12 November 2021

ASX:LKE | FRA:LK1 | OTC:LLKKF

Direct Lithium Extraction & Project Finance
Kachi Lithium Project

CLEANER LITHIUM FOR AN ELECTRIC WORLD

LAKE RESOURCES

Steve Promnitz - Managing Director, Lake Resources

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 the 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 Orocobre, 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

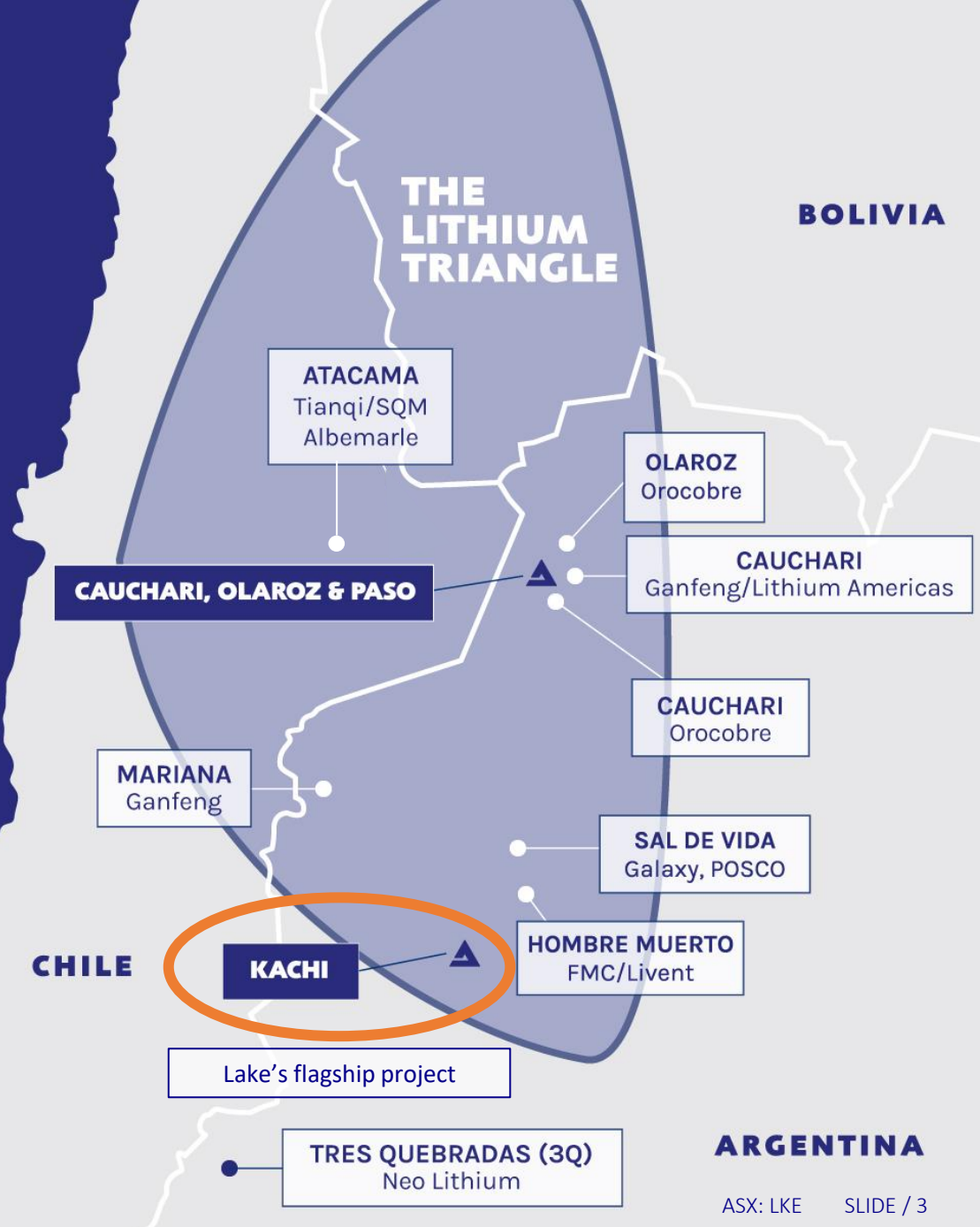
The information contained in this presentation relating to Exploration Results has been compiled by Mr Andrew Fulton. Mr Fulton is a Hydrogeologist and a Member of the Australian Institute of Geoscientists and the Association of Hydrogeologists. Mr Fulton has sufficient experience that is relevant to 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 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.

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.



Lake Resources - World's Cleanest Lithium.

99.97%

High Purity lithium carbonate.
Confirmed in batteries.

+ Significant ESG benefits.

- CLEANER LITHIUM – Lake's 99.97% purity product - far lower impurities vs 99.5% battery grade lithium carbonate. Higher purity lithium = higher battery performance.
- CLEANER TECHNOLOGY: Lilac direct lithium extraction – method common in water treatment, superior to traditional process. Supported by tech sector and battery/EV makers.
- CLEANER ENVIRONMENT: Lithium with ESG benefits. Small environmental footprint - low CO_2, less water, low land use.
- CLEARER PATHWAY: Path to production; Successful pilot plant module; Large, scalable project, high margin. Indicative debt funding for 70% of Kachi project

Process and ESG Benefits – Cleaner Technology

Process – Lilac's Ion Exchange Direct Lithium Extraction

ESG benefits – Low Carbon, Low Land & Water Use

Direct Lithium Extraction
Lilac Solutions - Cleaner technology

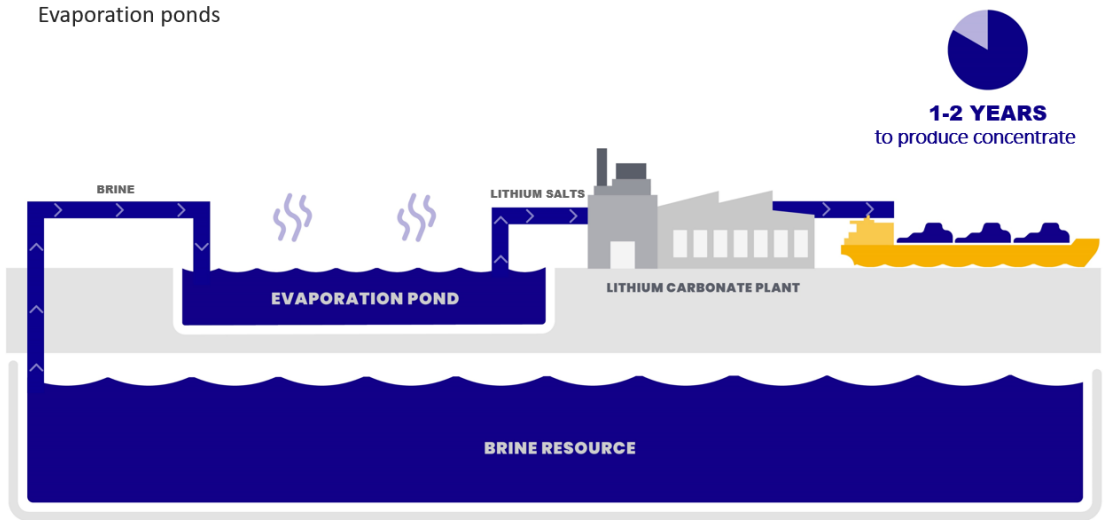
Lilac direct extraction displaces evaporation process

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

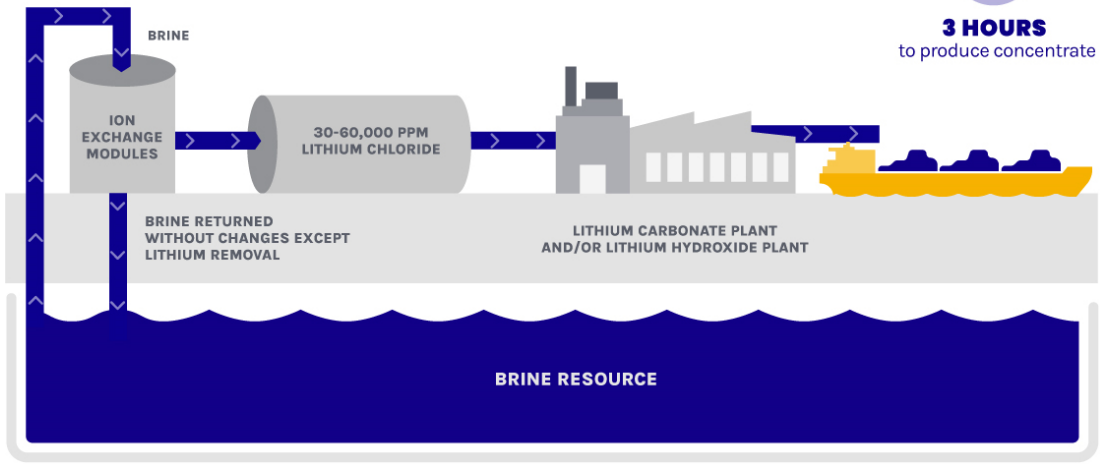
1st Century technology

Evaporation ponds



21st Century technology

Direct extraction



Delivers a Cleaner Environment

Smaller environment footprint – Low Land use - Lower water use – No brine depletion

Atacama Projects – Brine evaporation (170km2)

Kachi Project – Lake/Lilac DLE (1km2)

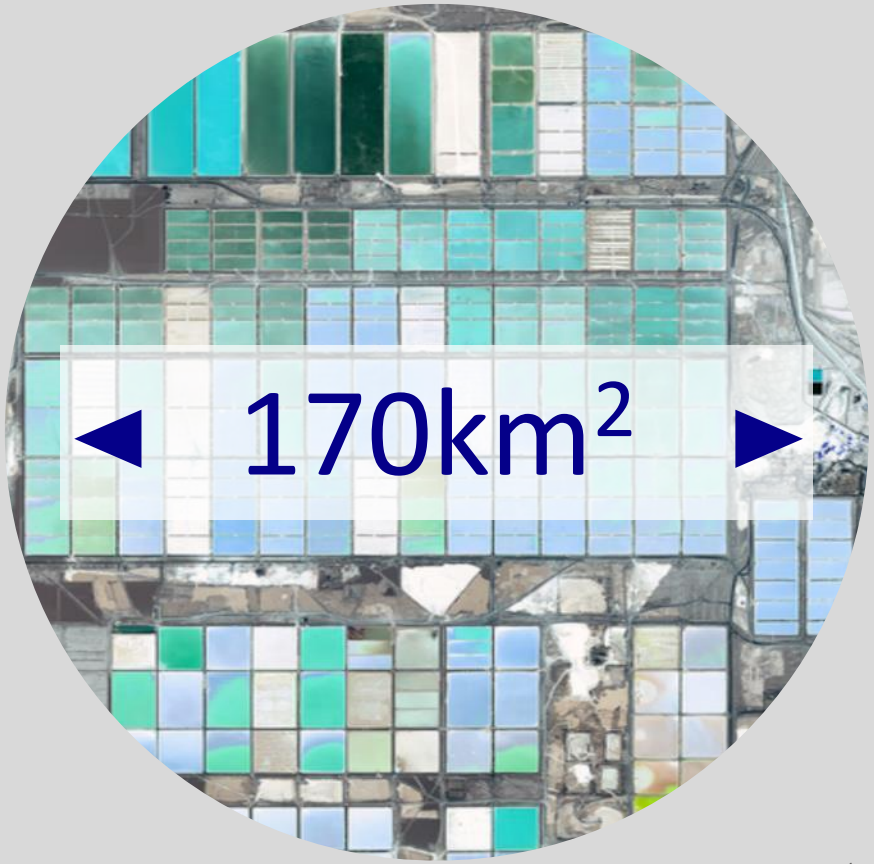
Brine Returned to Source

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 environment footprint – Lower land use

Atacama Projects – Brine evaporation (170km^2)



Kachi Project – Lake/Lilac DLE (<1km^2)

<1km^2 wide

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_2e/kg product

Li Carbonate LCE
from Brine

4-5

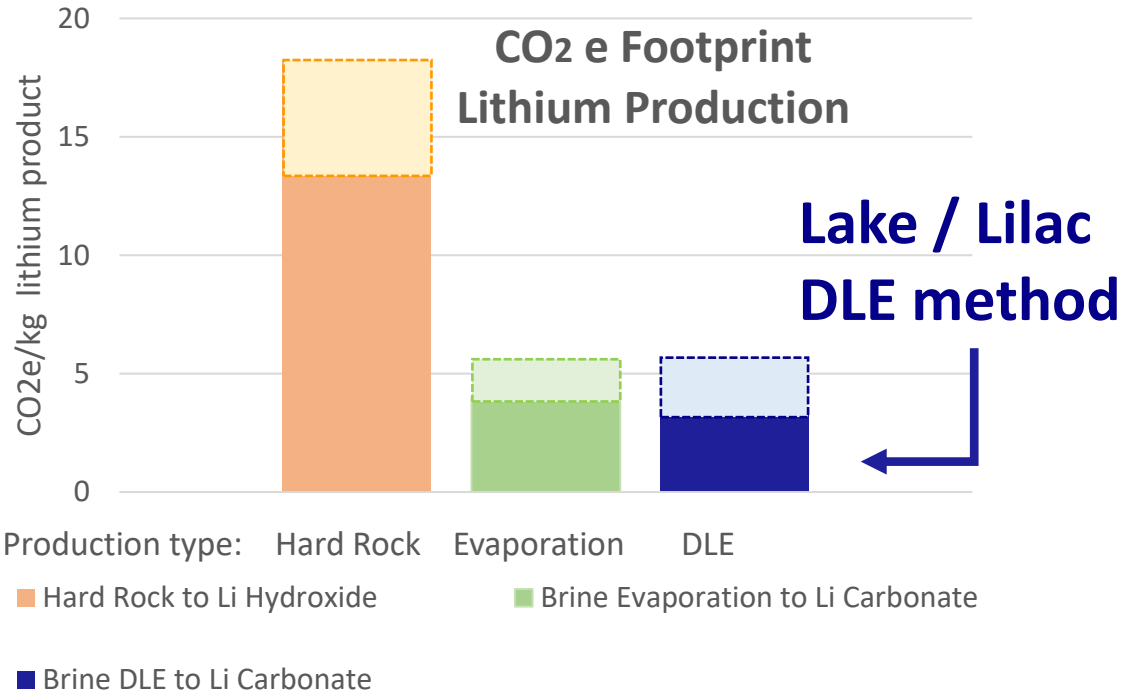
Li Carbonate LCE
from Lake/Lilac DLE
Also expected to be low

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 CO_2 footprint
- Low water usage
- Low land use



Bloomberg Green

Energy & Science

Bill Gates-Led Fund Invests in Making Lithium Mining More Sustainable

Lilac Solutions has developed a process for extracting lithium that drastically cuts water use.

By Akshat Rathi
February 20, 2020, 4:00 PM GMT+11

ESG Sustainable Development Goals

SUSTAINABLE DEVELOPMENT

5 GENDER EQUALITY

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

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

Project – Large, Scalable - On Path to Production

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 – Lead Investors

Successful Tech Investor Backing with EV supply chain participants – Recent US$150m investment

Breakthrough Energy VENTURES

THE ENGINE

Sumitomo

BMW

SK materials

LOWERCASE CAPITAL

LOWERCARBON CAPITAL

Prime Impact Fund

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

LAKE RESOURCES
AT THE HEART OF THE LITHIUM TRIANGLE

Kachi Project.

- Lease – 74,000ha
- Exploration Target
  8Mt – 17Mt LCE Potential*

JORC certified combined lithium resource of 4.4 million tonnes LCE.

Indicated Resource 1.0Mt LCE 290mg/L

Inferred Resource 3.4Mt LCE 210mg/L

Leases cover the entire area of interest in this large basin

FMC/Livent (80km to Nth)
Producing since 1997
Evaporation ponds
17,000tpa LCE
Lithium Carbonate
Lithium Hydroxide

Orocobre - Galaxy
(110km to Nth East)
4.1 Mt LCE Resource

POSCO
(120km to Nth East)
4.1 Mt LCE Resource
Paid US$280m

Lease area
11 x Manhattan Is.

10KM

N

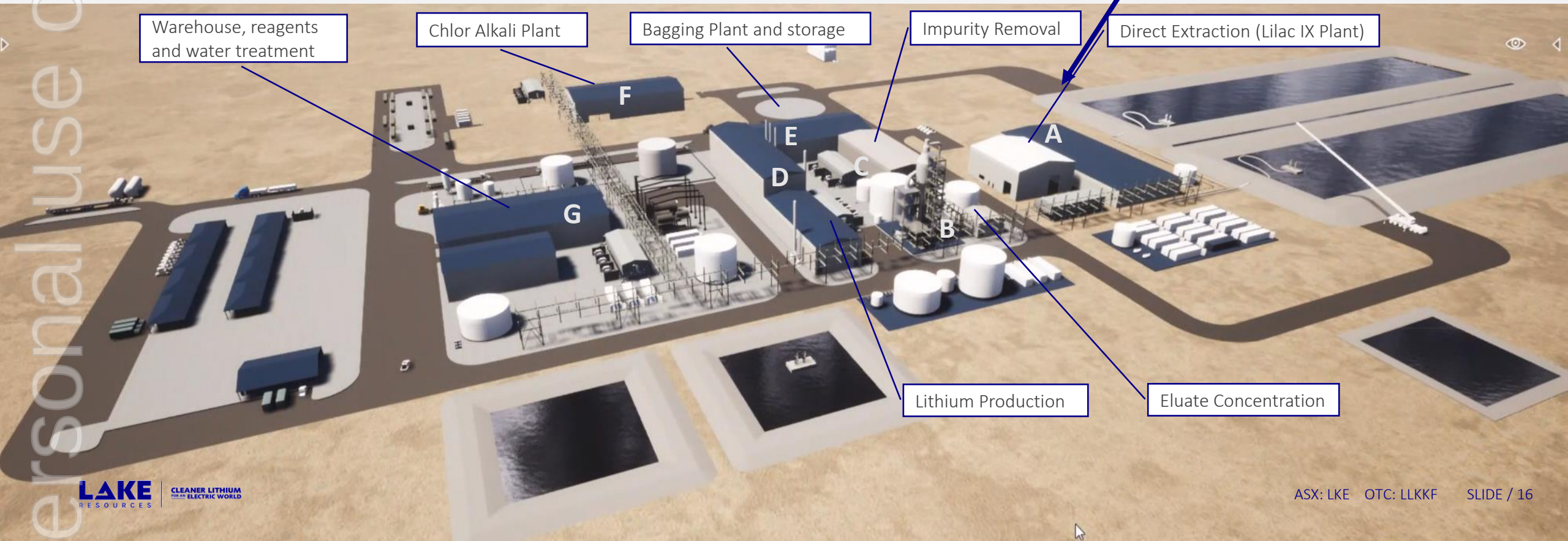
** **Clarification Statement**: **An Exploration Target is not a Mineral Resource.** The potential quantity and grade of an Exploration Target is conceptual in nature. A Mineral Resource has been identified in the centre of the Exploration Target, but there has been insufficient exploration to estimate any extension to the Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.*

Kachi project

Proposed plant design

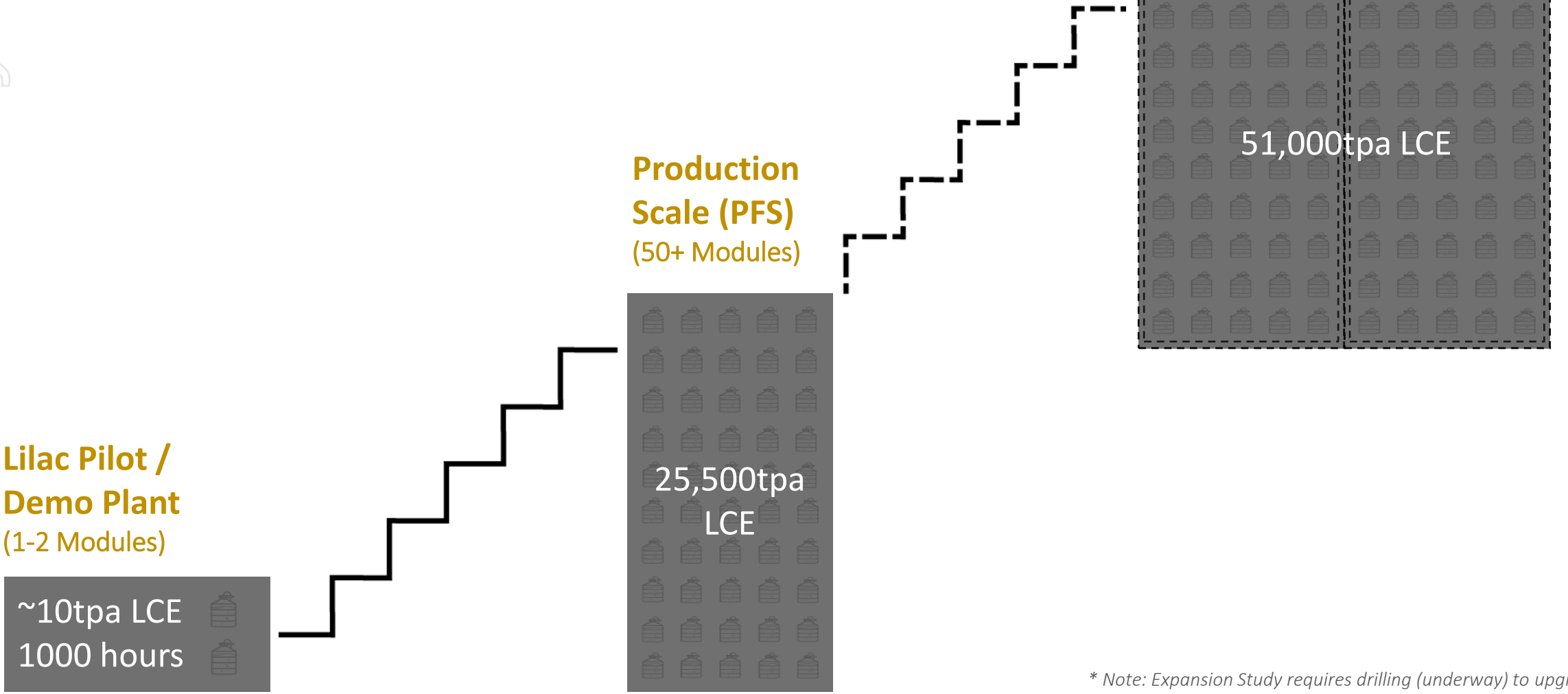
One building with Ion Exchange Modules
Replaces 20-30km2 of Evaporation Ponds

~500m



Clearer pathway

Simple production scale-up - Modular



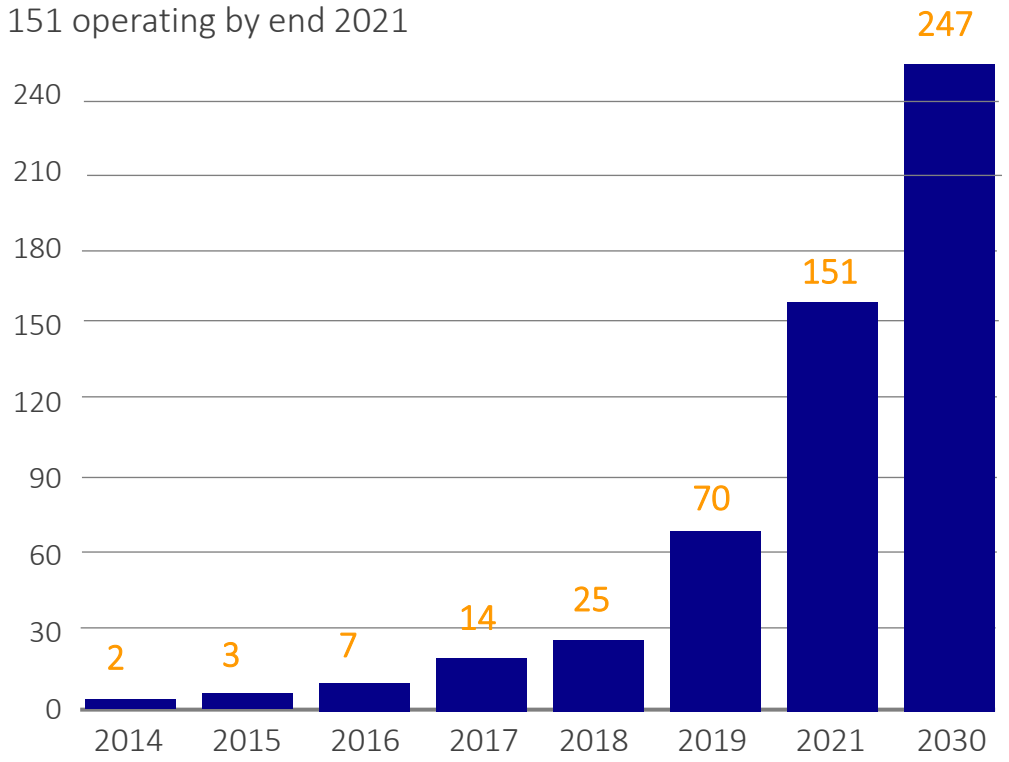
** Note: Expansion Study requires drilling (underway) to upgrade more Inferred Resources to Measured and Indicated Resources.*

Market needs 10x to 18x more lithium production by 2030.

- Lithium added to critical raw materials list for the first time in 2020
- Lithium-ion batteries represent one of the 21st Century's largest growth areas
- Lake's world's purest lithium is exactly what an electric world wants

Battery mega-factory growth

247 battery factories planned for 2030
151 operating by end 2021



Source: Benchmark Mineral Intelligence, Oct 2021

Project Finance – Robust Project Support

Robust Project – PFS Results - High cashflow, High margin

Debt Finance – 70% Indicative – Long term, Low interest
- Support from UK and Canada govt ECA's

Solid Equity Position – LKE cash position with Lilac commitment

Kachi PFS metrics

Compelling economics

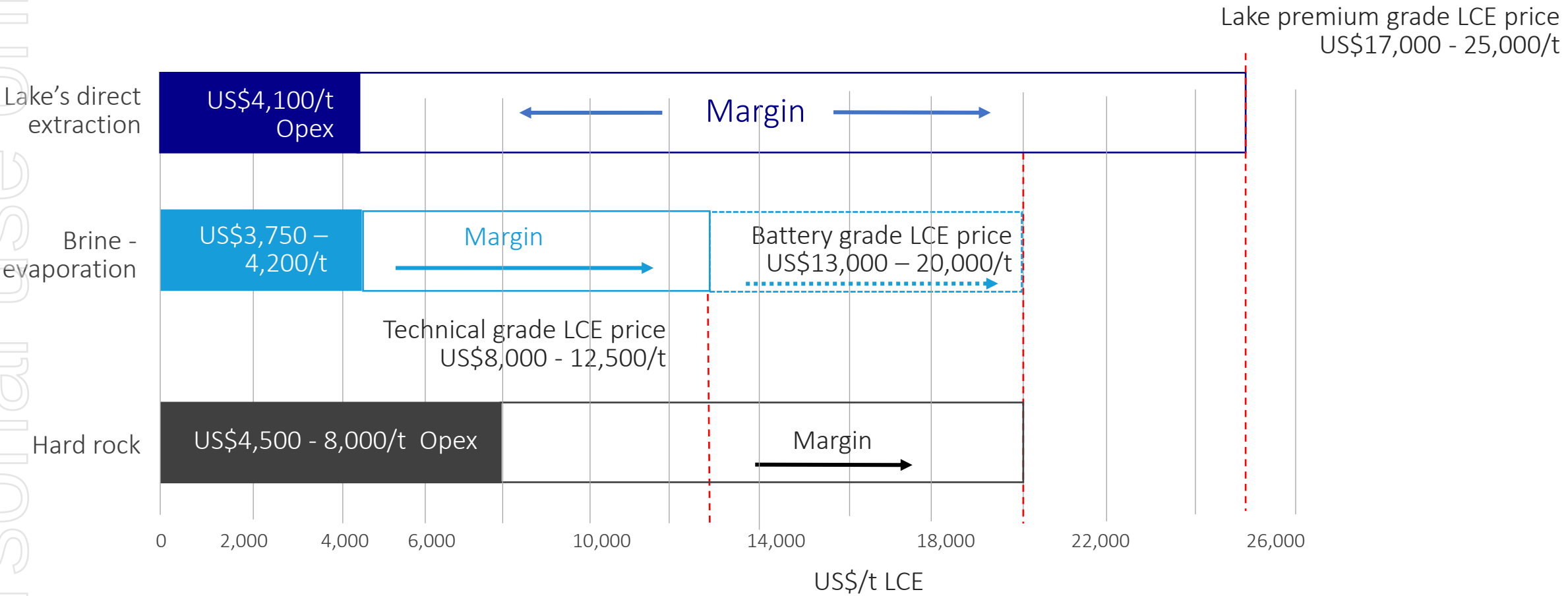
Pre-Feasibility Study results

Mineral Resource* (Indicated) 1.01Mt	Annual production Li_2CO_3 25,500tpa	Annual EBITDA US$260m	Project life 25+ years	Expansion Study Underway 51,000tpa#
CAPEX US$544m	Cash cost US$4,178/t	Annual operating costs US$107m	Project Finance 70% debt##	
Post-tax NPV8 US$1,580m**	IRR post-tax 35%			

Note: Results based on PFS Study Assumptions (refer ASX releases 30 Apr 2020, 17 March 2021)
**Based on Indicated Resource 1.0Mt @290mg/L lithium*
***Assuming US$15,500/t lithium carbonate price (CIF Asia) (refer ASX release 17 March 2021)*
 # Expansion study to double production, but not confirmed
Discussions with Export Credit Agencies Underway; Indications of c. 70% debt over 8-10 years

Direct extraction

Premium price – very high margin



Source: Street research and LAC presentations 2020 – including Cauchari DFS numbers, Olaroz results, Thacker Pass results; Lake/Lilac/Hatch estimates in PFS (excluding solar hybrid power), with indicative premium pricing

Clearer pathway

Lake's high purity lithium tested and proven in batteries

NOVONIX

Lake's lithium carbonate demonstrated in batteries

- Lake's product - premium battery quality
- Performs like Tier 1 products in NMC622 batteries
- Only 50-60% of lithium production is battery quality

Battery technology leader (ASX:NVX; OTCQX:NVNXF)

- Clients include Panasonic, CATL, Samsung, SK, LG Chem, Bosch, Honda & Dyson

Lake Lithium Carbonate High Purity

Chemical Component	Actual (wt%)	Target
Lithium (Li)	99.9	99.5 Min
Sodium (Na)	0.024	0.025 Max
Magnesium (Mg)	<0.001	0.008 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: LKE announcement 20/10/2020

Kachi Project Finance Support

UK Export Finance & Canada EDC – Export Credit Agencies Support

Expression of Interest - Funding to ~70% of Total Required – including Expansion

Project Finance	CAPEX	Debt Duration
~70% debt##	US$544m	10-11 years*

Annual production Li_2CO_3	Project life
25,500tpa	25+ years

Expansion Study Support
51,000tpa#

Note: Expression of Interest subject to standard project finance terms (refer ASX release 11 Aug 2021)
** 8.5 years Post Construction*
 # Expansion study to double production, but not completed
Indicative level of support c. 70% debt over 8.5 years post construction

UK Export Finance provided Expression of Interest to support ~70% of the total finance required Incl. Canada EDC up to US$100m.

- Subject to standard project finance terms, including DFS, ESIA and offtake
- Support for expansion to 51,000 tpa
- 8.5 year debt funding post construction
- Significantly lower cost of capital than traditional debt financing and Reflects ESG benefits of project

Corporate snapshot

Funded to FID

Share price

A$0.90 US$0.70

5 Nov 2021 (10 day VWAP)
52 week high $1.18c, low $0.05c

Shares on issue

1.2bn

Market capitalisation

A$1100m

US$800m

Institutional Investors

Ausbil, Acorn

+ Institutional investors USA, EU

Cash 30 June 2021

A$46m ~A$63m

US$35m 30 Oct'21

Debt

Zero

Unlisted Options

26m

30c options, March 2023 expiry

86m

75c options, 15 June 2022 expiry

37m

55c options, Dec 2024 expiry

5.7m

49c options, Aug 2024 expiry

Half year share price chart

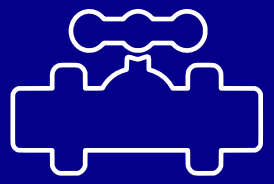
Timeline – to Production; Other Catalysts

Timeline – FID mid next year

Catalysts - Completion of studies; Offtake agreements
- Other Projects

Project Production Timeline

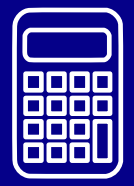
2021 – Q2, 2022



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

Clean Independent Producer Benefits

Few Independent Producers
Unallocated Offtake in High Demand

Lake to become an Independent Producer

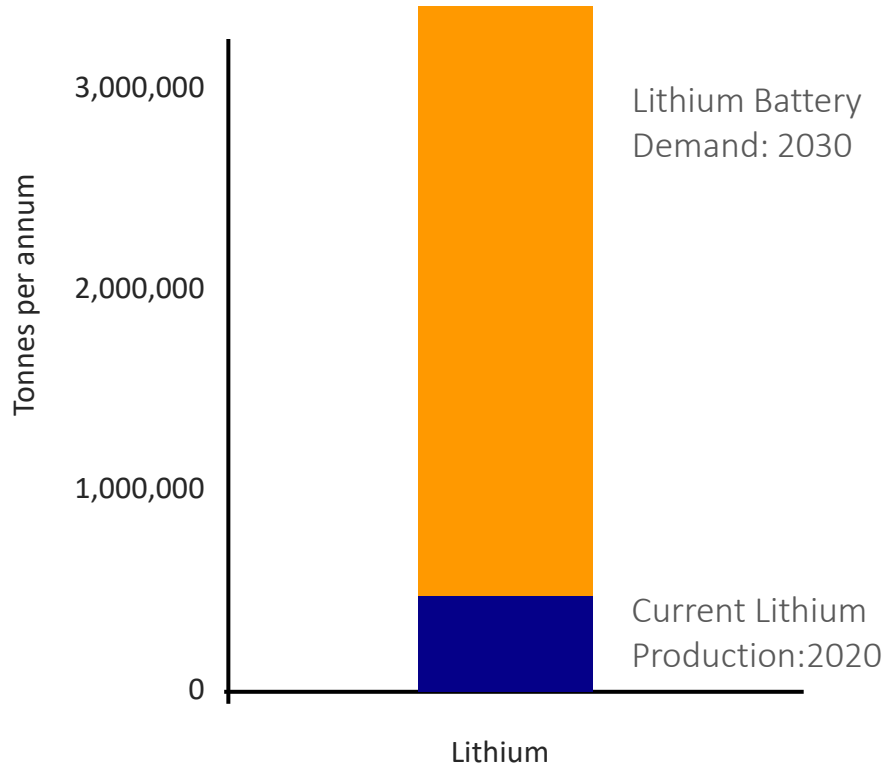
- Most producers tied to either China's battery supply chain or tied to one offtaker potentially at long term lower pricing without flexibility
- Market needs scalable upstream suppliers as supply squeeze to continue for some years
- Tier 1 partners available for consistent battery quality supply; seeking rise-and-fall pricing

Underinvestment in new supply. Price moving up.

- Lithium carbonate prices have tripled over past year
- 8 to 18 times more lithium production needed by 2030 to satisfy demand

Lithium battery demand

247 Megafactories operating at 100% capacity (4.5 TWh)



Source: Benchmark Mineral Intelligence Apr 2021

Cauchari project / Olaroz Project

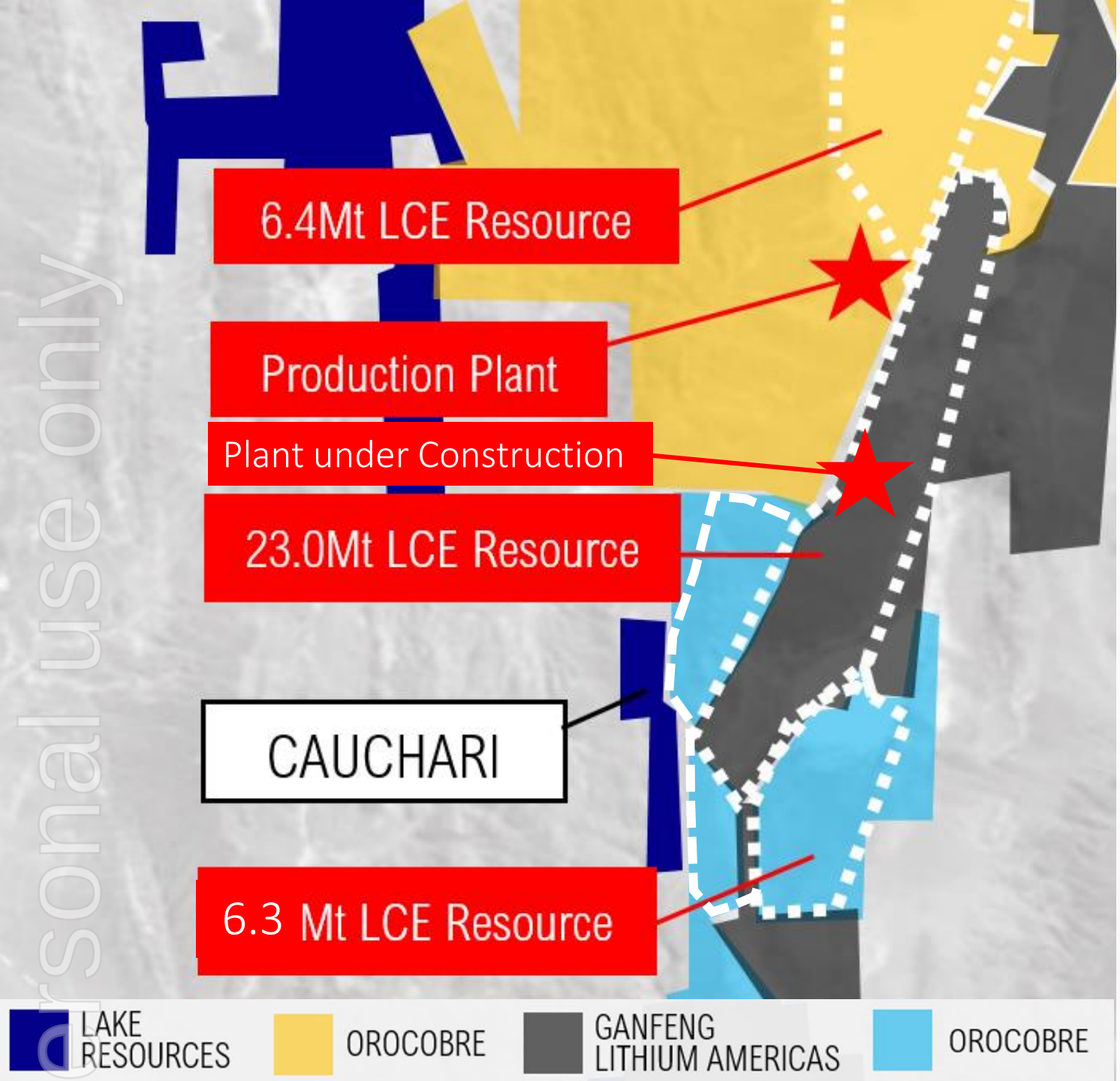
Next lithium projects through development

Cauchari - Identical lithium brines as adjoining Ganfeng/ Lithium Americas development

Lake's brines being tested for direct lithium extraction

Cauchari and Olaroz - Scoping study and resource drilling planned for 2021/22

Source: LKE; Orocobre (AAL) announcements 5/3/2018, 10/01/2019, 7/03/19, 24/04/19.



Cauchari Project.

Next to world's largest lithium brine resource:-

23.0 Mt LCE (Ganfeng LAC) *

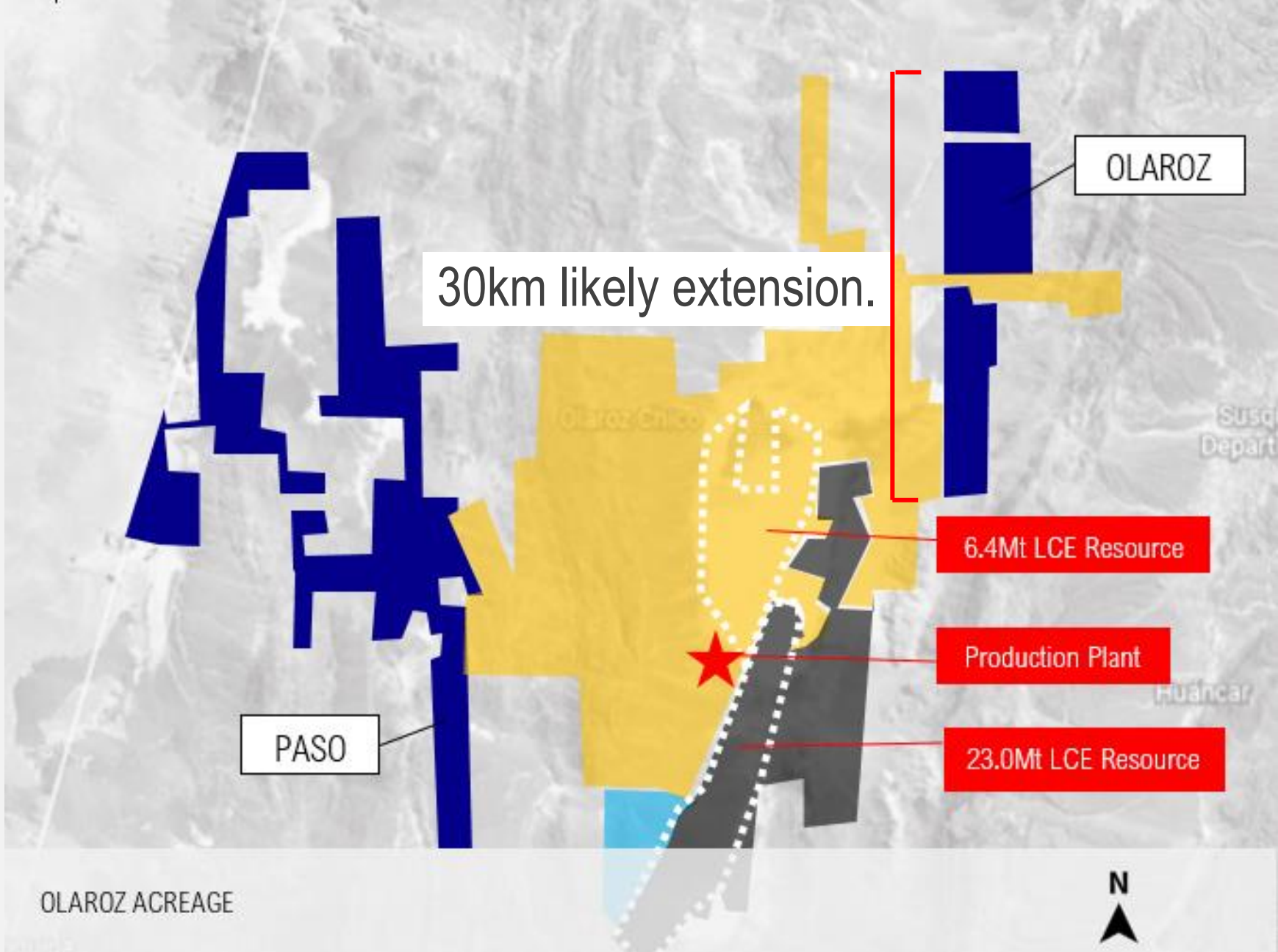
6.3 Mt LCE (Orocobre).

Ganfeng LAC -production 2022 at 40,000 tpa LCE, expanding to 60,000 tpa LCE

Ganfeng paid US$397million for 50% since Aug 2018 – 2020 (debt + equity)

LAKE RESOURCES
AT THE HEART OF THE LITHIUM TRIANGLE

Olaroz Project.



Source: Jujuy Registro Grafico; Company disclosures

Leadership

Board background in resources and Argentina.
New COO. On site team being expanded for construction

Steve Promnitz
CEO & 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.

Dr Nicholas Lindsay
EXEC TECHNICAL DIRECTOR

30 years of experience in Argentina/Chile/Peru (PhD in Metallurgy & Materials Engineering); Major companies (Anglo) and taken companies through development in South America.

Dr Robert Trzebski
NON-EXEC DIRECTOR

International mining executive; 30 years experience in operational, commercial and technical roles in global mining incl. Argentina. Extensive global contacts. Chief Operating Officer of Austmine.

Sra Amalia Saenz
NON-EXEC DIRECTOR

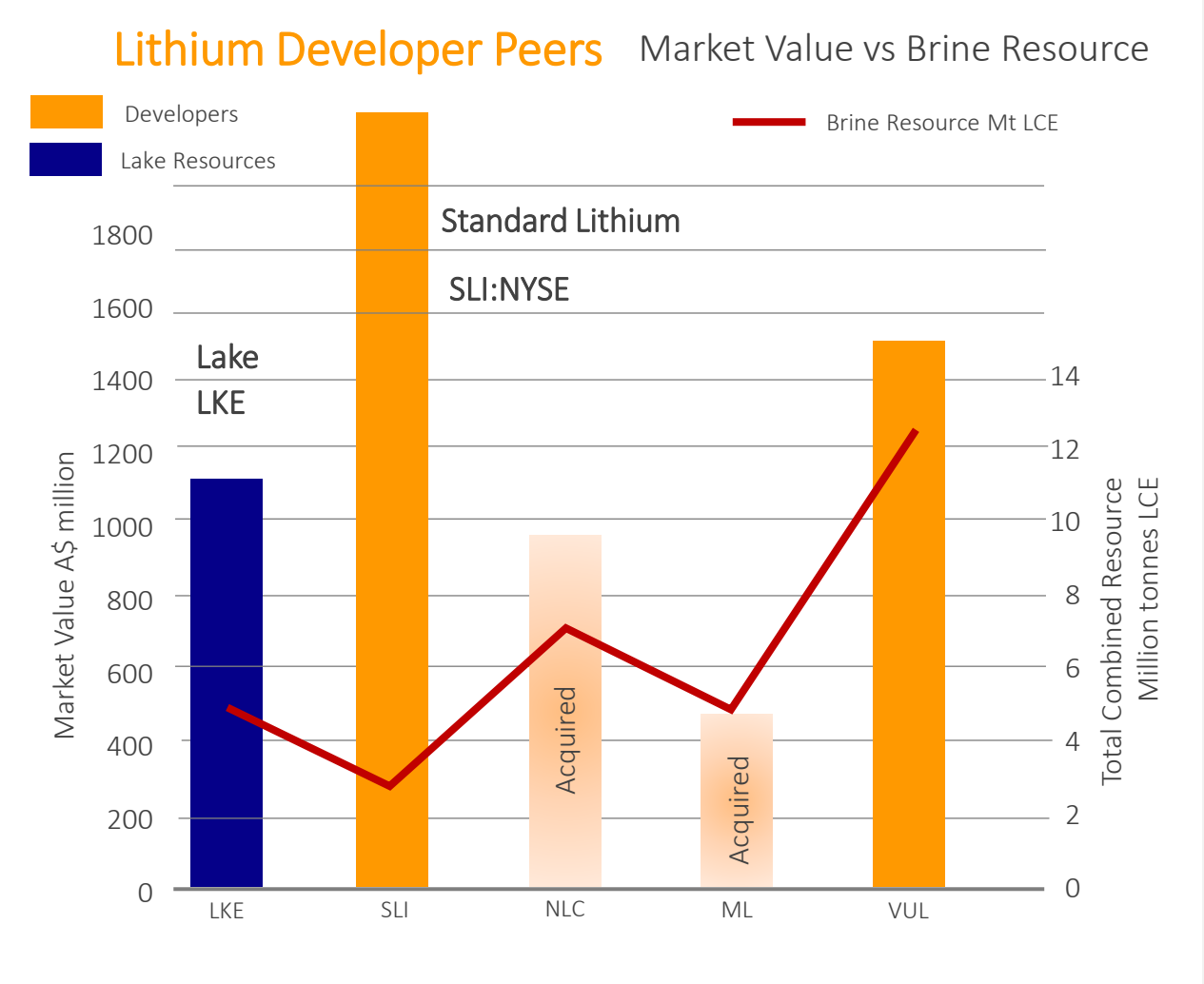
Experienced energy/natural resources lawyer based in Buenos Aires, Argentina. Partner at law firm, Zang, Bergel & Viñes. Previously worked as Legal Manager in Central Asia and UK.

Gautam Parimoo
CHIEF OPERATING OFFICER

Successful project director. 25 years in Latin America. Incl studies, construction & pre-production of several large-scale projects in South America.

Significant Upside

- Lake Trading ~50% NPV8 (w/o expansion)
  vs Peers 60-100+% NPV8
- Lake Market Value A$1100m
  vs DLE Peers at A$2250m (SLI.NYSE)
- Research with price targets
  $1.10-$1.89 per share
  (Roth Capital, Red Cloud, Orior Capital)



Source: ASX / TSX / NYSE company disclosures; SEDAR; Bloomberg; Company sources (adjusted to AUD): 5 Novembe 2021

CLEANER LITHIUM FOR AN ELECTRIC WORLD

- World's highest purity lithium
- Technology-led direct extraction
- Major ESG benefits
- New independent clean producer – at scale

Steve Promnitz - Managing Director
steve@lakeresources.com.au
+61 2 9188 7864

lakeresources.com.au

Appendices

Mineral Resource (JORC Code 2012)

Kachi Project

Lithium carbonate equivalent (LCE)

Indicated	Inferred	Total Resource
1.0Mt	3.4Mt	4.4Mt

KACHI LITHIUM BRINE PROJECT	MINERAL RESOURCE ESTIMATE					
JORC Code 2012 Edition	Indicated		Inferred		Total Resource	
Area, km²	17.1		158.3		175.4	
Aquifer volume, km³	6		41		47	
Brine volume, km³	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
Lithium Carbonate Equivalent (LCE), tonnes	**1,005,000**		3,394,000		**4,400,000**	
Potassium Chloride, tonnes	6,705,000		24,000,000		30,700,000	
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						

Source: LKE announcement 27/11/2018

Lake Lithium Carbonate High Purity

Chemical Component	Actual (wt%)	Target
Lithium (Li)	99.9	99.5 Min
Sodium (Na)	0.024	0.025 Max
Magnesium (Mg)	<0.001	0.008 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: LKE announcement 20/10/2020

JORC Code 2012

Appendix 1 - Kachi Project

Criteria	Section 1 - Sampling Techniques and Data
Sampling techniques	• 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. • 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. • Drill core in the hole was recovered in 1.5 m length core runs in core split tubes to minimize sample disturbance. • Drill core was undertaken to obtain representative samples of the sediments that host brine.
Drilling techniques	• 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. • Rotary drilling has used 8.5" or 10" tricone bits and has produced drill chips. • Brine has been used as drilling fluid for lubrication during drilling.
Drill sample recovery	• 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. • 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). • 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.
Logging	• 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. • 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. • 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.
Sub-sampling techniques and sample preparation	• 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. • 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.
Quality of assay data and laboratory tests	• The Alex Stewart Argentina/Nor lab SA in Palpala, 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. • 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. • 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 specializing in analysis of brines and inorganic salts.
Verification of sampling and assaying	• 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. • Duplicate samples in the analysis chain were submitted to Alex Stewart/Norlab SA or SGS laboratories as unique samples (blind duplicates) during the process • Stable blank samples (distilled water) were used to evaluate potential sample contamination and will be inserted in future to measure any potential cross contamination • Samples were analysed for conductivity using a hand-held Hanna pH/EC multiprobe. • Regular calibration using standard buffers is being undertaken.
Location of data points	• The diamond drill hole sample sites and rotary drill hole sites were located with a hand-held GPS. • 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.
Data spacing and distribution	• Brine samples were collected over 1m intervals every 6 m intervals within brine producing aquifers, where this was possible.
Orientation of data in relation to geological structure	• 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
Sample security	• 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. • 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.
Review (and Audit)	• 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 measures and data management. The practices being undertaken were ascertained to be appropriate.

Criteria	Section 2 - Mineral Tenement and Land Tenure Status
Mineral tenement and land tenure status	• 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 asl. • 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. • The tenements are believed to be in good standing, with statutory payments completed to relevant government departments.
Exploration by other parties	• Marifil Mines Ltd conducted sparse near-surface pit sampling of groundwater at depths less than 1m during 2009. • Samples were taken from each hole and analysed at Alex Stewart laboratories in Mendoza Argentina. • Results were reported in an NI 43-101 report by J. Ebisch in December 2009 for Marifil Mines Ltd. • 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. A NI 43-101 report was released in February 2017. • No other exploration results were able to be located
Geology	• The known sediments within the *salar* consist of salt/halite, clay, sand and silt horizons, accumulated in the *salar* from terrestrial sedimentation and evaporation of brines. • Brines within the Salt Lake are formed by solar concentration, interpreted to be combined with warm geothermal fluids, with brines hosted within sedimentary units. • Geology was recorded during the diamond drilling and from chip samples in rotary drill holes.
Drill hole information	• 15 drill holes completed, totalling 3150 metres with varying depths up to 403 metres. • Lithological data was collected from the holes as they were drilled and drill cores or chip samples were retrieved. Detailed geological logging of cores is ongoing. • All drill holes are vertical, (dip -90, azimuth 0 degrees).
Data aggregation methods	• Assay averages have been provided where multiple sampling occurs in the same sampling interval.
Relationship between mineralisation widths and intercept lengths	• Mineralisation interpreted to be horizontally lying and drilling perpendicular to this.
Diagrams	• A drill hole location plan is provided showing the locations of the drill platforms. Individual drill locations are provided in Table 1.
Balanced reporting	• Brine assay results are available from 15 drill holes from the drilling to date, reported here.
Other substantive exploration data	• There is no other substantive exploration data available regarding the project.
Further work	• Further water well drilling is planned to expand the resource and test pumping rates.

Criteria	Section 3 – Estimation and Reporting of Mineral Resources
Database integrity	• Data was transferred directly from laboratory spreadsheets to the database. • Data was checked for transcription errors once in the database to ensure coordinates, assay values, and lithological codes were correct. • Data was plotted to check the spatial location and relationship to adjoining sample points. • Duplicates and standards have been used in the assay process. • Brine assays and porosity test work have been analysed and compared with other publicly available information for reasonableness. • Comparison of original and current datasets were made to ensure no lack of integrity.
Site visits	• The Competent Person visited the site multiple times during the drilling and sampling program • Some improvements to procedures were made during visits by the Competent Person
Geological Interpretation	• 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 • Any alternative interpretations are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units • Data used in the interpretation includes rotary and diamond drilling methods • Drilling depths and geology encountered has been used to conceptualise hydro-stratigraphy • 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.
Dimensions	• The lateral extent of the resource has been defined by the boundary of the Company's properties. The brine mineralisation subsequently covers 175 km^2. • 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. • 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.
Estimation and modelling techniques	• No grade cutting or capping was applied to the model. • No assumptions were made about correlation between variables. Lithium and potassium were estimated independently. • The geological interpretation was used to define each geological unit and the property limit was used to enclose the reported resources.
Moisture	• 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. • Tonnages are estimated as elemental lithium and potassium dissolved in brine.
Cut-off parameters	• No cut-off grade has been applied.
Mining factors or assumptions	• 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. • 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) • 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. • 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. • Detailed hydrological studies of the lake are being undertaken (groundwater modelling) to define the extractable resources and potential extraction rates.
Metallurgical factors or assumptions	• Lithium carbonate is targeted as the commercial product. • 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: $LiCl + Na_2CO_3 \rightarrow Li_2CO_3 + NaCl$ • Process work has been undertaken by Lilac Solutions, which is an expert laboratory in the treatment of brines by ion exchange. • 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 • Analyses of solutions by ICP and includes the use of standards • The longevity of the ion exchange media has been tested over 1000 cycles, or six months • 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. • Pilot plant module 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). • Hazen Research Inc has demonstrated the conversion of lithium chloride from the pilot module into larger volumes of high purity lithium carbonate with purity >99.97% with very low levels of impurities. • 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. • 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. • To ensure consistency of the processing and analysis with industry standards, Dr Nick Welham was consulted and reviewed the results and calculations of purity. • This work is yet to be integrated into the resource model.
Environmental factors as assumptions	• 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. • Environmental management plan for the protection of wetlands, salt lakes, and surrounds. • Consultation with communities in the area of influence of the project. • Environmental impact analysis on-going.
Bulk density	• 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 • No bulk density was applied to the estimates because resources are defined by volume, rather than by tonnage.
Classification	• The resource has been classified into the two possible resource categories based on confidence in the estimation. • A Measured resource would reflect higher density drilling, with porosity samples from drill cores and well constrained vertical brine sampling in the holes.
	• The Indicated resource reflects the higher confidence in the brine sampling in the rotary drilling and lower quality geological control from the drill cuttings. • The Inferred resource underlying the Measured and/or Indicated resource reflects the limited drilling to this depth together with the geophysics through the property. • 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
Audits or reviews	• The Mineral Resource was estimated by the Competent Person.
Discussion of relative accuracy/ confidence	• 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. • 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.