technology but are evaluating other technologies in tandem. Tech performs differently for each type of brine involved. We are only prepared to evaluate serious players in the market," Lloyd said.

Sedimentary and brine lithium are not the only types of deposit on AZL's radar. The company made a strategic investment in Midwest Lithium AG late last year of \$US1.25 million for exploration work at its Black Hills landholding in South Dakota, which potentially hosts lithium spodumene.

"We are looking forward to Midwest listing on the ASX and we believe they will do very well," said Lloyd.

– Michael Cameron



The Arizona Lithium and Navajo Transitional Energy Company's management teams outside the Lithium Research Centre in Phoenix