



19 June 2023

Lake Resources Announces Two Phase Development to Targeted Production of 50Ktpa Battery Grade Lithium Carbonate

- Phased approach of 2 x 25Ktpa plants de-risks project execution and accelerates time to first lithium production with clear milestones.
- Confirmed ~37% increase in Measured higher grade resource, supporting 25+ years of supply life. Potential Kachi resource expansion to 8.1 million tonnes LCE supports further expansion opportunities.¹
- Adjusted timing on DFS, consistent with increasing resource base and outcome of project reassessment, to allow for greater project definition, optimal power solution and infrastructure considerations.
- Proven extraction and reinjection without significant disruption to water tables.
- Strong technical and leadership expertise delivering high quality project pathway

Lake Resources (NL (ASX: LKE; OTC: LLKKF) ("Lake" of "the Company"), is pleased to announce an operational update on its Kachi brine project ("Kachi") in Argentina, which is utilising DLE technology to produce cleaner battery-grade lithium carbonate.

"The plans announced today to the ASX show a clear path to battery grade lithium carbonate production in 2027 and phased expansion to a target of 50ktpa by 2030," Lake CEO David Dickson said.

"Our new, phased approach de-risks project execution while ensuring battery grade lithium carbonate comes to market in a cleaner, efficient way.

"Over the past nine months, we have applied our extensive expertise in drilling, hydrogeology, and construction of large, specialty chemical projects to comprehensively reassess this project and better position us for success. Our findings regarding infrastructure, power, logistics requirements, and our reservoirs resulted in this path to production which will unlock value and maximise execution efficiency. This approach also provides expansion optionality to 50Ktpa, and potentially more."

"Our proven process flow incorporates both the "mine and refine" stages of producing battery-grade lithium carbonate, ensuring product consistency and designed to mitigate environmental impact," Dickson said.

Independent testing of lithium carbonate produced from the Kachi Project in Argentina has confirmed grades and purity greater than 99.8 percent.

¹ Refer to ASX Announcement dated June 15, 2023



"We have validated the major commercial process systems for the Kachi Project and the ability to produce high-quality, battery-grade lithium carbonate from Lake's brine resource using Lilac DLE technology."

Mr Dickson said phased production delivers these benefits:

- 1. Takes full advantage of potential resource upside.
- 2. "Design one, build many" approach creates productivity improvements from lessons learned.
- 3. More flexible power solution and reduced reliance on grid connection for plant startup.
- 4. Provides optionality on plant size and product type, allowing it to adapt to prevailing market conditions;
- 5. Allows for management of potential reservoir impacts;
- 6. Reduces peak labor requirements during construction and makes operations more resilient.

"We have consulted with our project stakeholders including our debt providers and offtake partners, and they are supportive of the phased plan," Mr Dickson said.

Lake is targeting completion of the DFS by December 2023.

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An investor briefing will commence at 9.00am AEST today following the release of presentation material to the ASX.

The web conference will be presented by CEO, David Dickson, accompanied by Senior Vice President of Technology, Strategy, and Risk, Scott Munro, and CFO, Peter Neilsen.

The briefing will be accessible via the link below and investors are encouraged to register prior:

https://kapara.rdbk.com.au/landers/ab89dd.html

A recording of the Webcast will be made available on the Company website.

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About Lake Resources NL (ASX:LKE OTC:LLKKF)

Clean high purity lithium using efficient disruptive clean technology - in demand by EV makers and lithium-ion batteries.

Lake Resources NL (ASX:LKE, OTC: LLKKF) is a clean lithium developer utilising state-ofthe-art ion exchange extraction technology for production of sustainable, high purity lithium from its flagship Kachi Project in Catamarca Province within the Lithium Triangle in Argentina among three other projects covering 220,000 ha.

This ion exchange extraction technology delivers a solution for two rising demands – high purity battery materials to avoid performance issues, and more sustainable, responsibly sourced materials with low carbon footprint and significant ESG benefits.

Forward Looking Statements:

Certain statements contained in this announcement, including information as to the future financial performance of the projects, are forward-looking statements. Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Lake Resources N.L. are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties and other factors that could cause actual events or results to differ materially from estimated or anticipated events or results, expressed or implied, reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and assumptions in respect of production and prices, operating costs and results, capital expenditures, reserves and resources and anticipated flow rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions and affected by the risk of further changes in government regulations, policies or legislation and that further funding may be required, but unavailable, for the ongoing development of Lake's projects. Lake Resources N.L. disclaims any intent or obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and similar expressions identify forward-looking statements. All forward-looking statements made in this announcement are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. Lake does not undertake to update any forward-looking information, except in accordance with applicable securities laws.