LILAC RESUMES OPERATIONS – PROCESSING OF KACHI BRINES UNDERWAY

- Lake’s technology partner, Lilac Solutions, returns to operations this week after the loosening of COVID-19 restrictions and removal of curfews.
- First priority is to produce samples for interested parties with processing underway of Lake’s Kachi brines through the pilot plant modules at Lilac’s new upgraded facility.
- Regular updates on processing activity will be provided.
- Operations are underway as interest increases in more sustainable and consistent high purity lithium products, a benefit of Lilac’s technology, amid multi-billion dollar electric vehicle (EV) investments in Europe and Asia.

Lithium explorer and developer Lake Resources NL (ASX:LKE; OTC:LLKKF) announced today that its technology partner, Lilac Solutions, is resuming operations this week with its direct extraction pilot plant module for the Kachi project following the loosening of “shelter in place” restrictions and the removal of curfews.

Processing is underway of the 20,000 litres of brine received from Lake’s Kachi Lithium Brine Project through the pilot plant modules at the new upgraded facility and warehouse, together with the completion of commissioning. Other key service providers to Lilac operations have also re-opened.

The full resumption of operations comes amid increasing interest in sustainable and consistent high purity lithium products, a benefit of Lilac’s technology, and with growing pricing improvements for high purity lithium products given a lack of battery-grade supply for EV makers.

Lake’s recent Kachi Pre-Feasibility Study (PFS) (refer ASX announcement 30 April 2020) and published research have demonstrated the cost competitive, sustainable and scalable nature of the Lilac direct extraction process which is being employed at the Kachi Lithium Brine Project. The process is able to deliver a high purity product which attracts premium pricing.

European nations including France, Germany, the Netherlands and United Kingdom have recently announced multi-billion dollar subsidies and investments to support the EV industry as part of post-pandemic recovery plans, adding to recent boosts in China and South Korea.

Lake’s Managing Director, Steve Promnitz said: “Lilac’s processing of the Kachi brines to produce a high purity lithium carbonate is a critical body of work that will deliver huge upside value for Lake. We have every confidence in the Lilac technology and the proven direct extraction process that will be implemented at the Kachi project. Recent delays at Lilac have been completely understandable given the global impacts of COVID-19, but we look forward to reporting the first sizeable high purity lithium carbonate samples soon.”

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About Lake Resources NL (ASX:LKE)

Lake Resources NL (ASX:LKE, Lake) is a lithium exploration and development company focused on producing sustainable, high purity lithium by developing its flagship Kachi Project, as well as three other lithium brine projects and a hard rock project in Argentina, all owned 100%. The leases are in a prime location among major producers within the Lithium Triangle, where 40% of the world’s lithium is produced at the lowest cost. Lake holds one of the largest lithium tenement packages in Argentina (~200,000Ha) which provides the potential for security of supply, and scalable as required.

Lake considers it is in a strong position to benefit from the market opportunity in electric vehicles and the batteries that power the energy revolution due to:

1. High Purity Lithium Carbonate samples (99.9%) with very low impurities, recently produced from the pilot plant using a direct extraction process (ion exchange), which can achieve premium pricing;
2. Increased Engagement with Off-takers as larger samples are produced, anticipated from Q2 2020 onwards, for off-takers to commence qualification testing to then engage to assist in financing;
3. Kachi Project PFS, which shows a large, long-life low-cost potential operation with competitive production costs at the lower end of the cost curve similar to current lithium brine producers. The Kachi project has a resource (announced Nov 2018) considered large enough for long term production and could be potentially scaled to a much larger project as required as leases cover an area 10 times Manhattan.
4. Sustainable and Scalable Future Lithium Production, demanded by the larger Electric Vehicle makers and an increasing number of battery/cathode makers, who need to show both the quality and provenance of battery materials for ESG/sustainability and carbon footprint reporting. The direct extraction process reinjects brine once the lithium has been removed using ion exchange beads without affecting the chemistry. This means a much smaller footprint and less water usage because evaporation ponds are not used.

The Kachi project covers 70,000 ha over a salt lake south of FMC/Livent’s lithium operation in Catamarca Province. Drilling confirmed a large lithium brine bearing basin over 20km long, 15km wide and 400m to 800m deep. Drilling over Kachi produced a maiden indicated and inferred resource of 4.4 Mt LCE (Indicated 1.0Mt, Inferred 3.4Mt) (refer ASX announcement 27 November 2018).

A direct extraction technique has been tested in partnership with Lilac Solutions, supported by Bill Gates – led Breakthrough Fund and MIT’s The Engine fund. A pilot plant module being commissioned, has shown 80-90% recoveries and lithium brine concentrations over 60,000 mg/L lithium. Battery grade lithium carbonate (99.9% purity) has been produced from Kachi brine samples with very low impurities (Fe, B, with <0.001 wt%). Test results have been incorporated into a Pre-Feasibility Study (PFS). The Lilac pilot plant module in California will produce samples for downstream participants in Q2 2020, prior to being transported to site to produce larger battery grade lithium samples. Discussions are advanced with downstream entities, mainly battery/cathode makers, as well as financiers, to develop the project.

The Olaroz, Cauchari and Paso brine projects are located adjacent to major world class brine projects either in production or being developed in the highly prospective Jujuy Province. The Olaroz-Cauchari project is located in the same basin as Orocobre’s Olaroz lithium production and adjoins the Ganfeng Lithium/Lithium Americas Cauchari project, with high grade lithium (600 mg/L) with high flow rates drilled immediately across the lease boundary.

The 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 scheduled for production in late 2020 and infer an extension and continuity of these brines into Lake’s leases (refer ASX announcements 28 May, 12 June 2019).

Significant corporate transactions have occurred in adjacent leases with development of Ganfeng Lithium/Lithium Americas Cauchari project as Ganfeng announced a US$397 million investment for 50% of the Cauchari project, together with a resource that had doubled to be the largest on the planet. Ganfeng then announced a 10-year lithium supply agreement with Volkswagen on 5 April 2019. Nearby projects of Lithium X were acquired via a takeover offer of C$265 million completed March 2018. The northern half of Galaxy’s Sal de Vida resource was purchased for US$280 million by POSCO in June-Dec 2018. LSC Lithium was acquired in Jan-Mar 2019 for C$111 million by a mid-tier oil & gas company with a resource size half of Kachi. Orocobre has completed in April 2020 the acquisition of all shares in Advantage Lithium, valued at around C$75 million, which holds leases next to Lake at Cauchari. These transactions, except for the Advantage deal, imply an acquisition cost of US$55-110 million per 1 million tonnes of lithium carbonate equivalent (LCE) in resources.

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