CLEAN HIGH PURITY LITHIUM

OTC Virtual Conference

Steve Promnitz - Managing Director

6 August 2020

LAKE RESOURCES
CLEANER LITHIUM FOR ELECTRIC WORLD

ASX:LKE  FRA:LK1  OTC:LLKKF
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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.

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Clean Technology – High Purity Lithium.

• **Clean Technology** – Simple adaptation of well-known water treatment method

• **Disruptive Direct Extraction with Lilac Solutions** – Innovative, efficient lithium separation from salty water (brine); cost competitive vs traditional process

• **High Purity Lithium** - 99.9% purity battery grade lithium carbonate – Rising demand; ~20% compound growth for lithium; only 50-60% of production is battery grade

• **Responsibly Sourced; Sustainable** – Small environmental footprint; Returns 99% brine to source; Lilac backed by Bill Gates-led Breakthrough fund; MIT’s The Engine

• **Path to Commercialisation** – Pilot plant module proven scale-up from lab testing
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
Sustainable Lithium. Responsibly Sourced

Solution for more sustainable lithium in EV’s

- Electric Vehicle Makers, EU, Seek More Sustainable Lithium – Volkswagen, Daimler, EU – push for 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

Sustainable Lithium.

ESG Targets for the Future – EU, UN

**EU**

1. **Climate Change Mitigation**
2. **Climate Change Adaptation**
3. **Sustainable and Protection of Water and Marine Resources**

**UN**

5. **Gender Equality**
8. **Decent Work and Economic Growth**
9. **Industry Innovation and Infrastructure**

7. **Affordable and Clean Energy**
12. **Responsible Consumption and Production**
13. **Climate Action**

**UNGP**

United Nations Guiding Principles on Business and Human Rights

**SDGs**

Sustainable Development Goals
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

BRINE RESOURCE

ION EXCHANGE TANK

30-60,000 PPM LI CONCENTRATE

LITHIUM CARBONATE PLANT AND/OR LITHIUM HYDROXIDE PLANT

BRINE RETURNED WITHOUT CHANGES EXCEPT LITHIUM REMOVAL
Direct extraction – Small Environmental Footprint

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

Direct Extraction: Returns brine to source

- Evaporation - Atacama
  - 15 km

- Hard Rock - Greenbushes
  - 5 km

- Direct Extraction - Kachi
  - 0.5 km
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 Li$_2$CO$_3$

• **Cost Competitive among Brine Producers** –
  Operating cost US$4170/t Li$_2$CO$_3$

• **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
Hard Rock – Higher Cost
Brine – Lower Cost

Direct Extraction Kachi Project
Positioned at lower end of cost curve

Source: LKE announcements 9/1/2020, 14/01/2020; 10/12/2018

Chemical Component | Actual (wt%) | Target
--- | --- | ---
Lithium (Li) | 99.9 | 99.5 Min
Sodium (Na) | 0.024 | 0.025 Max
Magnesium (Mg) | <0.001 | 0.006 Max
Calcium (Ca) | 0.0046 | 0.005 Max
Iron (Fe) | <0.001 | 0.001 Max
Silicon (Si) | <0.001 | 0.003 Max
Boron (B) | <0.001 | 0.005 Max

Source: Street research including Cauchari-Olaroz DFS and Thacker Pass (by-product credits). Includes CARFO royalty assuming price of $9,000/t of lithium carbonate. Lithium Americas (LAC.TSX.V) Information Nov 2019
Sector Growth in Battery Megafactories; But Limited New Supply

From 3 to 136 Megafactories in 5 years – Fastest growth last month – Yet underinvestment in supply of batt materials

Megafactory growth needs new lithium supply (and takes years)

Expansions delayed from majors opens door to new producers; Pinch point coming

Supply chain needs billions in investment

$50-70bn required (split across lithium, cobalt, nickel, manganese)

Lithium (spodumene/ brine producers)
- 26 producers (up from 16 in 2016¹)
- 48 new projects in pipeline

Source: Benchmark Mineral Intelligence
Production Timeline.

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

H2 - 2020, H1 - 2021
- Kachi samples to battery makers for qualification purposes
- Kachi – finalise 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 671,461,957

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

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<tr>
<th>Market Cap ($A)</th>
<th>@ $0.037/sh (15 day VWAP, 4 August)</th>
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<tr>
<td></td>
<td>US$19 million</td>
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<table>
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<tr>
<th>Cash ($A)</th>
<th>30 June 2020</th>
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<td></td>
<td>$0.1 million + $0.46 million in July</td>
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| Unsecured debt | $ 0.2m |
| Share Price    | 52 week range |
|                | $0.023 – 0.10/sh |
| Share Register | 40% Top 30, High Net Worth Investors |
Orior Capital – Lake ‘Incredibly Undervalued’

- **Lake Undervalued vs Peers** – Robust financial metrics, advantages of direct extraction & lithium outlook: Lake trading <2% NPV vs peers trading at around 20%; valuation of 29c per share

- **Compelling, Cash-Generative Project** – Kachi to generate EBITDA US$155m pa and EBITDA margin 55%, based on conservative lithium carbonate price of US$11,000/t

- **Significant and Sustainable Competitive Advantages** – Energy storage sector is increasingly demanding low impurities and product consistency

- **It’s Not About Grade** – In industrial chemistry, ‘low impurities’ is king and Kachi delivers

- **Supply-Side Constraints** – Lithium demand rising as EV revolution continues, yet projects suffering cutbacks or delays; evaporation pond projects coming under environmental scrutiny

*Note: Refer Orior Capital research report 26 May 2020, available at Lake’s website*
Significant Upside

Lake $25m vs Peers $50-120m market cap

Trading at <2%NPV<sub>8</sub> vs Peers 10-15% NPV<sub>8</sub> at same stage

Research: LKE website

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

Source: ASX / TSX company disclosures; SEDAR; Bloomberg; Company sources: 20 May 2020
Lake has extensive development experience – both at the board level and local management.

**Steve Promnitz**  
MANAGING DIRECTOR  
Extensive project management experience in South America – geologist and finance experience – with major companies (Rio, Citi) and mid-tiers.

**Stu Crow**  
CHAIRMAN NON-EXEC  
More than 25 years of experience (numerous public companies) and in financial services.

**Nick Lindsay**  
NON-EXEC DIRECTOR  
30 years of experience in Argentina/Chile/Peru (PhD in Metallurgy & Materials Engineering); Major companies (Anglo) and taken companies from inception to development to acquisition in South America.

**Robert Trzebski**  
NON-EXEC DIRECTOR  
International mining executive; 30 years experience; operational, commercial and technical experience in global mining incl. Argentina. Extensive global contacts to assist Lake with project development. Chief Operating Officer of Austmine Ltd. Director Austral Gold.
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, Battery makers – Enables a clean future and one of only new suppliers

• 21st Century Solution to Batteries for EV’s

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# 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><strong>NPV₈ (NPV @ 8% discount rate) Pre-tax</strong></td>
<td>US$1,052 million (A$1,660 million)*</td>
</tr>
<tr>
<td><strong>NPV₈ (NPV @ 8% discount rate) Post-tax</strong></td>
<td>US$748 million (A$1,180 million)*</td>
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<tr>
<td>IRR pre-tax</td>
<td>25%</td>
</tr>
<tr>
<td>IRR post-tax</td>
<td>22%</td>
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<tr>
<td>EBITDA, annual</td>
<td>US$155 million (A$245 million)*</td>
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<tr>
<td>EBITDA margin</td>
<td>62%</td>
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<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>
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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>
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<tr>
<th>KACHI LITHIUM BRINE PROJECT</th>
<th>MINERAL RESOURCE ESTIMATE</th>
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<tbody>
<tr>
<td>Area, km²</td>
<td>Indicated</td>
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<tr>
<td>17.1</td>
<td>158.3</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>
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<tr>
<td>Weighted mean concentration, mg/L</td>
<td>289</td>
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<tr>
<td>Resource, tonnes</td>
<td>188,000</td>
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<tr>
<td>Lithium Carbonate Equivalent (LCE), tonnes</td>
<td>1,005,000</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 (KCl) with a conversion factor of 1.91.
Appendix – Table 1 Report – JORC Code 2012.