Kachi Lithium & Lilac’s Direct Lithium Extraction Benchmark – ESG for lithium ion battery supply

**CLEANER LITHIUM FOR AN ELECTRIC WORLD**

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The information contained in this presentation relating to Exploration Results has 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 Fultons 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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Lake Resources - Clean Lithium Solution for Cathodes & EV’s

99.97%
High Purity lithium carbonate

+ Significant ESG benefits.

• **CLEANER LITHIUM** – Lake’s 99.97% purity product – high battery quality lithium carbonate = higher battery performance.

• **CLEANER TECHNOLOGY**: Lilac direct lithium extraction – superior to traditional process. Supported by tech sector and battery/EV makers.

• **CLEANER ENVIRONMENT**: Lithium with ESG benefits. Small environmental footprint - low CO₂, less water, low land use.

• **CLEARER PATHWAY**: Path to production; Successful pilot plant; Large, scalable project, high margin. Indicative debt funding for 70% of Kachi project

• **INDEPENDENT PRODUCER AT SCALE**: New clean lithium from a scalable independent producer
Process and ESG Benefits – Cleaner Technology

Process – Lilac’s Ion Exchange Direct Lithium Extraction

ESG benefits – Low Carbon, Low Land & Water Use, Better Social Outcomes
Direct Lithium Extraction
Lilac Solutions -  Cleaner technology

Lilac direct extraction displaces evaporation process

Brine in – Lithium chloride out

- High purity
- Faster process
- High recovery
- Sustainable – No brine heating
- Cost competitive – Durable beads
- Scalable
- Proven in pilot plant – Extensive test work
Delivers a Cleaner Environment
Smaller environment footprint – Low Land use - Lower water use – No brine depletion

Atacama Projects – Brine evaporation (170km²)

All Brine Evaporated

Kachi Project – Lake/Lilac DLE (1km²)

Brine Returned to Source

Source: SQM / ALB presentations 2020; 170km² for c.80,000 tpa LCE. Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power)
Delivers a Cleaner Environment
Smaller carbon footprint – Lower greenhouse gases

Kg CO$_2$e/kg product

Li Hydroxide LCE from Hard Rock Spodumene

14 - 18.2

Li Carbonate LCE from Brine

4-5

Li Carbonate LCE from Lake/Lilac DLE
Also expected to be low

Note: Hard Rock = Spodumene converted to Lithium Hydroxide as LCE in China using coal for energy; Brine evaporation in Sth America
Source: SQM presentation June 2020; Roskill Nov 2020; Lake/Lilac estimates with solar hybrid power – prelim study being undertaken
Sustainable lithium

Lake / Lilac DLE method

- Low CO₂ footprint
- Low water usage
- Low land use

Notes:
- Hard Rock = Spodumene converted to Lithium Hydroxide as LCE in China using coal for energy; Brine evaporation in Sth America
- Lake/Lilac estimates based on PFS with solar hybrid power power – prelim study being undertaken

ESG Sustainable Development Goals

Note: Hard Rock = Spodumene converted to Lithium Hydroxide as LCE in China using coal for energy; Brine evaporation in Sth America

Source: SQM presentation June 2020; Roskill presentation November 2020; Lake/Lilac estimates based on PFS with solar hybrid power power – prelim study being undertaken
Lilac Solutions – Earn-in to Project & Tech sector backers

Kachi Project – Top 10 Lithium Brine Resource
- Scalable, as Control Entire Basin – Upside
- Expansion study to 51,000 tpa LCE
Partnership - Lilac Solutions + Kachi Project
Aligns Climate Tech with Upstream Lithium Supply

• Lilac to Earn in to Kachi Project up to max 25% stake – via performance based milestones
  ▪ Initial 10% - Lilac funds completion of testing of its technology for the Kachi Project
  ▪ Further 10% - Lilac funds on-site demonstration plant at Kachi and satisfies all agreed testing criteria
  ▪ Final 5% - Kachi lithium product achieves highest agreed qualification standards with certain offtakers

• Lilac to Contribute c.US$50 million to Kachi Project, once earn in complete (pro-rata development funding)

• Lilac has major tech sector supporters – aligns breakthrough climate tech with upstream ESG lithium
  Aligns breakthrough Climate Tech investment with upstream environmentally friendly battery materials supply.
  Lilac completed US$150m Series B funding round from successful tech investors and battery/EV makers

• Lake with Lilac – New independent clean lithium producer with scale
Lilac Solutions – Investors
Successful Tech Investor Backing with EV supply chain participants – Recent US$150m investment
World’s cleanest lithium.

Four lithium projects in heart of the Lithium Triangle.

Large leaseholding 2,200km$^2$ (550,000 acres)

World’s five largest producers all have equity in operations in the Lithium Triangle.
Kachi project.
Large, scalable resource

25 years production uses 20% of resource.

- Drilling to upgrade resource for expansion; resource open laterally and at depth
- Kachi lease – 740 sq km (185,000 acres)
- One of 10 largest brine resources globally – total JORC resource 4.4Mt LCE
- Production 25,500tpa – 2024
- Export Credit Agencies – indicative 10 year 70% debt funding of Kachi development
Clearer pathway
Simple production scale-up - Modular

Lilac Pilot / Demo Plant
(1-2 Modules)
~10tpa LCE
1000 hours

Production Scale (PFS)
(50+ Modules)

 Expansion Study*
(to Double Production to 51,000tpa)

25,500tpa LCE

51,000tpa LCE

* Note: Expansion Study requires drilling (underway) to upgrade more Inferred Resources to Measured and Indicated Resources.
Kachi project
Proposed plant design

- Direct Extraction (Lilac IX Plant)
- Eluate Concentration
- Impurity Removal
- Lithium Production
- Bagging Plant and storage
- Chlor Alkali Plant
- Warehouse, reagents and water treatment

One building with Ion Exchange Modules
Replaces 20-30km² of Evaporation Ponds

~500m
Project Production Timeline

2021 – Q2, 2022
- DFS
- ESIA
- Definitive Feasibility Study
- 2022 Expansion Study

2021 – Q2, 2022
- Demonstration Plant
- Q1, 2022 Demo Plant Onsite
- 2021-22 Samples in Batteries
- 2021-22 Samples to Offtakers

2021 – Q2, 2022
- Financing
- Project Finance
- Export Credit Agencies
- Indicative 70% debt 10 years
- Triggered by DFS, ESIA

Q3, Q4 2022
- Construction / Production
- Mid-Late 2022 Approvals/Construction starts
- 2024 Production
- 25,500tpa LCE
Lake Resources & Lilac Solutions - Clean Lithium Solution for Cathodes & EV’s

- World’s highest purity lithium
- Technology-led direct extraction
- Major ESG benefits
- New independent clean producer – at scale, with de-risked finance

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