CLEAN HIGH PURITY LITHIUM

99.97% purity lithium carbonate with clean technology at scale

Steve Promnitz - Managing Director
22 October 2020 - Update OTC QB Conference

LAKE RESOURCES
CLEANER LITHIUM FOR ELECTRIC WORLD
ASX:LKE FRA:LK1 OTC:LLKKF
Disclaimer

General Statement and Cautionary Statement

This presentation has been prepared by Lake Resources N.L. (Lake) for information purposes and meetings with sophisticated and professional investors, institutional investors and brokers and not any particular party. The information in this presentation is based upon public information and internally developed data and reflects prevailing conditions and views as of this date, all of which are accordingly subject to change. The information contained in this presentation is of general nature and is not intended to address the circumstances of any particular individual or entity. There is no guarantee that the information is accurate as of the date it is received or that it will continue to be accurate in the future. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. No one should act upon such information without appropriate professional advice after a thorough examination of the particular situation. Lake Resources NL accepts no responsibility or liability to any party in connection with this information or views and Lake disclaims and excludes all liability (to the extent permitted by law) for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it. The information regarding projects described in this presentation are based on exploration targets, apart from Kachi project’s resource statement. The potential quantity and grade of an exploration target is conceptual in nature, with insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that potentially economic quantities of lithium will be discovered. Some leases are located within and around the Orosnoe, Orocobre/Advantage Lithium and Ganfeng/Lithium Americas projects and although data is limited within the properties, the leases may cover potential extensions to the Cauchari/Olaroz projects with potential extensions to aquifers, although this provides no assurance that any resource will be identified on the Lake leases. The lithium pegmatite leases occur adjacent to past producers of spodumene but no potential extension to any mineralisation can be assured.

Forward Looking Statements

Certain statements contained in this presentation, 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 presentation 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.

Competent Person Statement

The information contained in this presentation relating to Exploration Results, Mineral Resource estimates and the associated Indicated Resource, which underpins the production target in the pre-feasibility study, have been compiled by Mr Andrew Fulton. Mr Fulton is a Hydrogeologist and a Member of the Australian Institute of Geoscientists and the Association of Hydrogeologists. Mr Fulton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Andrew Fulton is an employee of Groundwater Exploration Services Pty Ltd and an independent consultant to Lake Resources NL. Mr Fulton consents to the inclusion in this presentation of this information in the form and context in which it appears. The information in this presentation is an accurate representation of the available data to date from initial exploration at the Kachi project and initial exploration at the Cauchari project.
Clean Technology – No Mining.

• **Clean Technology** – Adaptation of known water treatment method; No mining

• **Disruptive Direct Extraction with Tech Partner, Lilac Solutions** – Efficient lithium separation from salty water (brine); cost competitive vs traditional process; Technology partner backed by Bill Gates-led Breakthrough Energy fund, MIT’s The Engine

• **High Purity Lithium** - 99.97% purity battery quality lithium carbonate – Future focus in battery materials supply; only 50-60% of production is battery quality

• **Responsibly Sourced; Sustainable** – Returns 99% brine to source

• **Path to Production** – Pilot plant module shows small scale-up to production scale
Why Lithium? Future Demand Growth for Sustainable Supply

Need 18 times more Lithium Production by 2030; Underinvestment in new supply

**EU Commission Report – 3 September 2020**

Need 18 times more Lithium Production by 2030
1st time lithium added to critical raw materials list

Megafactory growth but no lithium supply growth

Source: European Commission “Action Plan on Critical Raw Materials” (mid range selected); Financial Times 31 August 2020; Benchmark Mineral Intelligence
High Purity Lithium – Unique

99.97% Purity Lithium Carbonate
Produced from Kachi project brines by Hazen labs

After processing in Lilac direct extraction pilot module

• Samples have very low impurities (60x less than 99.5% battery grade)
• Simple flowsheet to convert lithium chloride from pilot to lithium carbonate
• Lake expects this product to be attractive for the battery market
• Premium pricing would positively impact feasibility study
• Confident of replicating these results at full production
Process to High Purity Lithium

Pumping Brines - Kachi

Direct Extraction Lithium Chloride – Lilac Pilot Plant Module

Lithium Carbonate - Hazen

Cathode/ Battery - Novonix
High Value Product: Low Impurities = Premium Pricing

Cost Competitive

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Actual (wt%)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium (Li)</td>
<td>99.97</td>
<td>99.5 Min</td>
</tr>
<tr>
<td>Sodium (Na)</td>
<td>0.0011</td>
<td>0.025 Max</td>
</tr>
<tr>
<td>Magnesium (Mg)</td>
<td>&lt;0.001</td>
<td>0.008 Max</td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>&lt;0.001</td>
<td>0.005 Max</td>
</tr>
<tr>
<td>Potassium (K)</td>
<td>0.0049</td>
<td>0.005 Max</td>
</tr>
<tr>
<td>Sulphur (S)</td>
<td>&lt;0.1</td>
<td>0.01 SO4 Max</td>
</tr>
<tr>
<td>Aluminum (Al)</td>
<td>&lt;0.001</td>
<td>0.001 Max</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>&lt;0.001</td>
<td>0.001 Max</td>
</tr>
<tr>
<td>Silicon (Si)</td>
<td>&lt;0.001 *</td>
<td>0.005 Max</td>
</tr>
<tr>
<td>Boron (B)</td>
<td>&lt;0.001</td>
<td>0.005 Max</td>
</tr>
</tbody>
</table>

Source: LKE announcements 20/10/2020, 14/01/2020

Direct Extraction Kachi Project
Positioned at lower end of cost curve

Lithium Carbonate Pricing Range

Brine – Lower Cost
Hard Rock – Higher Cost

Source: Street research including Cauchari-Olaroz DFS and Thacker Pass (by-product credits). Includes CO2 Royalty assuming price of $9/1000t of lithium carbonate.
Direct extraction – Clean Technology

Disruptive – No Evaporation or Mining

New adaptation to known technology in water treatment

- Efficient - lithium removed from brine; no evaporation
- Faster, with higher recoveries
- High purity products – In demand
- Cost competitive and scalable
- Environmentally friendly - Returns brine to source; no change to chemistry
Direct extraction. 
Ion Exchange Process
Lilac Solutions

Disruptive Technology (3 hrs to 30-60,000ppm vs 1-2 years)
Saves time and money - Faster production. Recoveries doubled
Lower impurities – Higher purity as only lithium is extracted.
Sustainable solution – Brine reinjected; no change to chemistry

To produce Concentrate vs 12-24 mths

3 HOURS

BRINE RETURNED WITHOUT CHANGES EXCEPT LITHIUM REMOVAL
LITHIUM CARBONATE PLANT AND/OR LITHIUM HYDROXIDE PLANT
Direct extraction – Small Environmental Footprint

Lilac Direct Extraction Footprint vs Brine Evaporation Ponds (Atacama) and Hard Rock Mining (Greenbushes)

Evaporation - Atacama
15 km

Hard Rock - Greenbushes
5 km

Direct Extraction - Kachi
0.5 km

Direct Extraction:
Returns brine to source
Sustainable Lithium. Responsibly Sourced
Solution for more sustainable lithium in EV’s

- Electric Vehicle Makers, EU Seek More Sustainable Lithium – Volkswagen, Daimler, BMW, EU want more responsible sourcing of battery materials (Reuters)

- Direct extraction is not mining and avoids water politics – Known water treatment process (since 1940’s) drastically cuts water use (Bloomberg)

- Lilac is backed by known high profile investors – Lilac supported by Bill Gates-led Breakthrough fund, MIT’s The Engine Fund

- Pilot plant modules demonstrate process works and is scalable – Pilot plant modules in California processing Kachi brines
Prime Location – Next to Large Producers.

Lithium Triangle: 40% of world’s lithium production at the lowest cost.

5 largest producers all have operations ALB, SQM, LTHM + Tianqui, Ganfeng

Lake has a large project at Kachi
3 other brine projects
Kachi Project.
100% Lake owned

Major brine resource - Top10
4.4 Mt LCE Total Resource
(1Mt LCE Indicated Resource; 3.4 Mt Inferred)

PFS only uses 20% of resource
Open at depth and laterally

70,000 hectares of leases
(11x Size of Manhattan Island)

It’s Not About Grade –
In industrial chemistry, ‘low impurities’ is king
Kachi PFS - High Margin Pre-Feasibility Results

• **Long Life, High Value Project** - 25 year production 25,500 tpa LCE**; US$1050 million project value* (NPV @ 8% discount rate, Pre-tax)

• **High Margin Lithium Production** –
  • 55% Operating Margin; US$465 million EBITDA in 1st 3 years*

• **High Purity** - 99.9% purity battery grade Li₂CO₃

• **Cost Competitive among Brine Producers** –
  Operating cost US$4170/t Li₂CO₃

• **Prime Location** – Large scalable project in world-class region

*Note: Results based on PFS Study Assumptions  * Assuming conservative US$11,000/t lithium carbonate CIF future price.  ** Based on Indicated Resource 1.0Mt @290mg/L lithium
Next Steps
Testing Lake’s clean lithium in Batteries – Novonix

Novonix - battery technology leader (ASX:NVX; OTCQX:NVNXF)
Tier 1 firms
- Panasonic, CATL, Samsung, SK, Apple, Bosch, Honda and Dyson
Work with Dr Jeff Dahn at Dalhousie Uni
- a ground breaking "name" in the battery tech space
Developed latest cathode & anode technology

Lake’s lithium carbonate tested quickly, transparently
Demonstrate that Lake's product is truly battery quality
Accelerates discussions downstream
Only ~35% of lithium production qualified as battery quality by Tier 1 battery makers
Only 50-60% of lithium production is battery quality
Strengthens Lake’s quality and ESG benefits
Cauchari Project.

Lake results show:

- similar brines
- similar high grades
- similar flow rates.

506m Brine zone vs 198m in adjoining project

Source: LKE; Advantage Lithium AAL.TSXV announcements 5/3/2018, 10/01/2019, 7/03/19, 24/04/19. The marked boundaries are indicative only. Please refer to the detailed map.
Production Timeline.

H1 - 2020
- High purity samples
- Kachi direct extraction pilot plant module – operating
- Kachi PFS (Apr 2020) – Robust economics; cost competitive

H2 – 2020, H2 - 2021
- Kachi samples to battery makers for qualification purposes; testing by Novonix
- Kachi – offtake and strategic partner discussions
- Kachi – Initiate DFS, EISA, pilot plant to site
- Complete DFS, approvals; construction finance

2016-19
- Large Lease Area Pegged in 2016
- Kachi – Large new discovery; major resource
- Kachi – PFS commenced; Pilot plant initiated
- Direct Extraction method – Testing
- Cauchari – extended high grades; discovery

2022-2023
Kachi – Production
- Kachi – 25,500tpa LCE; Capex US$540m
- Phased expansion from 10,000tpa LCE
- Capex Reduced
- Olaroz, Cauchari – Drill, Resource, PFS
# LAKE RESOURCES (ASX:LKE, OTC:LLKKF)

| Total Current Shares on Issue | 792,128,624 |

<table>
<thead>
<tr>
<th>Listed Options (10c)</th>
<th>Jun 2021 Expiry</th>
<th>52,512,693</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlisted Options (4.6c)</td>
<td>Oct 2022 Expiry</td>
<td>18,300,000</td>
</tr>
<tr>
<td>Unlisted Options (8c)</td>
<td>Feb 2022 Expiry</td>
<td>5,555,000</td>
</tr>
<tr>
<td>Unlisted Options (9c)</td>
<td>Jul 2021 Expiry</td>
<td>15,000,000</td>
</tr>
</tbody>
</table>

## Market Data

<table>
<thead>
<tr>
<th>Market Cap ($A)</th>
<th>@ $0.067/sh (10 day VWAP, 19 Oct)</th>
<th>A $53 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash ($A)</td>
<td>30 Sept 2020</td>
<td>~A$3 million</td>
</tr>
<tr>
<td>Secured debt</td>
<td>$ 0</td>
<td></td>
</tr>
<tr>
<td>Share Price</td>
<td>52 week range</td>
<td>$0.023 – 0.095/sh</td>
</tr>
<tr>
<td>Share Register</td>
<td>40% Top 30, High Net Worth Investors</td>
<td></td>
</tr>
</tbody>
</table>
Lithium Producers Recently Uplifted

Developers yet to rise

Lake $50m vs Peers
$80-200m market cap

Trading at 4% NPV vs Peers 10-40% NPV

Research: LKE website

Lake Resources

vs Lithium Americas (LAC) Pre-Production

Vs Standard (SLL) Direct Extraction

Note: Any perceived relationship between market value of explorers/developers versus producers should not be made.

Source: ASX / TSX / NYSE company disclosures; SEDAR; Bloomberg; Company sources: 6 October 2020
Clean High Purity Lithium - Unique Proposition.

- New Clean Technology for High Purity Lithium – Growing need
- Responsibly Sourced & Sustainable - Growing demand from EV makers, EU guidelines – Enables a clean future; One of few new sustainable lithium suppliers
- 21st Century Solution to Batteries for EV’s – Lake’s clean lithium being tested in latest batteries

Contact: lakeresources.com.au
Steve Promnitz - Managing Director
steve@lakeresources.com.au  +61 2 9299 9690
Appendix - PFS

## PFS - Kachi

**Compelling Economics; High EBITDA Margin**

**Cost Competitive; High Value Product**

<table>
<thead>
<tr>
<th>Key Financial Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV&lt;sub&gt;8&lt;/sub&gt; (NPV @ 8% discount rate) Pre-tax</td>
<td>US$1,052 million (A$1,660 million)*</td>
</tr>
<tr>
<td>NPV&lt;sub&gt;8&lt;/sub&gt; (NPV @ 8% discount rate) Post-tax</td>
<td>US$748 million (A$1,180 million)*</td>
</tr>
<tr>
<td>IRR pre-tax</td>
<td>25%</td>
</tr>
<tr>
<td>IRR post-tax</td>
<td>22%</td>
</tr>
<tr>
<td>EBITDA, annual</td>
<td>US$155 million (A$245 million)*</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>55%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Life</td>
<td>25 years</td>
</tr>
<tr>
<td>Production Rate – Lithium Carbonate</td>
<td>25,500 tonnes LCE per year**</td>
</tr>
<tr>
<td>Mineral Resource (Indicated)</td>
<td>1.01 Million tonne LCE</td>
</tr>
<tr>
<td>Recovery</td>
<td>83 %</td>
</tr>
<tr>
<td>Capital Investment (at start-up)</td>
<td>US$544 million</td>
</tr>
<tr>
<td>Operating Cost (annual)</td>
<td>US$107 million</td>
</tr>
<tr>
<td>Cash Cost (Opex, C1)</td>
<td>US$4178/tonne LCE</td>
</tr>
</tbody>
</table>

*Note: Results based on PFS Study Assumptions  * Assuming conservative US$11,000/t lithium carbonate CIF future price.  ** Based on Indicated Resource 1.0Mt @290mg/L lithium
Kachi Lithium brine Project.

<table>
<thead>
<tr>
<th>KACHI LITHIUM BRINE PROJECT</th>
<th>MINERAL RESOURCE ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JORC Code 2012 Edition</td>
<td>Indicated</td>
</tr>
<tr>
<td>Area, km²</td>
<td>17.1</td>
</tr>
<tr>
<td>Aquifer volume, km³</td>
<td>6</td>
</tr>
<tr>
<td>Brine volume, km³</td>
<td>0.65</td>
</tr>
<tr>
<td>Mean drainable porosity %</td>
<td>10.9</td>
</tr>
<tr>
<td>Element</td>
<td>Li</td>
</tr>
<tr>
<td>Weighted mean concentration, mg/L</td>
<td>289</td>
</tr>
<tr>
<td>Resource, tonnes</td>
<td>188,000</td>
</tr>
<tr>
<td>Lithium Carbonate Equivalent (LCE), tonnes</td>
<td><strong>1,005,000</strong></td>
</tr>
<tr>
<td>Potassium Chloride, tonnes</td>
<td>6,705,000</td>
</tr>
</tbody>
</table>

Lithium is converted to lithium carbonate (Li2CO3) with a conversion factor of 5.32
Potassium is converted to potassium chloride (KCI) with a conversion factor of 1.91
Appendix – Table 1 Report – JORC Code 2012.

Table 1: Appendix – Table 1 Report – JORC Code 2012.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Measured Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Indicated Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Inferred Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Proven Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Probable Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Verified Resource</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Total Resource included in the JORC Table, classified according to the JORC Code 2012.
- All resource categories are based on the JORC Code 2012.
- Resource categories are defined as follows:
  - Measured Resource: Resource that can be reliably estimated as to quantity and quality with a high degree of confidence.
  - Indicated Resource: Resource that is estimated with a degree of confidence sufficient to support a Stage 1 feasibility study.
  - Inferred Resource: Resource that is estimated with a degree of confidence sufficient to support a Stage 1 prefeasibility study.
  - Proven Resource: Resource that is estimated with a degree of confidence sufficient to support a Stage 1 feasibility study.
  - Probable Resource: Resource that is estimated with a degree of confidence sufficient to support a Stage 1 prefeasibility study.
  - Verified Resource: Resource that is estimated with a degree of confidence sufficient to support a Stage 1 feasibility study.

**Appendix:**
- The Appendix contains additional information that is not included in the main text. It includes detailed tables and figures that provide further insights into the data presented in the report.
- The Appendix is an integral part of the report and is necessary for a comprehensive understanding of the results and conclusions presented.

**References:**
- The references section contains a list of all the sources and literature cited in the report. It provides the reader with the opportunity to explore the original research and data that form the basis of the report.
- The references section is an essential component of the report, as it acknowledges the contributions of other researchers and producers of the information used in the report.