

19 September 2022

Lake Updates Kachi Demonstration Plant Activity

Lake Resources NL (Lake) advises that work proceeds with Lilac Solutions, Inc. (Lilac) on site at the Kachi Project in Argentina, with commissioning now underway on the demonstration plant.

Whilst on 14 September 2022 Lake issued a Notice of Dispute under its agreement with Lilac, in respect of certain performance timelines (Dispute), Lake wishes to advise that ongoing work is being done by Lilac at the Kachi Project and all parties are confident on-site operations will be successful.

Lake confirms that construction of the facility to house the Lilac demonstration plant is now complete.

Dry commissioning of the demonstration plant commenced on Wednesday September 14.

Lilac has advised Lake that, subject to completion of dry commissioning, it expects to begin wet commissioning of the plant on September 22; once wet commissioning is complete, Lilac expects to begin on-site processing of Kachi brines in the first week of October.

Whilst the test program is based on operating the demonstration plant for 1000 hours it is anticipated that the first 2000 litres of lithium concentrate produced from the demonstration plant will be sent for conversion into Lithium Carbonate once delivered. Lake proposes that this final Lithium product will then be qualified by a tier 1 battery maker to validate product specifications.

Lake will continue to update the market on the Kachi Project, the Dispute, and, as the demonstration test work continues, on the progress, the timelines, milestones and outcomes.

Lake confirms offtake discussions continue to advance and new appointments to the Lake board are in final stages of consideration.

Approved by Lake Resources NL Board of Directors

Stu Crow
Executive Chairman

Lake Investors please contact:

Twitter: https://twitter.com/Lake_Resources

LinkedIn: <https://www.linkedin.com/company/lake-resources/>

Facebook: <https://www.facebook.com/LakeResources>

Website: <http://www.lakeresources.com.au>

Join Lake's mailing list: <http://eepurl.com/gwA3o9>

IR: Anthony Fensom, Republic PR, +61 (0) 407 112 623, anthony@republicpr.com.au

For media queries, please contact:

Nigel Kassulke at Teneo

M: +61407904874

E: Nigel.Kassulke@teneo.com

LAKE RESOURCES NL

Level 5, 126 Phillip Street
Sydney NSW 2000
+61 2 9188 7864

LAKERESOURCES.COM.AU
ASX:LKE FRA:LK1 OTC:LLKKF

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 has currently earned in to 10% of the Kachi Project and may earn-in to a total 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 in pilot plant operations in California with a demonstration plant en route to the Kachi Project. 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) used for 25 years production at 50,000tpa (JORC Resource: Indicated 1.0Mt, inferred 3.4Mt, refer ASX announcement 27 November 2018). Pre-feasibility study at 25,500tpa by tier 1 engineering firm shows large, long-life low-cost operation with US\$1.6 billion NPV pre-tax, and annual EBITDA of US\$260 million from 2024 using past pricing of US\$15,500/tonne lithium carbonate (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.)

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 UKEF and EDC respective approvals, to standard project finance terms, including satisfactory completion of the DFS, ESIA and offtake arrangements (refer ASX announcements 11 August 2021; 28 September 2021).

6. **Offtake Discussions Advanced:** Two offtake non-binding agreements for approximately 25,000 tonnes per annum of lithium (LCE) each from the Kachi Project has been signed in non-binding Memorandum of Understanding (MoU) with Ford Motor Company (Ford) and with a major Japanese partner, Hanwa Co., Ltd. ("Hanwa"), over 10 years to be priced at average quarterly benchmark market prices. The MoU also provides for Hanwa to consider providing some financial support such as a meaningful equity investment, (Refer ASX announcements 11 April 2022; 29 March 2022).

An innovative direct extraction technique, based on a well-used ion exchange water treatment method, has been tested for over 2 years 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). A demonstration plant is planned to be on site in Q2, 2022.

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 Allkem's (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). Drilling commenced on the Olaroz leases in February 2022.

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