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Lake Resources Announces Independent Verification of High-Grade Lithium Carbonate from Kachi Demonstration Plant

April 3, 2023 - Lake Resources NL (ASX: LKE; OTC: LLKKF) (“Lake” or “the Company”), in partnership with its DLE technology partner, Lilac Solutions, Inc. (“Lilac”), are pleased to announce that independent testing of lithium carbonate produced from their joint Kachi Project in Argentina has confirmed grades and purity greater than 99.8%. Project Kachi is a world-class lithium development project that is poised to lead the industry in the production of high-quality lithium with minimal environmental footprint.

This test, performed by Saltworks with independent analysis by two third party labs, validates the major commercial process systems for the Kachi Project and confirms its ability to produce high-quality, battery-grade lithium carbonate from Lake’s brine resource using Lilac DLE technology. The quality of the Li₂CO₃ product from the Saltworks test exceeds the Project Design Specification and the battery grade specifications of major- South American brine lithium producers.

Context to the Testing:

As announced in early January, Lilac successfully operated the Demonstration Plant for over 1,000 hours and produced 40,000 litres of lithium chloride eluate before December 31, 2022, meeting important performance milestones in accordance with the agreed timeline. The lithium chloride eluate produced by Lilac using its propriety ion exchange technology was then shipped to Saltworks, in Canada, and a portion was converted to lithium carbonate, after which it was independently tested for purity.

The Lilac demonstration plant continues to operate, as Lilac nears completion of the performance milestone to process 120,000 litres of eluate for conversion into battery grade lithium carbonate.

“This is a new process that has now been proven to produce high grade lithium in our ‘mining and refining’ facility– this means a critical part of the value adding chain is being captured by Lake,” Lake CEO David Dickson said. “It also sets a new standard for what it means to be a responsible member of the lithium supply chain.”

“The Lilac team is excited to see these concrete results showing that our technology is not only faster with higher recovery, but also enables a higher purity product,” said Lilac Solutions CEO Dave Snyder. “Alongside Lake Resources, we are proving that it is possible to produce lithium – the cornerstone of our clean energy future – without damaging the planet we’re trying to save. I look forward to further development of a clean, socially responsible lithium supply chain, and the continued success of our joint Kachi project.”

On the Resource:

After an extensive drilling program, Lake reported to the ASX a 100 percent increase in the mineral resource estimate of Kachi, to 2.2 million tonnes of lithium carbonate equivalent of Measured and Indicated, and 3.1 million tonnes of Inferred resources (refer to ASX announcement on 11 January 2023).

Lake is continuing to drill and expects an updated JORC in the second quarter of 2023.

On Off-take Agreements:

Lake confirmed that two offtake conditional framework agreements were entered covering 50,000 tpa lithium carbonate with WMC Energy and SK On. Both agreements provide for each company to make strategic equity investment in Lake of up to 10 percent of the company's issued capital prior to Final Investment Decision, subject to a few condition precedents being met, including due diligence by the parties (refer ASX announcement 6 October 2022 and 12 October 2022).

Lake remains in ongoing discussions with both SK On and WMC regarding the implementation of the CFAs (refer to ASX announcement on 12 January 2023)

On Timelines:

The Company is doing a rigorous evaluation of project timelines and estimated capital costs, which it expects to complete and report on in the second quarter of 2023.

Lake is also advancing its Definitive Feasibility Study (DFS), completing the evaluation of the processing plant, and moving into the next phase of the project study. Lake is targeting to complete the DFS by mid 2023.

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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-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, Inc.

Lilac Solutions is a cutting-edge lithium extraction technology company based in Oakland, California. 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. Lilac's technology is revolutionizing lithium production in support of the electric vehicle industry and the global energy transition.

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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