

# CLEAN HIGH PURITY LITHIUM

## Clean Technology Solution To Meet EV Demand

Steve Promnitz - Managing Director

18 February 2021    Update

**LAKE**  
RESOURCES

**CLEANER LITHIUM  
FOR AN ELECTRIC WORLD**

ASX:LKE    FRA:LK1    OTC:LLKKF



# Disclaimer

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## 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.

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## Clean Solution to Electric Mobility Growth

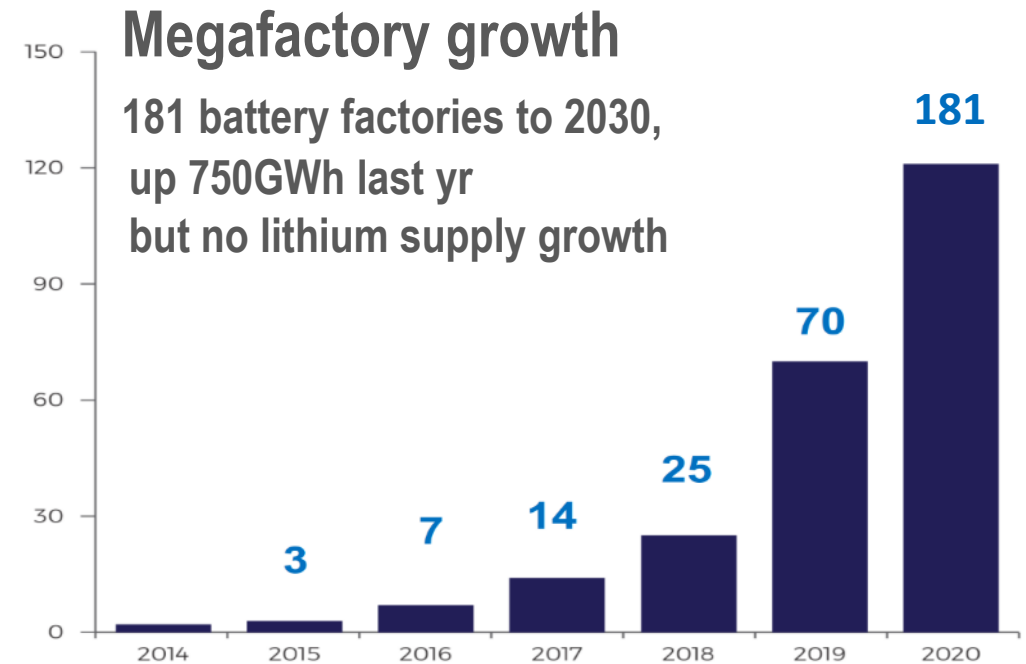
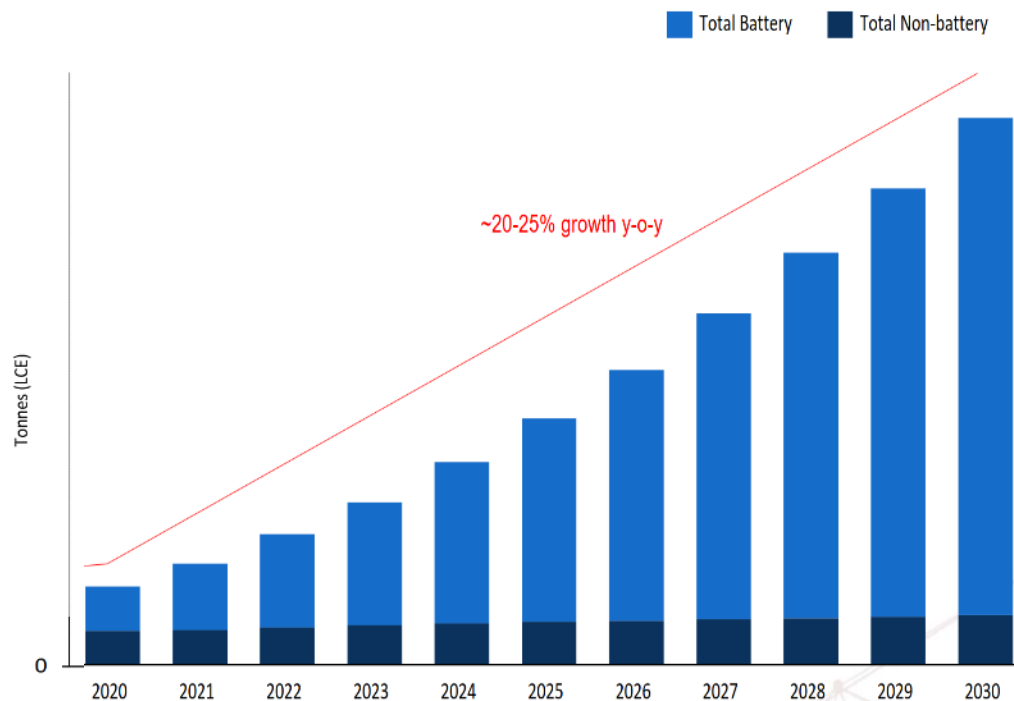
- **Electric Mobility needs Cleaner Better Batteries**
- **Clean Technology – Direct Extraction, Lilac Solutions  
No Mining – Water Treatment Only**
- **High Purity Lithium Product** - 99.97% purity battery quality lithium carbonate
- **Large ESG Benefit** – Low water use; Returns 99% brine to source; Small footprint
- **Demonstrated Path to Production; Scale to Meet Demand Growth**  
Successful pilot plant; Cost-competitive; Scalable; Funded to Construction phase

# Lithium Ion Batteries: One of Largest 21<sup>st</sup> Century Growth Areas

18 times more Lithium Production by 2030; Underinvestment in new supply; Price moving up

Lithium Demand Growth: 20% Year on Year  
China Lithium spot price increased 40% - Jan 2021

Need 18x more Lithium Production by 2030  
“7 companies SQM size per year for 10 years”



ASX:LKE  
OTC:LLKKF

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# Lake is Solution to EV & Battery Demand

## For demand in high purity & sustainability

- **#1 High Purity Battery Materials - to avoid performance issues** –  
Low impurities = reliable battery performance
- **#2 Responsibly Sourced, Traceable, Sustainable Battery Materials** -  
Demand: Sustainable battery materials. Smaller footprint: ↓CO<sub>2</sub>, ↓water, ↓land use.
- **#3 Low Cost Structure** - Cost Competitive to deliver affordable EV batteries
- **Lake/Lilac Solution** – High purity/low impurity consistently; Cost Competitive;  
Scalable; Small environmental footprint; Low water usage



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# High Purity

## 99.97% Purity Lithium Carbonate

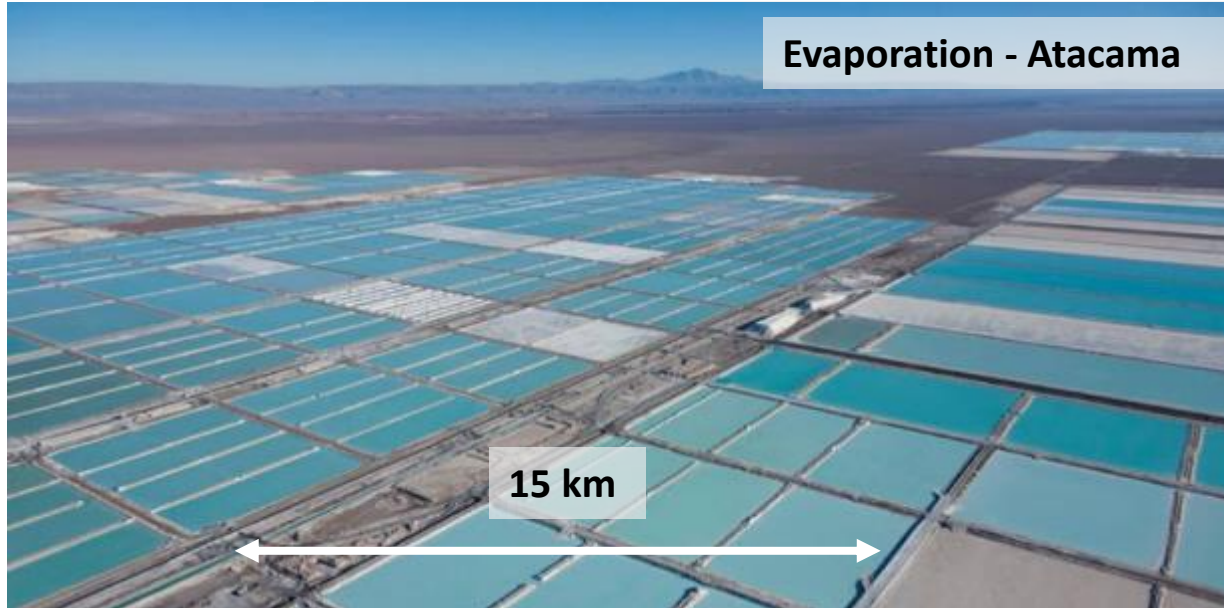
Produced from Kachi project brines

After processing in Lilac direct extraction pilot module

- Battery Grade considered to be 99.5%
- Kachi samples have very low impurities (60x less than 99.5% battery grade)
- Simple flowsheet; cost – competitive

# Direct extraction - Small Environmental Footprint - 90% less

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

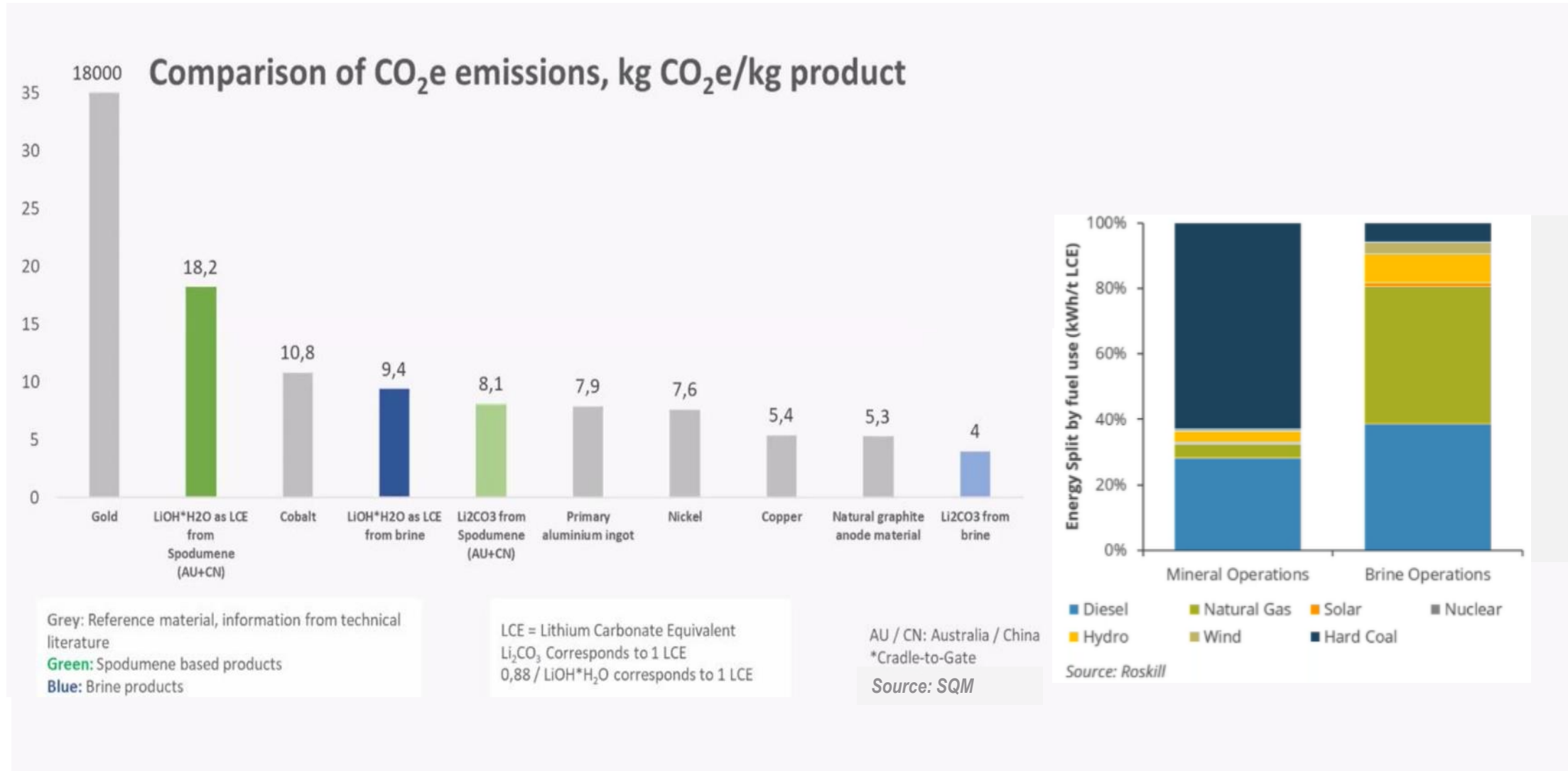


Direct Extraction:  
Returns  
brine to source

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# Direct extraction - Small Environmental Footprint

Brine Evaporation smaller CO2 footprint than hard rock; Lilac Direct Extraction reduces water impact



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# Sustainable Lithium.

## ESG Targets for the Future

<b>5</b> GENDER EQUALITY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY INNOVATION AND INFRASTRUCTURE 
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**7** AFFORDABLE AND  
CLEAN ENERGY  


**12** RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION  


**13** CLIMATE  
ACTION  


 Environment	 Social	 Governance
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UNGP  
United Nations Guiding Principles  
on Business and Human Rights  
SDGs  
Sustainable Development Goals

# Direct extraction - Cleaner

## Re-engineered Known Water Treatment Technology

- Efficient – just lithium removed
- Faster – hours not months
- Higher recoveries
- High purity – only lithium removed
- Cost competitive
- Scalable; Can expand to meet demand
- Environmentally friendly - small footprint
- Returns brine to source- no change (except lithium removal)

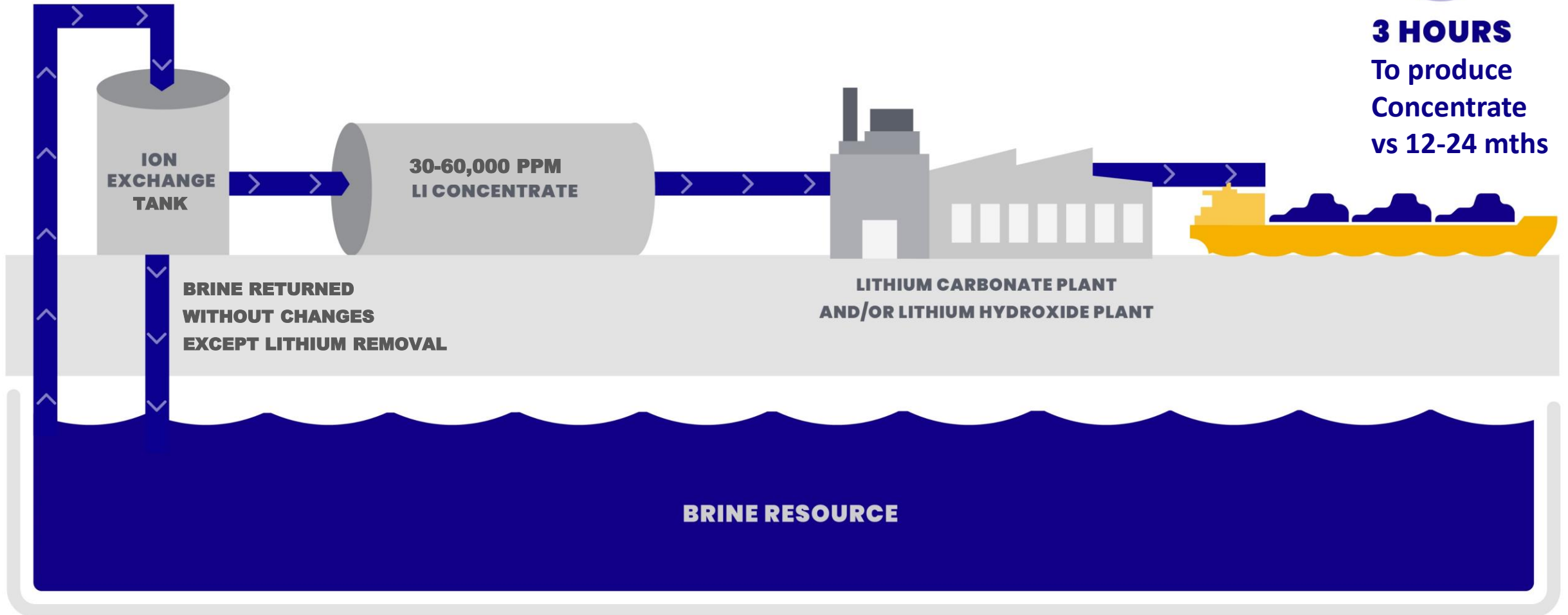


# Direct extraction. Ion Exchange Process Lilac Solutions

Replaces Evaporation Ponds with Ion Exchange Modules  
Simple Process – Repeated every 2.5 hours  
Simple Flowsheet to produce lithium carbonate



**3 HOURS**  
To produce  
Concentrate  
vs 12-24 mths



**BRINE RESOURCE**

**BRINE RETURNED  
WITHOUT CHANGES  
EXCEPT LITHIUM REMOVAL**

**LITHIUM CARBONATE PLANT  
AND/OR LITHIUM HYDROXIDE PLANT**

**30-60,000 PPM  
LI CONCENTRATE**

**ION  
EXCHANGE  
TANK**

# High Purity Lithium – From Pilot to Production

## Pilot Stage

Pilot Stage  
Direct Extraction  
Lithium Chloride

Underway in 2020  
Continues 2021

Lilac Pilot Plant Module



Lithium Carbonate - Hazen



Cathode/ Battery - Novonix



## Demonstration Plant Stage

On Site  
H2 2021

## Production Plant Stage

On Site  
H2 2023  
H1 2024

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# De-Risked Processing; Simple Production Scale-up

**Direct Extraction Lithium –  
Lilac Pilot Plant Module**



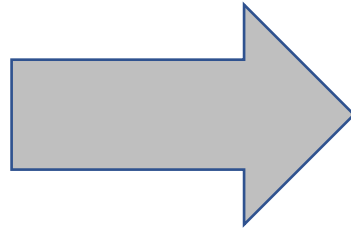
**Pilot  
1-2 modules**

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**Pilot to  
Production**



**Direct Extraction Lithium –  
Lilac Production Scale**

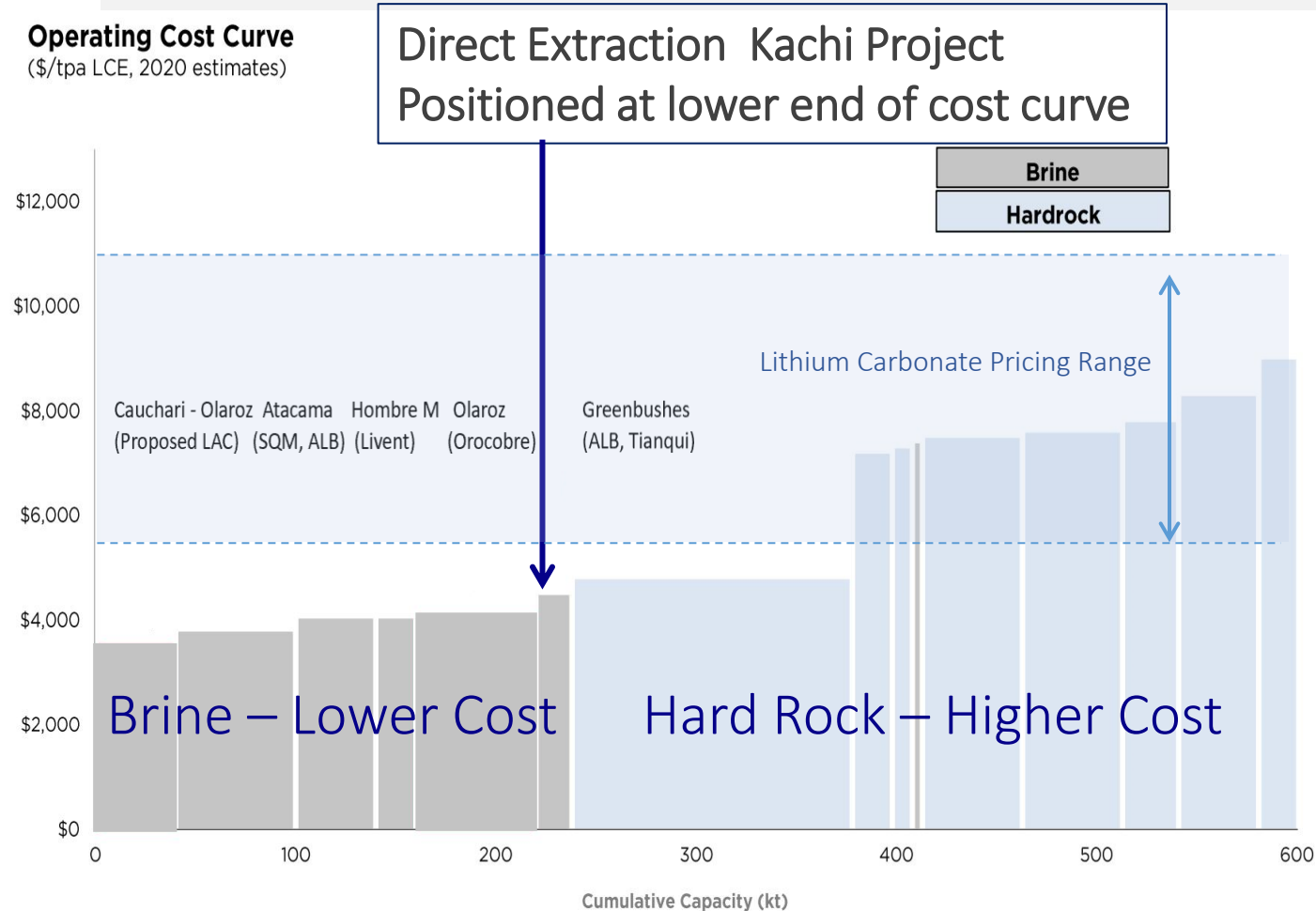


**Production Scale  
50+ modules**

*Modules here are not an example of the actual modules*

# Low Impurities - Premium Pricing - Cost Competitive

**Operating Cost Curve**  
(\$/tpa LCE, 2020 estimates)



Chemical Component	Actual (wt%)	Target
Lithium (Li)	99.97	99.5 Min
Sodium (Na)	0.0011	0.025 Max
Magnesium (Mg)	<0.001	0.008 Max
Calcium (Ca)	<0.001	0.005 Max
Potassium (K)	0.0049	0.005 Max
Sulphur (S)	<0.01	0.01 SO4 Max
Aluminum (Al)	<0.001	0.001 Max
Iron (Fe)	<0.001	0.001 Max
Silicon (Si)	<0.001 *	0.005 Max
Boron (B)	<0.001	0.005 Max

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Source: Street research including Cauchari-Olaroz DFS and Thacker Pass (before by-product credits). Includes CORFO royalty assuming price of \$9,000/t of lithium carbonate

Lithium Americas (LAC:TSX-V)  
Information Nov 2019

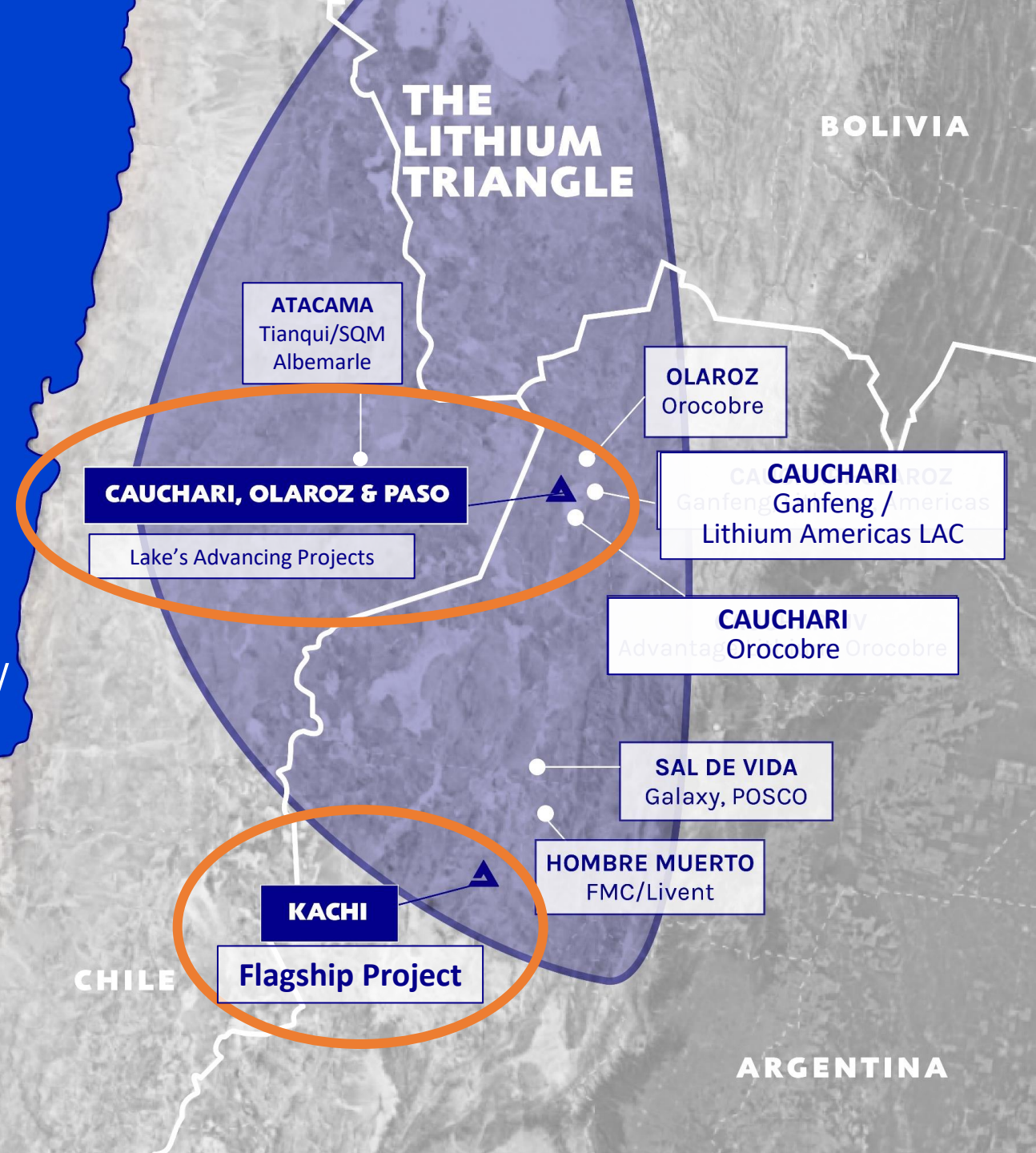
Source: LKE announcements 20/10/2020, 14/01/2020

# Prime Location – 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 JV

Lake has a large project at Kachi  
3 other brine projects  
Over 220,000 hectares (550,000 acres)





# Kachi Project.

100% Lake owned

Major brine resource - Top10

4.4 Mt LCE Total Resource  
(1Mt LCE Indicated Resource; 3.4 Mt Inferred)

25 yrs production uses 20% resource

74,000 hectares of leases  
(185,000 acres; size of NYC)

PFS 2020

DFS/ESIA 2021

Production 25,500tpa 2024

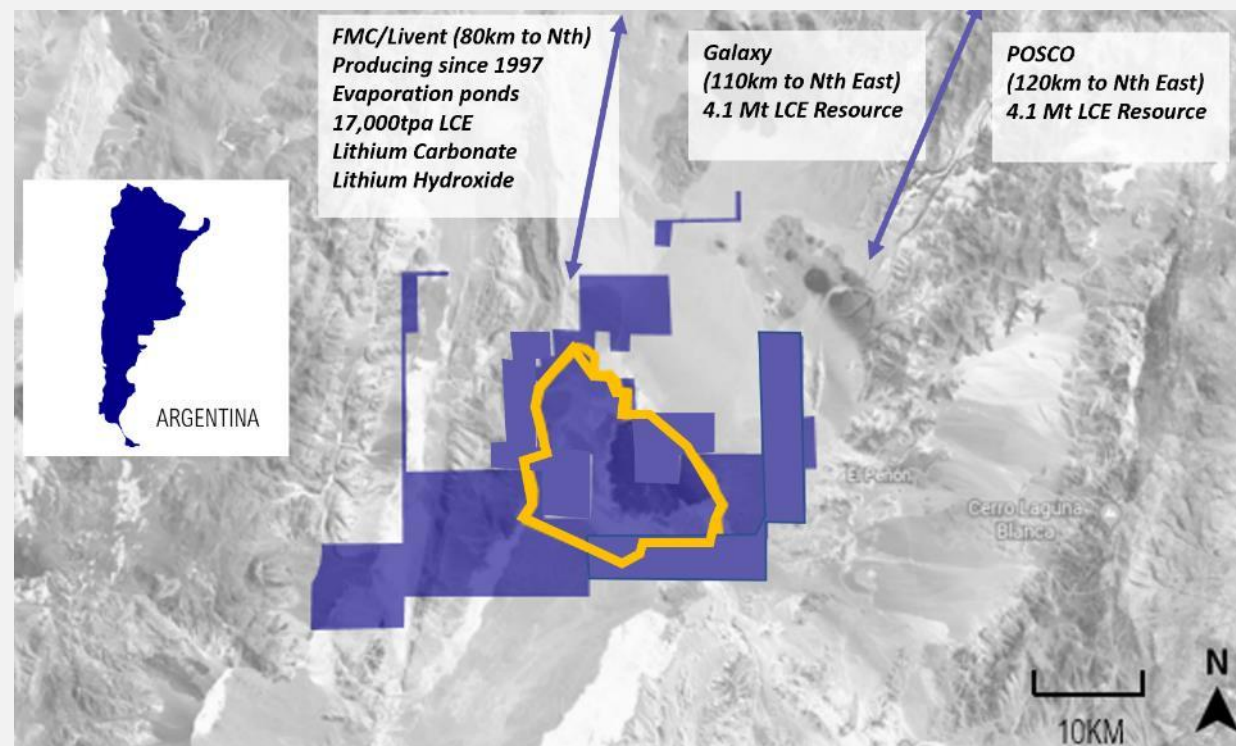






## Kachi - Advantages: Large, Clean, Expandable

- **Large:** 4.4 million tonne LCE.
- **Expandable:** Open laterally;  
Open at depth
- **Clean:** Brine low in impurities
- **Long Life, High Value:**  
25 year production 25,500 tpa LCE;  
US\$1050 million project value
- **Cost Competitive:**  
Operating costs similar to  
evaporation ~US\$4100/t
- **Scalable:** Modular processing  
allows easy scaling to +50,000tpa



# Kachi - 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  $\text{Li}_2\text{CO}_3$
- **Cost Competitive among Brine Producers**  
Operating cost US\$4170/t  $\text{Li}_2\text{CO}_3$  ; Capex US\$540 million
- **Project Value could more than Double** – using US\$15,000/t LCE

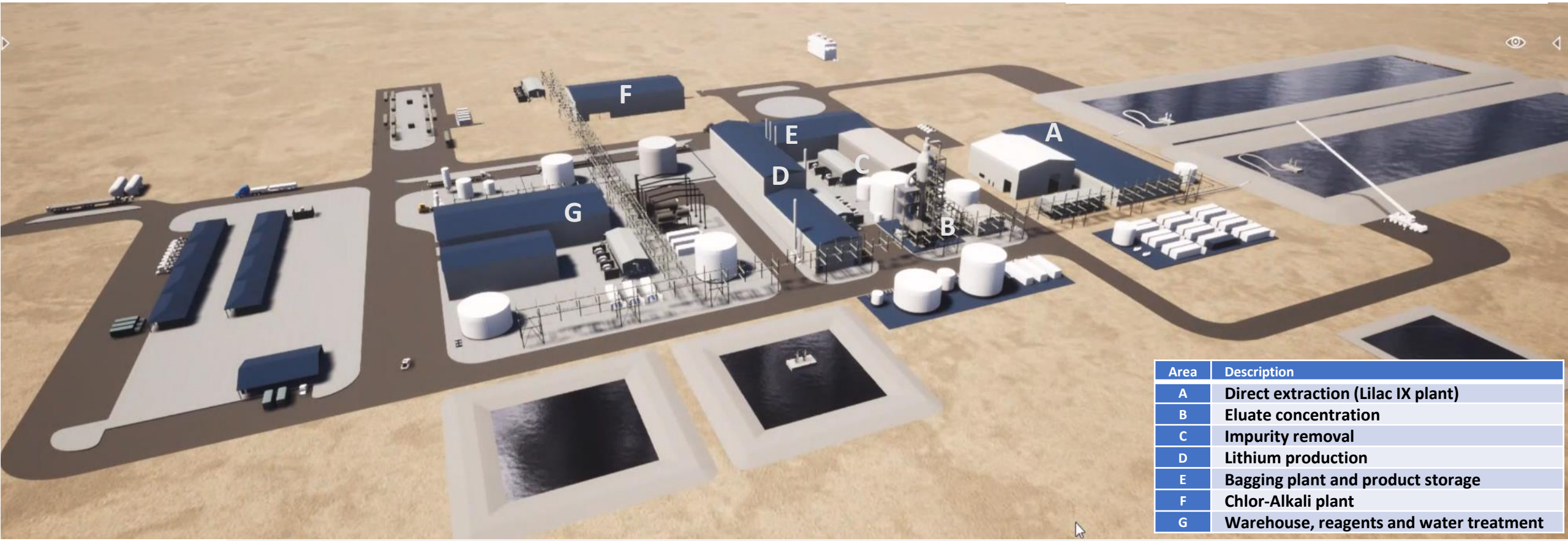
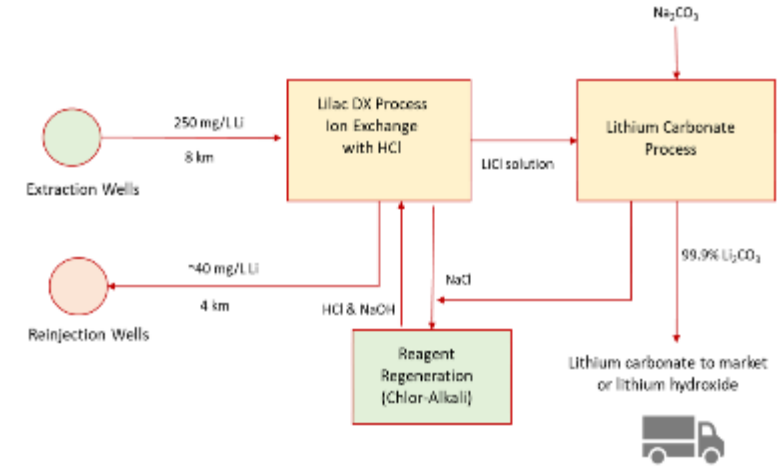


# DFS Commenced - Direct extraction

Production Plant Design with Lilac Solutions Direct Extraction Technology

Definitive Feasibility Study Commenced – Using Solar Hybrid power

Kachi Lithium Brine Project – chloride stream to lithium carbonate



Area	Description
A	Direct extraction (Lilac IX plant)
B	Eluate concentration
C	Impurity removal
D	Lithium production
E	Bagging plant and product storage
F	Chlor-Alkali plant
G	Warehouse, reagents and water treatment



# Lake's Clean Lithium into Batteries

## Novonix - Process underway

**Novonix - battery technology leader** (ASX:NVX; OTCQX:NVNXF)

Tier 1 firms - Panasonic, CATL, Samsung, SK, LG Chem, Bosch, Dyson

Dr Jeff Dahn - Icon 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 Tier-1 qualified as battery quality

Strengthens Lake's quality and ESG benefits





# Production Timeline.



## Exploration / Lab Testing

2016 Area pegged  
2018 Major Resource  
Kachi  
2019 Discovery Cauchari



## PFS / Pilot Plant High Purity Lithium

2019/20 PFS – High  
Margin Project  
2020 Pilot Plant Module  
2020 High Purity Lithium



## DFS / Demonstration Plant

2021 DFS / ESIA  
2021 Demo Plant Onsite  
2021 Samples in Batteries  
2021 Samples to Offtake



## Construction / Production

2022 Finalise Financing  
2022 Approvals/  
Construction starts  
2024 Production  
25,500 tpa LCE

## LAKE RESOURCES (ASX:LKE , OTC:LLKKF)

Total Current Shares on Issue **1,011,701,810**

Listed Options (10c)	Jun 2021 Expiry	47,555,407
Unlisted Options (9c)	Jul 2021 Expiry	15,000,000
Unlisted Options (30c)*	Mar 2023 Expiry	73,750,000

## Market Data

**Market Cap (\$A)** @ A\$0.31/ sh (15 day VWAP, 18 Feb) **A \$310 million**  
**US\$240 million**

Cash (\$A) 31 Jan 2021 **~A\$25 million**  
**~US\$20 million**

Secured debt **\$ 0**

Share Price 52 week range **\$0.022 – 0.46/sh**

Share Register 42% Top30, HNW Investors, US/EU/Aus funds

LKE Chart



LKE Chart



\* Options subject to shareholder approval on 9 March 2021

# Significant Upside

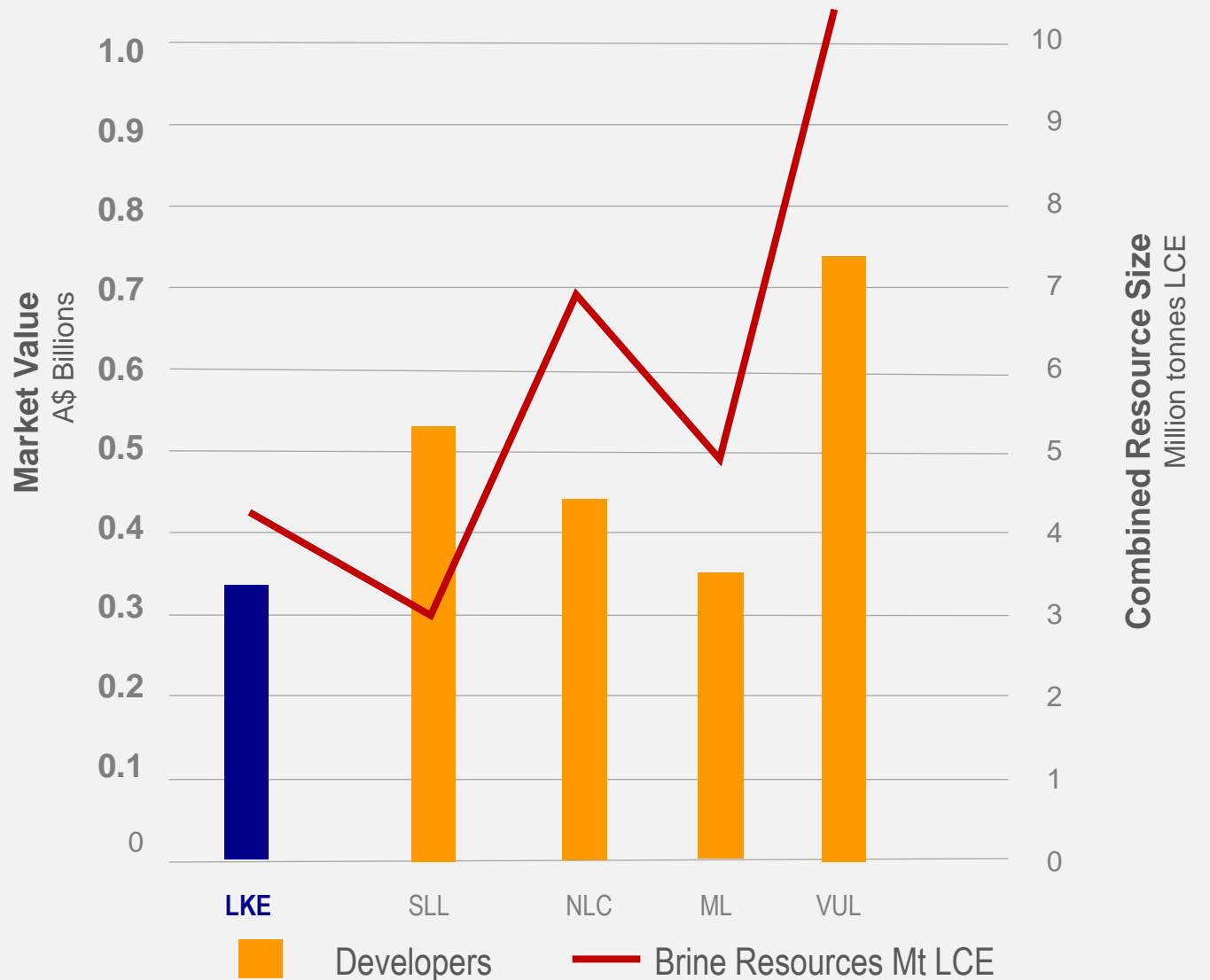
Lake \$300m vs Peers  
\$500m market cap

Trading at 30%NPV<sub>8</sub> vs  
Peer 70% NPV<sub>8</sub>

vs Standard (SLL) Direct Extraction USA

vs Neo Lithium (NLC) Development Argentina

Size of Lithium Brine Resources (Red) vs Market Value



## Leadership.

Lake has extensive development experience.  
Full team in country for 5 years.



**Steve Promnitz**  
MANAGING DIRECTOR

Extensive project management experience in South America – geologist, chemist and finance – with major companies ( Rio Tinto, Citi ) and mid-tiers. Developed projects previously in Argentina.



**Stu Crow**  
CHAIRMAN NON-EXEC

More than 25 years of experience (numerous public companies) and in financial services; Keen interest in energy transition



**Nick Lindsay**  
TECHNICAL DIRECTOR  
LEADING DFS STUDY

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 Chile, across border from Kachi



**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.



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## Clean High Purity Lithium - Unique Proposition.

- **New Clean Technology for High Purity Lithium** – Growing need
- **Responsibly Sourced & Sustainable** - Lake uniquely positioned to satisfy demand for high quality battery material more responsibly sourced without mining. Enables a clean future
- **21<sup>st</sup> Century Solution to Batteries for EV's** – Lake's clean lithium being tested in latest batteries

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# Appendix

## Clean High Purity Lithium

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[www.lakeresources.com.au](http://www.lakeresources.com.au)





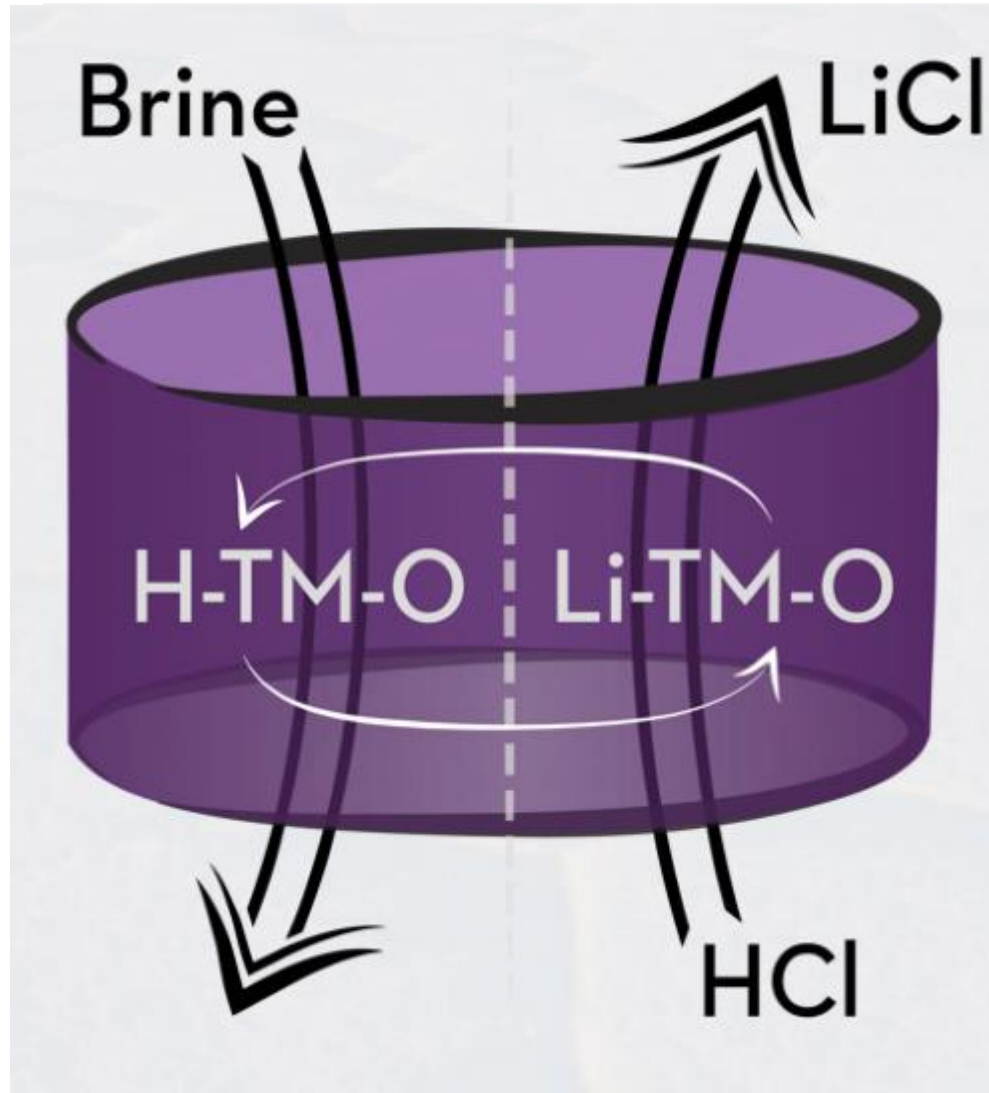
# Kachi Project – Size Matters.





# Direct extraction.

# Ion Exchange Process - Lilac Solutions



## Durable Performance

- High lithium recovery (80%-98%)
- Tolerates impurities
- Bead durability

## Low Cost and Scalable

- Modules for rapid installation
- No brine heating
- Low capital and operating costs



## PFS - Kachi

**Compelling Economics; High EBITDA Margin  
Cost Competitive; High Value Product**

Key Financial Parameters	Values
NPV <sub>8</sub> (NPV @ 8% discount rate) Pre-tax	US\$1,052 million (A\$1,660 million)*
NPV <sub>8</sub> (NPV @ 8% discount rate) Post-tax	US\$748 million (A\$1,180 million)*
IRR pre-tax	25%
IRR post-tax	22%
EBITDA, annual	US\$155 million (A\$245 million)*
EBITDA margin	55%

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

ASX:LKE  
OTC:LLKKF

# Cauchari Project.

Lake project adjoins  
Orocobre and Ganfeng/  
Lithium Americas

Lake results show:

- Similar brines & similar high grades
- Alongside Ganfeng/ Lithium Americas  
40,000tpa LCE in construction

Ganfeng/LAC Resource – 23Mt LCE @ 581mg/L lithium

Orocobre Resource – 6.3Mt @ 476mg/L Li

**Lake – 506m Brine zone**  
421- 540mg/L lithium (102-608m)

LAC Production Plant  
in Construction



# Appendix – Mineral Resource – JORC Code 2012 Kachi Lithium brine Project.

KACHI LITHIUM BRINE PROJECT	MINERAL RESOURCE ESTIMATE					
JORC Code 2012 Edition	Indicated		Inferred		Total Resource	
Area, km <sup>2</sup>	17.1		158.3		175.4	
Aquifer volume, km <sup>3</sup>	6		41		47	
Brine volume, km <sup>3</sup>	0.65		3.2		3.8	
Mean drainable porosity %	10.9		7.5		7.9	
Element	Li	K	Li	K	Li	K
Weighted mean concentration, mg/L	289	5,880	209	4,180	211	4,380
Resource, tonnes	188,000	3,500,000	638,000	12,500,000	826,000	16,000,000
<b>Lithium Carbonate Equivalent (LCE), tonnes</b>	<b>1,005,000</b>		3,394,000		<b>4,400,000</b>	
Potassium Chloride, tonnes	6,705,000		24,000,000		30,700,000	
Lithium is converted to lithium carbonate (Li <sub>2</sub> CO <sub>3</sub> ) 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.

Criteria	Section 1 - Sampling Techniques and Data
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Brine samples were taken from the diamond drill hole with a bottom of hole spear point during advance and using a straddle packer device to obtain representative samples of the formation fluid by purging a volume of fluid from the isolated interval, to minimize the possibility of contamination by drilling fluid then taking the sample. Low pressure airlift tests are used as well. The fluid used for drilling is brine sourced from the drill hole and the return from drillhole passes back into the excavator dug pit lined to avoid leakage.</li> <li>The brine sample was collected in a clean plastic bottle (1 litre) and filled to the top to minimize air space within the bottle. A duplicate was collected at the same time for storage and submission of duplicates to the laboratory. Each bottle was taped and marked with the sample number.</li> <li>Drill core in the hole was recovered in 1.5 m length core runs in core split tubes to minimize sample disturbance.</li> <li>Drill core was undertaken to obtain representative samples of the sediments that host brine.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Diamond drilling with an internal (triple) tube was used for drilling. The drilling produced cores with variable core recovery, associated with unconsolidated material, in particularly sandy intervals. Recovery of these more friable sediments is more difficult with diamond drilling, as this material can be washed from the core barrel during drilling.</li> <li>Rotary drilling has used 8.5" or 10" tricone bits and has produced drill chips.</li> <li>Brine has been used as drilling fluid for lubrication during drilling.</li> <li>Diamond drill core was recovered in 1.5m length intervals in the drilling triple (split) tubes. Appropriate additives were used for hole stability to maximize core recovery. The core recoveries were measured from the cores and compared to the length of each run to calculate the recovery. Chip samples are collected for each metre drilled and stored in segmented plastic boxes for rotary drill holes.</li> <li>Brine samples were collected at discrete depths during the drilling using a double packer over a 1 m interval (to isolate intervals of the sediments and obtain samples from airlifting brine from the sediments within the packer).</li> <li>As the brine (mineralisation) samples are taken from inflows of the brine into the hole (and not from the drill core – which has variable recovery) they are largely independent of the quality (recovery) of the core samples. However, the permeability of the lithologies where samples are taken is related to the rate and potentially lithium grade of brine inflows.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Sand, clay, silt, salt and cemented rock types was recovered in a triple tube diamond core drill tube, or as chip samples from rotary drill holes, and examined for geologic logging by a geologist and a photo taken for reference.</li> <li>Diamond holes are logged by a senior geologist who also supervised taking of samples for laboratory porosity analysis as well as additional physical property testing.</li> <li>Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies and their relationships. When cores are split for sampling they are photographed.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>Brine samples were collected by packer and spear sampling methods, over a metre. Low pressure airlift tests are used as well to purge test interval and gauge potential yields.</li> <li>The brine sample was collected in one-litre sample bottles, rinsed and filled with brine. Each bottle was taped and marked with the sample number.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The Alex Stewart Argentina/Nor lab SA in Palpa, Jujuy, Argentina, is used as the primary laboratory to conduct the assaying of the brine samples collected as part of the sampling program. The SGS laboratory in Buenos Aires has also been used for both primary and check samples. They also analysed blind control samples and duplicates in the analysis chain.</li> <li>The Alex Stewart/Norlab SA laboratory and the SGS laboratory are ISO 9001 and ISO 14001 certified, and are specialized in the chemical analysis of brines and inorganic salts, with experience in this field. This includes the oversight of the experienced Alex Stewart Argentina S.A. laboratory in Mendoza, Argentina, which has been operating for a considerable period.</li> <li>The quality control and analytical procedures used at the Alex Stewart/Norlab SA laboratory or SGS laboratory are considered to be of high quality and comparable to those employed by ISO certified laboratories specialising in analysis of brines and inorganic salts.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Field duplicates, standards and blanks will be used to monitor potential contamination of samples and the repeatability of analyses. Accuracy, the closeness of measurements to the "true" or accepted value, will be monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory.</li> <li>Duplicate samples in the analysis chain were submitted to Alex Stewart/Norlab SA or SGS laboratories as unique samples (blind duplicates) during the process.</li> <li>Stable blank samples (distilled water) were used to evaluate potential sample contamination and will be inserted in future to measure any potential cross contamination</li> <li>Samples were analysed for conductivity using a hand-held Hanna pH/EC multiprobe.</li> <li>Regular calibration using standard buffers is being undertaken.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>The diamond drill hole sample sites and rotary drill hole sites were located with a hand-held GPS.</li> <li>The properties are located at the junction of the Argentine POSGAR grid system Zone 2 and Zone 3 (UTM 19) and in WGS84 Zone 19 south.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Brine samples were collected over 1m intervals every 6 m intervals within brine producing aquifers, where this was possible.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>The salt lake (salar) deposits that contain lithium-bearing brines generally have sub-horizontal beds and lenses that contain sand, gravel, salt, silt and clay. The vertical diamond drill holes will provide a better understanding of the stratigraphy and the nature of the sub-surface brine bearing aquifers.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Samples were transported to the Alex Stewart/Norlab SA laboratory or SGS laboratory for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified. Samples were transported by a trusted member of the team.</li> <li>The samples were moved from the drillhole sample site to secure storage at the camp on a daily basis. All brine sample bottles sent to the laboratory are marked with a unique label not related to the location.</li> </ul>
<b>Review (and Audit)</b>	<ul style="list-style-type: none"> <li>No audit of data has been conducted to date. However, the CP has been onsite periodically during the programme. The review included drilling practice, geological logging, sampling methodologies for water quality analysis and, physical property testing from drill core, QA/QC control methods and data management. The practices being undertaken were ascertained to be appropriate.</li> </ul>

Criteria	Section 2 - Mineral Tenement and Land Tenure Status
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>The Kachi Lithium Brine project is located approximately 100km south-southwest of Livent' (FMC's) Hombre Muerto lithium operation and 45km south of Antofagasta de la Sierra in Catamarca province of north western Argentina at an elevation of approximately 3,000m a.s.l.</li> <li>The project comprises approximately 70,462 Ha in thirty seven mineral leases (minas) of which five leases (9,445 Ha) are granted for drilling. Twenty two leases are granted for initial exploration (44,328 Ha) and ten leases (16,689 Ha) are applications pending granting.</li> <li>The tenements are believed to be in good standing, with statutory payments completed to relevant government departments.</li> </ul>
<b>Exploration by other parties</b>	<ul style="list-style-type: none"> <li>Marifli Mines Ltd conducted sparse near-surface pit sampling of groundwater at depths less than 1m during 2009.</li> <li>Samples were taken from each hole and analysed at Alex Stewart laboratories in Mendoza Argentina.</li> <li>Results were returned in an NI 43-101 report by J. Eblich in December 2009 for Marifli Mines Ltd.</li> <li>NRG Metals Inc commenced exploration in adjacent leases under option. Two diamond drillholes intersected lithium bearing brines. The initial drillhole intersected brines from 172-198m and below with best results to date of 15m at 229 mg/l Lithium, reported in December 2017. The second hole, drilled to 400 metres in mid-2018, became blocked at 100 metres and could not be sampled. A VES ground geophysical survey was completed prior to drilling. An NI 43-101 report was released in February 2017.</li> <li>No other exploration results were able to be located</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The known sediments within the solar consist of salt/halite, clay, sand and silt horizons, accumulated in the solar from terrestrial sedimentation and evaporation of brines.</li> <li>Brines within the Salt Lake are formed by solar concentration, interpreted to be combined with warm geothermal fluids, with brines hosted within sedimentary units.</li> <li>Geology was recorded during the diamond drilling and from chip samples in rotary drill holes.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>15 drill holes completed, totalling 3150 metres with varying depths up to 403 metres.</li> <li>Lithological data was collected from the holes as they were drilled and drill cores or chip samples were returned. Detailed geological logging of cores is ongoing.</li> <li>All drill holes are vertical, (dip &lt;math&gt;90^{\circ}&lt;/math&gt; azimuth 0 degrees).</li> <li>Assay averages have been provided where multiple sampling occurs in the same sampling interval.</li> <li>Mineralisation interpreted to be horizontally lying and drilling perpendicular to this.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>Relationship between mineralisation widths and intercept lengths</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>A drill hole location plan is provided showing the locations of the drill platforms. Individual drill locations are provided in Table 1.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Brine assay results are available from 15 drill holes from the drilling to date, reported here.</li> <li>There is no other substantive exploration data available regarding the project.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Further water well drilling is planned to expand the resource and test pumping rates.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>Further water well drilling is planned to expand the resource and test pumping rates.</li> </ul>
Criteria	Section 3 – Estimation and Reporting of Mineral Resources
<b>Datability integrity</b>	<ul style="list-style-type: none"> <li>Data was transferred directly from laboratory spreadsheets to the database.</li> <li>Data was checked for transcription errors once in the database to ensure coordinates, assay values, and lithological codes were correct.</li> <li>Data was plotted to check the spatial location and relationship to adjoining sample points.</li> <li>Duplicates and standards have been used in the assay process.</li> <li>Brine assays and porosity test work have been analysed and compared with other publicly available information for reasonableness.</li> <li>Comparison of original and current datasets were made to ensure no lack of integrity.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person visited the site multiple times during the drilling and sampling program</li> <li>Some improvements to procedures were made during visits by the Competent Person</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>The geological model is continuing to develop. There is a high level of confidence in the interpretation of the exploration results to date. There are relatively consistent geological units with relatively uniform clastic sediments</li> <li>Any alternative interpretations are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units</li> <li>Data used in the interpretation includes rotary and diamond drilling methods</li> <li>Drilling depths and geology encountered has been used to conceptualise hydro-stratigraphy</li> <li>Sedimentary processes affect the continuity of geology, whereas the concentration of lithium and potassium and other elements in the brine is related to water inflows, evaporation and brine evolution in the Salt Lake.</li> <li>The lateral extent of the resource has been defined by the boundary of the Company's properties. The brine mineralisation subsequently covers 175 km<sup>2</sup>.</li> <li>The top of the model coincides with the topography obtained from the Shuttle Radar Topography Mission (SRTM). The original elevations were locally adjusted for each borehole collar with the most accurate coordinates available. The base of the resource is limited to a 400 m depth. The basement rocks underlying the Salt Lake sediments have been intercepted in drilling.</li> <li>The resource is defined to a depth of 400 m below surface, with the exploration target immediately extending beyond the aerial extent of the resource.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>No grade cutting or capping was applied to the model.</li> <li>No assumptions were made about correlation between variables. Lithium and potassium were estimated independently.</li> <li>The geological interpretation was used to define each geological unit and the property limit was used to enclose the reported resources.</li> </ul>
<b>Measure</b>	<ul style="list-style-type: none"> <li>Moisture content of the cores was not measured (porosity and density measurements were made), but as brine will be extracted by pumping not mining this is not relevant for the resource estimation.</li> <li>Tonnages are estimated as elemental lithium and potassium dissolved in brine.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>No cut-off grade has been applied.</li> </ul>

Criteria	Section 3 – Estimation and Reporting of Mineral Resources
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and potassium and their products lithium carbonate and potassium chloride.</li> <li>No mining or recovery factors have been applied although the use of the specific yield (drainable porosity) is used to reflect the reasonable prospects for economic extraction with the proposed mining methodology. (Recoveries of 83% lithium have been used in the PFS for the direct processing method)</li> <li>Dilution of brine concentrations may occur over time and typically there are lithium and potassium losses in both the storage ponds and processing plant in brine extraction operations. However, potential dilution will be estimated in the groundwater model simulating brine extraction.</li> <li>The conceptual mining method is recovering brine from the Salt Lake via a network of wells, the established practice on existing lithium and potash brine projects.</li> <li>Detailed hydrological studies of the lake are being undertaken (groundwater modelling) to define the extractable resources and potential extraction rates.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Lithium carbonate is targeted as the commercial product.</li> <li>It would be obtained by the brines being subjected to direct lithium extraction (ionic exchange and reverse osmosis) to produce a high grade LiCl eluate (30,000 to 60,000 mg/L lithium), which is processed in a conventional lithium carbonate plant by reaction with sodium carbonate: <math>LiCl + Na_2CO_3 \rightarrow Li_2CO_3 + NaCl</math></li> <li>Process work has been undertaken by Lilac Solutions, which is an expert laboratory in the treatment of brines by ion exchange.</li> <li>Bench tests include short and long-term tests using ion exchange media and brine from Kachi to establish recovery, reagent consumption, and engineering parameters used in the PFS</li> <li>Analyses of solutions for ICP and included the use of standards</li> <li>The longevity of the ion exchange media has been tested over 1000 cycles, or six months</li> <li>Lithium carbonate of high purity and low impurities has been produced which can be considered equivalent to metallurgical test work) is being carried out on the brine following initial test work</li> <li>Pilot plant mobile test work has commenced using Kachi brine using Lilac Solutions ion exchange direct extraction method. 20,000 litres of Kachi brine was being processed by Lilac into concentrated lithium chloride (eluate).</li> <li>Hazen Research Inc has demonstrated the conversion of lithium chloride from the pilot module into larger volumes of high purity lithium carbonate with purity &gt;99.97% with very low levels of impurities.</li> <li>Hazen processed the eluate from Lilac to produce the lithium carbonate sample using reduction of water through evaporation, treatment with sodium hydroxide and soda ash, ion exchange, precipitation, filtering and recrystallization.</li> <li>Due to the high purity of the lithium carbonate, the lithium is reported as 100% minus the sum of impurities. ICP-MS and ICP-AES assays from the Hazen Research lab were used to assess impurities. Titration (acidimetric titration with HCl) was performed for total Lithium, run in duplicate and resulted in assays of 100.2 wt% and 100.3 wt%. This is the accepted assay technique for larger lithium carbonate samples.</li> <li>To ensure consistency of the processing and analysis with Industry standards, Dr Nick Wehman was consulted and reviewed the results and calculations of purity.</li> <li>This work is yet to be integrated into the resource model.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Impacts of a lithium operation at the Kachi project would include surface disturbance from the installation of extraction/processing facilities and associated infrastructure, accumulation of various salt tailings impoundments and extraction from brine and fresh water aquifers regionally.</li> <li>Environmental management plans for the protection of wetlands, salt lakes, and surroundings.</li> <li>Consultation with communities in the area of influence of the project</li> <li>Environmental impact analysis on-going.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Density measurements were taken as part of the drill core assessment. This included determining dry density and particle density as well as field measurements of brine density. Note that no mining is to be carried out as brine is to be extracted by pumping and consequently sediments are not mined</li> <li>No bulk density was applied to the estimates because resources are defined by volume, rather than by tonnage.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The resource has been classified into the two possible resource categories based on confidence in the estimation.</li> <li>A Measured resource would reflect higher density drilling, with porosity samples from drill cores and well constrained vertical brine sampling in the holes.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The Indicated resource reflects the higher confidence in the brine sampling in the rotary drilling and lower quality geological control from the drill cuttings.</li> <li>The Inferred resource underlying the Measured and/or Indicated resource reflects the limited drilling to this depth together with the geophysics through the property.</li> <li>In the view of the Competent Person the resource classification is believed to adequately reflect the available data and is consistent with the suggestions of Houston et al., 2011</li> <li>The Mineral Resource was estimated by the Competent Person.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>An independent estimate of the resource was completed using a nearest neighbour estimate and the comparison of the results with the ordinary kriging estimate is below 0.3% for measured resources and below 3% for indicated resources which is considered to be acceptable.</li> <li>Univariate statistics for global estimation bias, visual inspection against samples on plans and sections, swath plots in the north, south and vertical directions to detect any spatial bias shows a good agreement between the samples and the ordinary kriging estimates.</li> </ul>