



## Lake Resources and Lilac Solutions Announce Achievement of Major Milestone for Project Kachi

*Argentina lithium development project successfully produces 2,500kg of lithium carbonate with minimal environmental impact; unlocks commercial development*

**April 17, 2023**

Clean lithium developer Lake Resources NL (ASX: LKE; OTC: LLKKF) ("LAKE") and its direct lithium extraction technology partner, Lilac Solutions ("Lilac"), today announced the production of 2,500kg of lithium carbonate equivalents (LCE) at Project Kachi, a world-class lithium pilot plant located in Argentina. Based on this successful result, Lilac has increased its ownership of the Kachi Project from 10% to 20%. The project is now on track to move from its pilot phase into commercial-scale development, which will make it the first lithium brine project in South America to produce lithium at commercial scale without the use of evaporation ponds for lithium concentration.

The achievement at the Kachi Project represents a historic advancement in lithium production technology. This is the first successful implementation of ion exchange for lithium production in South America, home to most of the world's lithium brine resources.

The 2,500 kg of LCEs was extracted at Kachi with 80% lithium recovery, 90% plant uptime, 1,000x less land compared with evaporation ponds, and 10x less water compared with conventional aluminum-based absorbents. The results speak for themselves:

- **Speed to Production:** Lake and Lilac commissioned the plant on-site in under a month, more than 10x faster than conventional processes, and immediately began continuous production of lithium chloride;
- **High Lithium Recoveries:** Lake and Lilac are achieving 80% lithium recovery from a brine with 200-300 mg/L of lithium, roughly double the lithium recoveries of most brine production despite having a lithium grade 2x-7x lower;
- **High Water Efficiency:** This technology is extremely water efficient, enabling production of lithium chloride with 10x less water compared to conventional aluminum-based absorbents;
- **Product Purity:** The lithium chloride being produced is low in impurities, enabling efficient production of high-purity lithium carbonate for battery manufacturers. Rejection of boron, a troublesome impurity for brine projects, is greater than 99.9%;

- **Continuous Operations:** The plant has been operating 24/7, with 90% uptime; this is a reliable automated plant designed for scalable manufacturing and operations;
- **No Evaporation Ponds:** Lilac's ion exchange technology does not require evaporation ponds for brine concentration, unlike other so-called "direct extraction" technologies which rely on evaporation ponds to concentrate the lithium;
- **Validated Performance:** An independent engineer has visited the plant and analyzed more than one hundred samples from across the plant to validate performance and confirm consistency with engineering work.

When fully developed by Lake and Lilac, the Kachi project is expected to produce 50,000 tonnes per annum of battery-grade lithium products.

In a joint statement from Lilac and Lake, the company CEOs commented: "Today's announcement marks a new era in scalable lithium production. Lithium is a cornerstone of the energy transition – but limitations in production technology have led to increased costs, scarcity, and extreme price volatility. Today, we've proven that it is possible to produce high-purity lithium faster and without evaporation ponds – all while protecting surrounding communities and ecosystems. We are grateful for the strong partnership between our companies in developing this project, and we look forward to our continued success as we chart a new path in lithium production."

*This announcement has been authorized for release by Lake Resources and Lilac Solutions.*

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**About Lake Resources:**

***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-of-the-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.*

**About Lilac Solutions:**

*Lilac Solutions is a lithium extraction technology company based in Oakland, California. In the coming years, the electric vehicle industry will require a 20-fold increase in lithium supply. To meet this demand, Lilac has developed a patented ion exchange technology that facilitates production of lithium from brine resources with high efficiency, minimal cost, and ultra-low environmental footprint.*

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**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.

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