

19 January 2022

## **Kachi Production increased to 50,000 tonnes/year lithium carbonate as Base Case for DFS**

- **Planned production at Lake's flagship Kachi Lithium Brine Project will be set at 50,000 tonnes/year (tpa) lithium carbonate in the Definitive Feasibility Study (DFS).**
- **Supported by demand, financing, host-country investment policies and Lake's technology partner Lilac Solutions.**

Clean lithium developer Lake Resources NL (**ASX: LKE; OTC:LLKKF**) confirms that the production base case will be increased to 50,000 tonnes per annum lithium carbonate equivalent (LCE) in the Definitive Feasibility Study (DFS) and the final investment decision (FID) for the Kachi Lithium Project.

The DFS will be expanded from 25,500 tpa LCE to 50,000 tpa LCE, underpinned by an anticipated increased resource estimate from drilling results (ASX announcement 15 Dec 2021, 7 July 2021).

The formal decision has been driven by:

1. the increasing demand by prospective offtake partners for a secure supply chain of environmentally friendly high purity lithium carbonate;
2. the indicative support to fund the project by Export Credit Agencies and the international bank panel. The UK and Canada Export Credit Agencies have already indicated a willingness to project debt finance around 70 percent of the project's capital requirements (ASX announcement 11 Aug 2021);
3. the supportive investment policies of the Argentine Government who have announced a process to lower export taxes as part of the Strategic Plan for Mining Development;
4. the confidence of technology partner Lilac Solutions that its modular direct lithium extraction technology is scalable and cost effective.

"Given the increasing demand and the significant lithium supply gap, Lake is focused on delivering high purity lithium carbonate at scale with meaningful ESG benefits", Lake's Managing Director, Mr. Steve Promnitz, said.

"Lake has received indicative financial support for an increase in the size of the Kachi project from the Export Credit Agencies (ECA's) of the UK and Canada and the numerous international ECA-supported banks. Also, Lake's technology partner, Lilac Solutions, is focused on advancing the Kachi Project at this larger scale."

Lake's Chairman, Mr. Stu Crow, said the independence of Lake Resources and the Kachi project added to the strategic appeal of the offtake.

"We are well placed given quality resource, leading technology and key finance partnerships to ensure an optimal set of offtake agreements that align with these expansion plans and create maximum value for our key stakeholders," he said.

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Detailed information, including an updated resource/reserve, operating parameters and financial estimates, regarding the updated base case will be provided close to the date of the anticipated release of the DFS in mid 2022.

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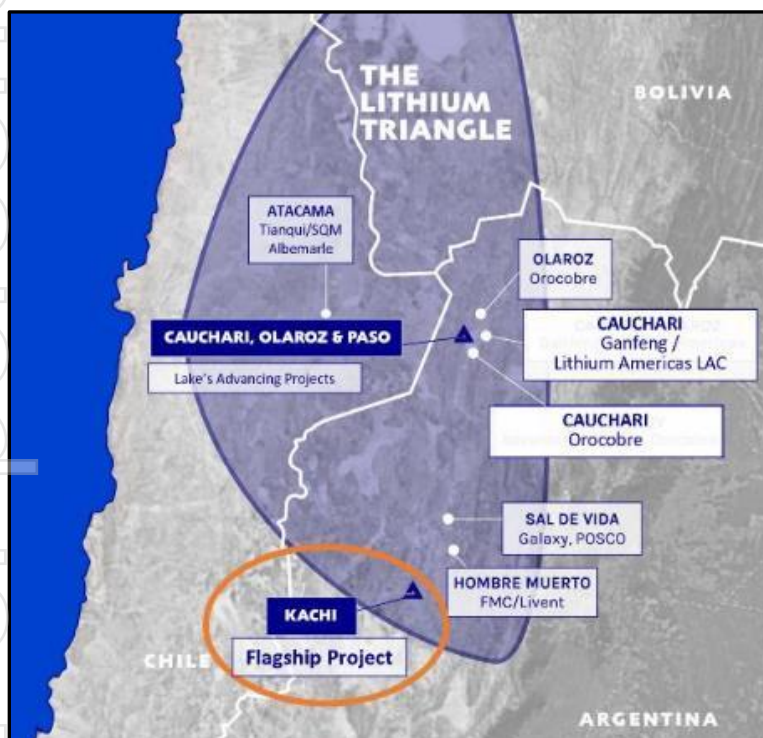
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**Figure 1.** Location of Lake's Kachi Project.



**Figure 2.** Image of Lake's Kachi Project, covering 30km left to right.



**Figure 3.** Image of Lake's Kachi Project, looking south, with production area to right of image.

#### **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 direct 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 direct extraction method 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.

1. **Climate-Tech:** Efficient, disruptive, clean, cost-competitive technology using well-known water treatment re-engineered for lithium (not mining). Technology partner, Lilac Solutions Inc, is supported by the Bill Gates led Breakthrough Energy fund, MIT's The Engine fund, Chris Sacca's Lowercarbon Capital, BMW, Sumitomo and SK Materials. Lilac will earn in to the Kachi Project, up to a 25% stake, based on certain milestones and then be expected to fund their c.US\$50 million pro-rata share (refer ASX announcement 22 September 2021)

2. **High Purity:** 99.97% purity lithium carbonate samples for a premium price. Demonstrated high quality in nickel rich NMC622 lithium-ion batteries (refer ASX announcement 20 October 2020; 2 March 2021).

**3. Sustainable /ESG:** Far smaller environmental footprint than conventional methods, that returns virtually all water (brine) to its source with a low CO2 footprint.

**4. Prime Location, Large Projects:** Flagship Kachi project in prime location among low-cost producers with a large lease holding (74,000 ha) and expandable resource (4.4 Mt LCE) of which only 20% is used for 25 years production at 25,500tpa (JORC Resource: Indicated 1.0Mt, inferred 3.4Mt, refer ASX announcement 27 November 2018). Pre-feasibility study by tier 1 engineering firm shows large, long-life low-cost operation with US\$1.6 billion NPV pretax, and annual EBITDA of US\$260 million from 2024 (refer ASX announcement 17 March 2021; 28 April 2020). (No changes to the assumptions in the resource statement or the PFS have occurred since the announcement date. The DFS will use a base case of 50,000 tpa LCE.)

**5. Finance Indicatively Available:** Long duration, low-cost project debt finance for the Kachi Lithium Project is indicatively available from the United Kingdom's Export Credit Agency UKEF and Canada's EDC with Expressions of Interest to support approx. 70% of the total finance required for Kachi's development, subject to standard project finance terms (refer ASX announcements 11 August 2021; 28 September 2021).

An innovative direct extraction technique, based on a well-used ion exchange water treatment method, has been tested for over 18 months in partnership with Lilac Solutions, with a pilot plant module in California operating on Kachi brines and has shown 80-90% recoveries. Battery quality lithium carbonate (99.97% purity) has been produced from Kachi brine samples with very low impurities (refer ASX announcement 20 October 2020). The first samples of high purity (99.97% purity) battery quality lithium carbonate were tested in a NMC622 battery by Novonix with excellent results (2 March 2021).

This method of producing high purity lithium can revolutionise and disrupt the battery materials supply industry as it's scalable, low cost, and delivers a consistent product quality with a significant ESG benefit.

Lake's other projects include the Olaroz and Cauchari brine projects, located adjacent to major world class brine projects in production or construction, including Orocobre's Olaroz lithium production and adjoins the impending production of Ganfeng Lithium/Lithium Americas' Cauchari project. Lake's Cauchari project has shown lithium brines over 506m interval with high grades averaging 493 mg/L lithium (117-460m) with up to 540 mg/L lithium. These results are similar to lithium brines in adjoining leases and infer an extension and continuity of these brines into Lake's leases (refer ASX announcements 12 June 2019, 23 March 2021).

For more information on Lake, please visit <http://www.lakeresources.com.au/home/>