**12 February 2024**

# Further Drilling at Flagship Kachi Project Measures High Lithium Concentrations South of the Planned Wellfield

- **K25D44, the last drillhole associated with the 2023 drilling program was completed in December 2023 and is located south of the surface expression of the salar.**
- **Results show brines returning grades of 230 - 302 mg/L lithium over 407 metres (215 – 622 m) with an average of 257 mg/L.**
- **The best results are from 239 to 250 metres below ground surface (m bgs) averaging grades of 302 mg/L lithium.**
- **K25D44 is the third drillhole to demonstrate the presence of lithium bearing brine to a depth of more than 600 metres.**
- **Results validate modelled lithium grades used in the Ore Reserve modelling in the vicinity of K25D44.**
- **K25D44 results establish the continuity of lithium brine grades, chemistry and stratigraphy south of the currently planned wellfield, at least as far south as K21.**

Clean lithium developer Lake Resources N.L. (ASX: LKE; OTC: LLKKF) ("LAKE" or "the Company") reports that drilling completed at the Kachi Lithium Brine Project ("Kachi" or the "Project") in Catamarca Province, Argentina continues to intercept lithium bearing brine in sand units favourable to extraction over thick intervals in the southern portion of central resource area.

The K25D44 drillhole (**Figure 1** and **Figure 2**) was not completed in time to be incorporated into the Project's Definitive Feasibility Study (DFS) for Phase One, released in December 2023. However, the results from the drillhole confirm the presence of higher-grade lithium brine south of the central resource area to a depth of more than 600 m. The results further support the positive hydrogeological modelling results that were the basis for the Project Ore Reserve[1] and Definitive Feasibility Study[2] (DFS) submitted in December 2023. The DFS highlights include:

- Total resource is estimated at 10.6 Mt LCE, a globally significant resource[3].
- 25-year life of mine (LoM) supported by maiden Ore Reserve statement.

[1] See 19 December 2023 Lake Resources ASX Announcement - Maiden Ore Reserve Defined Lake Resources Flagship Kachi Project

[2] See 19 December 2023 Lake Resources ASX Announcement – Kachi Project Phase One Definitive Feasibility Study

[3] See Table 3 for a breakdown of the resource into measured, indicated and inferred categories

- Phase One targets a production of 25,000 tonnes per annum (tpa) over the LoM to meet the growing demand and specifications of the battery market.[4]

- The 25,000 tpa operation recovers only a small fraction of the Measured and Indicated Resource, which allows Lake to study further expansions.

- DLE process tailored to mitigate impact on the local community with minimal disruption to land, freshwater table, and water usage.

- The Project targets production of consistent battery grade lithium carbonate (>99.5% purity) at site without the need for further refining or processing.[5]

- Kachi is targeting first lithium in 2027 with ramp-up to full capacity by the end of 2028, which is forecast to coincide with the start of a prolonged period of structural deficit for battery grade lithium chemicals.

Drillhole results prove the continuity of higher-grade lithium brines, south of the Phase One DFS extraction wellfield design and across a northwest-southeast trending fault that is interpreted to create the escarpment south of the field. The relatively high lithium and favourable geologic materials beyond the planned DFS wellfield highlight continued favourable results for a higher capacity wellfield.

"The latest drilling intercept further demonstrates the vertical continuity of the lithium bearing brine to more than 600 metres in clean, fine and medium grained sands conducive to high productive extraction wells." commented Michael Gabora, Director of Geology and Hydrogeology of Lake Resources. He continued, "With an average of 257 mg/L through the production zones, the K25D44 hole continues the trend of intercepting lithium grades that are significantly higher than the 205 mg/L design basis of the DFS".

[4] All material assumptions underlying the production targets or exploration targets referenced in this announcement can be found in the 19 December 2023 Lake Resources ASX Announcements Maiden Ore Reserve Defined Lake Resources Flagship Kachi Project and Kachi Project Phase One Definitive Feasibility Study. All material assumptions underpinning the production target and exploration target continue to apply and have not materially changed since the date of the reports.
[5] See 19 December 2023 Lake Resources ASX Announcement – Kachi Project Phase One Definitive Feasibility Study

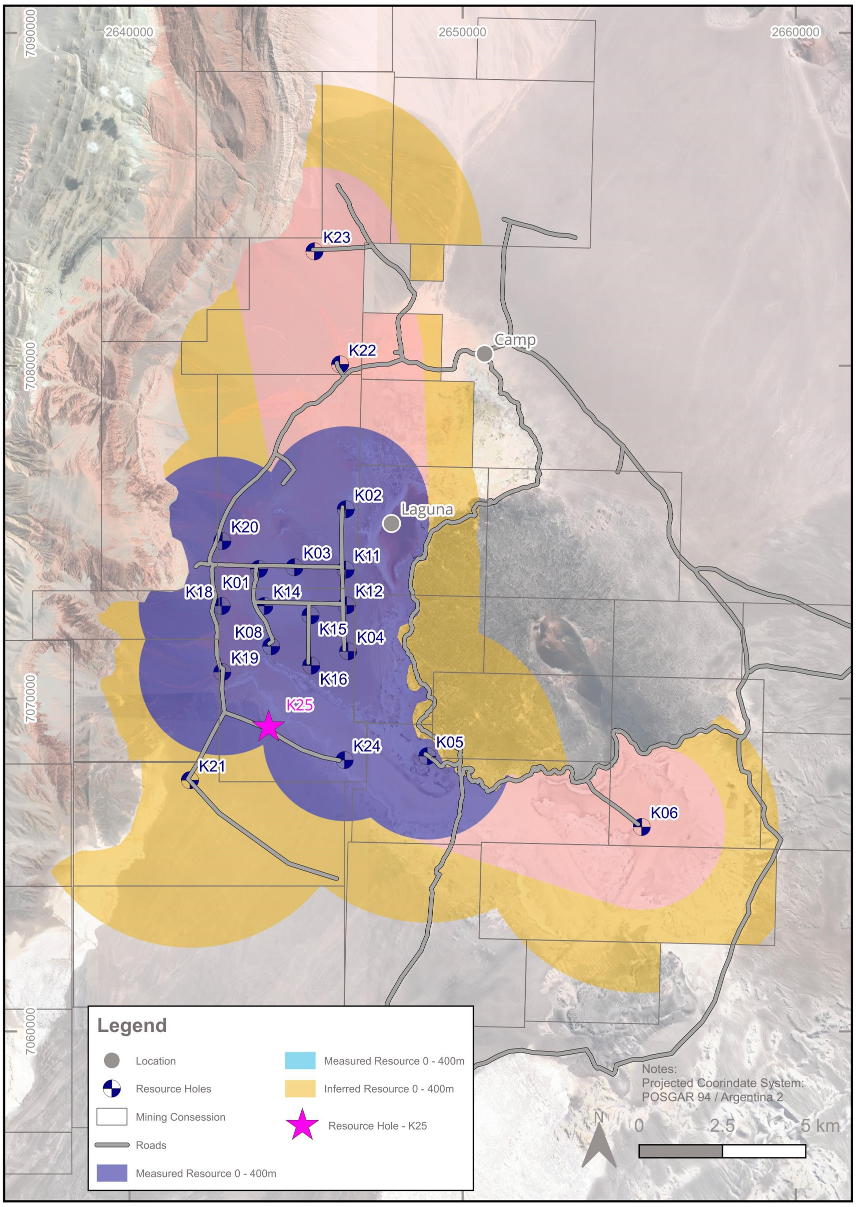


**Figure 1: Lake Resources properties and drill platform locations highlighting recent and ongoing drilling operations and most recent resource delineations[6] to 400 metres depth**

[6] See 22 November 2023 ASX announcement - Lake Resources JORC Update Increases Measured and Indicated Resource by 250% for its Flagship Kachi Project

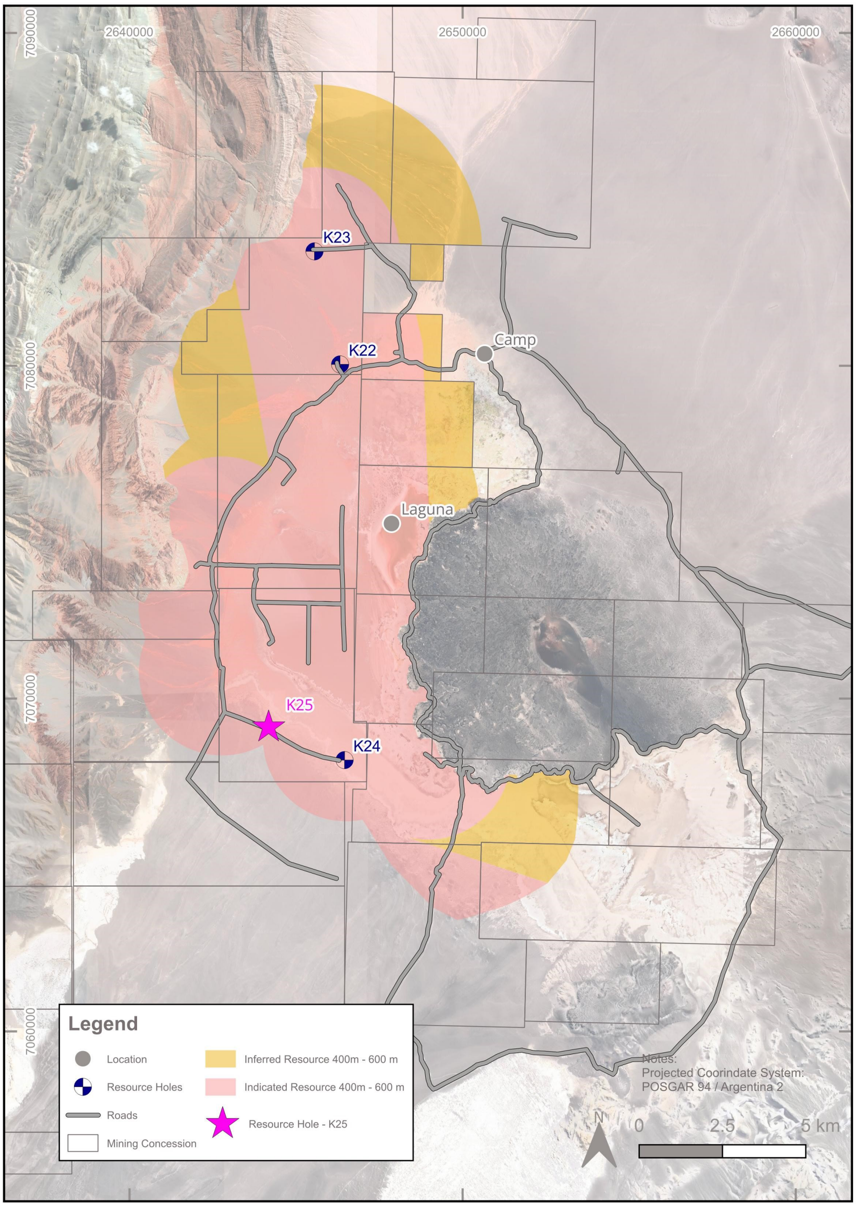


**Figure 2: Lake Resources properties and drill platform locations highlighting recent and ongoing drilling operations and most recent resource delineations[7] to 400 metres depth**

### *Continuation of Higher-Grade Lithium Resource Intercepts to the South*

The principal objectives of the K25D44 (K25 Platform) drillhole were to:

1) Test the continuity of the lithium resource to the south, outside of the footprint of the salar;
2) Expand the Measured Resource to the south and potentially connect the Measured Resource to previous positive lithium intercepts at K21 (**Figure 1**);

[7] See 22 November 2023 ASX announcement - Lake Resources JORC Update Increases Measured and Indicated Resource by 250% for its Flagship Kachi Project

3) Complete additional sampling and analysis of the deeper portion of the unconsolidated deposits from about 400 m to more than 600 m depth; and,
4) Validate lithium concentrations used in the area of K25 in the Ore Reserve analysis completed with the calibrated hydrogeologic model.

K25D44 was drilled about 2.25 kilometres southwest of K16D28 (K16 Platform; **Figure 1**) and has an average lithium grade of 219 mg/L from 19 samples collected between 40 and 622 m below ground surface (bgs) (**Table 1**). All but two samples were collected with single packer configurations generally with a test interval of about 10 to 15 m, although this varied depending on hole conditions. Standard operating procedures are followed with significant development of the test interval, at least 3 borehole volumes (measured from surface to hole bottom), and sampling only occurs once brine is clear and field chemistry parameters are stable and indicative of reservoir fluids.

A standpipe piezometer was installed and screened between 418 to 430 m bgs and was developed and sampled via airlifting. Results for the airlift sample are consistent with the packer testing within the same interval, with 275 mg/L measured by SGS and 248 mg/L measured by Alex Stewart laboratory, for an average of 261 mg/L compared to 263.5 mg/L for a packer collected sample from 424 to 430 m bgs (see **Table 1**).

The fine to medium-grained sand (**Figure 3** and **Figure 4**) and low frequency of fine-grained layers within the planned production horizons (i.e., approximately 200 m to 600 m) are consistent with drillholes in the central resource area and both stratigraphy and general chemistry support the continuity of the lithium brine resource throughout the southern portion of the field.

As has been observed in the other greater than 600 m deep drillholes completed to-date, the lithium brine continues to a depth of more than 600 m. **Lithium concentrations deeper than 400 m averaged more than 250 mg/L, far exceeding the design basis for the DFS (205 mg/L).**

The modelled lithium concentration in the Project Ore Reserve[8] at K25 was 268 mg/L (200 m to 600 m) within the production horizon. The weighted average of the laboratory results through the same interval (215 m to 622 m) is 271.7 mg/L. This indicates that the modelled values are representative, if not slightly conservative, relative to the measured data in the field at this location. The results of the comparison further build confidence in the lithium resource model used as the basis for lithium distributions within the hydrogeological model and Ore Reserve modelling.

[8] See 19 December 2023 Lake Resources ASX Announcement - Maiden Ore Reserve Defined Lake Resources Flagship Kachi Project

*Table 1. Lithium Intercepts drillhole K25D44*

| Test Well ID | Sample Interval (m bgs) | | Lithium Concentration (mg/L) | Laboratory |
|---|---|---|---|---|
| K25 | 40 | 50 | 26.5 | [3]SGS / AS |
| | 65 | 75 | 113.5 | [3]SGS / AS |
| | 89 | 100 | 129.0 | [3]SGS / AS |
| | 115 | 125 | 159.5 | [3]SGS / AS |
| | 140.5 | 151.5 | 176.0 | [3]SGS / AS |
| | 192.5 | 203.5 | 192.5 | [3]SGS / AS |
| | 215 | 226 | 243.5 | [3]SGS / AS |
| | 239 | 250 | 302.0 | [3]SGS / AS |
| | 330 | 331 | 269.0 | [3]SGS / AS |
| | 380 | 381 | 280.5 | [3]SGS / AS |
| | 424 | 430 | 263.5 | [3]SGS / AS |
| | 444 | 455 | 269.0 | [3]SGS / AS |
| | 461 | 475 | 262.0 | [3]SGS / AS |
| | 486 | 500 | 260.5 | [3]SGS / AS |
| | 530 | 541 | 253.0 | [3]SGS / AS |
| | 542 | 553 | 243.5 | [3]SGS / AS |
| | 561 | 575 | 235.0 | [3]SGS / AS |
| | 587 | 601 | 235.5 | [3]SGS / AS |
| | 605 | 622 | 229.5 | [3]SGS / AS |
| Average | | | 219 | [3]SGS / AS |
| Average (Production Zone, >200m depth) | | | 257 | [3]SGS / AS |

Notes: [1]SGS laboratory in Buenos Aires, Argentina; [2]Alex Steward laboratory in Salta, Argentina; [3]Average of both SGS laboratory in Buenos Aires, Argentina; 2 Alex Steward laboratory in Jujuy, Argentina. Average values for hole rounded to nearest whole unit. Average of all samples from AS was 226 mg/l and SGS was 210 mg/l, and sample results were in general reasonably consistent between laboratories. Discrepancy exists for SGS sample from 40 to 50 m was <10 mg/L, while AS result was 43 mg/L Li. The average of the non-detect, 10 mg/L (SGS), and 43 mg/L (AS ) was used in the overall average,  AS averaging used 43 mg/L and 10 mg/L was used in the averaging for SGS. Some numbers may not match due to rounding errors.

**Figure 3. Top – Drilling rig set up at K25D44; Upper right – fine grained sand sample typical of the drillhole bgs; Lower right – fine grained sand from 606 m bgs**

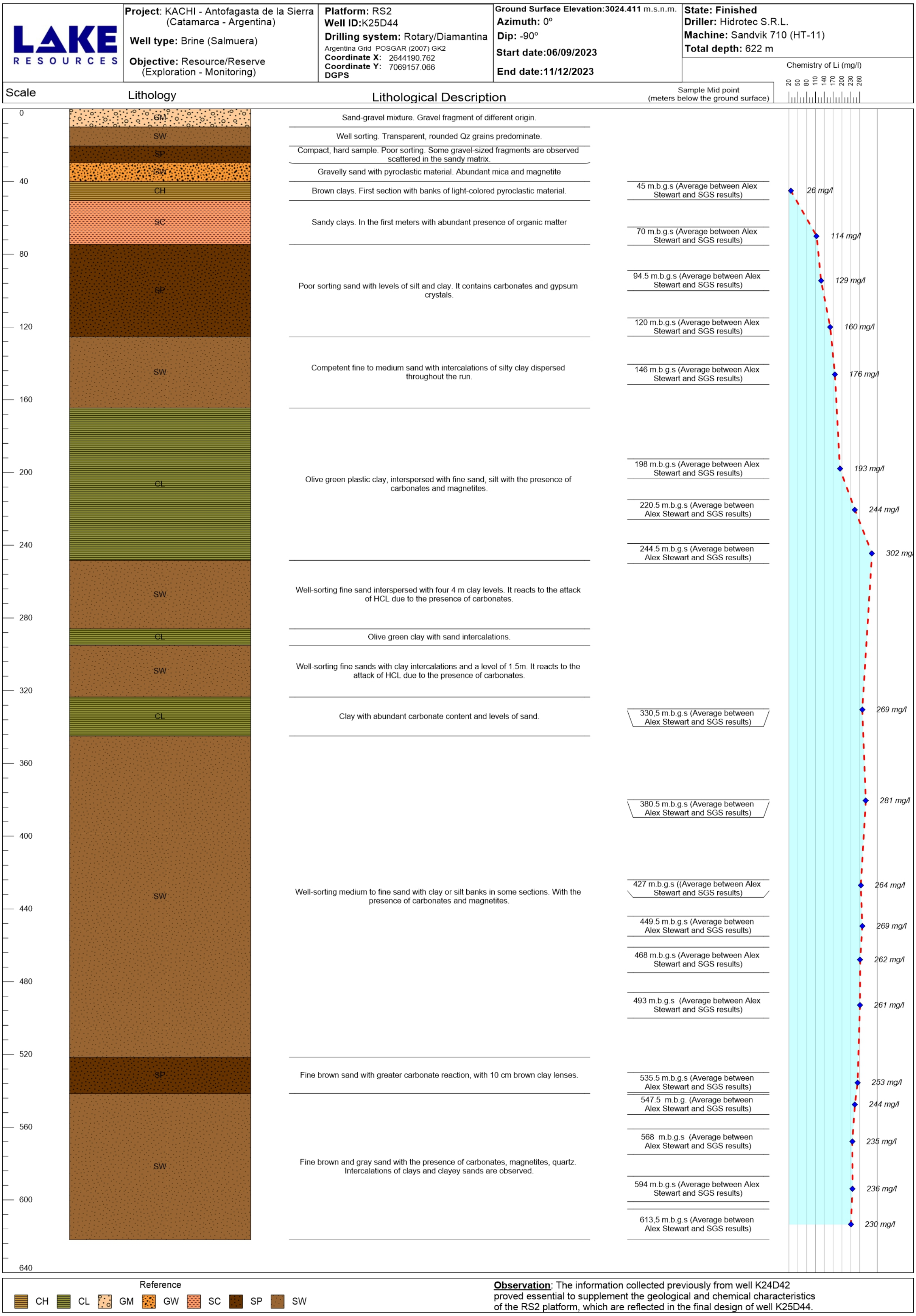

**Figure 4. Lithology log from K25D44**

*Table 3 Updated resource estimate of contained lithium (November[9])*

| Measured November 2023 (to 400 m depth) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Unit** | **Sediment Volume m3** | **Specific Yield %** | **Brine volume m3** | **Liters** | **Li mg/L** | **Li grams** | **Li Tonnes** | **Tonnes LCE** |
| A | 11,001,000,000 | 0.078 | 858,078,000 | 858,078,000,000 | 210 | 179,783,644,000 | 180,000 | 956,000 |
| B | 4,366,100,000 | 0.081 | 352,090000 | 352,090,162,000 | 229 | 80,628,647,000 | 81,000 | 429,000 |
| C | 8,007,400,000 | 0.068 | 544,503,000 | 544,503,200,000 | 230 | 125,427,401,000 | 125,000 | 667,000 |
| Fan West | 8,833,000,000 | 0.095 | 839,135,000 | 839,135,000,000 | 220 | 184,609,700,000 | 185,000 | 982,000 |
| **Total** | **32,207,500,000** | **-** | **2,593,806,000** | **2,593,806,362,000** | **-** | **570,449,393,000** | **571,000** | **3,035,000** |
| **Indicated November 2023 to 600 m** | | | | | | | | |
| **Unit** | **Sediment Volume m3** | **Specific Yield %** | **Brine volume m3** | **Liters** | **Li mg/L** | **Li grams** | **Li Tonnes** | **Tonnes LCE** |
| A (South) | 3,694,300,000 | 0.076 | 278,924,000 | 278,924,452,000 | 181 | 50,485,326,000 | 50,000 | 269,000 |
| B (South) | 1,489,000,000 | 0.075 | 111,543,000 | 111,543,670,000 | 179 | 19,959,624,000 | 20,000 | 106,000 |
| C (South) | 4,382,400,000 | 0.067 | 294,407,000 | 294,407,879,000 | 182 | 53,582,234,000 | 54,000 | 285,000 |
| A (North) | 3,075,200,000 | 0.095 | 292,144,000 | 292,144,000,000 | 232 | 67,891,052,000 | 68,000 | 361,000 |
| B (North) | 4,294,400,000 | 0.095 | 407,968,000 | 407,968,000,000 | 241 | 98,166,484,000 | 98,000 | 522,000 |
| C (North) | 9,188,400,000 | 0.092 | 845,333,000 | 845,332,800,000 | 182 | 206,021,447,000 | 206,000 | 1,096,000 |
| 400 – 600m Under Salar | 12,230,170,000 | 0.066 | 806,922,000 | 806,922,156,000 | 242 | 195,275,162,000 | 195,000 | 1,039,000 |
| 400 – 600m West Fan Deep | 4,858,200,000 | 0.092 | 446,954,000 | 446,954,400,000 | 244 | 109,056,874,000 | 109,000 | 580,000 |
| **Total** | **43,212,070,000** | | **3,484,197,000** | **3,484,197,358,000** | | **800,438,203,000** | **800,000** | **4,258,000** |
| **Combined Measured and Indicated** | | | | | | | | |
| | **75,419,570,000** | | **6,078,004,000** | **6,078,003,721,000** | | **1,370,887,596,000** | **1,371,000** | **7,293,000** |
| **Inferred November 2023** | | | | | | | | |
| **Unit** | **Sediment Volume m3** | **Specific Yield %** | **Brine volume m3** | **Liters** | **Li mg/L** | **Li grams** | **Li Tonnes** | **Tonnes LCE** |
| A | 4,756,500,000 | 0.080 | 378,325,000 | 378,325,351,000 | 185 | 69,975,435,000 | 70,000 | 372,000 |
| B | 1,671,300,000 | 0.079 | 131,198,000 | 131,197,886,000 | 191 | 25,101,960,000 | 25,000 | 134,000 |
| C | 5,287,600,000 | 0.074 | 393,746,000 | 393,746,422,000 | 218 | 85,950,119,000 | 86,000 | 457,000 |
| Fan North | 8,895,490,000 | 0.081 | 716,324,000 | 716,324,455,000 | 232 | 166,081,974,000 | 166,000 | 884,000 |
| Fan South | 12,248,490,000 | 0.064 | 781,249,000 | 781,249,112,000 | 239 | 186,718,538,000 | 187,000 | 993,000 |
| Under volcano | 6,718,700,000 | 0.074 | 500,471,000 | 500,471,260,000 | 192 | 96,334,211,000 | 96,000 | 512,000 |
| **Total** | **39,578,080,000** | | **2,901,314,000** | **2,901,314,485,000** | | **630,162,237,000** | **630,000** | **3,352,000** |

[9] This table reproduces data from the 22 November 2023 ASX announcement - Lake Resources JORC Update Increases Measured and Indicated Resource by 250% for its Flagship Kachi Project. There have been no material changes since the date of this announcement.

- JORC definitions were followed for Mineral resources.
- The Competent Person for this Mineral Resource estimate is Andrew Fulton, MAIG.
- No internal cut-off concentration has been applied to the resource estimate. The resource is reported at a 150 mg/L cut-off.
- Some numbers do not add due to rounding.
- Specific Yield (Sy) = Drainable Porosity.
- Lithium is converted to lithium carbonate ($Li_2CO_3$) with a conversion factor of 5.32. For details on the lithology units please refer to the DFS or resource / reserve.

## Competent Person's Statement – Kachi Lithium Brine Project

*The information contained in this ASX release relating to Exploration Results is based on, and fairly represents, information and supporting documentation that 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 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 announcement of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from exploration at the Kachi project as reviewed by Mr. Fulton*

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**JORC Table 1**

This appendix provides all information that is material to understanding the exploration results in relation to each of the criteria listed below.

# Section 1

**Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

| Criteria | | Section 1 – Sampling Techniques and Data |
|---|---|---|
| Sampling techniques | - Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.<br>- Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>- Aspects of the determination of mineralisation that are Material to the Public Report.<br>- In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. | - Brine samples were taken from multiple sampling methods from diamond core and rotary drilling methods including:<br>o Bottom of hole spear point during HQ diamond core drilling advance<br>o Straddle and single 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, which is lined with black plastic to avoid leakage. Single packer sampling is the current standard form of sampling.<br>o Installed standpipes with discrete screening intervals.<br>o Bailer sampling during advance, removing significant brine volumes to draw formation fluids into the base of the drill stem.<br>- Development of test wells and during pumping test of varying durations.<br>- The brine sample was collected in clean plastic bottles (1 litre) and filled to the top to minimize air space within the bottle. Duplicate samples were submitted at a high frequency, to allow statistical evaluation of laboratory results. These were collected at the same time as the primary samples for storage and submission of duplicates to the laboratory. Each bottle was taped and marked with the sample number.<br>- Drill core in the hole was recovered in 1.5 m length core runs in core lexan tubes to minimize sample disturbance.<br>- Drill core was undertaken to obtain representative samples of the sediments that host brine, being collected and stored in Lexan Tubes, in order to collect samples that are as little disturbed as possible. |
| Drilling techniques | - Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). | - 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.<br>- Rotary drilling has used 8.5" or 10" tricone bits and has produced drill chips, which have been logged and holes geophysically logged.<br>- Brine has been used as drilling fluid for lubrication during drilling, for mixing of additives and muds. |
| Drill sample recovery | - Method of recording and assessing core and chip sample recoveries and results assessed. | - Diamond drill core was recovered in 1.5 – 3m length intervals in the drilling triple (split) tubes. Appropriate additives were used for hole stability to maximize core recovery. The core recovered from each run was measured and compared to the length of each run to calculate the recovery. Chip samples are collected for each metre |

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| | - Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>- Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. | drilled and stored in segmented plastic boxes for rotary drill holes.<br>- Brine samples were collected at discrete depths during the drilling using a double packer over variable intervals dependent on calliper logs at interval between 1 - 6 m intervals (to isolate intervals of the sediments and obtain samples from airlifting brine from the sediment interval isolated between the packers) and single packer configurations typically with 10 m intervals open at the base of the hole. This equipment is from Geopro, a reputable international supplier.<br>- Additives and muds are used to maintain hole stability and minimize sample washing away from the triple tube.<br>- 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 | - Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>- Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>- The total length and percentage of the relevant intersections logged. | - Sand, clay, silt, and minor occurrences of ignimbrite were 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.<br>- Diamond holes are logged by a geologist who also supervised taking of samples for laboratory porosity analysis (with samples drilled and collected in lexan polycarbonate tubes) as well as additional physical property testing.<br>- 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. Cores are photographed for reference, prior to storage. |
| Sub-sampling techniques and sample preparation | - If core, whether cut or sawn and whether quarter, half or all core taken.<br>- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>- For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>- Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>- Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. | - Brine samples were collected by inflatable packer, bailer and spear sampling methods, over a variable interval. Low pressure airlift tests are used as well to purge test interval and gauge potential yields (brine flows). Samples have also been collected during development of piezometers and test wells and during pumping tests of variable durations.<br>- 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. Duplicates were taken and submitted with standards as part of the QA/QC protocols. |

| | | |
|---|---|---|
| | ▪ Whether sample sizes are appropriate to the grain size of the material being sampled. | |
| Quality of assay data and laboratory tests | ▪ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.<br>▪ For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.<br>▪ Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. | ▪ Analytical laboratory services are currently split between Alex Stewart International Argentina Jujuy, Argentina, and 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 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.<br>▪ The quality control and analytical procedures used at the Alex Stewart 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.<br>▪ QA/QC samples include field duplicates, standards and blank samples. |
| Verification of sampling and assaying | ▪ The verification of significant intersections by either independent or alternative company personnel.<br>▪ The use of twinned holes.<br>▪ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>▪ Discuss any adjustment to assay data. | ▪ 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, has been monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory.<br>▪ Duplicate samples in the analysis chain were submitted to Alex Stewart or SGS laboratories as unique samples (blind duplicates) during the process.<br>▪ Stable blank samples (distilled water) were used to evaluate potential sample contamination and will be inserted in future to measure any potential cross contamination.<br>▪ Samples were analysed for conductivity using a hand-held Hanna pH/EC multiprobe on site, to collect field parameters.<br>▪ Regular calibration of the field equipment using standards and buffers is being undertaken. |
| Location of data points | ▪ Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.<br>▪ Specification of the grid system used.<br>▪ Quality and adequacy of topographic control. | ▪ The diamond drill hole sample sites and rotary drill hole sites were located with a hand-held GPS and later located by a surveyor, with the majority of hole collars defined by the surveyor.<br>▪ The properties are located at the junction of the Argentine POSGAR grid system Zone 2 and Zone 3 (within UTM 19) and in WGS84 Zone 19 south. The Project is using Zone 2 as the reference zone, as the critical infrastructure is located on the edge of Zone 2. |
| Data spacing and distribution | ▪ Data spacing for reporting of Exploration Results. | ▪ Drill holes in the central area where Measured resources have been defined have a spacing of approximately 1.5 km between drill |

| | | |
|---|---|---|
| | ▪ Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.<br>▪ Whether sample compositing has been applied. | holes, with a greater spacing in the area where Inferred resources have been defined.<br>▪ Brine samples were generally collected over various intervals using straddle packers, single packers, spear points, and discrete screen intervals from installed piezometers with samples collected at variable intervals vertically, due to varying hole conditions and over the life of the Project different sampling techniques. The average distance between samples varies statistically based on duplicity. Where discrete intervals are considered with duplicate samples averaged, the sample separation is 36m. Where all sample are averaged over drill metres, sample separation is 19-m.<br>▪ Compositing has been applied to porosity data obtained from the BMR geophysical tool, as data is collected at closer than 10 cm intervals, providing extensive data, particularly compared to the available assay data. |
| Orientation of data in relation to geological structure | ▪ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.<br>▪ If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. | ▪ The salt lake (salar) deposits that contain lithium-bearing brines generally have horizontal to sub-horizontal beds and lenses that contain sand, gravel, salt, silt and clay. The vertical diamond drill and rotary holes provide the best understanding of the stratigraphy and the nature of the sub-surface brine bearing aquifers.<br>▪ Geological structures are important for the formation of salar basins, but not as a host to brine mineralization. |
| Sample security | ▪ The measures taken to ensure sample security. | ▪ Samples were transported to the Alex Stewart/Norlab SA or SGS laboratories 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 to the office in Catamarca and then sent by DHL couriers to the laboratories.<br>▪ 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. |
| Review (and Audit) | ▪ The results of any audits or reviews of sampling techniques and data. | ▪ An audit of the database has been conducted by the CP and another Senior Consultant at different times during the Project and prior to finalization of the samples to be used in the resource estimate. The CP has been onsite periodically during the sampling program. The review included drilling practice, geological logging, sampling methodologies for brine 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, with constant review of the database by independent personnel recommended. Additionally, an external review of field sampling procedures and data collection was undertaken by Geoff Baldwin in April 2023. An external peer review of the November 2023 resource update was performed by John Houston. |

# Section 2

**Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

| Criteria | | Section 2 – Reporting of Exploration Results |
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| Mineral tenement and land tenure status | - Type, reference name / number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.<br>- The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. | - The Kachi Lithium Brine Project is located approximately 100km south-southwest of Livent'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.<br>- The Project comprises approximately 104375.6 Ha in fifty-three (53) mineral leases (minas), including one lease (Morena 10 – 2712.9 Ha) with a pending application. Details of the properties are provided in the June 15th ASX announcement.<br>- The tenements are believed to be in good standing, with statutory payments completed to relevant government departments. |
| Exploration by other parties | - Acknowledgment and appraisal of exploration by other Parties. | - Marifil Mines Ltd conducted sparse surface pit sampling of groundwater at depths less than 1m in 2009.<br>- Samples were taken from each hole and analysed at Alex Stewart laboratories in Mendoza Argentina.<br>- Results were reported in an NI 43-101 report by J. Ebisch in December 2009 for Marifil Mines Ltd.<br>- NRG Metals Inc commenced exploration in adjacent leases under option. Two diamond drill holes 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.<br>- A 375 m deep borehole on the Luz María tenement drilled by the former owner NRG Metals, which published the lithium concentration data, as between 141 and 144 mg/L lithium. The sample from 50 bgs is noted as being extracted from the well during pumping, although the exact period of pumping and well completion interval are unknown and the results cannot be independently verified. The Xantippe data provide further evidence for the interpreted large-scale spatial extent of the lithium brine resource beyond the drillholes to the north and east and beneath the volcano.<br>- No other exploration results were able to be located. |
| Geology | - Deposit type, geological setting and style of mineralisation. | - The known sediments within the salar consist of a thin (several metre thick) salt/halite surficial layer, with interbedded clay, sand and silt horizons, accumulated in the salar from terrestrial sedimentation and evaporation of brines.<br>- Brines within the Salt Lake are formed by evapoconcentration, interpreted to be combined with warm geothermal fluids, with brines hosted within sedimentary units. |

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| | | ▪ Geology was recorded during the diamond drilling and from chip samples in rotary drill holes. |
| Drill hole Information | ▪ A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:<br>▪ easting and northing of the drill hole collar<br>▪ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar<br>▪ dip and azimuth of the hole<br>▪ down hole width and depth (length and interception depth)<br>▪ end of hole (hole length).<br>▪ If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | ▪ Refer to Table 6 above.<br>▪ 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.<br>▪ All drill holes are vertical, (dip -90, azimuth 0 degrees).<br>▪ Coordinates and depths of holes are provided above in the report in the Gauss Kruger Zone 2. Elevations are measured by a surveyor, except for the most recently completed holes.<br>▪ Assay results are provided in a table above in the report.<br>▪ Drill hole information is shown in plans included.<br>▪ Refer to Figure 5 of this announcement, and previous ASX announcements for detailed lithological descriptions (e.g., October 4, 2023; August 22, 2023; November 22, 2023.) |
| Data aggregation methods | ▪ In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.<br>▪ Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.<br>▪ The assumptions used for any reporting of metal equivalent values should be clearly stated. | ▪ Assay averages have been provided where multiple sampling occurs in the same sampling interval. A considerable number of samples were sent to the two laboratories, and averages of these results were used for the resource estimation.<br>▪ No cutting of lithium concentrations was justified nor undertaken.<br>▪ Lithium samples are by nature composites of brine over intervals of metres, due to the fluid nature of brine. |
| Relationship between mineralisation widths and intercept lengths | ▪ These relationships are particularly important in the reporting of Exploration Results.<br>▪ If the geometry of the mineralisation with respect to the drill hole angle is known, its | ▪ Mineralisation is interpreted to be horizontally lying and drilling perpendicular to this, so intersections are considered true thicknesses Brine is likely to extend to the base of the Carachi Pamap basin, although this has yet to be confirmed by drilling. |

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| | nature should be reported.<br>- If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). | - Mineralisation is continuous and sampling, despite intersecting intervals of lower grade in places within the resource has not identified volumes of brine with what are likely to be sub-economic concentrations within the resource. However, the reader is advised that a reserve has yet to be defined for the Project. |
| Diagrams | - Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | - A drill hole location plan is provided showing the locations of the drill platforms (Figure 6 and Figure 7)<br>- Drill hole information is showing in plans included.<br>- Refer to October 4, 2023, August 22, 2023 and June 15, 2023 ASX announcement for recent detailed lithological descriptions. |
| Balanced reporting | - Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | - Brine assay results are available from 39 resource drill holes from the drilling to date, reported here as shown in Table 6. Additional information will be provided as it becomes available. |
| Other substantive exploration data | - Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | - There is no other substantive exploration data available regarding the Project. Additional surface geophysics is planned for the Project. A pilot plant is currently operating at the Project to assess extraction of lithium.<br>- Positive extraction and injection test results were reported in the August 16, 2023 ASX announcement.<br>- Hydrogeologic modelling has demonstrated that large scale extraction and injection wellfields are viable, and an Ore Reserve for the Project has been defined[10]. |
| Further work | - The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | - The Company has drilled approximately 13,260 m of diamond and rotary drilling to date. Currently drilling is underway to continue resource classification upgrade and expansion. |

[10] See 19 December 2023 Lake Resources ASX Announcement - Maiden Ore Reserve Defined Lake Resources Flagship Kachi Project

## SECTION 3

**Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

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| Database integrity | - Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.<br>- Data validation procedures used. | - Data was transferred directly from laboratory spreadsheets to the database.<br>- Data was checked for transcription errors when in the database, to ensure coordinates, assay values and lithological codes were correct.<br>- Data was plotted to check the spatial location and relationship to adjoining sample points.<br>- Duplicates and Standards have been used in the assay process.<br>- Brine assays and porosity test work have been analysed and compared with other publicly available information for reasonableness.<br>- BMR geophysical log data has been compared with laboratory porosity values and provides a more continuous but more conservative estimate of drainable porosity (Sy).<br>- Comparisons of original and current datasets were made to ensure no lack of integrity.<br>- A detailed statistical analysis of the resource data set was completed and presented in the Appendix of the November 22, 2023 ASX announcement. |
| Site visits | - Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>- If no site visits have been undertaken indicate why this is the case. | - The Competent Person visited the site multiple times during the drilling and sampling program.<br>- Procedures have been modified throughout the project to date aimed at improving data and sample recovery, working closely with the drilling superintendent to achieve this. |
| Geological interpretation | - Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.<br>- Nature of the data used and of any assumptions made.<br>- The effect, if any, of alternative interpretations on Mineral Resource estimation.<br>- The use of geology in guiding and controlling Mineral resource estimation.<br>- The factors affecting continuity both of grade and geology | - There is a high level of confidence in the geological interpretation of for the Project, with the three units identified in logging and down hole geophysics. There are relatively consistent sub horizontal geological units with intercalated clastic sediments consisting of sands, sits clays and minor gravel.<br>- Any alternative interpretations are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units, or a larger scale grouping of sediments, as changes between units are relatively minor. Such changes would not have a significant impact of the resource estimate.<br>- Data used in the interpretation includes rotary and diamond drilling methods.<br>- Drilling depths and geology encountered has been used to conceptualize hydrostratigraphy and build the geologic model units.<br>- Sedimentary processes affect the continuity of geology with |

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| | | extensive lateral continuity in the salar area, and the presence of additional overlying gravels further from the salar, whereas the concentration of lithium and other elements in the brine is related to water inflows, evaporation and brine evolution. |
| Dimensions | ▪ The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. | ▪ The lateral extent of the resource has been defined by the boundary of the Company's properties, the outline of the Kachi volcano and the range of mountains to the west. The brine mineralisation covers approximately 274.8 km2 to date.<br>▪ 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 600 m depth. The basement rocks underlying the salt lake sediments have been intersected in drilling from the SE of the salar.<br>▪ The resource is defined to a depth of 600 m below surface, with the exploration target extending beyond the areal extend of the resource, under the volcano and also between the base of the resource and the interpreted depth of the basement. |
| Estimation and modelling techniques | ▪ The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.<br>▪ The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.<br>▪ The assumptions made regarding recovery of by-products.<br>▪ Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).<br>▪ In the case of block model | ▪ Ordinary Kriging was applied to the composited BMR porosity date, to reduce the 200,000 individual measurements to a smaller number. The Inverse Distance Squared method was used to estimate the distribution of lithium through the resource, given the much smaller number of assays available.<br>▪ The resource with a 2.5 km radius was estimated in two passes with a search ellipse of 1500 and 4000 m respectively.<br>▪ The resource between 2.5 and 5 km of drill holes was estimated using three expanding search ellipses of 1500, 4000 and 7000 m, to encompass all of the data.<br>▪ Three essentially horizontal hydrostratigraphic units were defined in the salar area, based on geological logging and downhole geophysics. These have different amounts of sand, silt and clay content, with lithium concentration varying slightly between units.<br>▪ The resource was estimated with soft boundaries and a horizontal search ellipse, to reflect the horizontal continuity of geological units. Lithium concentration appears independent of the geological units, and differences in porosity between units are relatively slight.<br>▪ No grade cutting or capping was applied to the model.<br>▪ Check estimates were conducted using different estimators, with a version of the model estimated entirely with Inverse Distance Squared methodology and another with ordinary kriging and one using the Leapfrog Radial Basis Function.<br>▪ No assumptions were made about correlation between variables or recovery of by-products. Lithium is the value proposition of the project. |

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| | interpolation, the block size in relation to the average sample spacing and the search employed.<br>- Any assumptions behind modelling of selective mining units.<br>- Any assumptions about correlation between variables.<br>- Description of how the geological interpretation was used to control the resource estimates.<br>- Discussion of basis for using or not using grade cutting or capping.<br>- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. | - The brine contains other elements in addition to lithium, such as magnesium and sodium, which can be considered deleterious elements. The project plan considers extraction of lithium via a DLE (Direct Lithium Extraction) process, where extraction of lithium is independent of other elements, which remain in the brine.<br>- Model blocks are defined as 400 by 400 m blocks in an east and north direction and 10 m in the vertical direction.<br>- Extraction of brine permits limited control of selective mining and selective mining units are not considered, as the resource is relatively homogeneous.<br>- The development of the inner three-layer model and outer homogeneous layer in the alluvial gravels/fans, with essentially horizonal layers, was used to define the search ellipses to control the resource estimation.<br>- Visual comparison has been conducted of drill hole results and the block model, together with a comparison of sample statistics and the block model statistics. The result is considered to be acceptable. |
| Moisture | - Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. | - Moisture content of the cores was not Measured with regards to consideration of density and moisture content. In brine projects the contained content of brine fluid is an integral part of the project and porosity, drainable porosity (Sy) and sediment density measurements were made. As brine will be extracted by pumping not mining moisture content (in regard to density) is not relevant for the brine resource estimation.<br>- Tonnages are estimated as metallic lithium dissolved in brine.<br>- Tonnages are then converted to a Lithium Carbonate Equivalent tonnage by multiplying by the factor of 5.32, which takes account of the presence of carbon and oxygen in Li2CO3, compared to metallic lithium. |
| Cut-off parameters | - The basis of the adopted cut-off grade(s) or quality parameters applied. | - Grade-tonnage curves for the Project (see November 22, 2023 ASX Announcement) indicate that a cut-off grade of 150 mg/L would result in less than a 0.1% reduction in total lithium resource. As a result, Mineral Resources are estimated utilizing a conservative cut-off grade of 150 mg/L lithium.<br>- The proposed DLE technology has been demonstrated to operate cost-effectively at much lower lithium concentrations (e.g., less than 75 mg/L). Effectively no Mineral Resources have been quantified below 150 mg/L, however, the opportunity exists for incorporation of lower grade resources should they be discovered or otherwise evolve at the planned extraction wells. In this instance, the cut-off grade could be revised lower based on operating costs for the lithium grade considered |
| Mining factors or assumptions | - Assumptions made regarding possible mining methods, minimum mining dimensions | - The resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and |

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| | and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. | lithium carbonate.<br>• 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 = pumping methodology).<br>• Mining of the brine will be completed using extraction wells with the layout presented in Figure 16. Extraction and injection well designs and related pumping systems have been developed to a DFS level as part of the well field development plan (DBSA, 2023).<br>• As noted above, the mine plan inclusive of well locations, well depths and the pumping schedule have been simulated in the numerical flow and transport model. "Particle tracking" is used to determine the origin of the brine being captured by the extraction wells. If the origin of the particle is within the Measured Resource it is converted to Proved Reserve. If the origin of the particle is Indicated Resource then it is converted to Probable.<br>• The Proved Ore Reserve is limited in time to 7-years from the start of mining to account for the fluid nature of the resource and acknowledgement that model predictions further out in time have a lower level of confidence. With additional data and model updates, the Probable Ore Reserve can likely be converted to Proved.<br>• Particle tracking indicates no recovery of Inferred Resource over the LoM and Inferred Resources have not been used in the Ore Reserve estimate.<br>• Assumptions inherent to the numerical model include the premise that the calibrated model is a reliable predictive tool. The hydrogeological parameters are discussed extensively throughout this announcement and include but are not limited to the pumping schedule (Figure 16), well field layout (Figure 17), calibrated hydraulic parameters (Table 7) and dispersivity estimates of 10 m, 0.1 m and 0.01 m for longitudinal, transverse and vertical, respectively.<br>• The overall process plant lithium recovery rate is conservatively assumed to be 75%. This includes DLE and any losses in other processes.<br>• After lithium extraction spent brine will be injected back into the reservoir at the locations shown in Figure 16.<br>• Dilution of the lithium brine from natural sources and from spent brine injection is explicitly simulated in the model. Dilution after 25-years of operations is about 10% as discussed in the text and presented in Figure 23. However, average lithium grades even in Year 25 are well above the design basis for the Project.<br>• The Mine Plan extracts less than 15% of the Measured and Indicated Resource over the LoM.<br>• Infrastructure required for mining extraction and injection wells, surface pumping networks and pumping infrastructure, storage ponds, raw water wells and pipelines, and monitoring and communications equipment. |

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| Metallurgical factors or assumptions | ▪ The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. | ▪ The metallurgical process proposed for extraction of lithium from the resource feed brine is Direct Lithium Extraction (DLE), using an ion exchange (IX) extraction method, which is a proven technology used extensively in water treatment and mineral recovery. Lilac Solutions has developed a novel ion exchange media for selective extraction of lithium from high total dissolved solids (TDS) brine.<br>▪ Lithium chloride eluate ($LiCl$) produced from the DLE system is purified and concentrated using conventional Reverse Osmosis (RO), Evaporation, and impurity precipitation technology.<br>▪ The purified and concentrated $LiCl$ solution is converted to lithium carbonate via conventional carbonation process using sodium carbonate reagent to precipitate lithium carbonate.<br>▪ The ion exchange DLE process has been tested at bench-scale, pilot-scale, and demonstration-scale with thousands of hours of batch and continuous test work. Real brine feed from the Kachi site has been used for all levels of testing. Bench and pilot scale testing were carried out at the Lilac Solutions research and development laboratory in Oakland, California. Demonstration scale testing was carried out via an on-site demonstration unit that operated in campaigns from October 2022 to November 2023 , processed over 5.2 million litres of brine and produced over 200,000 litres of concentrated lithium chloride product.<br>▪ Analytical sample validation was carried out by Lilac Solutions laboratory in Oakland, California and Lilac's on-site analytical laboratory at the Kachi Demonstration plant. Independent third-party validation analysis was also performed using inductively coupled plasma optical emission spectroscopy (ICP-OES)on hundreds of select samples by accredited commercial laboratories SGS, Kemetco Research Inc. and McCampbell Analytical at facilities in Argentina, Canada, and the United States.<br>▪ Balance of plant (BOP) eluate purification, concentration, and lithium carbonate production test work was carried out by Lilac Solutions at their research and development laboratory in Oakland, California. Additional bench-scale test work (1000 L) was completed by Hazen Research in Golden, Colorado. Bench scale (20 L), pilot scale (1000 L) and demonstration scale (120,000 L) test work was conducted by Saltworks Technologies in Richmond, British Columbia to validate the BOP process for battery grade lithium carbonate production from Kachi brine via Lilac Solution ion exchange DLE technology. |
| Environmental factors or assumptions | ▪ Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the | ▪ A high degree of consideration has been given to field development planning that will minimise impact on sensitive environmental areas.<br>▪ Process water recovery early in the project will minimise freshwater resource impacts.<br>▪ The production / exploitation environmental impact assessment is well advanced and have been undertaken in parallel with the Resource and Reserve estimation process. |

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| | mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | - Lake Resources is taking the initiative with regards to the permitting process early and ensuring environmental protection requirements are considered in the project design.<br>- The Kachi Project currently has valid exploration environmental impact assessment approved in 2017, and updated in accordance with the established legislation, with the latest renewal in November 2022 and valid until November 2024. Additionally, the Kachi Project holds other sectoral permits including for chemical precursors, fuel tanks, freshwater use, hazardous waste, black water permit and local industrial permit.<br>- Numerical modelling indicates that operational impacts to sensitive areas will be small and within expected ranges of natural seasonal variations because of the Lake's injection strategy which maintains reservoir and aquifer pressures during operations in sensitive areas.<br>- The Kachi Project have obtained a temporary freshwater extraction permit for a period of one year (valid until September 2024), authorizing the extraction from 4 wells at a rate of 64m3 per day. Activity is underway to secure the definitive permit for future phases. |
| Bulk density | - Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.<br>- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.<br>- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. | - 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.<br>- Note that no mining is to be carried out, so density measurements are not directly relevant for resource estimation, as brine is to be extracted by pumping and consequently sediments are not actively mined. The lithium is extracted by pumping of mineral bearing brine.<br>- No bulk density was applied to the estimates because resources are defined by volume, rather than by tonnage. |
| Classification | - The basis for the classification of the Mineral Resources into varying confidence categories.<br>- Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, | - The resource has been classified into two possible resource categories based on confidence in the estimation.<br>- The Measured resource, within a 2.5 km radius of drill holes, reflects the predominance of drilling with a spacing of approximately 1.5 km between holes. This classification reflects the suggestion of Houston et. Al., 2011 regarding the classification of resources. Porosity measurements have been made in these diamond and rotary holes with the BMR porosity tool, providing 200,000 individual measurements. Any measurements that were related to washouts in holes |

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| | quality, quantity and distribution of the data).<br>- Whether the result appropriately reflects the Competent Person's view of the deposit. | were removed and porosity data was composited to 10 m data points. Physical porosity samples were also taken and compared with BMR porosity data, with samples from drill cores well constrained within the holes. These samples have an overall higher average porosity, but sampling was less systematic than the BMR porosity data, which was used in preference, with the laboratory data as a check on this data source.<br>- The Inferred resource surrounding the Measured resource in the properties reflects more limited drilling in the surrounding area, and locations closer to the border of the basin. Some additional lithium assay data will be incorporated into the next resource that is likely to result in conversion of part of the Inferred resource to Measured or Inferred resources. This classification includes holes and data within 5 km of holes. Brine within this radius has been classified more conservatively as Inferred resources than the suggestion of Houston et. Al., 2011 regarding the classification of resources. It is expected that with further drilling much of the Inferred resources can be converted to Indicated resources.<br>- There are currently no Indicated resources defined in the project. 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 results of any audits or reviews of Mineral Resource estimates. | - Estimation of the Mineral Resource was supervised by the Competent Person.<br>- A review of the November 22, 2023 Mineral Resource estimate was review by John Houston, with feedback and additional analyses undertaken to further support the estimate.<br>- An audit of sampling and field procedures was undertaken by Geoffrey Balwin in February 2023. |

**Drill-hole information**

Table setting out information for material drill-holes:[11]

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| Drill hole Information | - A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:<br>- easting and northing of the drill hole collar<br>- elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar<br>- dip and azimuth of the hole<br>- down hole width and depth (length and interception depth)<br>- end of hole (hole length).<br>- If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. | - Refer to Table 6 above.<br>- 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.<br>- All drill holes are vertical, (dip -90, azimuth 0 degrees).<br>- Coordinates and depths of holes are provided above in the report in the Gauss Kruger Zone 2. Elevations are measured by a surveyor, except for the most recently completed holes.<br>- Assay results are provided in a table above.<br>- Drill hole information is shown in plans included.<br>- Refer to Figure 5 of this announcement, and previous ASX announcements for detailed lithological descriptions (e.g., October 4, 2023; August 22, 2023; November 22, 2023.) |

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**About Lake Resources NL (ASX:LKE OTC:LLKKF )**

Lake Resources NL (ASX:LKE, OTC: LLKKF) is a responsible lithium developer utilising state-of-the-art ion exchange extraction technology for production of sustainable, high purity lithium from its flagship

[11] This information is the same information contained in Section 2 above but set out in a separate table in accordance with ASX Listing Rule 5.7.2.

Kachi Project in Catamarca Province within the Lithium Triangle in Argentina. Lake also has three additional early-stage projects in this region.

This ion exchange extraction technology delivers a solution for two rising demands – high purity battery materials to avoid performance issues, and more sustainable, responsibly sourced materials with low carbon footprint and significant ESG benefits.

**Forward Looking Statements:**

Certain statements contained in this announcement, 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 announcement 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.