ASX ANNOUNCEMENT

November 22, 2023

Lake Resources JORC Update Increases Measured and Indicated Resource by 250% for its Flagship Kachi Project

UPDATE HIGHLIGHTS

- Deeper drilling to 600 m bgs has led to significantly larger resource estimates.
- Measured and Indicated Resources have increased from 2.9 to 7.3 Mt of LCE defined to a depth of 600 meters over 143.8 square kilometres[1].
- The updated total resource estimate exceeds 10.6 Mt of LCE[2].
- Previous testing confirmed highly favourable subsurface conditions for both lithium extraction and injection in the central resource area where the M&I resources are located[3].
- Surrounding the Measured and Indicated Resources are Inferred Resources of 3.3 Mt LCE defined over 130.9 km^2.
- K24D41 in the southern sector intersected some of the highest lithium concentrations drilled to-date at the project, returning grades of 180-348 mg/L lithium over 445 m (166 – 610 m) with an average of 267 mg/L.
- Deeper drilling at K23D40 in the northern sector intersected coarse-grained alluvial fan materials and averaged 228 mg/L over 322 meters with a maximum of 254 mg/L. This hole is 3.5 km northwest of K22R39.

Clean lithium developer Lake Resources NL (ASX: LKE; OTC: LLKKF) ("LAKE" or "the Company") is pleased to provide an updated resource estimate for the Kachi lithium brine Project ("Kachi" or the "Project") in Catamarca Province, Argentina.

The updated resource estimate is based on continued hydrogeological characterization since the last update in June 2023[4] and refined interpretations of the hydrostratigraphy, hydrogeology and hydrogeochemistry.

---

[1] Abbreviations summary: Million Tonnes (Mt), Lithium Carbonate Equivalent (LCE), meters (m), square kilometers (km^2), milligrams per liter (mg/L)

[2] See Table 2 for details of individual categories

[3] August 16 2023 ASX Announcement - Lake Resources Completes Intermediate Milestone to Achieve DFS with Successful Extraction and Injection Tests at its Flagship Kachi Project

[4] June 15 2023 ASX Announcement - Lake Resources Provides JORC Update on its Flagship Kachi Project

This resource update defines the Mineral Resources to be used in the hydrogeologic model for the forthcoming maiden reserve estimate and will be the basis for the Project Phase 1 Definitive Feasibility Study (DFS) expected in December 2023.

“Our expansive hydrogeological characterization program over the last year and half has led to significant improvements in our understanding of the geology, hydrogeology and geochemistry of the Carachi Pampa Basin,” said Mr. Michael Gabora, Director of Geology and Hydrogeology of Lake Resources.

The resource update incorporates the vertically expansive lithium intersects of the last six months and includes exceptional lithology and lithium concentrations intersected at K24D41.

The footprint of the lithium brine extent has been growing dramatically to the north, south and most important vertically.

The consistency of the lithium concentration and brine chemistry in the new step out holes demonstrates how well the brine has circulated and mixed within the basin.

The new results build on the strong track record of continued resource growth since the maiden resource estimate first announced in November 2018.

“Our improved hydrogeologic understanding of the system will allow us to develop an optimal extraction and recovery strategy to allow for responsible development of clean lithium in the basin while minimizing the consumption of water and related hydrologic impacts,” Mr. Gabora said.

In Lake’s resource update on June 15, 2023,[5] the Company reported that future drilling was targeting additional step out holes and exploring the deeper resource beyond 400 m bgs, the previous maximum depth drilled at site. A subsequent update on August 22, 2023[6] provided highlights from drillhole K23D40, the first hole at the Project drilled beyond 430 m bgs, to a total depth of 610 m bgs, which measured lithium brines over 322 m, returning grades of 209-254 mg/L.

Borehole K24D41is the second hole that demonstrates lithium brine to depths of over 600 m. K24D41 has grades of 180-348 mg/L lithium over 445 m (166 – 610 m), with an average of 267 mg/L[7].

Additional surface geophysical surveys have been highly complementary to the step-out and deeper drillholes.

Recent supplemental passive seismic surveys have, in combination with previous passive seismic surveys, defined the thickness of unconsolidated sediments hosting the brine.

Drilling intercepts of the top of the basement rock (bedrock) surface at two locations has further improved the confidence in the reliability of the passive seismic data.

Transient electromagnetic (TEM) surveys were recently completed across the salar and surrounding area, which showed the brine body is much larger than initial estimates and continues well beyond the currently defined resource. Step-out drilling and historical drilling and testing results indicate that the TEM surveys are reliable indicators of the presence of lithium bearing brines in the basin.

---

[5] June 15, 2023 ASX Announcement - Lake Resources Provides JORC Update on its Flagship Kachi Project

[6] August 22, 2023 ASX announcement - Further Drilling at Flagship Kachi Project Reveals Large Lateral and Vertical Expansion of Lithium-Bearing Brine

[7] October 4, 2023 ASX announcement - Further Drilling at Flagship Kachi Project Reveals Higher Lithium Grades and Large Vertical Extension of Lithium-Bearing Brine

The Kachi Project has shown continual increases in mineral resource estimates (**Figure 1**) since the maiden resource estimate of 4.4 Mt of contained LCE in Inferred and Indicated categories was announced in November 2018[8]:

- The resource was significantly upgraded in January 2023 with a Measured and Indicated Resource of 2.2 Mt of LCE and approximately 3.1 Mt of LCE as Inferred mineral resources[9].
- The total resource was again increased in June 2023[10] with more than 2.9 Mt of LCE in Measured and Indicated and approximately 5.2 Mt of LCE in the Inferred category for a total resource estimate of more than 8.1 Mt of LCE[11].
- The total resource increase documented in this update is 7.3 Mt LCE Measured and Indicated Resource with 3.3 Mt LCE of Inferred Resource for a total resource estimate of over 10.6 Mt LCE (Figure 1 and Table 1). Figure 2 and Figure 3 present resource areas.
- Pumping and Injection testing detailed in August 2023[12] demonstrated that the lithium reservoir in the resource area is permeable and that productive wells can be drilled and constructed for extraction and injection.

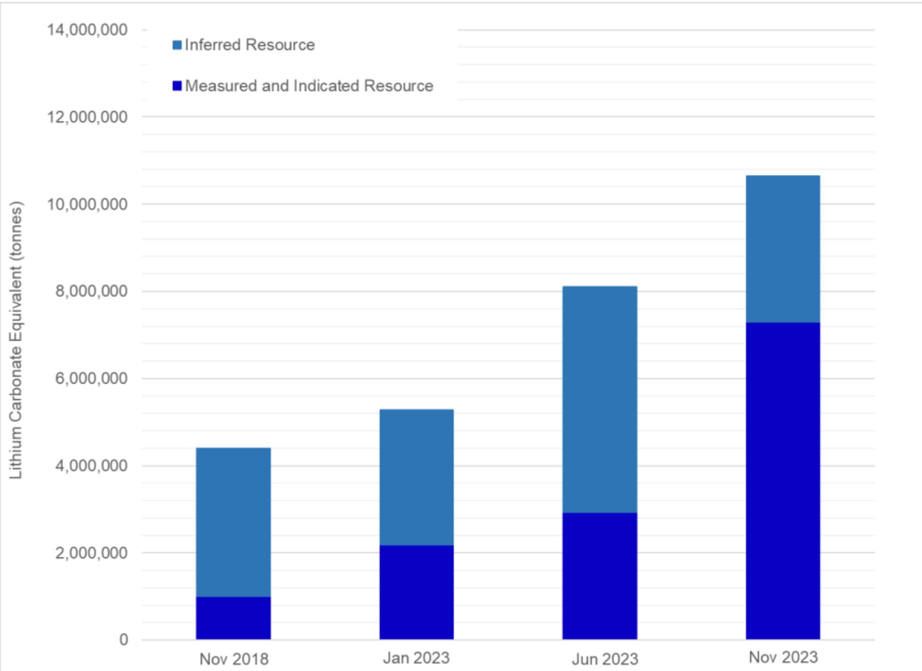


Figure 1 Change in M&I and Inferred Lithium Resource since 2018

---

[8] November 27, 2018 ASX announcement - Maiden 4.4 Mt Resource Estimate – Kachi Lithium Brine Project

[9] January 11, 2023 ASX announcement - Kachi M&I resource doubled to 2.2 million tonnes Lithium Carbonate Equivalent with 3.1 million tonnes Inferred resource

[10] See Table 3 for details of the individual categories of ‘Inferred’, ‘Indicated’ and ‘Measured’ regarding the JORC Mineral Resource estimate reported in the announcement on June 15, 2023

[11] June 15, 2023 ASX announcement - Lake Resources Provides JORC Update on its Flagship Kachi Project

[12] August 16, 2023 ASX Announcement - Lake Resources Completes Intermediate Milestone to Achieve DFS with Successful Extraction and Injection Tests at its Flagship Kachi Project

Table 1 Updated Resource Summary[13]

Resource Category	Lithium (Tonnes)	LCE (Tonnes)
Measured (M)	570,000	3,035,000
Indicated (I)	800,000	4,258,000
M & I	1,370,000	7,293,000
Inferred	630,000	3,352,000
Total Resource	**2,000,000**	**10,646,000**

"The updated resource demonstrates how expansive the Carachi Pampa (Kachi) Basin lithium brine resource is," Mr. Gabora said. He continued, "When combined with our pumping and injection testing results, which yielded highly favourable subsurface conditions for both lithium extraction and injection, the true potential of the Project is becoming realized."

[13] Consider notes and details in Table 2 Updated Resource Estimate of Contained Lithium

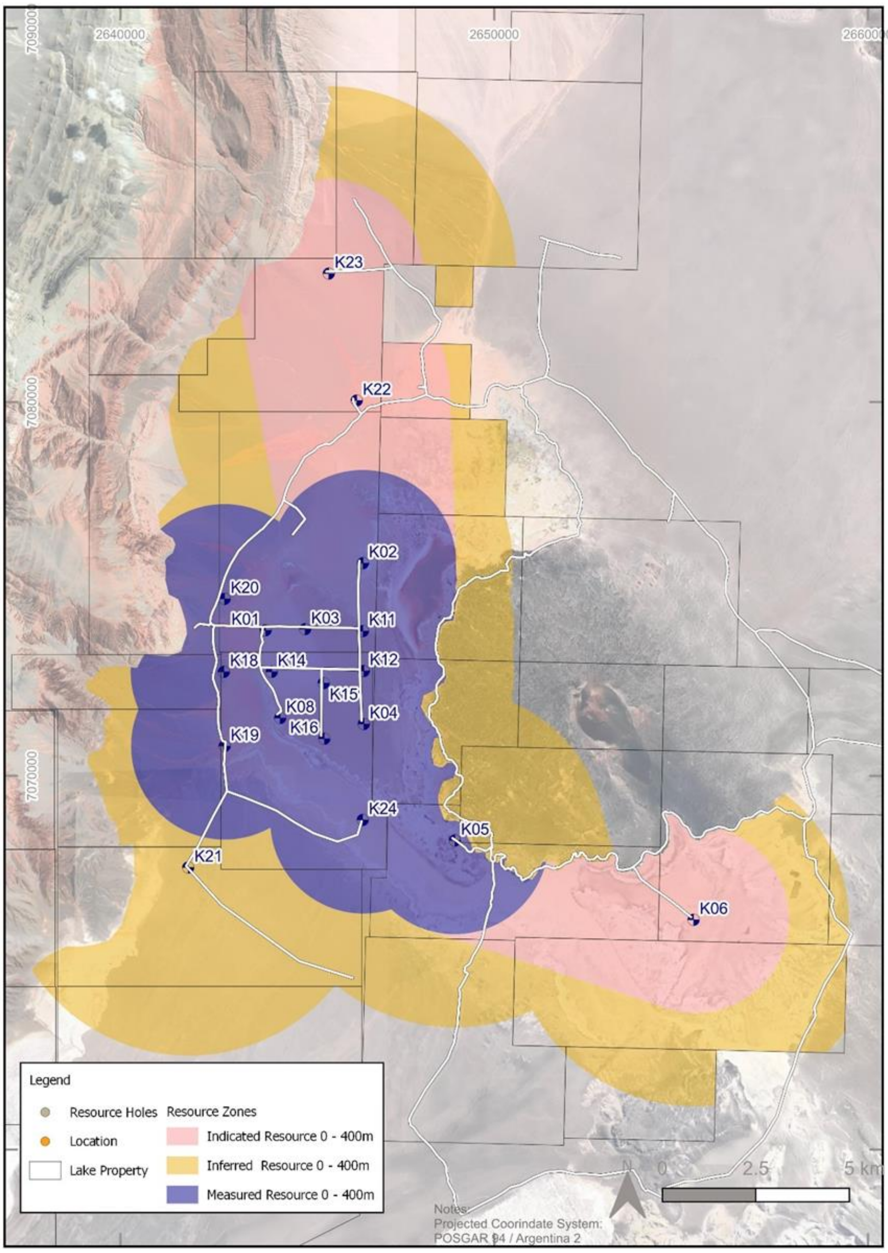


Figure 2 Diagram showing the Measured (purple) and Indicated Resources (red), with the surrounding area of Inferred Resource (orange)

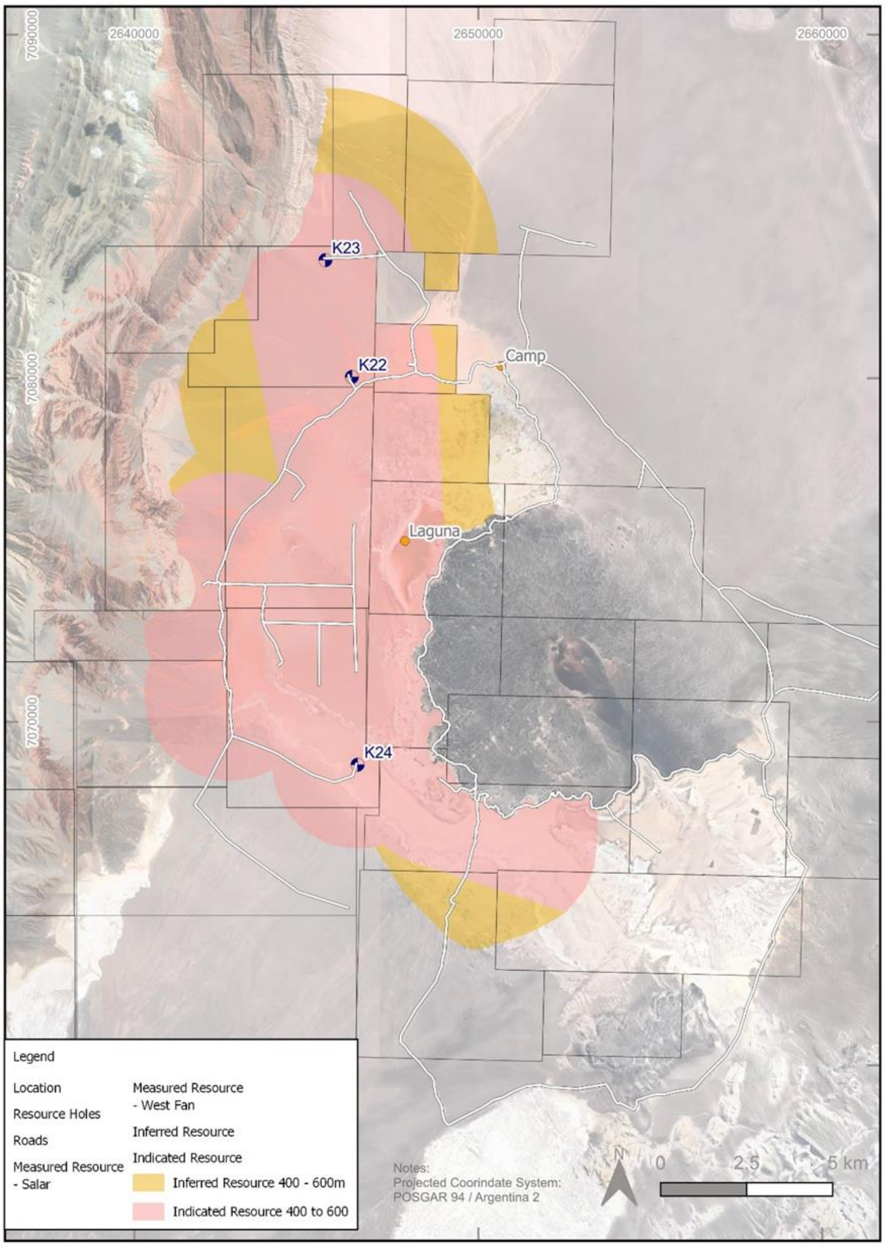


Figure 3 Plan view map of the Indicated Resources (red), with the surrounding area of Inferred Resource (orange) at a depth of 400 – 600m

A detailed description of the Project background and resource assessment methodology is provided the Appendix. A summary of the assessment is provided in the subsequent sections.

PROJECT BACKGROUND

The Kachi Project is located on the Carachi Pampa basin at the south end of the Puna geographical region, Argentina (**Figure 4**). The modern-day Puna Region is the southern continuation of the Bolivian Altiplano with an average elevation of 4,400 meters above mean sea level (amsl) although Project elevations are considerably lower, about 3010 amsl, which provides considerable advantages from a climate and operations perspective.

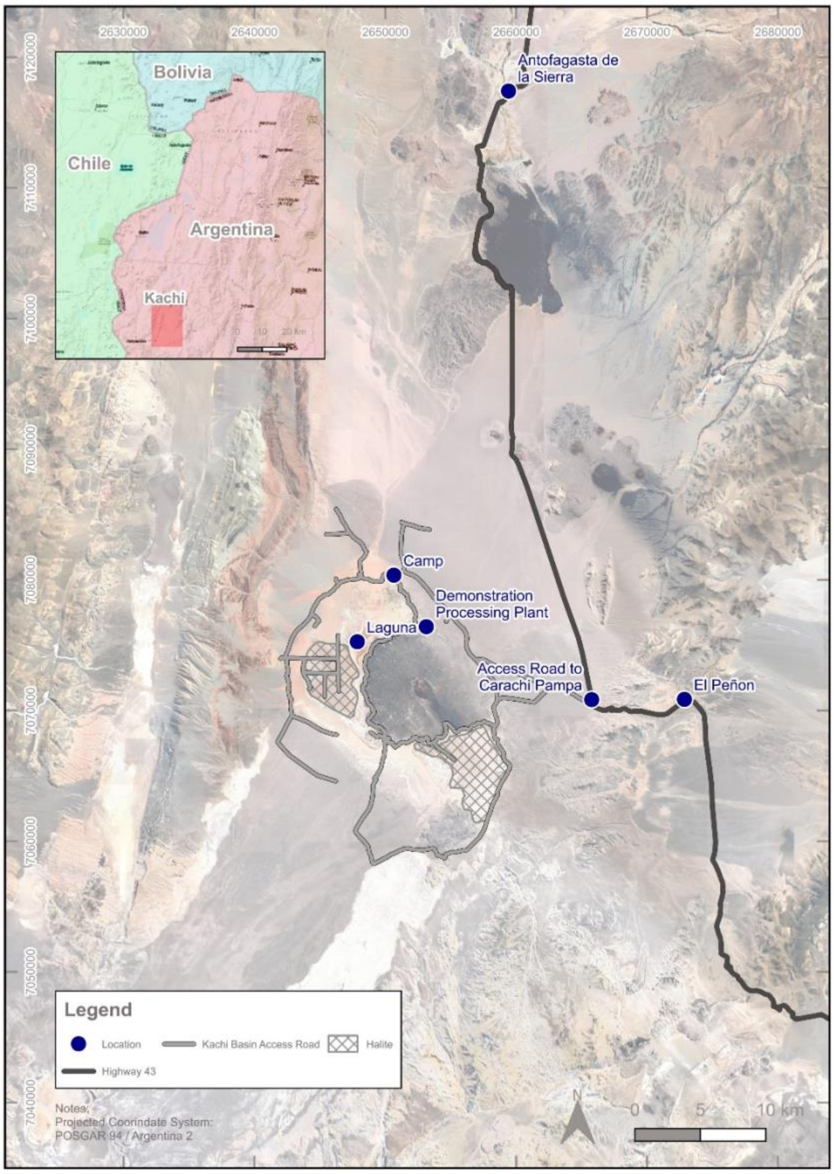


Figure 4 Kachi Project Location and Layout

PROPERTY HOLDINGS

Lake Resources holds 53 mineral leases (Minas) in the Basin covering the surface of the salar and surrounding areas (**Figure 5**). The mineral leases are summarized in Table 5 below (following the text), with the property names, file numbers, and details of the approvals related to each of the concessions.

All information regarding the legal status of the properties was provided by the members of the Legal Department of Morena del Valle Minerals SA (MVM), the local subsidiary of Lake Resources in the Province of Catamarca. The status of properties has not been independently verified by the Competent Person, who takes no responsibility for the legal status of the properties.

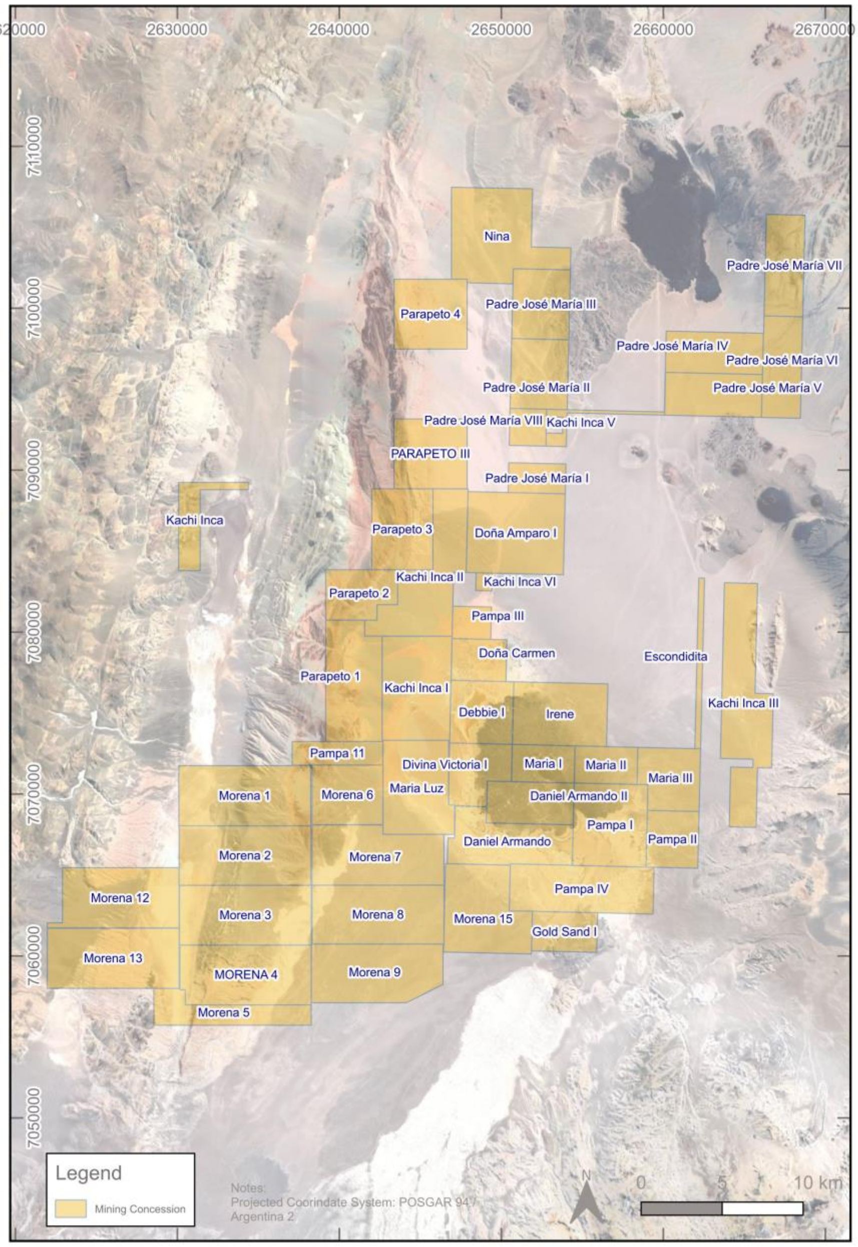


Figure 5 Kachi Project Mineral Concessions

GEOLOGY AND GEOLOGICAL INTERPRETATION

The Carachi Pampa basin is an arid, closed basin comprised of interbedded lacustrine and alluvial sediments of gravels, sands, silts, and clays, with episodic volcanic deposits of ignimbrites, tuffs, and basalts (**Figure 6**). The basin is bounded to the east and west by north-south trending mountain ranges formed by thrust faulting exposing basement sequences in outcrops that rise to an elevation of about 5,100 m amsl. The Cerro Blanco pyroclastic complex is located on the south of the basin and is the primary source of the pyroclastic flows that deposited the ignimbrites and tuffs, while the Antofagasta de la Sierra and the Cerro Galan volcanic complex form the highlands in the north and northeast borders of the basin. The ranges to the east are composed of crystalline pre-Cambrian basement that gently slopes down to the basin floor. Red bedded sandstone and claystone sequences of the Geste and Patqia de la Cuesta Formations outcrop in the Los Colorados Range along the western edge of the basin. Extensive alluvial fan deposits form to the north, south, east and west of the central salar as coarse-grain, high energy sediments were shed from the nearby steep terrains. Altogether the basin drains a watershed area of 9,494 km^2.

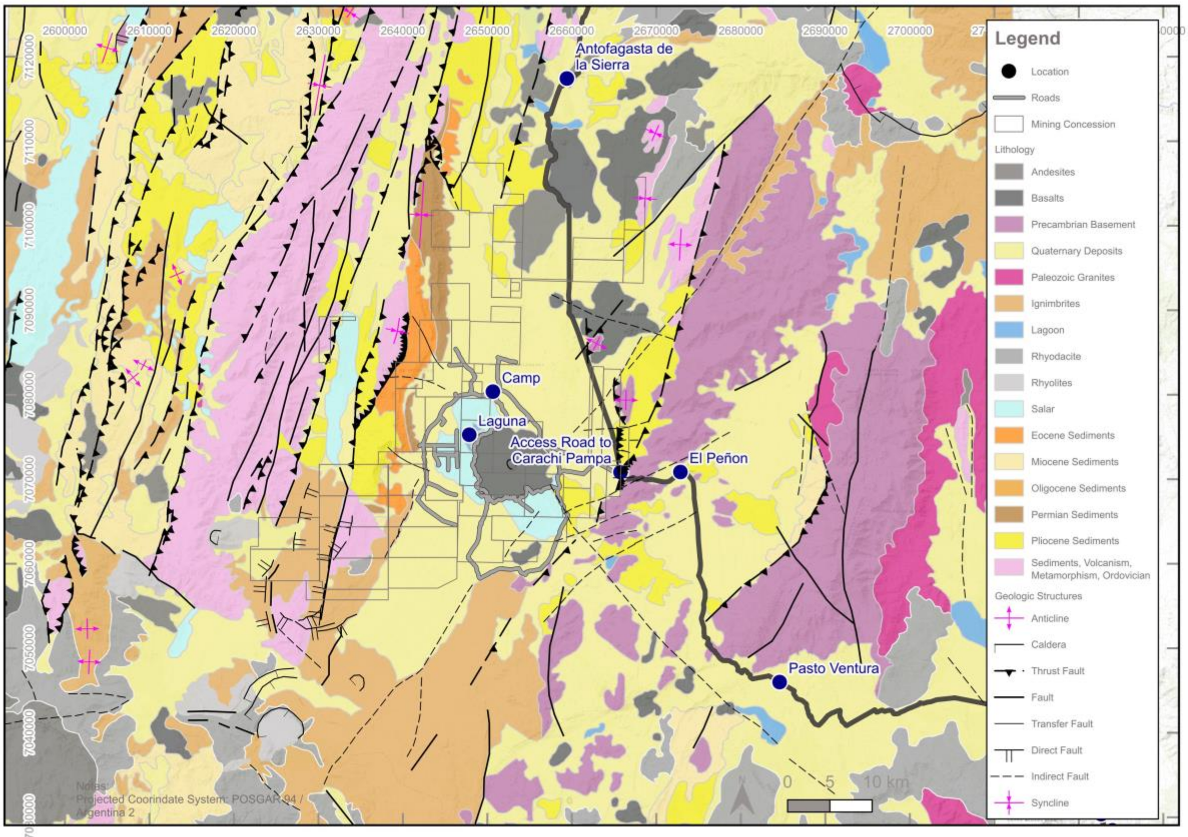


Figure 6 Geology of the Kachi Project Area

The center of the basin is dominated by the Quaternary basalt flows and the cider-cone of the Carachi Pampa Volcano. The volcano penetrates basin sediments to the east of the salar, with flow and air fall basalts creating a veneer over the lacustrine sediments. The volcano has a northwest-southeast striking fissure vent that is interpreted to be underlain by a northwest-southeast aligned intrusive dyke or plug of much smaller dimensions than the basalt cone has at the surface.

Salars occur in closed basins with no external drainage in dry desert regions where evaporation rates exceed surface and groundwater recharge rates. Evapo-concentration of surface water and groundwater in these basins results in the concentration of dissolved salts that eventually develop saline brines. Two types of salars are classified by Houston et al. (2011)[14]: 1) mature, halite dominant and 2) immature, clastic dominant. Kachi appears to be transitioning from an immature, clastic dominated salar, to a more mature system with the beginning formation of a surficial salt layer with halite that extends to several meters depth.

The salar sediments are predominantly intercalated sands and clayey silts (**Figure 7**), which constitute a leaky aquifer, with the entire sequence of sediments potentially contributing brine flow to wells. Higher brine flows are obtained from intervals with high sand content and higher permeability, with the brine grades generally comparable between geological units. The salar is surrounded on all sides by alluvial and aeolian fans of varying dimensions and significance. Most important are the Western Fan Complex and South Fan (**Figure 8**) which have intercepted coarse-grained lithium bearing brines. The North Fan is also important as coarse-grained lithium bearing brines have also

[14] Houston, J., Butcher, A., Ehren, P., Evans, K., and L. Godfrey. The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards. Economic Geology, v. 106, pp. 1225–1239

been intercepted in this sector and the sector is host to a substantial freshwater aquifer or wedge, that overlies the lithium bearing brines.

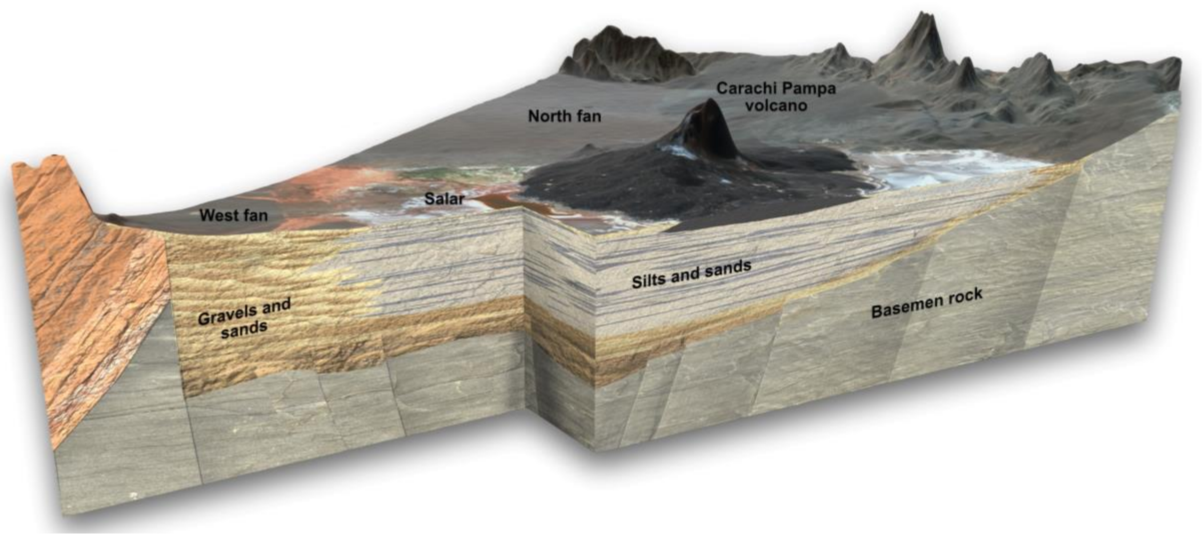


Figure 7 Conceptual hydrogeologic section through the Kachi Project, looking towards the northeast.

Pumping and injection tests completed in August 2023[15] on two different test wells indicate that the fine-grained sand reservoir of the central resource area is permeable, with measured hydraulic conductivity values in the range of 2 to 4 m/d. The testing indicates that appropriately designed production wells with well screens of 150-200 m in length could produce more than 65 L/s[16]. The testing also provides a proof-of-concept for the operation of injection wells in the central resource area. Injection wells are also likely to be installed on the margins of the basin in the more permeable alluvial fan deposits to west. A detailed description of the geology and hydrogeology of the basin is included in **The Appendix**.

[15] August 16, 2023 ASX Announcement - Lake Resources Completes Intermediate Milestone to Achieve DFS with Successful Extraction and Injection Tests at its Flagship Kachi Project

[16] L/s is an abbreviation for liters per second

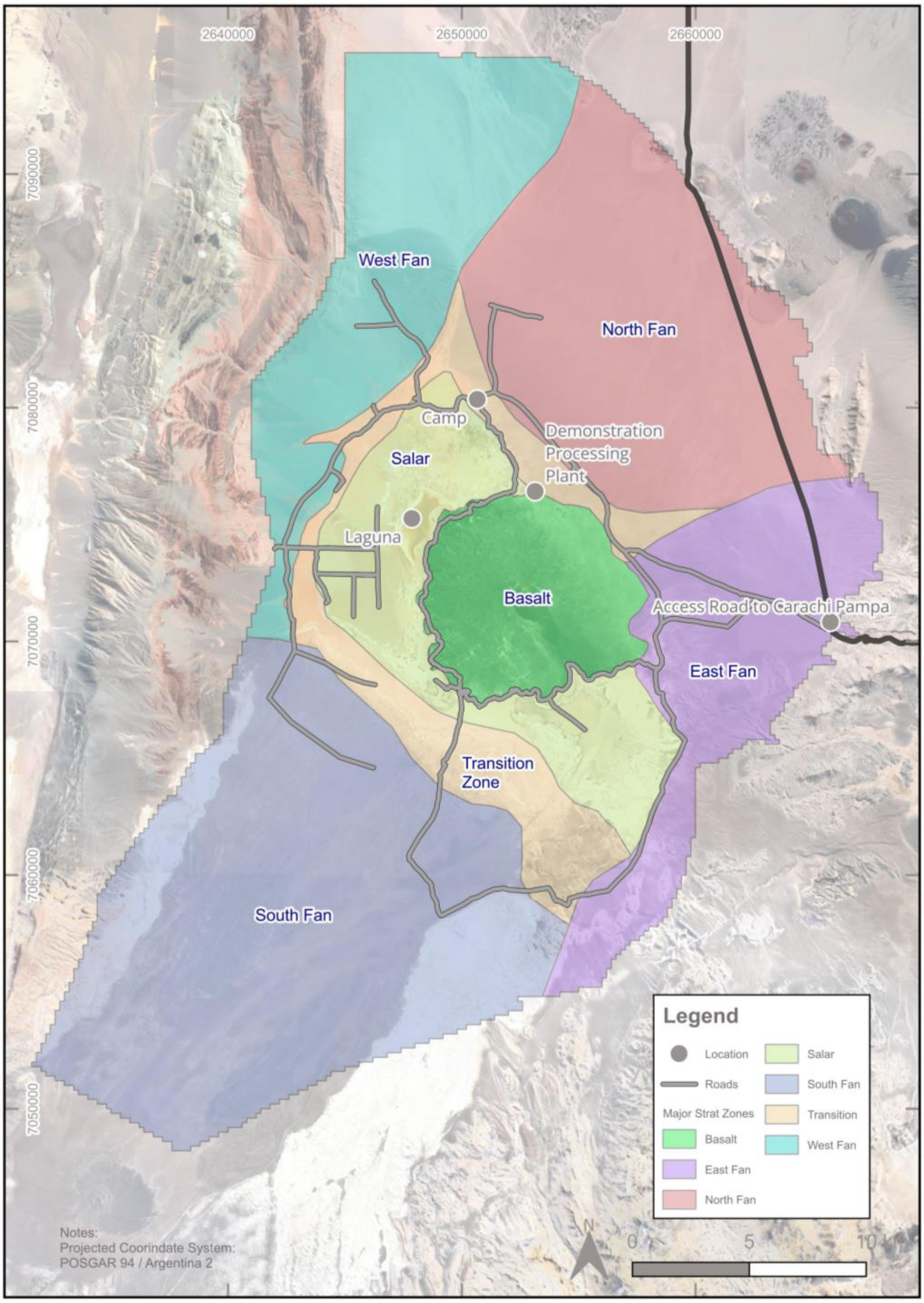


Figure 8 Environment of Deposition Map

DRILLING AND SAMPLING TECHNIQUES

Brine samples from the characterization program have been collected with a variety of sampling methods including:

- Packer (single and double);
- Test well development and long-term pumping tests;
- Installed piezometer screens (airlifting);
- Spearpoint; and,
- Bailer.

Conventional mud rotary drilling was used to drill the larger diameter pumping test wells installed in 2022/2023 and in some of the earlier drilling programs for piezometers. During the 2022/2023 resource characterization program the packer sampling and piezometers have been in holes drilled using a diamond drill rig, generally with PQ casing and packer assemblies to 400 m bgs and HQ casing and packer assemblies from 400 to 600 m bgs.

Packer sampling from diamond drill holes and sampling from installed piezometers and wells have been the principal methods used to acquire geochemical brine samples. Since May 2023, the packer sampling has been entirely single packer configurations, as these have been found to yield the most reliable samples. Additionally, lugeon tests have not been performed since that time to improve hole stability. Standard operating procedures for packer sampling are followed, with significant development of the test interval, extraction of at least three (3) borehole volumes (measured from surface to hole bottom). Sampling only occurs once brine is clear and field chemistry parameters are stable and indicative of reservoir fluids. Samples are collected in 1 Litre plastic bottles with field geochemistry parameters recorded. Samples are stored in the sample storage area (climate-controlled container) until shipped to the laboratory. The type of drillhole and sample approach is included in Section 1 of **JORC Table 1** and further details are provided in **the Appendix**. Drill hole collars with key analytical laboratory results are presented in Table 5.

Additionally, downhole geophysical logs have been collected since May 2019 on most drillholes where conditions are suitable to do so. There are an extensive set of logs including gamma logs, resistivity, acoustic televiewer, inclination, calliper, temperature, and Borehole Magnetic Resonance (BMR). Wells K03R12, K04R15 and K08R14 were retrospectively logged, with installed PVC casing facilitating use of the BMR tool and a total of 16 drillhole have been logged with BMR. BMR logs have been highly useful for identifying zones of movable, capillary and immobile water, specific yield estimates, and relative assessments of hydraulic conductivity. The geophysical logs were limited to 400 m and therefore deeper holes also only have geophysical logs to 400 m.

MINERAL RESOURCE CLASSIFICATION CRITERIA

Preparation of this resource estimate has been led by Andrew Fulton, Competent Person (CP) and Principal Hydrogeologist at Groundwater Exploration Science (GES), with support from Murray Booker (Hydrominex) and Lake's technical team. The resource estimate is prepared in accordance with JORC 2012 standards and although JORC 2012 does not address lithium brines specifically in the guidance documents, the CP has taken into account the Australian Association of Mining and Exploration Companies (AMEC) Guidelines for Resource and Reserve Estimation for Brines and the NI 43-101 guidelines for lithium brines, set forth by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM 2014). The CP considered these guidelines, the intent of the JORC 2012, and experiences from other salars and projects for resource estimation at the lithium brine deposit in the Carachi Pampa Basin.

As with all Projects, the Kachi resource was explored initially with limited drill hole data and an uncertain understanding of the basin complexity. Subsequent drilling programs focused on the central area, with a relatively tight drillhole pattern, robust maiden resource. The 2022/2023 characterization program has focused on expanding the spatial and vertical delineations as well as testing the hydraulic properties of the reservoir materials. These studies in combination with the related hydrogeological conceptual and numerical model development, have led to a significantly improved understanding of the hydrogeology and hydrogeochemistry of the basin as well as the continuity and extent of the brine in the subsurface.

With respect to what is a reasonable distance for data to be extrapolated beyond the drilling area, as a fluid, brine resources are likely to be rather more uniform than a hard rock mineral resource. This is the rationale used by Houston et al. (2011) when suggesting guidelines for interpolated sampling in an immature salar should be 7-10 km between wells for an Inferred Resource, 5 km for an Indicated

Resource and 2.5 km for a Measured Resource. Where the resource is open, and in the absence of any potential hydrogeological boundaries, it was considered reasonable to use the same distances for extrapolation distances beyond measurement locations. However, where there was more uncertainty, the extrapolation distance was reduced further.

The current “measured” resource was defined using a protocol of a 2.5 km radial influence around each drillhole. The spacing of drillholes within the Measured Resource is about 1.5 km.

MEASURED MINERAL RESOURCES

A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Ore Reserve or under certain circumstances to a Probable Ore Reserve.

The Measured Resources (**Figure 2**) are within the center of the resource area, over where the stratigraphy is continuous and well correlated, brine chemistry and grades are consistent and as a result there is a high degree of confidence. There are two components of the Measured Resource, the salar deposits and a portion of the West Fan Complex. The drill spacing in the Measured Resource area ranges from 1.1 to 1.9 km and averages approximately 1.5 km. The average is less than guidance for an appropriate drill spacing for Measured Resources in clastic salars[17]. Furthermore, pumping tests that extracted more than 16 million liters (K12R34) and 31 million liters (K11R29) respectively, demonstrated remarkably consistent lithium concentration[18], further confirming grade continuity with a high degree of confidence indicative of a Measured Resource designation.

The specific yield value of the West Fan Complex Measured Resource is 9.5-percent. This is a conservative value, given that most of the fan materials may be more consistent with K23D40, which had a median specific yield porosity value of 16-percent[19].

The Measured Resource category only extends to the 400 m depth, given that only two holes extend significantly below this depth, despite lithium drilling intercepts to the to the current maximum depth of 610 m bgs.

INDICATED MINERAL RESOURCE

An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow

---

[17] Houston, J., Butcher, A., Ehren, P., Evans, K., and L. Godfrey. The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards. Economic Geology, v. 106, pp. 1225–1239

[18] October 4, 2023 ASX announcement - Further Drilling at Flagship Kachi Project Reveals Higher Lithium Grades and Large Vertical Extension of Lithium-Bearing Brine

[19] Geosystems Analysis (GSA), 2023. Brine Release and Physical Property Testing for Kachi Lithium Project. August 2023.

the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

Indicated resources are defined in the southern sector of the deposit between drillholes at sites K05 and K06, where it is clear that lithium enriched brine continues, as does the same generalized stratigraphy. The recent TEM survey also supports the continuity of the brine through this sector of the Project, which further supports the drilling and lithological correlations. However, the grades in this sector tend to be lower, and the chemistry of these holes has subtle differences compared to the Measured Resource area. These earlier drillholes had some difficulties with sample collection and it is possible there was dilution of some brine samples from overlying zones. However, there may also be freshwater dilution in this sector associated with groundwater inflow from the east or elsewhere. As a result of these considerations, the resources were classified as an Indicated Mineral Resource.

The results of K23D40 confirm the presence of brine north of the salar, as identified in the TEM survey. The grade from K23D40, averaging 228 mg/l over 322 m, is consistent with lithium concentrations further south in the salar area and with K22D39, between K23D40 and the Measured Resource. Based on this continuity of results Indicated Resources are defined extending north of the Measured Resource, with a 2.5 km radius around K22 and K23, as the southern area of Indicated Resources is defined around K06.

Indicated Resources are also defined in the deeper sediments between 400 m bgs and 600 m bgs in the salar area (**Figure 3**). As discussed above, deeper drilling at K23D40 and K24D41 has led to an understanding that the lithium brine extends at least to the top of the basement rock (bedrock) below salar sediments or gravels, filling the void spaces in the sediments. The geologic sediments encountered in the deeper drilling, to 600 m, are a continuation of the overlying depositional environment with the same fine-grained sands dominating the stratigraphy. The consistency in lithium concentrations, fluid density and hydrochemistry with respect to shallower samples are further evidence of the continuity and connectivity of the lithium brine throughout the unconsolidated materials in the central resource area.

In the absence of hydrogeologic boundaries (e.g., basin bounding fault to the west of the salar), the continuity of the Indicated Resource has been constrained to a 2.5 km radius despite the hydrogeological and hydrogeochemical evidence that it may potentially be more expansive.

INFERRED MINERAL RESOURCES

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

Much of the data collected in the Inferred Resource area is associated with more recent step-out holes with reliable data collection (i.e., K21D38, K22D39, K23D40). While the drill spacing is greater in these step-out areas to north and south, the intersected stratigraphy is highly favorable to lithium extraction and generally coarser-grained than in the salar. The Inferred Resource areas to 400 m bgs are shown in **Figure 2**. Inferred Resource from 400 – 600 m bgs is shown in **Figure 3**.

The lithium concentrations, fluid density and hydrochemistry within these recent intersections are very consistent and comparable to that observed within the central resource area. Given the consistency and continuity of both the hydrogeological flow regime and hydrochemistry, locations within the interpolated area (between drill holes) are categorized as Indicated Resource, and within accepted surrounding areas where values are estimated by extrapolation with further extrapolation to 5 km (and locally beyond this distance) being Inferred Resource.

Brine saturated sediments extend beneath the shield volcano east of the salar, but to date, no drilling has been carried out in these areas. However, TEM survey results confirm that the highly conductive brine body extends beneath the shield volcano north, west, east and southern margins and is likely to continue beneath the entire volcano, except in the (assumed to be vertical) feeder structure along which the lava was injected before flowing out at the land surface. Additionally, drilling immediately adjacent to the surface lava flows have intersected lithium brine (e.g., K05) and wells north of the volcano, on mineral concessions owned by others, also intersected lithium brine (the Appendix). Given the continuity of stratigraphy, lithium brine intersects and brine TEM signatures, the Inferred Resource is reasonably extrapolated beneath the volcano.

SAMPLE ANALYSIS METHOD

Lithium Concentration and Hydrochemistry

Samples are taken in triplicate, with primary sample analyses split between two analytical laboratories. In the earlier days of the Project the Alex Stuart laboratory (AS) was used as the primary laboratory, this was later changed to the SGS laboratory (SGS). As a result of recent sampling having samples generally run at both the primary and check laboratories, there are 246 duplicate pairs. A backup sample is stored onsite at the operations centre in a secured, climate-controlled storage container and away from sunlight.

In total, there are 695 total samples in the database at the time of this update with 375 resource samples and 57 QA/QC samples. Samples are analysed for density (at 20ºC), alkalinity, bicarbonate, carbonate, chloride, calcium, strontium, iron, lithium, boron, magnesium, manganese, sodium, potassium, zinc, pH, total dissolved solids, sulphate by established laboratory methods (refer to the **Appendix**).

A total of 246 duplicate pairs shows a bias for SGS under-reporting Li values at the 25th percentile, matching well with AS at the median percentile, and over-reporting at the 75% percentile.

In addition to lithium characterization work, a subset of Project area samples and more regional samples were analysed for strontium isotopes (Sr87/Sr86), stable isotope ratios (δ 18O, δ 2H) and tritium (3H) to improve our understanding of groundwater flow regime in the Carachi Pampa Basin, including major inflows and sources of groundwater recharge and regional scale flow paths[20]. While these data were not used in the resource estimate, they have significantly improved our understanding of the hydrogeological system and are used to support conceptual and numerical model development of the Carachi Pampa Basin.

DRAINABLE POROSITY

A total of 245 core samples have been analysed using the Rapid Brine Release (RBR) method at Geosystems Analysis (GSA) laboratory in Tucson, Arizona. An additional 20 core samples were

[20] Lithium Solutions, 2023. Hydrophysical Water Budget Assessment and Hydrogeochemical and Isotopic Tracing of Water Source and Transit in Carachi Pampa Basin, Argentina, Kachi Project (Lake Resources). Submitted by Brendan J. Moran, Ph.D., and David F. Boutt, Ph.D.

analysed using the Relative Brine Release Capacity (RBRC) method at the Daniel B. Stephens laboratory in Albuquerque, New Mexico for comparison to GSA results. The laboratory test work is used to support the understanding of drainable porosity and comparison to the BMR data from the downhole geophysical surveys. However, when available, the in-situ BMR data is used for the resource model development, due to the high frequency nature of the data (i.e., continuous downhole), which is aggregated to 10 m values. The BMR data is systematically lower than the laboratory data and therefore is considered conservative relative to the laboratory drainable porosity data.

Bulk density, particle size analyses and specific gravity are also determined on selected core samples. Particle size distribution results have been used to design planned extraction and injection wells for operations.

ESTIMATION METHODOLOGY

Estimation of a brine resource requires definition of:

- The spatial distribution of the host sediments (the aquifer distribution)
- The distribution of drainable porosity (specific yield) values
- The distribution of elements in the brine
- The external limits (geological or property boundaries) of the resource area

The resource grade is a combination of the aquifer volume, the drainable porosity (portion of the aquifer volume that is filled by brine that can potentially be extracted) and the concentration of elements of interest in the brine.

The Kachi sediments are a layered sequence of sediments that contributes brine flow to production wells. More permeable sand and gravel units provide relatively higher flows. The combined 2023 Measured, Indicated and Inferred resources cover 274.8 km^2 (**Figure 2**), significantly larger than the January 2023 Resource area (187.6 km^2)[21] and slightly larger than June 2023 (267 km^2).[22]

The pore spaces of the unconsolidated sediments within the basin are interpreted to be filled with brine below any freshwater, with the "hard" boundaries of the basin, namely the bedrock surface and basin bounding faults, conceptualized to be the limiting factor in brine distribution. However, for the resource estimate the brine extent is limited by:

1. The depth of drilling in various sectors of the basin (the vertical extent of lithium is open in all areas of the deposit but below the maximum depth of drilling at the site) no resource is estimated.
2. The basin bounding fault to the west (**Figure 7**).
3. Constraints on interpolations and extrapolations under the volcano in the basin center (**Figure 7**), to add conservativeness to the Inferred Resource estimates given higher uncertainty in that area.
4. The top surface of the resource is defined by the top of brine surface (i.e., bottom of brackish water layer).
5. Top of basement surface defined by drilling intersections, and lack thereof, and extensive passive seismic data sets.
6. Constraints on the spatial extents of the extrapolation resources to radial distances to incorporate a degree of conservativeness rather than extension of the resource to conceptual limits such as distal basin boundaries conceptualize to limit the brine extent.

---

[21] January 11, 2023 ASX Announcement - Kachi M&I Resource doubled to 2.2 million tonnes Lithium Carbonate Equivalent with 3.1 million tonnes Inferred resource

[22] June 15, 2023 ASX Announcement - Lake Resources Provides JORC Update on its Flagship Kachi Project

At depth the passive seismic geophysical survey basement topography is calibrated with two drill holes to date and provides a limit for the resource, which extends no deeper than 600 m, the maximum depth to drilling to-date.

Within the salar the three-dimensional distributions of the different stratigraphic units were defined using Leapfrog software (**Figure 9**), with these units based on geological and geophysical logging observations, correlation between resource drillholes and environment of deposition mapping (e.g., to delineate alluvial fan and transition zones).

BMR downhole geophysics was used to provide drainable porosity data to generate a block model across the salar area, applying ordinary kriging to the composited drainable porosity data (i.e., 10 m vertical averaging of BMR data). The BMR data was compared with laboratory test results for physical properties and provides a higher resolution, albeit more conservative, data source.

The distribution of lithium was estimated from interval sampling data from surface to maximum drilling depth (610 m bgs at K24D41). Samples were nominally targeted at spaced of 20 m intervals, but actual sampling depended on conditions of the drill stability. The average distance between samples varies statistically based on duplicity. Where discrete intervals are considered with duplicate samples averaged, the sample separation is 36 m. Where all samples are averaged over exploration drill meters, sample separation is 19 m.

The assay data contained several sites where multiple samples were taken in different ways (installed piezometers with fixed screen intervals, in addition to packer sampling) and these were averaged, and the mean used within the resource calculations (the **Appendix**). The duplicate results for each individual sample taken were also averaged with primary laboratory results, for consistency in the results utilised for estimation.

The block model was constructed with 400 m by 400 m blocks, with 10 m vertical extent (**Figure 10**). The resource estimate was undertaken using Leapfrog software, with variograms developed for the drainable porosity point samples (from the BMR data) and the lithium concentrations. Estimation was undertaken using ordinary kriging for the much higher number of BMR drainable porosity samples and Inverse Distance Squared estimation for brine samples, which are much more limited.

The drainable porosity data was estimated in two passes for the Measured and Indicated Resources within a 2.5 km radius and three passes for the model including Inferred material up to 5 km from drill holes, with an expansion of the search ellipse in each pass. Estimation was conducted with Ordinary Kriging for the first two passes and utilised Nearest Neighbour estimation for the third pass. The area classified as Measured was not directly related to the passes as the compact drill pattern as contained within a tight radius and therefore the area considered as measured is within Passes 1 and 2. restricted to within a 2.5 km radius from drill holes, in keeping with the suggestion of Houston et. al.[23] For estimation of the lithium concentration the Inverse Distance Squared method was used, with two passes with expanded search radii for the Measured Resources estimated in the 2.5 km radius and a third pass for the area which has been classified as Inferred. The product of drainable porosity and lithium concentration (**Figures 10 and 11**) estimation was calculated by Leapfrog and displayed in the Edge statistics module.

The resulting Measured, Indicated and Inferred Resources are presented in **Table 2** and in plan view in **Figure 2** and **Figure 3,** and 3-dimensional view (**Figure 9**).

[23]Houston, J., Butcher, A., Ehren, P., Evans, K., and L. Godfrey. The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards. Economic Geology, v. 106, pp. 1225–1239

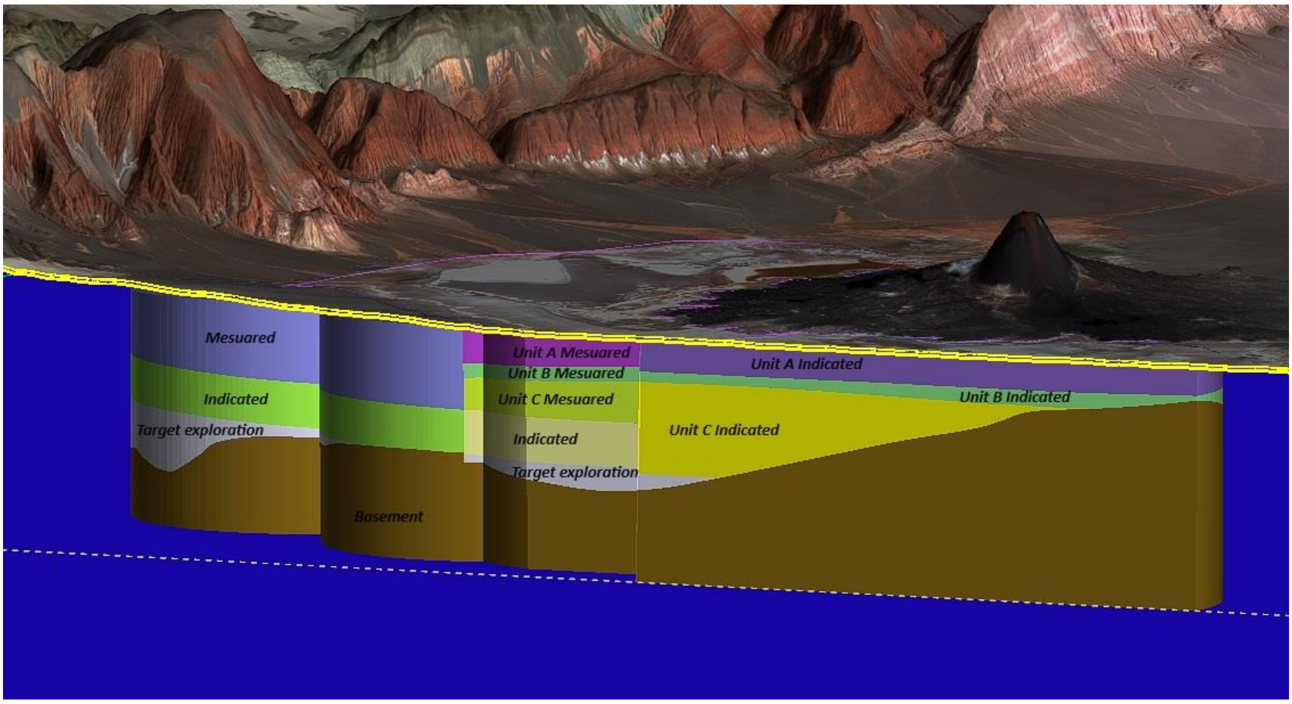


Figure 9. Resource Classifications, looking north through the Resource area.

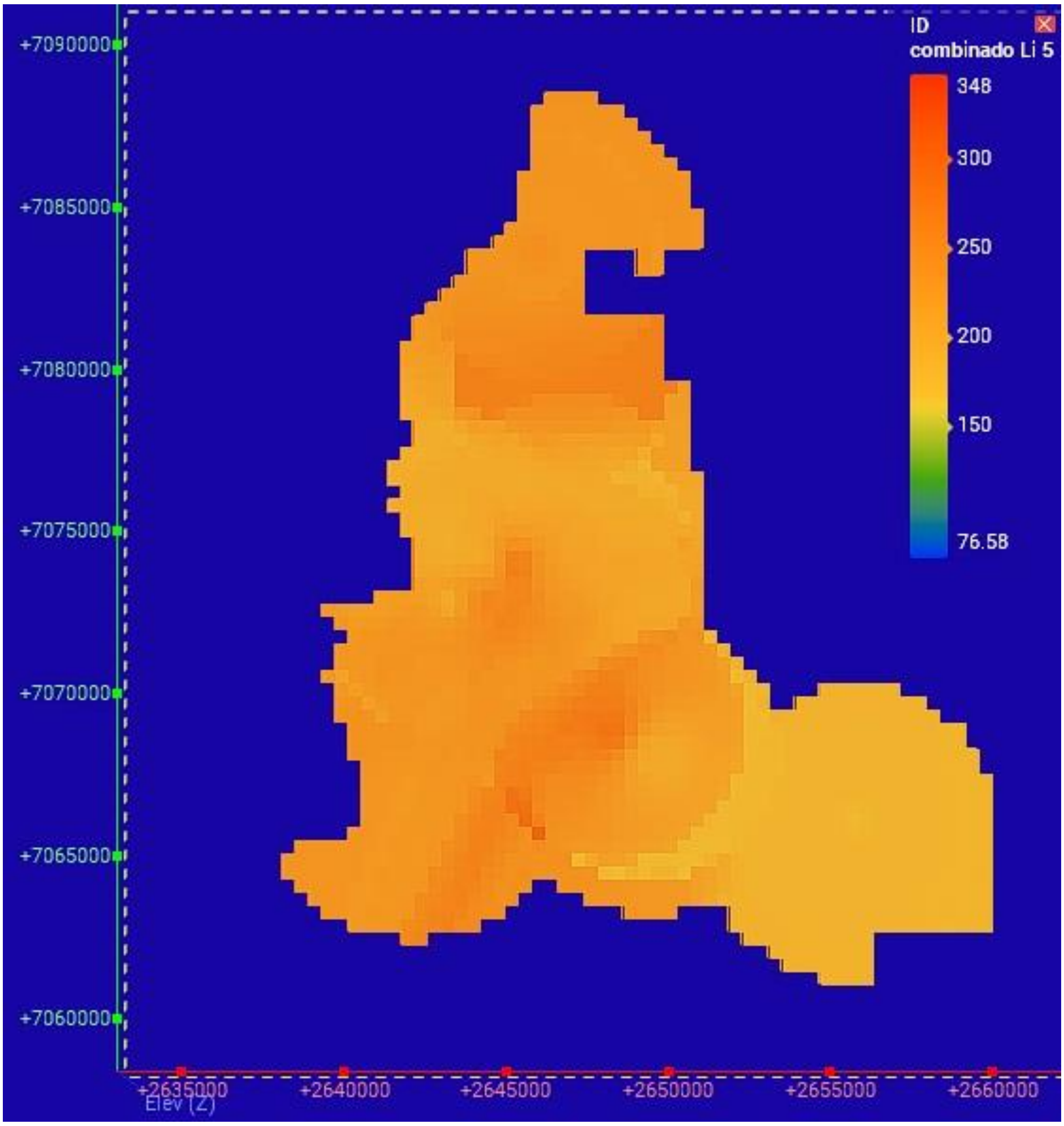


Figure 10. Interpolated and Extrapolated lithium concentrations at 2800 m asl, centred on Unit B

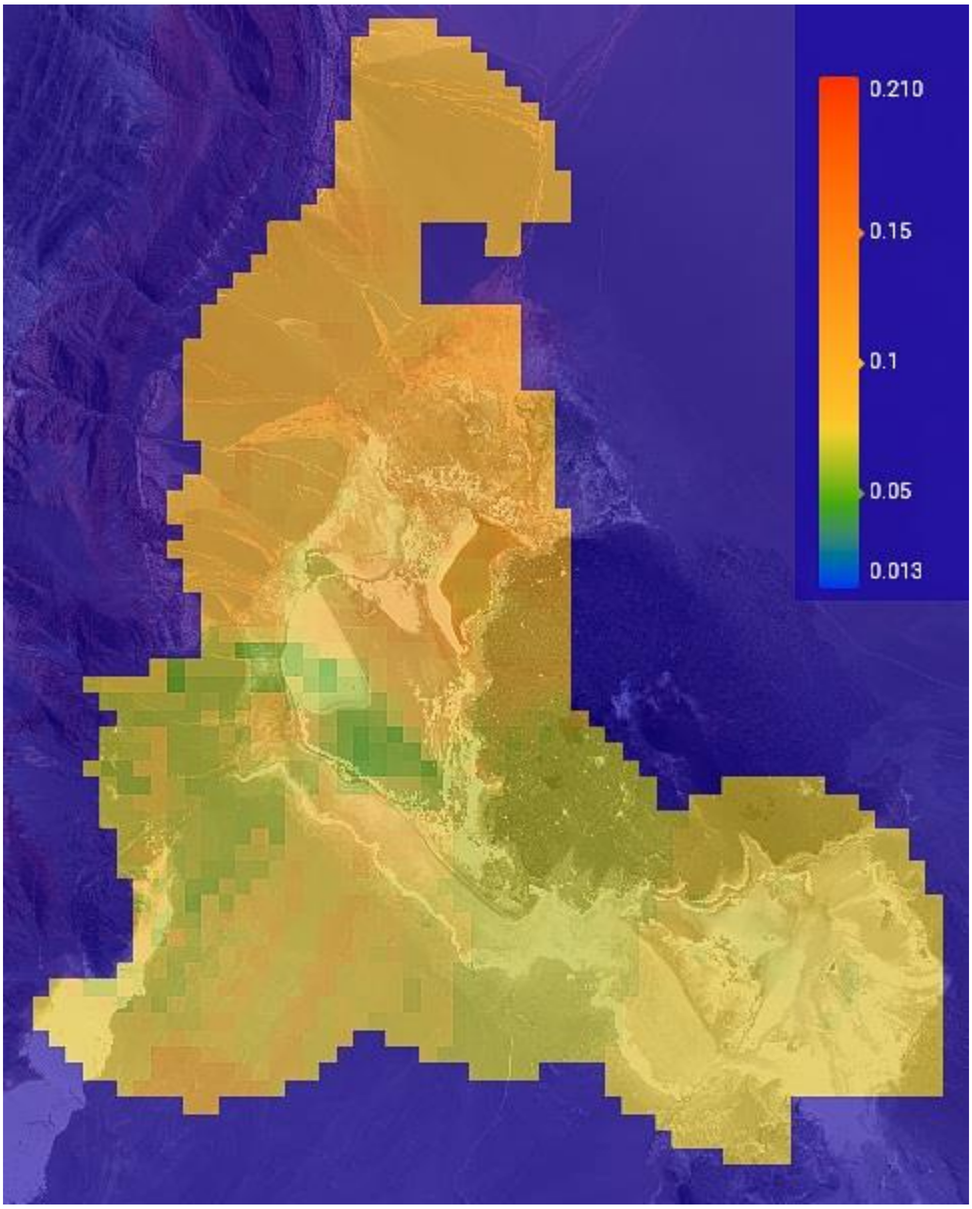


Figure 11. Interpolated and Extrapolated Specific Yield at 2800 m asl, centred on Unit B. The outline is projected to surface, with the satellite image of the salar shown.

Lithium bearing basin sediments now cover a much larger volume, which is reflected in the increasing depth of drilling. The lithium brine Indicated Resource has extended significantly in vertical dimension, occupying the volume of sediments between 400 m and 600 m bgs beneath the Measured Resource.

Inferred Resources are also extended under the western part of the volcano but are likely to extend under all of the volcano, excluding the conduit (dyke) by which magma rose to surface and flowed at surface to form the volcano.

Table 2 Updated resource estimate of contained lithium

Measured November 2023 (to 400 m depth)

Unit	Sediment Volume m^3	Specific Yield %	Brine volume m^3	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**	**570,000**	**3,035,000**

Indicated November 2023 to 600 m

Unit	Sediment Volume m^3	Specific Yield %	Brine volume m^3	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 + Indicated

	Sediment Volume m^3	Specific Yield %	Brine volume m^3	Liters	Li mg/l	Li grams	Li Tonnes	Tonnes LCE
	75,419,570,000		6,078,004,000	6,078,003,721,000		1,370,887,596,000	1,370,000	7,293,000

Inferred November 2023

Unit	Sediment Volume m^3	Specific Yield %	Brine volume m^3	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**

- 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 100 mg/l cut-off.
- Numbers may not add due to rounding.
- Specific Yield (Sy) = Drainable Porosity
- Lithium is converted to lithium carbonate (Li2CO3) with a conversion factor of 5.323. For details on the lithology units please refer to the June 15, 2023, August 22, 2023, and October 4, 2023 ASX announcements.
- Fan West refers to the area shown in Figure 8, Fan North refers to the area in red in Figure 8, Fan South refers to the grey area in Figure 8 and Under volcano refers to the area under surficial lavas (Basalt).

INTERPOLATED AND EXTRAPOLATED RESOURCE

A portion of the various mineral resources have been extrapolated beyond drillhole locations (Table 3 and **Figures 12** and **13**). Such judgements are common within resource estimation and the concept of relative interpolated vs extrapolated resources are in part, important for conveying confidence in the resource estimation process. Reporting of the extrapolated fraction is a JORC 2012 requirement (Reporting on Mineral Resources, Sections 20-28) and as noted in that document, one must consider the style of mineralization, in this case a lithium brine (i.e., a fluid) that fills pore spaces within an unconsolidated porous media. These differences compared to typical hard rock mining projects should be considered when evaluating these proportions. A more nuanced discussion is provided in the Appendix.

Table 3 Interpolated vs Extrapolated Resource

Mineral Resource Category	Total Resource Estimate (LCE)	Interpolated Fraction (% / LCE)	Extrapolated Fraction (% / LCE)
Measured	3,025,000	78	22
Indicated	4,285,000	58	42
Inferred	3,352,000	18	82

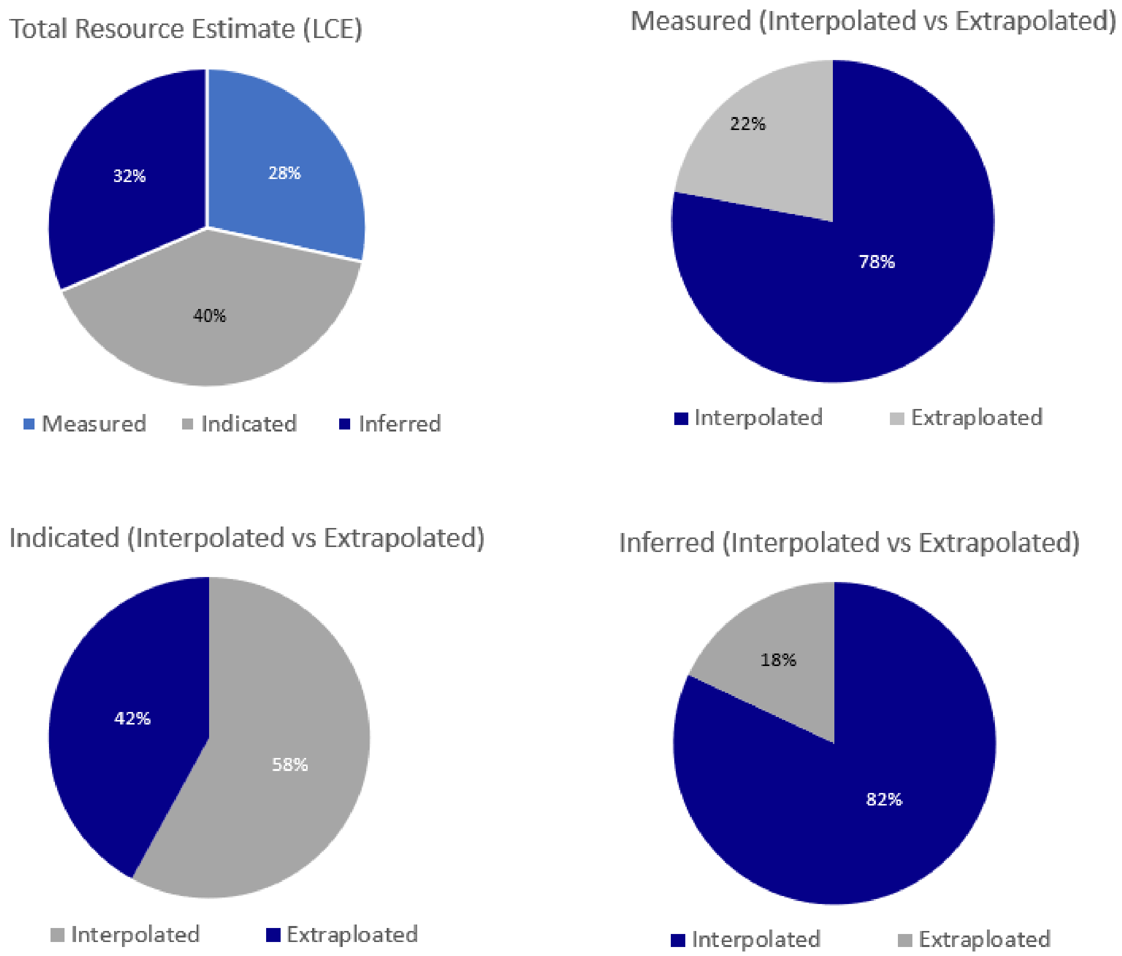


Figure 12 Proportion of Extrapolated Resource by Resource Category and Proportion of Interpolated vs Extrapolated for Resource Components

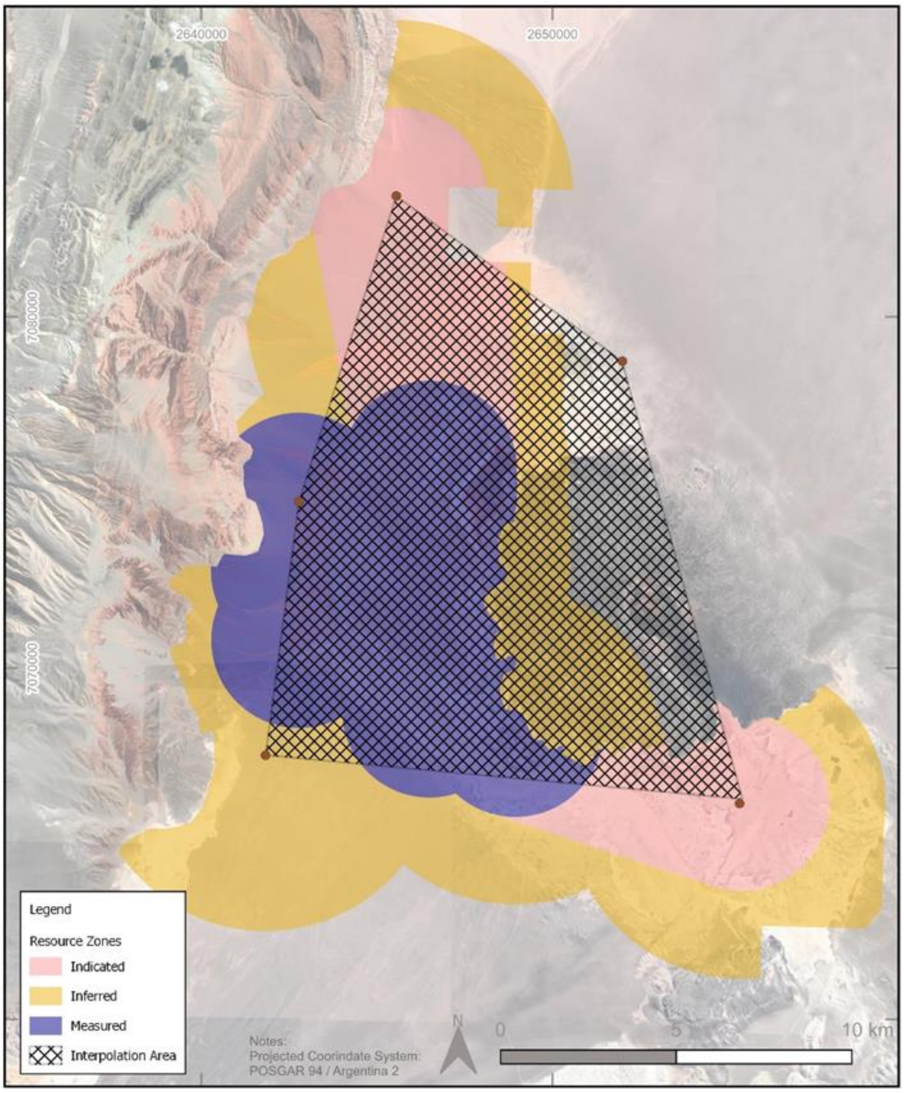


Figure 13. Polygon delineated by lithium brine intercepts (within black polygon) and used to estimate the interpolated resource and the extrapolated resource (beyond back polygon)

EXPLORATION TARGETS

The resource is open laterally to the north and south, east beneath the volcano, as well as at depth. TEM results (refer to June 15, 2023 Resource update) have previously indicated that there are highly conductive brines beneath the rocks of the extinct Kachi strata volcano and the resource also extends further eastward. The volcano is interpreted to have a mushroom-like geometry forming a veneer overlying basin sediment outside of a central core. An Ambient Noise Tomograph geophysical program (ANT) is planned for 2024 to explore the geology under these volcanic rocks, in addition to improved definition of the distribution of brine away from the salar.

The TEM geophysical survey better defined the distribution of brine away from the central salar area. This highlighted the probability of defining additional resources north and south of the current resources, within the large conductive zone that encompasses the salar and current resources. Although the TEM does not confidently define the bottom of the conductive unit it suggests that brine probably extends to the base of the basin (as current drilling has proven in the areas tested), with substantial potential to define additional resources in deeper drilling (**Figure 14**). Recent analytical chemistry results from drilling at Platforms K21 and K23 has substantiated the TEM results observed basin wide.

The exploration target is divided into components which include:

1. Under the Indicated Resource within the central resource area from 600 m to basement.
2. Under the Inferred Resource defined under the basalt shield limited to 4 km from nearest borehole.
3. Under the southern fan between 400 m depth and basement contact.
4. Under western and northern fan between 600 m depth and basement contact.
5. In areas outside the resources inside the properties (out of reserve and southern Piedra Pómez Reserve) from the top of conductive unit to basement contact.

Figure 15 shows exploration target areas which includes the target area from 400 to approximately 700 m depth below existing resource near K24. The extension target area north and south of the resource from the top of the conductive unit to basement. **Table 4** provides a range of grades and tonnages for the exploration target which has been based on known intersection of the TEM data set within the resource area presented above and an assessed conservative range of specific yield in comparison to drill hole information from areas underlying alluvial fan.

Future exploration drilling aims to continue to convert part of the exploration target volume to resources. Note that insufficient exploration has been conducted to conclude with any certainty that the exploration target could be converted to mineral resources.

Drilling is required to evaluate whether the exploration targets can be converted to resources, which may not be possible for different reasons. It is important to note the exploration target contains a range of possible parameters, that are considered to represent the likely range of conditions in this volume, but the results should be considered to have a high uncertainty and are not to be considered resources or to be confused with mineral resources. Noteworthy is the increase in upper range drainable porosity (Specific Yield) which has become a key finding of sediment under alluvial fans from step out drilling.

Table 4 Exploration Target Summary

Sediment Volume m3	Porosity	Brine volume m3	Li g/l	Li Tonnes	Tonnes LCE
115,488,762,000	0.120	13,858,651,440	0.200	2,771,730	14,745,605

Sediment Volume m³	Porosity	Brine volume m3	Li g/l	Li Tonnes	Tonnes LCE
115,488,762,000	0.060	6,929,325,720	0.100	692,933	3,686,401

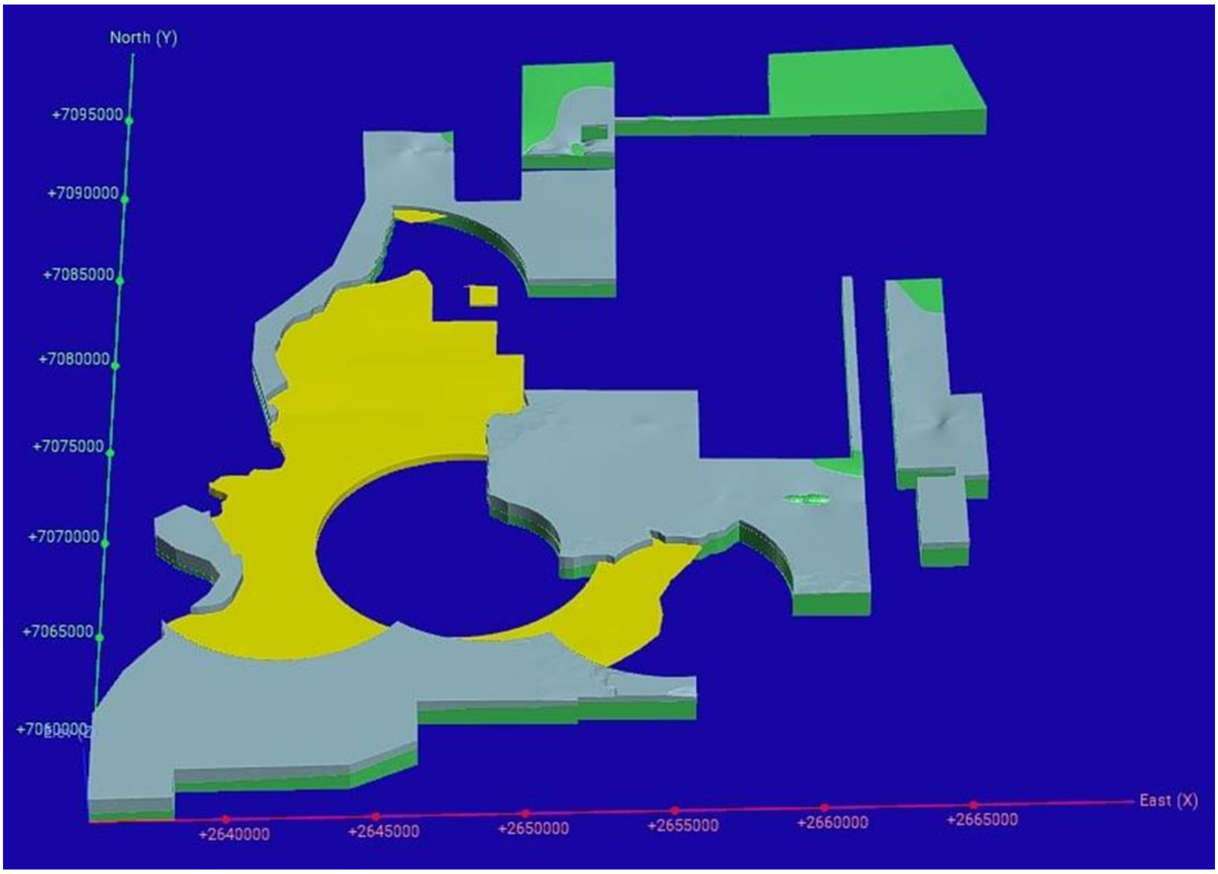


Figure 14: Exploration target areas. Includes target from 600 m to approximately 700 m depth below existing resource. Exploration target area north and south of the resource from the top of the conductive (brine) unit to 400 m depth Extension target area north of the resource from 400 m depth to basement. Note, the potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources.

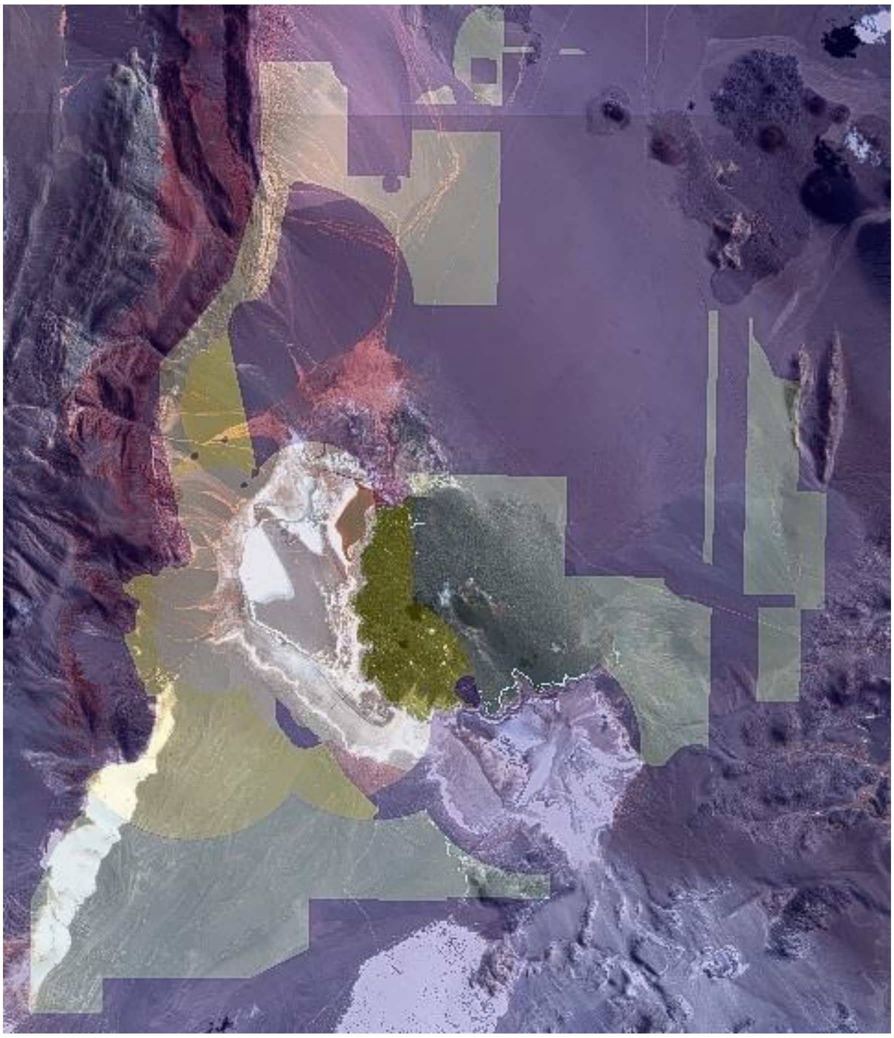


Figure 15: Exploration target areas. Grey areas are within the properties and outside the footprint of resources. Yellow areas are below defined resources. Note, the potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources.

CUT-OFF GRADES

Resources are estimated utilizing a conservative cut-off grade of 100 mg/L Lithium. The cut-off grade is set by comparing the increased wellfield development, production and maintenance costs against the November 2023 spot market price of >$20,000 / ton LCE. It is anticipated that the cut-off grade may be revised further in the future. Grade-tonnage curves are included in the Appendix and indicate that a cut-off grade of 150 mg/L would result in less than a 0.1% reduction in total lithium resource.

MINING AND METALLURGICAL METHODS AND PARAMETERS

Lithium brine will be extracted from the saturated sediments using vertical wells, initially focused on the central resource area. These wells will be at least 400 m deep with screens on the order of 200 m. After brine processing, the spent brine, which has about 20-percent of the original lithium content and 90-percent of the total dissolved solids remaining will be injected back into the subsurface via injection wells and/or potentially rapid infiltration basins. The current plan includes a plant and related infrastructure targeted to have capacity to produce 25,000 tpa of battery grade lithium carbonate from the lithium chloride brine resource. [24]

The feed is extracted and pumped from the brine extraction wells to the Brine Feed Pond, which provides surge volume between extraction wells and the main processing plant. The brine is pH-adjusted to precipitate iron and then fed to a filtration system to remove suspended solids. The filtered brine is then processed in the direct extraction package, which recovers and concentrates lithium to the eluate stream. The direct lithium extraction (DLE) step employs a novel ion-exchange media and system developed by Lilac Solutions to extract lithium from the brine and elute the extracted lithium with hydrochloric acid solution. Waste and depleted brine from the DLE is sent to waste RO treatment and brine reinjection respectively.

The eluate stream is then concentrated through reverse osmosis. The concentrated eluate is treated for impurities by the stage-wise addition of lime and sodium carbonate, with the solid precipitates separated by filtration. Impurity removal is followed by evaporation using mechanical vapour recompression (MVR) technology, making it suitable for further processing into lithium carbonate and recovering water (as RO permeate and evaporator condensate) for recycling. Further trace impurities are removed by ion exchange to target battery-grade product specifications. Lithium carbonate is precipitated from the purified stream by addition of sodium carbonate, the primary reagent input for the process.

The precipitated lithium carbonate is washed through two stages of centrifuging and a stage of repulp washing to achieve the final product purity required. This product is dried and packaged for sale. A recirculation stream from lithium carbonate precipitation, which contains a considerable residual amount of soluble lithium chloride, is fed to a crystallization system for additional lithium recovery, condensate water recovery, and the production of a concentrated sodium chloride brine feed for the chlor-alkali plant. An on-site chlor-alkali plant electrochemically converts sodium chloride from the concentrated brine into hydrochloric acid and sodium hydroxide reagents to meet the demands of the process.

Based on the material presented in this update and the detailed report () as well as previous JORC reports for the Project, the multi-disciplinary team that includes geologists, hydrogeologists, and chemical and civil engineers with relevant experience in brine geology/hydrogeology, direct lithium extraction technologies, and are in collective agreement that the project exceeds the reasonable prospects criteria for economic extraction of lithium from the brine.

MINERAL RESERVE

A hydrogeological model has been developed and calibrated to pumping and injection tests completed at the Project. The model is currently being utilized to simulate various extraction and injection wellfields to maximize lithium recovery rates and minimize potential hydrologic impacts on the Kachi Basin. A maiden reserve for the Kachi Project is therefore in development and will be released to the ASX once the analysis is complete.

ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG)

Salt lakes/salars are a form of wetland, which are inhospitable to all except adapted flora and fauna, and which have been successfully developed as lithium operations coexisting with the native flora and

[24] These figures refer to target plant capacity only and no production target has been set yet as this will be developed as part of the reserve statement. Further information will be available upon completion of the Phase 1 DFS.

fauna in both Argentina and Chile. Argentina is signatory to the Ramsar Convention under the auspices of UNESCO under the Convention on Wetlands (Ramsar, 1971). Ramsar site 1865 “Lagunas Altoandinas y Puneñas de Catamarca” Figure 12-1 in the Appendix) was established in February 2009 under an agreement between the Ramsar Convention Organization and the government of Argentina, represented by the Environmental Secretariat of the Catamarca Province. The provincial government in 2021 approved lithium extraction and mine development at the nearby Tres Quebradas lithium brine Project, located in a similar wetland zone to the Lake Kachi Project.

The Kachi Project environmental area is concluding a socio-environmental baseline study with two years of sampling that included all biophysical components in the environmental area of influence of the project in the Carachi Pampa basin. A specific study has been carried out to project climate change in the period up to 2050. A thorough biodiversity and ecosystem services baseline has been compiled, covering the desert and salt flat with emphasis on the wetlands and lake close to the Carachi Pampa volcano. Special emphasis has been placed on migratory wetland birds given the localization of the project within a Ramsar site. There are national and provincial protected areas some distance from the production project, which may be affected by external infrastructure and logistics activities. Environmental and social management plans and procedures have been developed for minimizing risks in all sensitive areas. Cultural heritage, paleontological and landscape assessments complete the baseline which has been designed in line with the requirements of the Equator Principles.

A social baseline has been constructed from surveys of land use, communities and public perceptions in nearby El Peñon and Carachi Pampa Community, supported by two field surveys with numerous interviews and three community consultation meetings.

The environmental management system will address fresh water and brine management, energy efficiency, alternative energies, and reduction of the environmental footprint associated with the innovative process of ion-exchange lithium recovery. The process will not produce effluent discharges and will have measured airborne emissions of gases and particulate matter withing national standards. Hazardous materials and solid wastes will be managed according to good international industry practices (GIIP in the IFC terminology).

A permitting plan has been developed, with emphasis initially on the Environmental Impact Assessment (EIA) which must be subject to public comment and evaluated by the provincial mining authority leading to an Environmental Impact Declaration (EID) resolution. Approval of this permit will enable the evaluation of the sectoral permits required for the construction and operation of the enterprise.

The ongoing governance of the Kachi Project will address government relations, community relations and internal controls for compliance with obligations and commitments in the social, environmental and normative matters. It will also address community sustainability initiatives to promote long-term benefits of the Kachi project.

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 initial exploration at the Kachi project as prepared by Mr. Fulton

Table 5 Property Details

TITLE										STATUS		
Tenement	Number–- Gde	Title Owner	Title Acquisition	Registration	Tenure Type	Status	Mining Concession	Minerals	AREA (Hectares)	Claims	EIA pending Approval	Royalty
MARIA I	EX–- 2021–- 00362285–- CAT (140/2018)	MVM / Lake	11/15/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1260.0736	12	Not yet submitted	No
MARIA II	EX - 2021–- 00373528–- CAT (14/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	546.9333	5	Not yet submitted	No
MARIA III	EX–- 2021–- 00293511 – CAT (15/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	834.7969	9	Not yet submitted	No
KACHI INCA	EX–- 2021–- 00361579–- CAT (13/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	857.7131	9	Not yet submitted	No
KACHI INCA I	EX–- 2021–- 00432837 – CAT (16/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2880.4365	29	Not yet submitted	No
KACHI INCA II	EX–- 2021–- 00221521 – CAT (17/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2822.7403	29	Not yet submitted	No
KACHI INCA III	EX–- 2121–- 00321200 – CAT (47/2016)	MVM / Lake	8/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3355.3649	34	Not yet submitted	No
KACHI INCA V	EX–- 2021–- 00208240 – CAT (45/2016)	MVM / Lake	10/10/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	305.1754	4	Not yet submitted	No
KACHI INCA VI	EX–- 2021–- 00294250 – CAT (44/2016)	MVM / Lake	8/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	109.787	2	Not yet submitted	No
DANIEL ARMANDO	EX–- 2021–- 00208733–- CAT (23/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3121.876	32	Not yet submitted	No
DANIEL ARMANDO II	EX–- 2021–- 00331263 – CAT (97/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1589.664	16	Not yet submitted	No
MORENA 1	EX–- 2021–- 00328638 – CAT (72/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3024.4662	31	Not yet submitted	No
MORENA 2	EX–- 2021–- 00390312 – CAT (73/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2989.429	30	Not yet submitted	No
MORENA 3	EX–- 2021–- 00361695 – CAT (74/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3007.1366	31	Not yet submitted	No
MORENA 4	EX–- 2021–- 00293790 – CAT (29/2019)	MVM / Lake	9/18/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2967.6745	30	Not yet submitted	No
MORENA 5	EX–- 2021–- 00221381 – CAT (97/2017)	MVM / Lake	11/29/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1415.8752	15	Not yet submitted	No
MORENA 6	EX–- 2021–- 00208283 – CAT (75/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1606.1445	17	Not yet submitted	No
MORENA 7	EX–- 2021–- 00259078 – CAT (76/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2804.9561	29	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	AREA (Hectares)	STATUS		
Tenement	Number–- Gde	Title Owner	Title Acquisition	Registration						Claims	EIA pending Approval	Royalty
MORENA 8	EX–- 2021–- 00294310–- CAT (77/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2961.0131	30	Not yet submitted	No
MORENA 9	EX–- 2021–- 00368898 – CAT (30/2019)	MVM / Lake	11/29/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2821.5762	29	Not yet submitted	No
MORENA 10	EX–- 2022–- 00508476–- CAT	MVM / Lake	EN TRAMITE	Registered	Exploration Concession	Not Granted	N/A	Lithium Salts	2712.9283	28	Not yet submitted	No
MORENA 12	EX–- 2021–- 00259022 – CAT (78/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2703.6817	28	Not yet submitted	No
MORENA 13	EX–- 2021–- 00258895 – CAT (79/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3024.4662	31	Not yet submitted	No
MORENA 15	EX–- 2021–- 00360876 – CAT (162/2017)	MVM / Lake	8/30/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2559.0852	26	Not yet submitted	No
PAMPA I	EX–- 2021–- 00233741 – CAT (129/2013)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	690	7	Not yet submitted	No
PAMPA II	EX–- 2021–- 00430058 -CAT (128/2013)	MVM / Lake	2/8/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1053.15	11	Not yet submitted	No
PAMPA 11	EX–- 2021–- 00372498 – CAT (201/2018)	MVM / Lake	2/7/2020	Registered	Exploration Concession	Granted	N/A	Lithium Salts	815	9	Not yet submitted	No
PAMPA IV	EX–- 2021–- 00322433 – CAT (78/2017)	MVM / Lake	3/22/2018	Registered	Exploratio n Concessio n	Grante d	N/A	Lithium Salts	2569.3125	26	Not yet submitted	No
IRENE	EX–- 2021–- 00212993 – CAT (28/2018)	MVM / Lake	9/6/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2052.2562	21	Not yet submitted	No
PARAPETO 1	EX–- 2021–- 01648141 – CAT (133/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2280.5717	23	Not yet submitted	No
PARAPETO 2	EX–- 2021–- 00235750 – CAT (134/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1729.716	18	Not yet submitted	No
PARAPETO 3	EX–- 2121–- 00261195 – CAT (132/2018)	MVM / Lake	11/28/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1891.5621	19	Not yet submitted	No
PARAPETO III	EX–- 2021–- 00854749 – CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1949.1255	20	Not yet submitted	No
PARAPETO 4	EX–- 2021–- 01651926 – CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1948.9079	20	Not yet submitted	No
GOLD SAND I	EX–- 2021–- 00376209 – CAT (238/2018)	MVM / Lake	4/24/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	853.602	9	Not yet submitted	No
TORNADO VII	EX–- 2021–- 00208328 – CAT (48/2016)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	6628.842	67	Not yet submitted	No
DEBBIE I	EX–- 2021–- 00196977 – CAT (21/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1742.85	18	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	AREA (Hectares)	STATUS		
Tenement	Number–- Gde	Title Owner	Title Acquisition	Registration						Claims	EIA pending Approval	Royalty
DOÑA CARMEN	EX–- 2021–- 00321876 – CAT (24/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	873.1146	9	Not yet submitted	No
DIVINA VICTORIA I	EX–- 2021–- 00368383 – CAT (25/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2420.1	25	Not yet submitted	No
DOÑA AMPARO I	EX–- 2021–- 00294138 – CAT (22/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2695.2986	27	Not yet submitted	No
ESCONDIDIT A	EX–- 2021–- 00143141 – CAT (131/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	373.4346	4	Not yet submitted	No
GALAN OESTE	EX–- 2021–- 00153718 – CAT (43/2016)	MVM / Lake	10/14/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3166.9356	32	Not yet submitted	No
MARIA LUZ	EX–- 2021–- 00153678 – CAT (34/2017)	MVM / Lake	3/27/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2424.9638	25	Not yet submitted	No
NINA	EX–- 2021–- 00360751 – CAT (106/2020)	MVM / Lake	10/26/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3125.0644	32	Not yet submitted	No
PADRE JOSE MARIA I	EX–- 2021–- 00432843 – CAT (95/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	650.0094	7	Not yet submitted	No
PADRE JOSE MARIA II	EX–- 2021–- 00432950 -CAT (96/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA III	EX–- 2021–- 00433095 – CAT (94/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA IV	EX–- 2021–- 00433149 – CAT (93/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1528.6905	16	Not yet submitted	No
PADRE JOSE MARIA V	EX–- 2021–- 00647090 – CAT (92/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1584.3384	16	Not yet submitted	No
PADRE JOSE MARIA VI	EX–- 2021–- 00647273 – CAT (91/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1507.3002	16	Not yet submitted	No
PADRE JOSE MARIA VII	EX–- 2021–- 00647377 – CAT (90/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1499.7985	15	Not yet submitted	No
PADRE JOSE MARIA VIII	EX–- 2021–- 00647631 – CAT (89/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	515.0332	6	Not yet submitted	No
PAMPA III	EX - 2021 - 00429001 – CAT (130/12)	MVM Lake	29/06/2015	Registred	Exploration Concession	Granted	N/A	Lithium Salts	600.00	6	Not yet Submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	AREA (Hectares)	STATUS		
Tenement	Number-- Gde	Title Owner	Title Acquisition	Registration						Claims	EIA pending Approval	Royalty
PARAPETO 4	EX-- 2021-- 01651926 – CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1948.9079	20	Not yet submitted	No
GOLD SAND I	EX-- 2021-- 00376209 – CAT (238/2018)	MVM / Lake	4/24/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	853.602	9	Not yet submitted	No
TORNADO VII	EX-- 2021-- 00208328 – CAT (48/2016)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	6628.842	67	Not yet submitted	No
DEBBIE I	EX-- 2021-- 00196977 – CAT (21/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1742.85	18	Not yet submitted	No
DOÑA CARMEN	EX-- 2021-- 00321876 – CAT (24/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	873.1146	9	Not yet submitted	No
DIVINA VICTORIA I	EX-- 2021-- 00368383 – CAT (25/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2420.1	25	Not yet submitted	No
DOÑA AMPARO I	EX-- 2021-- 00294138 – CAT (22/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2695.2986	27	Not yet submitted	No
ESCONDIDIT A	EX-- 2021-- 00143141 – CAT (131/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	373.4346	4	Not yet submitted	No
GALAN OESTE	EX-- 2021-- 00153718 – CAT (43/2016)	MVM / Lake	10/14/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3166.9356	32	Not yet submitted	No
MARIA LUZ	EX-- 2021-- 00153678 – CAT (34/2017)	MVM / Lake	3/27/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2424.9638	25	Not yet submitted	No
NINA	EX-- 2021-- 00360751 – CAT (106/2020)	MVM / Lake	10/26/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3125.0644	32	Not yet submitted	No
PADRE JOSE MARIA I	EX-- 2021-- 00432843 – CAT (95/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	650.0094	7	Not yet submitted	No
PADRE JOSE MARIA II	EX-- 2021-- 00432950 - CAT (96/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA III	EX-- 2021-- 00433095 – CAT (94/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA IV	EX-- 2021-- 00433149 – CAT (93/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1528.6905	16	Not yet submitted	No
PADRE JOSE MARIA V	EX-- 2021-- 00647090 – CAT (92/2012)	MVM / Lake	1/29/2021	Registered	ExplorationC oncession	Granted	N/A	Lithium Salts	1584.3384	16	Not yet submitted	No
PADRE JOSE MARIA VI	EX-- 2021-- 00647273 – CAT (91/2012)	MVM / Lake	1/29/2021	Registered	ExplorationC oncession	Granted	N/A	Lithium Salts	1507.3002	16	Not yet submitted	No

TITLE										STATUS		
Tenement	Number–- Gde	Title Owner	Title Acquisition	Registration	Tenure Type	Status	Mining Concession	Minerals	AREA (Hectares)	Claims	EIA pending Approval	Royalty
PADRE JOSE MARIA VII	EX–- 2021–- 00647377 – CAT (90/2012)	MVM / Lake	1/29/2021	Registered	ExplorationConcession	Granted	N/A	Lithium Salts	1499.7985	15	Not yet submitted	No
PADRE JOSE MARIA VIII	EX–- 2021–- 00647631 – CAT (89/2012)	MVM / Lake	1/29/2021	Registered	ExplorationConcession	Granted	N/A	Lithium Salts	515.0332	6	Not yet submitted	No
PAMPA III	EX - 2021 - 00429001 – CAT (130/12)	MVM Lake	29/06/2015	Registred	ExplorationConcession	Granted	N/A	Lithium Salts	600.00	6	Not yet Submitted	No

Table 6 Table of Resource Drill Hole Collars										
Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
K02D13	2646493	7075690	Diamond HQ	58.5	59.5	A	217	3557.5	4437.7	Drive point
				64	108	A	181.7	2884.5	3620.3	Simple packer
				138	190.5	A	144.4	1589.9	3077.9	Simple packer
				269	298.4	B	203.5	2163.1	4099.7	Simple packer
				301	31 9	C	200.4	2172.6	4182.7	Simple packer
				313	343	C	251.7	1411.2	4987.2	Simple packer
				346	388	C	206.2	1814.6	4380.9	Simple packer
K02P01	2646499	7075676	Rotary	7	10	A	93.7	1378.3	1778.3	Airlift
K02P02	2646565	7075674	Rotary	31	35	A	175.7	2525.1	3762.2	Airlift
K03R03	2644936	7073943	Rotary	213.08	236.08	B	287.5	1243.4	5880.5	Airlift
K03R12	2644942	7073926	Rotary	349.16	391.44	C	275.7	1140	5403.6	Pumping test
K04P01	2646565	7071419	Rotary	13	16	A	200.7	3854.5	4320.7	Airlift
				16	28	A	198.6	4169.7	4144.7	Airlift
				30	35	A	183.9	3127	4212	Airlift
				31	34	A	184.9	3154.2	4329.1	Airlift
K04R15	2646513	7071387	Rotary	295	343	C	242.2	1240.7	5336.8	Pumping test
K05D09	2648943	7068270	Diamond HQ	61	62	A	76.6	1202.6	1257.1	Drive point
				107.5	108.5	A	213.1	1301.1	4163.5	Drive point
				156	157.5	A	95.2	1460	1926	Artesian
				188	190	B	215.3	919	3596	Double packer
				200	201	B	204	919.7	3669.5	Double packer
				242	243	C	176	889.6	3115.8	Double packer
K05D11	2648950	7068270	Diamond HQ	288	289	C	142.9	1088	2251	Artesian
				299	300.5	C	116.3	1035	1782	Artesian
				291	334.5	C	286.4	1164	4084	Simple packer
K06D04	2655328	7066144	Rotary	95	113	A	187	879.1	3294.2	Airlift
K06D08	2655338	7066149	Diamond HQ	69	70	A	187.6	999.4	3241	Drive point
				120	121	A	181.9	933.4	3301	Drive point
				165	166	A	170	880	3650	Drive point
				205	206	B	164	891	3575	Drive point
				258	259	C	189	962	4120	Drive point
				354	405	R	161.5	911	3415	Simple packer

K06R10	2655398	7066156	Rotary	150	173.5	B	191.9	1119	3420.8	Artesian
K08R14	2644275	7071546	Rotary	300	360	C	326.5	1231.9	6038.5	Airlift
K08P01	2644254	7071571	Rotary	40	43	A	181.4	2385.4	3836.9	Airlift
				41.5	47.5	A	175.6	2193.9	3514	Airlift
K08P02	2644261	7071562	Rotary	7	10	A	185.1	4352.6	3545.4	Airlift
K08R17	2644263	7071556	Rotary	141.33	195.33	A	224.2	3818.9	4738.2	Pumping test
K11D20	2646488	7073873	Diamond HQ	83	130	A	187.8	2651.2	4039.8	Simple packer
				117	165	A	215.9	1838.2	4840.5	Simple packer
				214	215	B	211.8	1571	4693.6	Double packer
				248	325	B	190.1	2677.4	4394.9	Simple packer
				356	357	C	218.4	1148.7	4486.3	Double packer
				364	380	C	222.3	831.7	4525.7	Airlift
				377	400	C	197.9	1004.7	4244.4	Simple packer
				10	13	A	181.5	2896.9	4242.6	Airlift
				25	28	A	174.8	2434.7	3790.7	Airlift
K11R29	2646548	7073949	Rotary	200	255	B	287.25	1653.5	5426.25	Pumping test
K11P01	2646522	7073067	Rotary	31	34	A	183.6	2736.5	4202.5	Airlift
K12P01	2646522	7072770	Rotary	13	16	A	150.8	2520.1	3781.6	Airlift
				25	28	A	178.4	2918.1	4338.2	Airlift
				26.15	29.1	A	173.65	2636	3896	Airlift
K12D21	2646520	7072801	Diamond HQ	55	73	A	176.6	2641.9	3863.1	Bailer
				73	84	A	168.2	2584.8	3741.7	Bailer
				94	109	A	219.2	1508.6	4254.9	Bailer
				109	124	A	172.4	2329.9	3912.6	Bailer
				124	139	A	224.5	1418.1	4721.8	Bailer
				144	154	A	223.2	1486.2	4579.6	Bailer
				156	169	A	232.2	1347.4	4827	Bailer
				171	184	A	233.5	1353	4992	Bailer
				195	199	B	223.6	1383.6	4521.1	Bailer
				202	211	C	221.2	1408.5	4036.4	Airlift
K14D23	2644072	7072780	Diamond HQ	7	16	A	167.6	3135.4	3373.7	Bailer
				15	28	A	177.2	2747.7	3739.8	Airlift
				31	40	A	153.9	2687.3	3578.5	Bailer
				43	46	A	152.1	2683.2	3462.5	Bailer

				46	55	A	139.8	2630.5	3333.7	Airlift
				66	75	A	145.4	2004.6	4525.9	Bailer
				75	86.5	A	227.5	1923.7	4796.9	Bailer
				87	100	A	247.7	2230	4731.1	Bailer
				100	115	A	266.5	2191.2	4737.7	Bailer
				115	130	A	249.6	2722.3	4884.8	Bailer
				130	145	A	217.8	2087.3	4110.3	Bailer
				159	175	A	217.7	1196.7	4448.9	Bailer
				250	295	B	294.1	1695.1	5472.9	Airlift
K14D24	2644050	7072783	Diamond HQ	70.3	71.3	A	231.4	2273.8	4624.7	Double packer
				88.3	89.3	A	208	2773.6	3796.7	Double packer
				124.3	125.3	A	249.3	2507.4	4284.5	Double packer
				145.3	146.3	A	195.4	2212.8	3917.4	Double packer
				181	182	A	254.4	1414.1	4711.7	Double packer
				221	222	B	277.5	1302.1	5254.5	Double packer
				273	274	B	312.5	1365.9	6192.3	Double packer
				330	331	C	281.1	988.2	4995.6	Double packer
				364	365	C	280.4	864.9	4861.8	Double packer
				396.3	397.3	C	201	1839.1	4241.8	Double packer
K14R37	2644113	7072780	Rotary	350	373.5	C	300.8	955.75	4965.7	Pumping test
				350	373.5	C	325	1022.5	5446	Airlift
K15D25	2645438	7072482	Diamond HQ	175	176	A	230.5	2115.5	5500.2	Double packer
				199	200	B	241.6	1563.8	5777.2	Double packer
				267	268	B	283.5	2047.6	5313.2	Double packer
				280	281	B	322.8	1421.1	5459.7	Double packer
				301	302	C	323.1	1230	5480	Double packer
				358	359.5	C	287.4	946.2	4981.8	Double packer
				374.5	405	C	230.4	1047.7	4591.3	Simple packer
K14P01	2644059	7072767	Rotary	31.9	35.86	A	200.6	2764.2	3806.4	Airlift
K15P01	2645434	7072497	Rotary	30.9	33.9	A	164.4	2268.5	3744.2	Airlift
K15R36	2645456	7072403	Rotary	350	400.5	C	306.8	677.1	5075.6	Pumping test
K16D28	2645457	7070992	Diamond HQ	56.3	57.3	A	231.9	2562	4425	Double packer
				82.3	83.3	A	211.8	2564.5	4404	Double packer
				121.3	122.3	A	207.1	2337	4353	Double packer

				166.3	167.3	A	207.7	2545.5	4426	Double packer
				208.3	209.3	B	223.25	2488	4543	Double packer
				221.3	222.3	B	300.08	1469	6085	Double packer
				265.3	266.3	B	204.2701	2459.5	4376	Double packer
				322.3	323.3	C	295.5663	1166	5361	Double packer
				377.3	378.3	C	260.2421	855	4720	Double packer
				387.3	388	C	265.6143	886.5	4821	Double packer
K18D32	2642714	7071991	Diamond HQ	73	74	A	221	3506	4150	Double packer
				124	125	A	218	3456	4239	Double packer
				167.5	169.5	A	219	3424	4163	Double packer
				193	195	A	215.5	3360	4220.5	Double packer
				298	300	B	231	1749.5	4364	Double packer
				323	325	C	254	1514	4613.5	Double packer
				362	364	C	333	950	5542	Double packer
				397	399	C	241	1464.5	4460	Double packer
				382	383	C	251.5	1535.5	4314.5	Double packer
K18P01	2642767	7072787	Diamond HQ	31	37	A	203	3163	3984.7	Airlift
K19R33	2642787	7070796	Diamond HQ	58	59	A	216	3922	4154	Double packer
				112	114	A	197	3266	3866	Double packer
				202	203	A	162	2461	3186	Double packer
				323	324	C	171.5	20.4	3081.5	Double packer
				373	374	C	218	1286	4251	Double packer
K20R35	2642787	7074735	Diamond HQ	43	45	A	133	2251	2368	Double packer
				67	69	A	137	2260	2377	Double packer
				86	88	A	161	2836	2800	Double packer
				124	126	A	171	2926	3406	Double packer
				178	180	A	187	2607.5	4278.5	Double packer
				277	279	C	204	2198	3808.5	Double packer
				361	363	C	266.5	708	4893	Double packer
				393	411	C	273	781	4814	Double packer
				205	217	B	196.5	2253	3596	Airlift
K21D38	2641814	7067547		175	177	A	155	1490	3102	Double packer

			Diamond HQ	202	204	A	155.5	1629	3006	Double packer
				295	430	C	176.6	1758.33	3676	Simple packer
				395	407	C	229	1426	4911	Airlift
K22R39	2646323	7080044	Diamond HQ	350	424	C*	253	1126	4365	Simple packer
				385	403	C	271	1140	4650	Airlift
K23D40	2645574	7083439	Diamond HQ	288	322	C	254	1011.5	4601	Simple packer
				350	360	C	213	893	4150	Simple packer
				360	390	C*	210	922.5	4116.5	Simple packer
				409	420	D	228	1053.5	3817	Simple packer
				436	445	D	243	944	4401	Simple packer
				461	470.5	D	240	947.5	4456	Simple packer
				485	496	D	241	962	4478	Simple packer
				521	530.5	D	229	901	4116.5	Simple packer
				538	550	D	235	937.5	4282	Simple packer
				566	575.5	D	229	917.5	4233.5	Simple packer
				587	601	D	224	911	4146.5	Simple packer
				602	610	D	209	907.5	3893.5	Simple packer
				371.96	383.76	C	212	982.5	4280.5	Airlift
K24D41	2646495	7068815	Diamond HQ	166	175	A	271	895	6259	Simple packer
				191	200	A	266	941.5	6762.5	Simple packer
				215	226	B	309.5	1165.5	6750.5	Simple packer
				242	250	B	348	1170.5	6803	Simple packer
				265	277	B	346	710.5	5738	Simple packer
				289	300	C	278.5	718	4864	Simple packer
				315	325	C	269	680	4884.5	Simple packer
				341	350	C	260.5	606.5	4844.5	Simple packer
				379	391	C	273	654	4835.5	Simple packer
				389	400	C	276	595	4801.5	Simple packer
				415	426	D	325	566	4939	Simple packer
				440	450	D	275	568.5	4718.5	Simple packer
				466	475	D	237	835	4483	Simple packer
				490	500	D	231	811.5	4496.5	Simple packer
				518	526	D	217.5	806.5	4679	Simple packer
				539	550	D	205	812	4419	Simple packer
				565	575	D	234.5	813	4610.5	Simple packer

				599	610	D**	211.5	957	4427	Simple packer
				395	410	C	385	709	5249	Airlift

Notes: 1) Easting and northing are provided in Posgar 94 / Argentina 2; 2) Where sample results are available from the primary and check laboratories, the values are averaged; 3) Samples from pumping tests are averaged for the various times; 4) *Samples not included in resource estimate due to overlapped sample intervals; 5) **Sample not included in the resource estimate.

JORC Table 1

SECTION 1

Sampling Techniques and Data related to Kachi drilling.

(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. ▪ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. ▪ Aspects of the determination of mineralisation that are Material to the Public Report. ▪ 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: ○ Bottom of hole spear point during HQ diamond core drilling advance ○ 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. ○ Installed standpipes with discrete screening intervals. ○ Bailer sampling during advance, removing significant brine volumes to draw formation fluids into the base of the drill stem. ○ Development of test wells and during pumping test of varying durations. ▪ 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. ▪ Drill core in the hole was recovered in 1.5 m length core runs in core lexan tubes to minimize sample disturbance. ▪ 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	▪ 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.

	is oriented and if so, by what method, etc).	▪ Rotary drilling has used 8.5” or 10” tricone bits and has produced drill chips, which have been logged and holes geophysically logged. ▪ 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. ▪ Measures taken to maximise sample recovery and ensure representative nature of the samples. ▪ 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.	▪ 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 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 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. ▪ Additives and muds are used to maintain hole stability and minimize sample washing away from the triple tube. ▪ 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. ▪ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. ▪ 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. ▪ 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. ▪ 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. ▪ If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	▪ 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.

	▪ For all sample types, the nature, quality and appropriateness of the sample preparation technique. ▪ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. ▪ 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. ▪ Whether sample sizes are appropriate to the grain size of the material being sampled.	▪ 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.
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. ▪ 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. ▪ 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. ▪ 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. ▪ 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. ▪ The use of twinned holes. ▪ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. ▪ 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. ▪ Duplicate samples in the analysis chain were submitted to Alex Stewart 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 on site, to collect field parameters. ▪ 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. ▪ Specification of the grid system used. ▪ 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. ▪ 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. ▪ 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. ▪ Whether sample compositing has been applied.	▪ Drill holes in the central area where Measured resources have been defined have a spacing of approximately 1.5 km between drill holes, with a greater spacing in the area where Inferred resources have been defined. ▪ 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 meters, sample separation is 19m. ▪ 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. ▪ 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. ▪ 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.

		▪ 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
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. ▪ 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. ▪ 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. ▪ 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. ▪ 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 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. ▪ 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. ▪ 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. ▪ Brines within the Salt Lake are formed by evapoconcentration, 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	▪ 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: ▪ easting and northing of the drill hole collar ▪ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ▪ dip and azimuth of the hole ▪ down hole width and depth (length and interception depth) ▪ end of hole (hole length). ▪ If the exclusion of this information is justified on the basis that the	▪ Refer to Table 6 above. ▪ 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). ▪ 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. ▪ Assay results are provided in a table above in the report. ▪ Drill hole information is showing in plans included. ▪ Refer to Figure 2 of this announcement, and previous ASX announcements for detailed

	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.	lithological descriptions (e.g., October 4, 2023; August 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. ▪ 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. ▪ 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. ▪ No cutting of lithium concentrations was justified nor undertaken. ▪ 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. ▪ If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. ▪ 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 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. ▪ 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 2) ▪ Drill hole information is showing in plans included. ▪ 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 38 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	▪ Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations;	▪ There is no other substantive exploration data available regarding the Project. Additional surface geophysics is planned for the Project. A

exploration data	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.	pilot plant is currently operating at the Project to assess extraction of lithium. ▪ Positive extraction and injection test results were reported in the August 16, 2023 ASX announcement.
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). ▪ 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 12,600 m of diamond and rotary drilling to date. Currently drilling is underway to continue resource classification upgrade and expansion.

Section 3

Estimation and Reporting of Mineral Resources

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

Criteria		Section 3– Estimation and Reporting of Mineral Resources
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. ▪ Data validation procedures used.	▪ Data was transferred directly from laboratory spreadsheets to the database. ▪ Data was checked for transcription errors when 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. ▪ BMR geophysical log data has been compared with laboratory porosity values and provides a more continuous but more conservative estimate of drainable porosity (Sy). ▪ Comparisons of original and current datasets were made to ensure no lack of integrity.
Site visits	▪ Comment on any site visits undertaken by the	▪ The Competent Person visited the site multiple times during the drilling and sampling program.

	Competent Person and the outcome of those visits. ▪ If no site visits have been undertaken indicate why this is the case.	▪ 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. ▪ Nature of the data used and of any assumptions made. ▪ The effect, if any, of alternative interpretations on Mineral Resource estimation. ▪ The use of geology in guiding and controlling Mineral resource estimation. ▪ 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. ▪ 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. ▪ Data used in the interpretation includes rotary and diamond drilling methods. ▪ Drilling depths and geology encountered has been used to conceptualize hydro-stratigraphy and build the model units. ▪ Sedimentary processes affect the continuity of geology with 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 in the salt lake.
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. ▪ 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. ▪ 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	▪ 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.

	distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. ▪ The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. ▪ The assumptions made regarding recovery of by-products. ▪ Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). ▪ In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. ▪ Any assumptions behind modelling of selective mining units. ▪ Any assumptions about correlation between variables. ▪ Description of how the geological interpretation was used to control the resource estimates. ▪ Discussion of basis for using or not using grade cutting or capping. ▪ 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 resource with a 2.5 km radius was estimated in two passes with a search ellipse of 1500 and 4000 m respectively. ▪ 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. ▪ 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. ▪ 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. ▪ No grade cutting or capping was applied to the model. ▪ 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. ▪ No assumptions were made about correlation between variables or recovery of by-products. Lithium is the value proposition of the project. ▪ 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. The distribution of other elements will be included in the next resource update. ▪ Model blocks are defined as 400 by 400 m blocks in an east and north direction and 10 m in the vertical direction. ▪ Extraction of brine permits limited control of selective mining and selective mining units are not considered, as the resource is relatively homogeneous. ▪ 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. ▪ 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. ▪ Tonnages are estimated as metallic lithium dissolved in brine. ▪ 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.	▪ A 100 mg/l external cut-off grade has been applied to the resource, which is large and uniform.
Mining factors or assumptions	▪ Assumptions made regarding possible mining methods, minimum mining dimensions 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.	▪ The resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and lithium carbonate. ▪ 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). ▪ Dilution of brine concentrations may occur over time and typically there are lithium losses in the processing plant in brine mining 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 brine projects. ▪ Detailed hydrologic studies of the lake are being undertaken (water balance, groundwater modelling) to define the natural recharge to the basin, the extractable resources and potential extraction rates
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.	▪ Lake resources has provided bulk metallurgical samples to a number of technology providers to extract lithium with Direct Lithium Extraction technologies. From this initial test work Lake Resources selected Lilac Solutions as the process company to carry out operation of an onsite pilot plant. This plant is currently on site and continues operating, subsequent to the extended trial production previously announced by the company. ▪ Lithium will be produced via a selective extraction technology developed by Lilac Solutions, designed to produce high purity lithium product. ▪ It is noted that the Lilac Process and Direct Lithium Extraction are relatively new processes and further development of these processes is expected as they are applied at commercial scale to this and other projects.
Environmental factors or assumptions	▪ Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of	▪ Impacts of a lithium operation at the Kachi project would include: surface disturbance from the creation of extraction/processing facilities and associated infrastructure, accumulation of various salt tailings

	the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the 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.	impoundments and extraction from brine and fresh water aquifers regionally. ▪ The project has conducted pumping and reinjection testing to evaluate flow rates, with the intention of reinjecting spent.
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. ▪ 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. ▪ 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. ▪ 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. ▪ 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. ▪ 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, quality, quantity and distribution of the data).	▪ The resource has been classified into resource categories based on confidence in the estimation. ▪ 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. Porosity measurements have been made in these diamond and rotary holes with the BMR porosity tool, providing over 200,000 individual measurements. Any measurements that were related to washouts in holes 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

	▪ Whether the result appropriately reflects the Competent Person's view of the deposit.	data, which was used in preference, with the laboratory data as a check on this data source. ▪ Indicated Resources defined in the project are beneath the Measured Resources, from 400 to 600 m and lateral to the Measured Resources, where there is evidence of continuity in mineralisation, but there is less information available. Indicated Resources are defined extending to the SE of the Measured Resources, in the area around hole K06. Similarly they are defined as the northern extension from the Measured Resources, around holes K22 and K23. 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. ▪ The Inferred resource surrounding the Measured and Indicated resource in the properties reflects more limited drilling in the surrounding area, and locations closer to the border of the basin. 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 although this is not guaranteed.
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. An audit has not been carried out, although discussions about different scenarios and search criteria was held and check estimates reviewed by the CP.
Discussion of relative accuracy/ confidence	▪ Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. ▪ The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions	▪ An additional estimate of the resource was completed using an Inverse Distance Squared estimate and a Nearest Neighbour estimate. The comparison of the results with the ordinary kriging/Inverse Distance estimate suggests the latter is a more conservative estimate and is considered to be acceptable. ▪ Visual inspection against samples in the model, and evaluation of sample and block statistics was undertaken as a check on the model and results are considered to be reasonable. ▪ References: ▪ *Houston, J., Butcher, A., Ehren, P., Evans, K., and Godfrey, L. The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards. Economic Geology. V 106.* ▪ *AMEC Guidelines for Resource and Reserve Estimation for Brines*

	made and the procedures used. ▪ These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

Lake Investors please contact:

Global IR: Karen Greene, SVP, Investor Relations, Lake Resources: karen.greene@lakeresources.com.au

For media queries, please contact:

Nigel Kassulke at Teneo

M: +61407904874

E: Nigel.Kassulke@teneo.com

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 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.

###

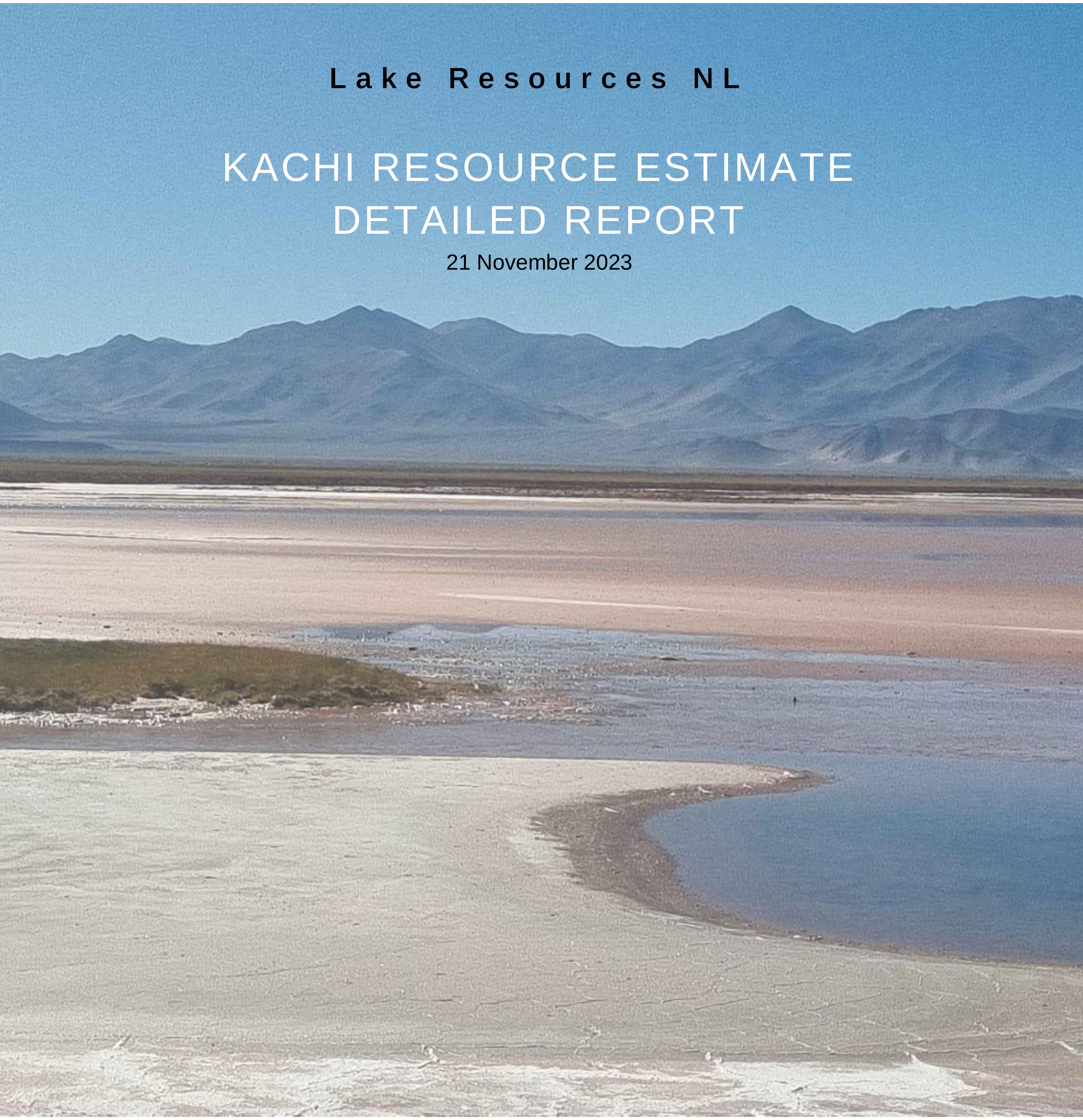
Appendix to JORC Report: Technical Report

groundwater exploration GES

Lake Resources NL

KACHI RESOURCE ESTIMATE DETAILED REPORT

21 November 2023



GES

DOCUMENT REGISTER

Revision	Description	Date	Comments
A	1st Draft	11/14/2023	
B	Final	11/21/2023	

QUALITY CONTROL

Process	Staff	Signature	Date
Authors	Andy Fulton		11/21/23
Approved	Andy Fulton		11/21/23

TABLE OF CONTENTS

LIST OF FIGURES

GES

LIST OF TABLES

1. BACKGROUND TO THE RESOURCE ESTIMATE

1.1 Introduction

This resource estimate updated has been developed for the Kachi lithium brine Project (“Kachi” or the “Project”) in Catamarca Province, Argentina. The updated resource estimate is based on Lake Resource’s (Lake) continued hydrogeological characterization since the last update in June 2023 and refined interpretations of the hydrostratigraphy, hydrogeology and hydrogeochemistry. This resource update defines the Mineral Resources to be used in the hydrogeologic model for the forthcoming maiden reserve estimate and will be the basis for the Project Definitive Feasibility Study (DFS) expected in December 2023.

Preparation of this resource estimate has been led by Andy Fulton, Competent Person (CP) and Principal Hydrogeologist at Groundwater Exploration Science (GES) with support from Murray Brooker (Hydrominex) and Lake’s technical team. The resource estimate is prepared in accordance with JORC 2012 standards and although JORC 2012 does not address lithium brines specifically in the guidance documents, the CP has taken into account the Australian Association of Mining and Exploration Companies (AMEC) Guidelines for Resource and Reserve Estimation for Brines (Association of Mining and Exploration Companies, 2020.) and the NI 43-101 guidelines for lithium brines set forth by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM 2014). The CP considers these guidelines, the intent of JORC 2012, and experiences from other salars and projects provides reliable and accurate information for the lithium brine deposit in the Kachi Basin.

1.2 Scope

The scope of the current update is as follows:

- Incorporate two recently drilled holes to more than 600 m, about 200 m deeper than previous drillholes, with more than 30 packer and airlift samples collected and analyzed.
- Integrate the extensive sampling during large scale pumping tests, which sampled a large volume of materials at four test wells, leading to very highly reliable samples.
- Update the resource geologic domains to coincide with updated hydrostratigraphic units developed from step-out and deeper drilling and geologic mapping.
- Incorporate hydrochemical analysis completed to evaluate basin scale hydrogeologic understanding including recharge and discharge, the continuity of the brine resource both spatially and vertically and evaluate any potential outliers indicative of changes in the hydrogeological system.

The document has been developed to address all requirements of JORC 2012 and as much as possible utilize headings and reporting structures delineated within JORC 2012.

1.3 Project Background

The maiden resource estimate at Kachi was undertaken in 2018 as part of the Project Pre-Feasibility Study. That estimate defined an Indicated Resource of 1.05 million tonnes (Mt) of Lithium Carbonate Equivalent (LCE) over an area of 61 square kilometers (km^2), surrounded by an Inferred Resource of 3.19 Mt over an area of 114 km^2. The resource was defined from 50 m bgs (below ground surface) to an average of 334 m depth on the basis of 14 drillholes, with the upper 50 m excluded from that resource due to uncertainties about lithium concentrations over that interval at the time of the estimate.

With further diamond and rotary drilling and geophysical logging of wells, the confidence in the geological and resource models has increased and the resource classification has subsequently been upgraded to reflect this. Drilling has now been conducted to a maximum depth of 610 m across the Measured, Indicated and Inferred resource area.

Geophysics was previously undertaken to define the base of the unconsolidated sediments hosting brine (passive seismic). Additional transient electromagnetic (TEM) geophysics was recently completed across the salar and surrounding area, which demonstrated the brine body is much larger than initial estimates and continues well beyond the currently defined resource.

In January 2023[1], the resource estimate was updated from the maiden 2018 resource, defining a new combined Measured and Indicated (M&I) mineral resource containing 2.2 Mt of LCE in the central area of Kachi. An inferred mineral resource estimate of 3.1 Mt LCE was defined in the surrounding area. That resource estimate was based on infill drilling in the central Project area and increased the resource classification and confidence in that area of the resource to support initial production.

In June 2023[2], the resource estimate was further updated, defining a new combined M&I mineral resource containing 2.9 Mt of LCE in the central area of Kachi and a surrounding inferred mineral resource estimate of 5.2 Mt LCE. Recent extraction and injection testing (August ASX announcement) has built on the existing knowledge around the large lithium brine resource and demonstrated that the reservoir in the resource area is permeable and that productive wells can be drilled and constructed.

Drilling and receipt of assay results subsequent to the June 2023 resource has provided further information expanding the overall resource footprint and resource size (see reference to drilling at K22, K23 and K24). This October 2023 resource estimate supersedes the June 2023 resource estimate and is now based on 38 drillholes, compared to the 14 for the maiden estimate. Table 1-1 provides a summary breakdown of this updated resource.

Table 1-1: Lithium Resource Summary

Resource Category	Lithium (Tonnes)	LCE (Tonnes)
Measured (M)	570,000	3,035,000
Indicated (I)	800,000	4,258,000
M & I	1,370,000	7,293,000
Inferred	630,000	3,352,000
Total Resource	2,000,000	10,646,000

[2] See ASX announcement with heading, ‘Lake Resources Provides JORC Update on its Flagship Kachi Project. Kachi M&I Resource Increases to 2.9 Million Tonnes Lithium Carbonate Equivalent with 5.2 Million Tonnes Inferred Resource’ dated 11 January 2023 (Kachi Announcement, 15 June 2023)

[1] See ASX announcement with heading, ‘Kachi M&I resource doubled to 2.2 million tonnes Lithium Carbonate’ dated 11 January 2023 (**Kachi Announcement, 11 January 2023**)
[2] See ASX announcement with heading, ‘Lake Resources Provides JORC Update on its Flagship Kachi Project. Kachi M&I Resource Increases to 2.9 Million Tonnes Lithium Carbonate Equivalent with 5.2 Million Tonnes Inferred Resource’ dated 11 January 2023 (**Kachi Announcement, 15 June 2023**)

2. LOCATION

The Project is located in the Puna Region of Northwestern Argentina in the Province of Catamarca. It is approximately 520 km northwest of the capital of Catamarca Province, San Fernando de la Valle de Catamarca. It is 22 km west of the town of El Peñon, and 50 km south of Antofagasta de Sierra, which is the regional administrative center (Figure 2-1). The Project is situated at an altitude of 3,000 m above sea level, which is relatively low for the Puna region and considered a major advantage for the Project.

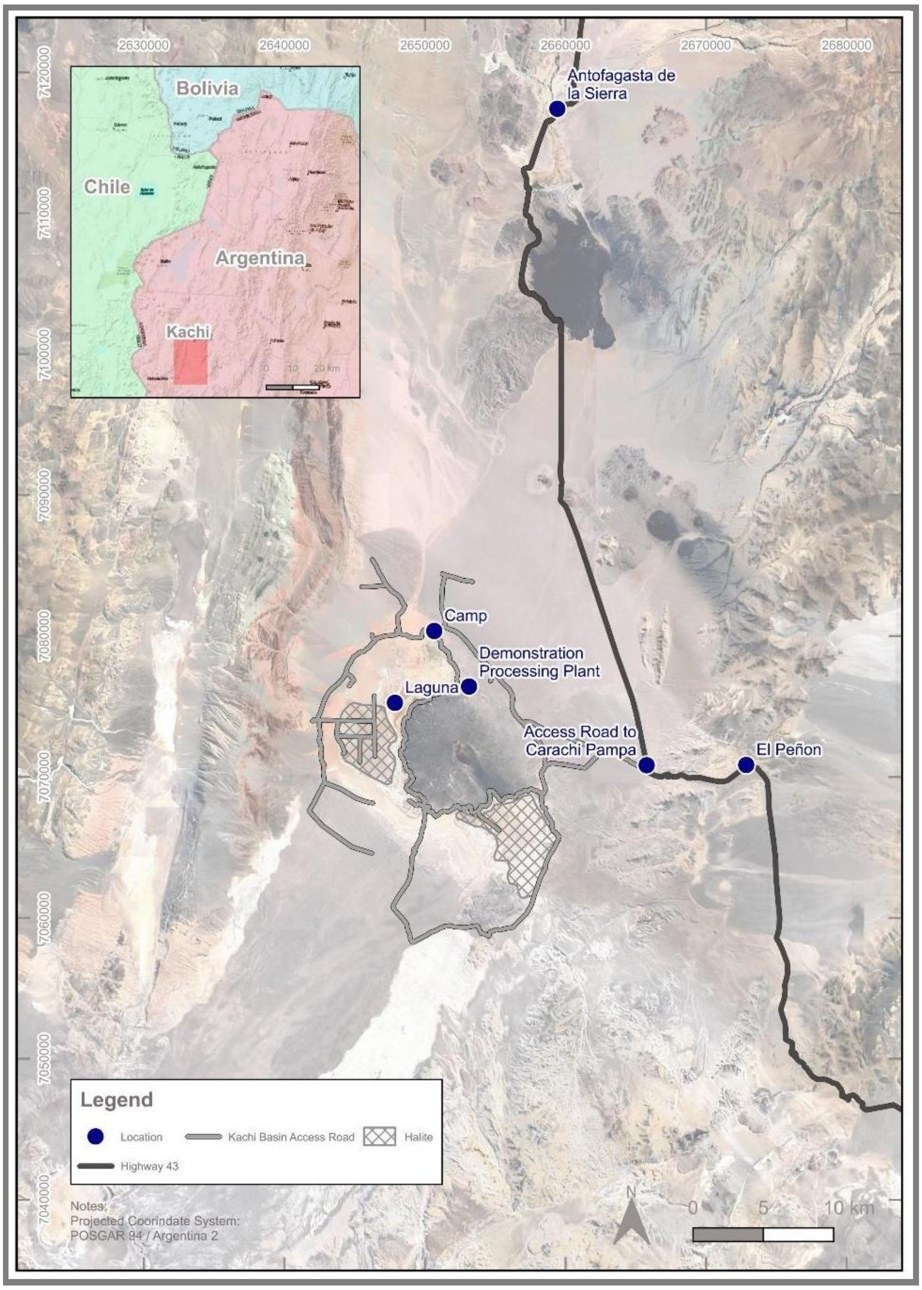


Figure 2-1: Kachi Project location in western Catamarca Province

2.1 Property Holdings

Lake Resources holds 53 mining concessions (Minas) in the Basin covering the surface of the salar and surrounding areas (Figure 2-2). The mining concessions are summarized in Table 2-1 below (following the text), with the property names, file numbers, and details of the approvals related to each of the concessions.

All information regarding the legal status of the properties was provided by the members of the Legal Department of Morena del Valle Minerals SA (MVM), the local subsidiary of Lake Resources in the province of Catamarca. The status of properties has not been independently verified by the Competent Person, who takes no responsibility for the legal status of the properties.

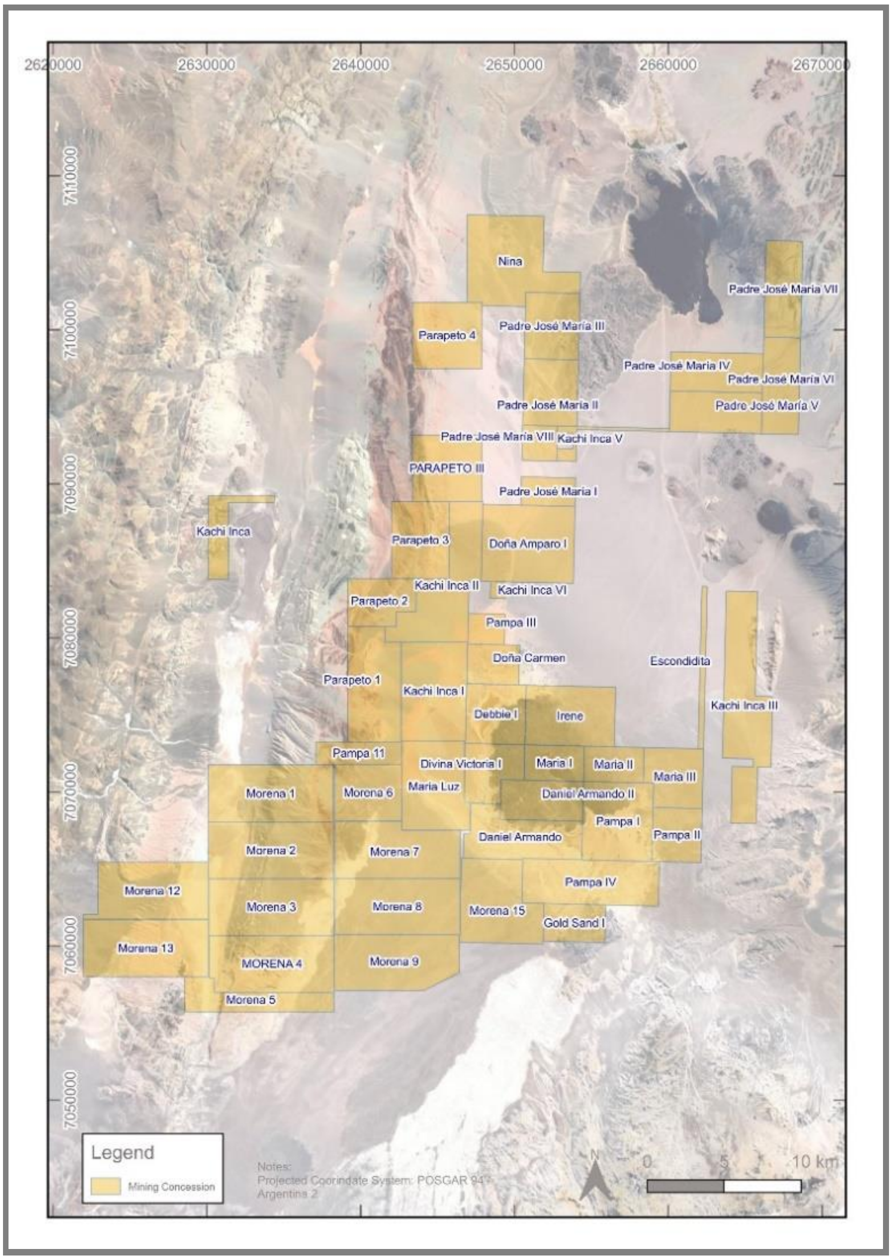


Figure 2-2: Kachi Project mining concessions

Table 2-1: Mining concession details

TITLE					Tenure Type	Status	Mining Concession	Minerals	Area (Hectares)	STATUS		
Tenement	Number–- GDE	Title Owner	Title Acquisition	Registration						Claims	EIA Pending Approval	Royalty
MARIA I	EX–- 2021–- 00362285–- CAT (140/2018)	MVM / Lake	11/15/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1260.0736	12	Not yet submitted	No
MARIA II	EX - 2021–- 00373528–- CAT (14/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	546.9333	5	Not yet submitted	No
MARIA III	EX–- 2021–- 00293511 – CAT (15/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	834.7969	9	Not yet submitted	No
KACHI INCA	EX–- 2021–- 00361579–- CAT (13/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	857.7131	9	Not yet submitted	No
KACHI INCA I	EX–- 2021–- 00432837 – CAT (16/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2880.4365	29	Not yet submitted	No
KACHI INCA II	EX–- 2021–- 00221521 – CAT (17/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2822.7403	29	Not yet submitted	No
KACHI INCA III	EX–- 2121–- 00321200 – CAT (47/2016)	MVM / Lake	8/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3355.3649	34	Not yet submitted	No
KACHI INCA V	EX–- 2021–- 00208240 – CAT (45/2016)	MVM / Lake	10/10/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	305.1754	4	Not yet submitted	No
KACHI INCA VI	EX–- 2021–- 00294250 – CAT (44/2016)	MVM / Lake	8/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	109.787	2	Not yet submitted	No
DANIEL ARMANDO	EX–- 2021–- 00208733–- CAT (23/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3121.876	32	Not yet submitted	No
DANIEL ARMANDO II	EX–- 2021–- 00331263 – CAT (97/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1589.664	16	Not yet submitted	No
MORENA 1	EX–- 2021–- 00328638 – CAT (72/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3024.4662	31	Not yet submitted	No
MORENA 2	EX–- 2021–- 00390312 – CAT (73/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2989.429	30	Not yet submitted	No
MORENA 3	EX–- 2021–- 00361695 – CAT (74/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3007.1366	31	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	Area (Hectares)	STATUS		
Tenement	Number–- GDE	Title Owner	Title Acquisition	Registration						Claims	EIA Pending Approval	Royalty
MORENA 4	EX–- 2021–- 00293790 – CAT (29/2019)	MVM / Lake	9/18/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2967.6745	30	Not yet submitted	No
MORENA 5	EX–- 2021–- 00221381 – CAT (97/2017)	MVM / Lake	11/29/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1415.8752	15	Not yet submitted	No
MORENA 6	EX–- 2021–- 00208283 – CAT (75/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1606.1445	17	Not yet submitted	No
MORENA 7	EX–- 2021–- 00259078 – CAT (76/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2804.9561	29	Not yet submitted	No
MORENA 8	EX–- 2021–- 00294310–- CAT (77/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2961.0131	30	Not yet submitted	No
MORENA 9	EX–- 2021–- 00368898 – CAT (30/2019)	MVM / Lake	11/29/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2821.5762	29	Not yet submitted	No
MORENA 10	EX–- 2022–- 00508476–- CAT	MVM / Lake	EN TRAMITE	Registered	Exploration Concession	Not Granted	N/A	Lithium Salts	2712.9283	28	Not yet submitted	No
MORENA 12	EX–- 2021–- 00259022 – CAT (78/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2703.6817	28	Not yet submitted	No
MORENA 13	EX–- 2021–- 00258895 – CAT (79/2016)	MVM / Lake	10/7/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3024.4662	31	Not yet submitted	No
MORENA 15	EX–- 2021–- 00360876 – CAT (162/2017)	MVM / Lake	8/30/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2559.0852	26	Not yet submitted	No
PAMPA I	EX–- 2021–- 00233741 – CAT (129/2013)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	690	7	Not yet submitted	No
PAMPA II	EX–- 2021–- 00430058 -CAT (128/2013)	MVM / Lake	2/8/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1053.15	11	Not yet submitted	No
PAMPA 11	EX–- 2021–- 00372498 – CAT (201/2018)	MVM / Lake	2/7/2020	Registered	Exploration Concession	Granted	N/A	Lithium Salts	815	9	Not yet submitted	No
PAMPA IV	EX–- 2021–- 00322433 – CAT (78/2017)	MVM / Lake	3/22/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2569.3125	26	Not yet submitted	No
IRENE	EX–- 2021–- 00212993 – CAT (28/2018)	MVM / Lake	9/6/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2052.2562	21	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	Area (Hectares)	STATUS		
Tenement	Number–- GDE	Title Owner	Title Acquisition	Registration						Claims	EIA Pending Approval	Royalty
PARAPETO 1	EX–- 2021–- 01648141 – CAT (133/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2280.5717	23	Not yet submitted	No
PARAPETO 2	EX–- 2021–- 00235750 – CAT (134/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1729.716	18	Not yet submitted	No
PARAPETO 3	EX–- 2121–- 00261195 – CAT (132/2018)	MVM / Lake	11/28/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1891.5621	19	Not yet submitted	No
PARAPETO III	EX–- 2021–- 00854749 – CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1949.1255	20	Not yet submitted	No
PARAPETO 4	EX–- 2021–- 01651926 – CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1948.9079	20	Not yet submitted	No
GOLD SAND I	EX–- 2021–- 00376209 – CAT (238/2018)	MVM / Lake	4/24/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	853.602	9	Not yet submitted	No
TORNADO VII	EX–- 2021–- 00208328 – CAT (48/2016)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	6628.842	67	Not yet submitted	No
DEBBIE I	EX–- 2021–- 00196977 – CAT (21/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1742.85	18	Not yet submitted	No
DOÑA CARMEN	EX–- 2021–- 00321876 – CAT (24/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	873.1146	9	Not yet submitted	No
DIVINA VICTORIA I	EX–- 2021–- 00368383 – CAT (25/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2420.1	25	Not yet submitted	No
DOÑA AMPARO I	EX–- 2021–- 00294138 – CAT (22/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2695.2986	27	Not yet submitted	No
ESCONDIDITA	EX–- 2021–- 00143141 – CAT (131/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	373.4346	4	Not yet submitted	No
GALAN OESTE	EX–- 2021–- 00153718 – CAT (43/2016)	MVM / Lake	10/14/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3166.9356	32	Not yet submitted	No
MARIA LUZ	EX–- 2021–- 00153678 – CAT (34/2017)	MVM / Lake	3/27/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2424.9638	25	Not yet submitted	No
NINA	EX–- 2021–- 00360751 – CAT (106/2020)	MVM / Lake	10/26/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3125.0644	32	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	Area (Hectares)	STATUS		
Tenement	Number–- GDE	Title Owner	Title Acquisition	Registration						Claims	EIA Pending Approval	Royalty
PADRE JOSE MARIA I	EX–- 2021–- 00432843 – CAT (95/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	650.0094	7	Not yet submitted	No
PADRE JOSE MARIA II	EX–- 2021–- 00432950 -CAT (96/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA III	EX–- 2021–- 00433095 – CAT (94/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSE MARIA IV	EX–- 2021–- 00433149 – CAT (93/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1528.6905	16	Not yet submitted	No
PADRE JOSE MARIA V	EX–- 2021–- 00647090 – CAT (92/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1584.3384	16	Not yet submitted	No
PADRE JOSE MARIA VI	EX–- 2021–- 00647273 – CAT (91/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1507.3002	16	Not yet submitted	No
PADRE JOSE MARIA VII	EX–- 2021–- 00647377 – CAT (90/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1499.7985	15	Not yet submitted	No
PADRE JOSE MARIA VIII	EX–- 2021–- 00647631 – CAT (89/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	515.0332	6	Not yet submitted	No
PAMPA III	EX - 2021 - 00429001 – CAT (130/12)	MVM Lake	29/06/2015	Registred	Exploration Concession	Granted	N/A	Lithium Salts	600.00	6	Not yet Submitted	No
PARAPETO 4	EX–- 2021–- 01651926 –CAT	MVM / Lake	23/08/2022	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1948.9079	20	Not yet submitted	No
GOLD SAND I	EX–- 2021–- 00376209 –CAT (238/2018)	MVM / Lake	4/24/2019	Registered	Exploration Concession	Granted	N/A	Lithium Salts	853.602	9	Not yet submitted	No
TORNADO VII	EX–- 2021–- 00208328 –CAT (48/2016)	MVM / Lake	11/24/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	6628.842	67	Not yet submitted	No
DEBBIE I	EX–- 2021–- 00196977 –CAT (21/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1742.85	18	Not yet submitted	No
DOÑACARMEN	EX–- 2021–- 00321876 –CAT (24/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	873.1146	9	Not yet submitted	No
DIVINAVICTORIA I	EX–- 2021–- 00368383 –CAT (25/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2420.1	25	Not yet submitted	No

TITLE					Tenure Type	Status	Mining Concession	Minerals	Area (Hectares)	STATUS		
Tenement	Number-- GDE	Title Owner	Title Acquisition	Registration						Claims	EIA Pending Approval	Royalty
DOÑAAMPARO I	EX-- 2021-- 00294138 –CAT (22/2016)	MVM / Lake	8/24/2017	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2695.2986	27	Not yet submitted	No
ESCONDIDITA	EX-- 2021-- 00143141 –CAT (131/2018)	MVM / Lake	9/24/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	373.4346	4	Not yet submitted	No
GALAN OESTE	EX-- 2021-- 00153718 –CAT (43/2016)	MVM / Lake	10/14/2016	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3166.9356	32	Not yet submitted	No
MARIA LUZ	EX-- 2021-- 00153678 –CAT (34/2017)	MVM / Lake	3/27/2018	Registered	Exploration Concession	Granted	N/A	Lithium Salts	2424.9638	25	Not yet submitted	No
NINA	EX-- 2021-- 00360751 –CAT (106/2020)	MVM / Lake	10/26/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	3125.0644	32	Not yet submitted	No
PADRE JOSEMARIA I	EX-- 2021-- 00432843 –CAT (95/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	650.0094	7	Not yet submitted	No
PADRE JOSEMARIA II	EX-- 2021-- 00432950 -CAT (96/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSEMARIA III	EX-- 2021-- 00433095 –CAT (94/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1523.1476	16	Not yet submitted	No
PADRE JOSEMARIA IV	EX-- 2021-- 00433149 –CAT (93/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1528.6905	16	Not yet submitted	No
PADRE JOSEMARIA V	EX-- 2021-- 00647090 –CAT (92/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1584.3384	16	Not yet submitted	No
PADRE JOSEMARIA VI	EX-- 2021-- 00647273 –CAT (91/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1507.3002	16	Not yet submitted	No
PADRE JOSEMARIA VII	EX-- 2021-- 00647377 –CAT (90/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	1499.7985	15	Not yet submitted	No
PADRE JOSEMARIA VIII	EX-- 2021-- 00647631 –CAT (89/2012)	MVM / Lake	1/29/2021	Registered	Exploration Concession	Granted	N/A	Lithium Salts	515.0332	6	Not yet submitted	No
PAMPA III	EX - 2021 - 00429001 –CAT (130/12)	MVM / Lake	29/06/2015	Registered	Exploration Concession	Granted	N/A	Lithium Salts	600.00	6	Not yet Submitted	No

3. GEOLOGIC AND HYDROGEOLOGIC INTERPRETATION

3.1 Deposit Description

Salars occur in closed basins with no external drainage in dry desert regions where evaporation rates exceed surface and groundwater recharge rates. Evapo-concentration of surface water in these basins results in the concentration of dissolved salts that eventually develop saline brines. Two types of salars are classified by Houston et al. (2011): 1) mature, halite dominant and 2) immature, clastic dominant. Kachi appears to be transitioning from an immature, clastic dominated salar, to a more mature system with the beginning formation of a surficial salt layer with halite that extends to several meters depth. The sediments are predominantly intercalated sands, silts and clays, which constitute a leaky aquifer, with the entire sequence of sediments potentially contributing brine flow to wells. Higher brine flows are obtained from intervals with high sand content and higher permeability, with the brine grades generally comparable between geological units.

3.2 Local Geology

The Carachi Pampa basin is a closed basin comprised of interbedded lacustrine and alluvial sediments of gravels, sands, silts, and clays, with episodic volcanic deposits of ignimbrites, tuffs, and basalts (Figure 3-1). The basin is bounded to the east and west by north-south trending mountain ranges formed by thrust faulting, exposing basement sequences in outcrops that rise to an elevation of about 5,100 m amsl. The Cerro Blanco pyroclastic complex is located on the south of the basin and is the primary source of the pyroclastic flows that deposited the ignimbrites and tuffs, while the Antofagasta de la Sierra and the Cerro Galan volcanic complex form the highlands in the north and northeast borders of the basin. The ranges to the east are composed of crystalline Pre-Cambrian basement rock that gently slopes down to the basin floor.

Red-bedded sandstone and claystone sequences of the Geste and Pataqia de la Cuesta Formations outcrop in the Los Colorados Range along the western edge of the basin. Extensive alluvial fan deposits form to the north, south, east and west of the central salar as coarse-grained, high-energy sediments were shed from the nearby steep terrains. Altogether the basin drains a watershed area of 9,494 km2. The center of the basin is dominated by the Quaternary basalt flows and the cinder-cone of the Carachi Pampa Volcano. The volcano penetrates basin sediments to the east of the salar, with flow and air fall basalts creating a veneer over the lacustrine sediments. The volcano has a northwest-southeast striking fissure vent that is interpreted to be underlain by a northwest-southeast aligned intrusive dyke or plug of much smaller dimensions than the basalt cone has at the surface.

Along the western edge of the volcano freshwater springs and seeps feed the Carachi Pampa Laguna (lagoon) and surrounding vegas (lowlands). The central salar in the basin contains a lithium-rich sodium-chloride (NaCl) type brine deposit.

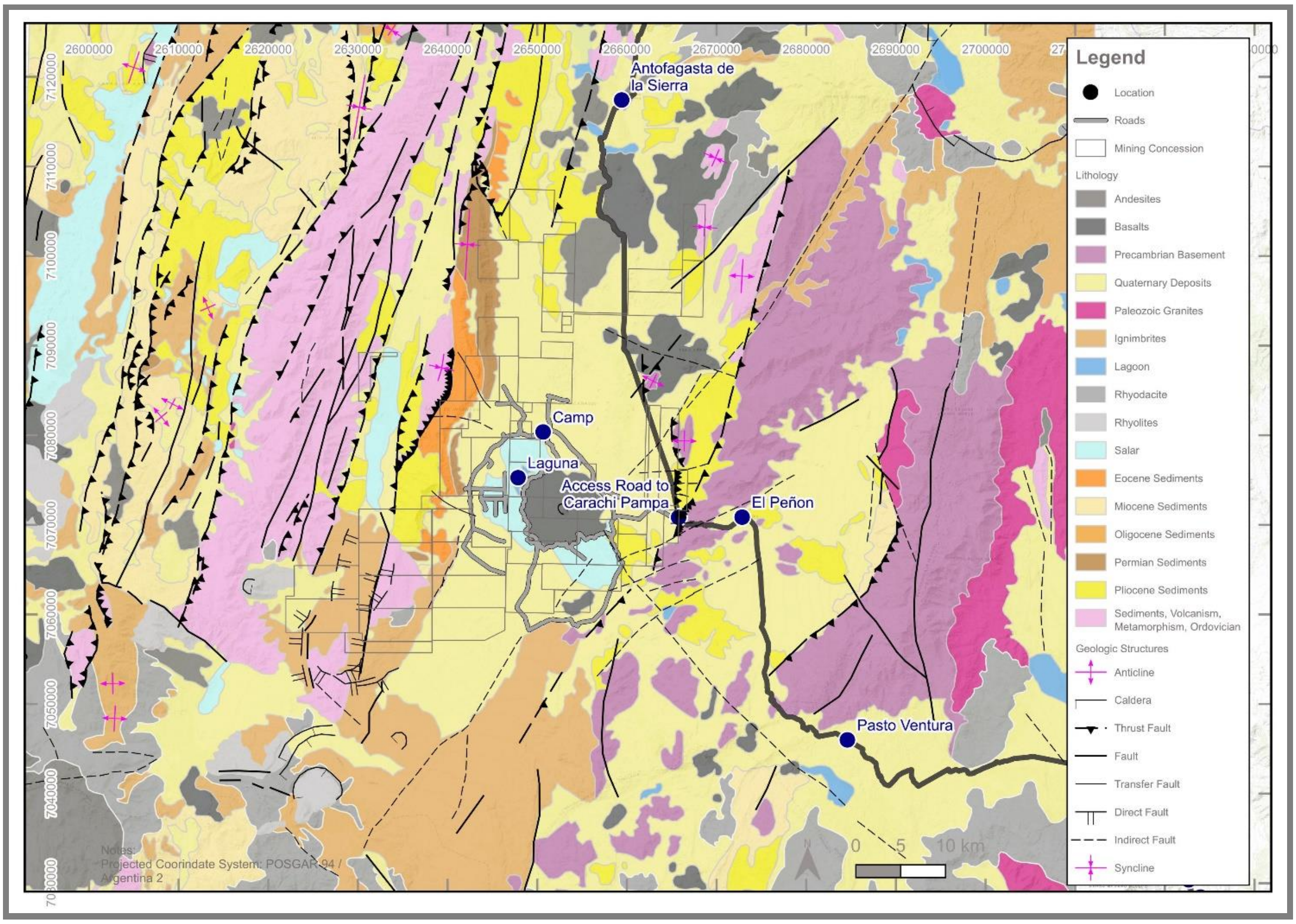


Figure 3-1: Kachi Project Geology, centred on the salar and volcano

3.3 Conceptual Hydrogeology

Within the Kachi Basin, layered sedimentary strata overly what is perceived to be relatively permeable (volcanics / metasediments) basement. The sedimentary strata likely dip with gradient at shallow angle and are near to level within the salar which is the topographical low for the watershed.

The regional basin sediments constitute a primary groundwater flow system. Groundwater flow in the deeper hard rock strata is generally associated with fractures rather than with the rock matrix, however the very high salinity brines within the aquifer system suggest that there are little to no losses from the system through basement formations. Although, this could also be associated with upward vertical gradients as the evaporative flux of the salar is the primary groundwater discharge for the basin.

Figure 3-2 shows an east west cross section through the central salar area. The central area strata are dominated by fine-grained intercalated silts and sands. These finer sediments transition to coarse-grained sands and gravels at the periphery of the central salar area.

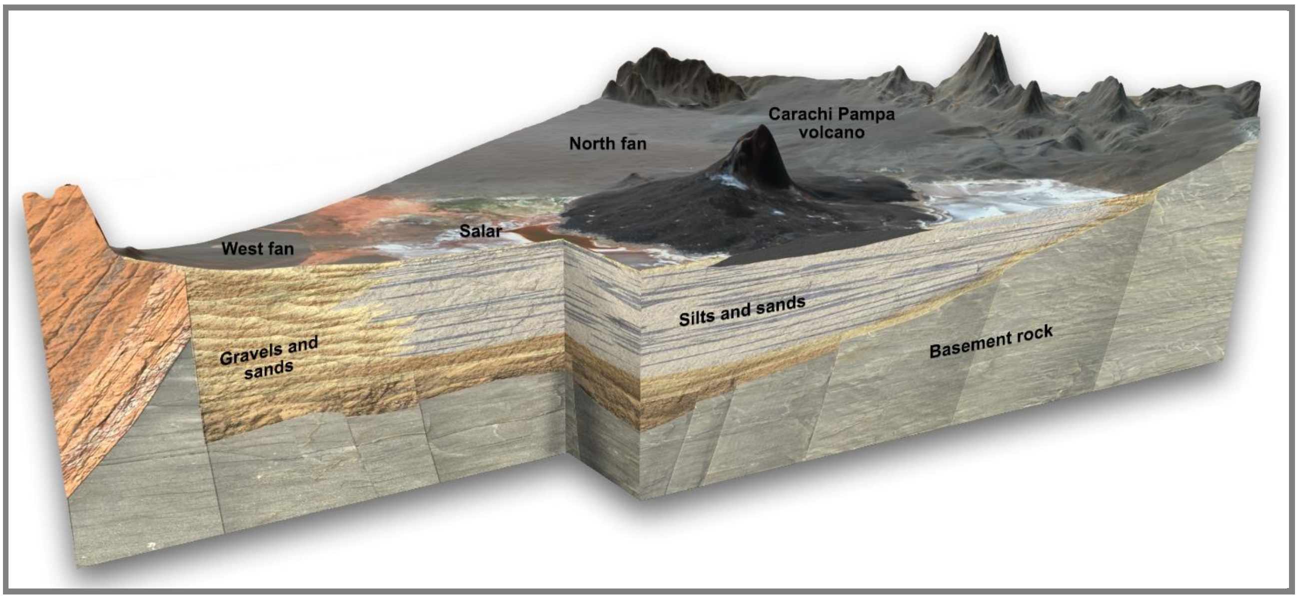


Figure 3-2: East-West Cross section, looking north

Figure 3-3 illustrates a conceptual groundwater model for the basin which has very high salinity brines from near surface to depth within the central salar and extending laterally under the alluvial fans. Density driven currents circulate brines causing mixing and a high degree of consistency in the hydrogeochemistry with depth and lateral distance form the salar core. In addition to infiltrating groundwater from the surrounding highlands, source geochemical constituents in the basin are interpreted to be derived from episodic input from hydrothermal / volcanic origin both though basement structure and upgradient northern ignimbrite and volcanics.

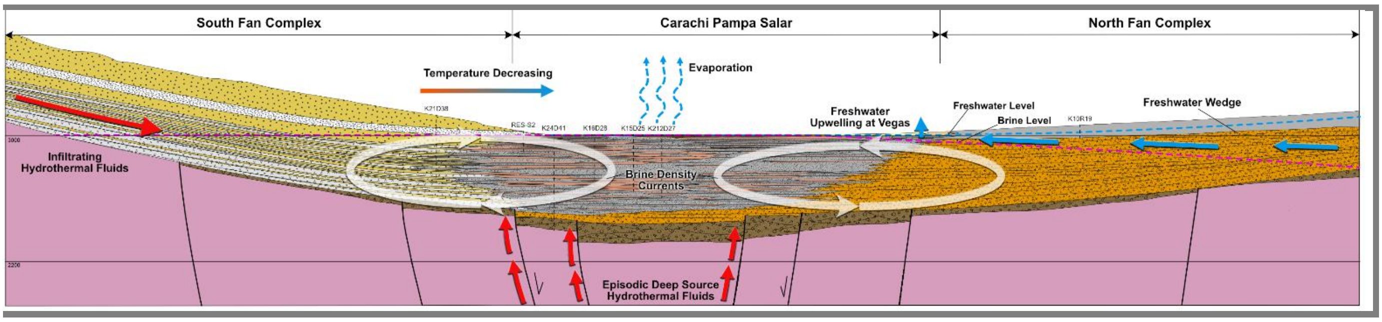


Figure 3-3: Conceptual Hydrogeological Diagram

3.4 Geophysics

3.4.1 Passive Seismic Surveys

Site exploration activities since 2017 have consisted primarily of the passive seismic geophysical technique (Moho Tromino) with data processing undertaken by Resource Potentials Limited of Perth, Western Australia. More than 500 geophysical stations were utilized across the basin (Figure 3-4 and 3-5). The technique proved to be effective in developing an understanding of the Carachi Pampa basin geometry and top of bedrock surface (Figure 3-5). A strong seismic velocity contrast was detected between the low seismic velocity unconsolidated to weakly consolidated basin sediments hosting the brine and the underlying crystalline metamorphic basement rocks of the Famabalasto Formation (Figure 3-5) with a higher seismic velocity. Figure 3-6 shows a selection of cross section profiles within the central basin area.

The seismic information suggests the basin is 700-800 m deep in the western part of the resource area. A similar contrast in seismic velocities was observed between the loosely consolidated basin fill and the episodic volcanic facies deposited into shallower sections of the basin. The distinct reflectors identified in the survey correlate well with dense lithologies such as cemented breccias and ignimbrite units (encountered at K06) and metamorphic rock (encountered at K24) within the predominantly unconsolidated sandy sediments and probable basement rocks intersected at 306 m depth in drill hole K06D07 in the southeast area of the project. This data set formed a basis for selecting drill hole sites and provided a foundation for the top of bedrock surface (Figure 3-5) and the conceptual stratigraphic model of the basin.

The absence of bedrock at recent drillholes K21D38 (430 m bgs),K22D39 (425 m bgs), K23D40 (610 m bgs) and intercept of metamorphic bedrock at 595 m bgs in the deeper K24D41 (610 m bgs) is further confirmation of a thickening sequence of basin fill sediments to the west, with the interpreted thickness of unconsolidated and/or poorly consolidated basin fill sediments shown in Figure 3-7 (sediment isopach map).

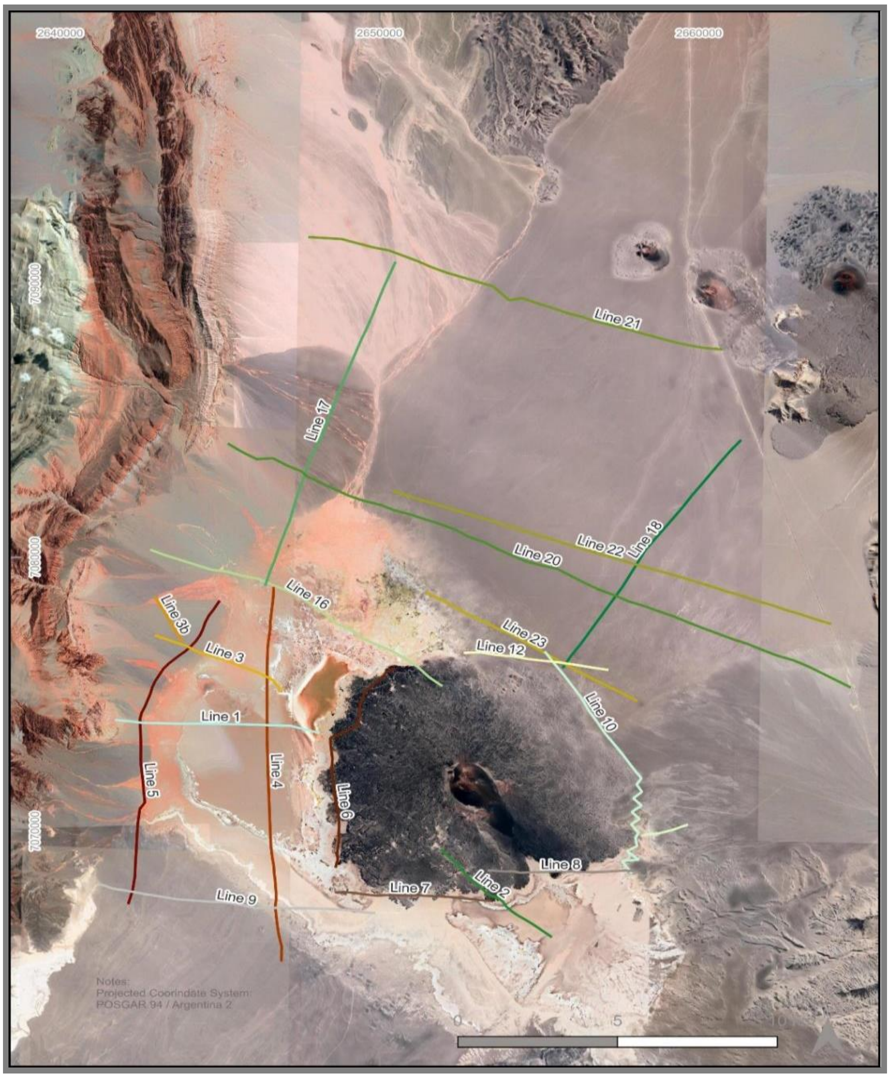


Figure 3-4: Locations of passive seismic survey lines

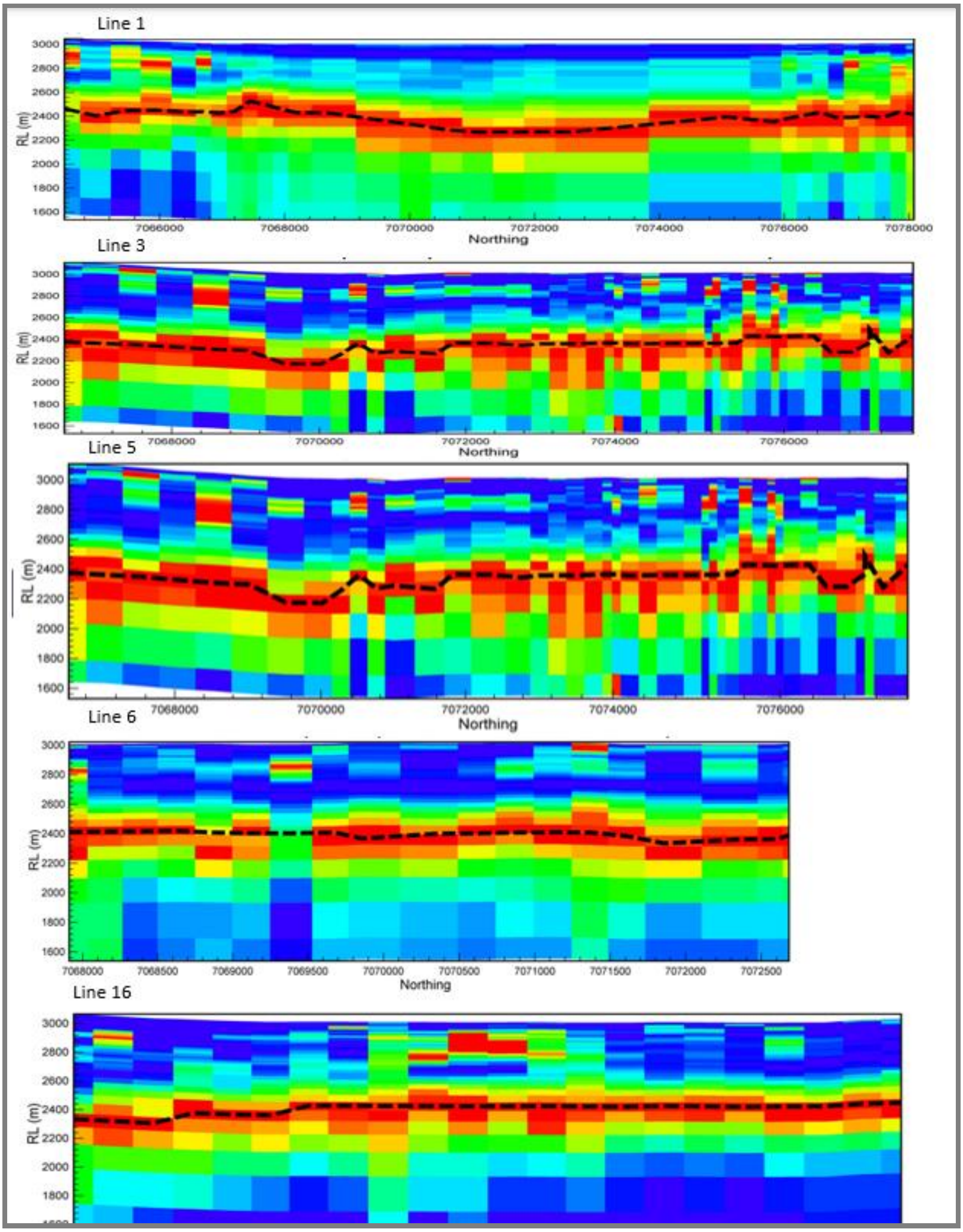


Figure 3-5: Selection of passive seismic profiles showing depth to basement (red band is the basement reflector).

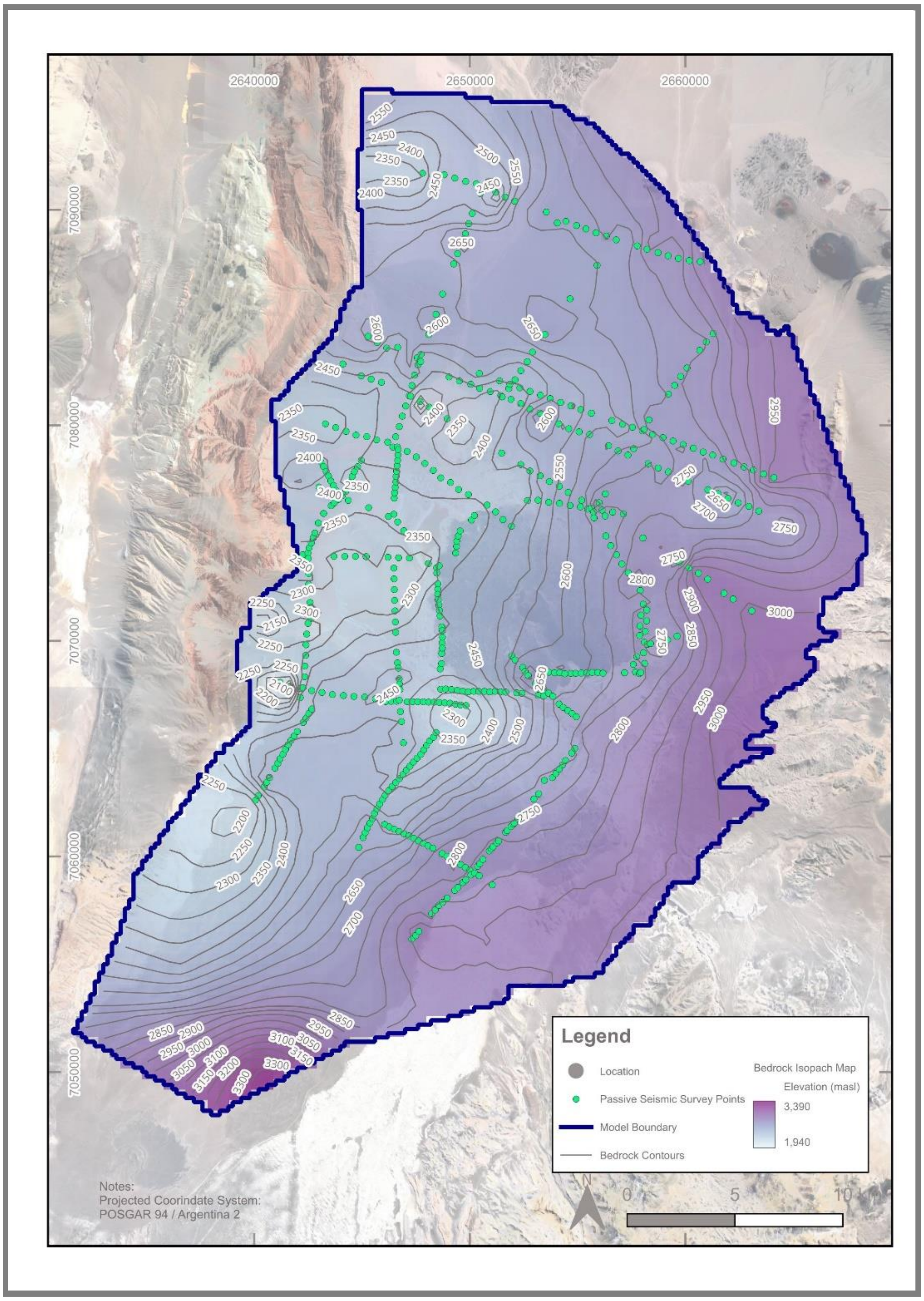


Figure 3-6: Top of interpolated bedrock surface

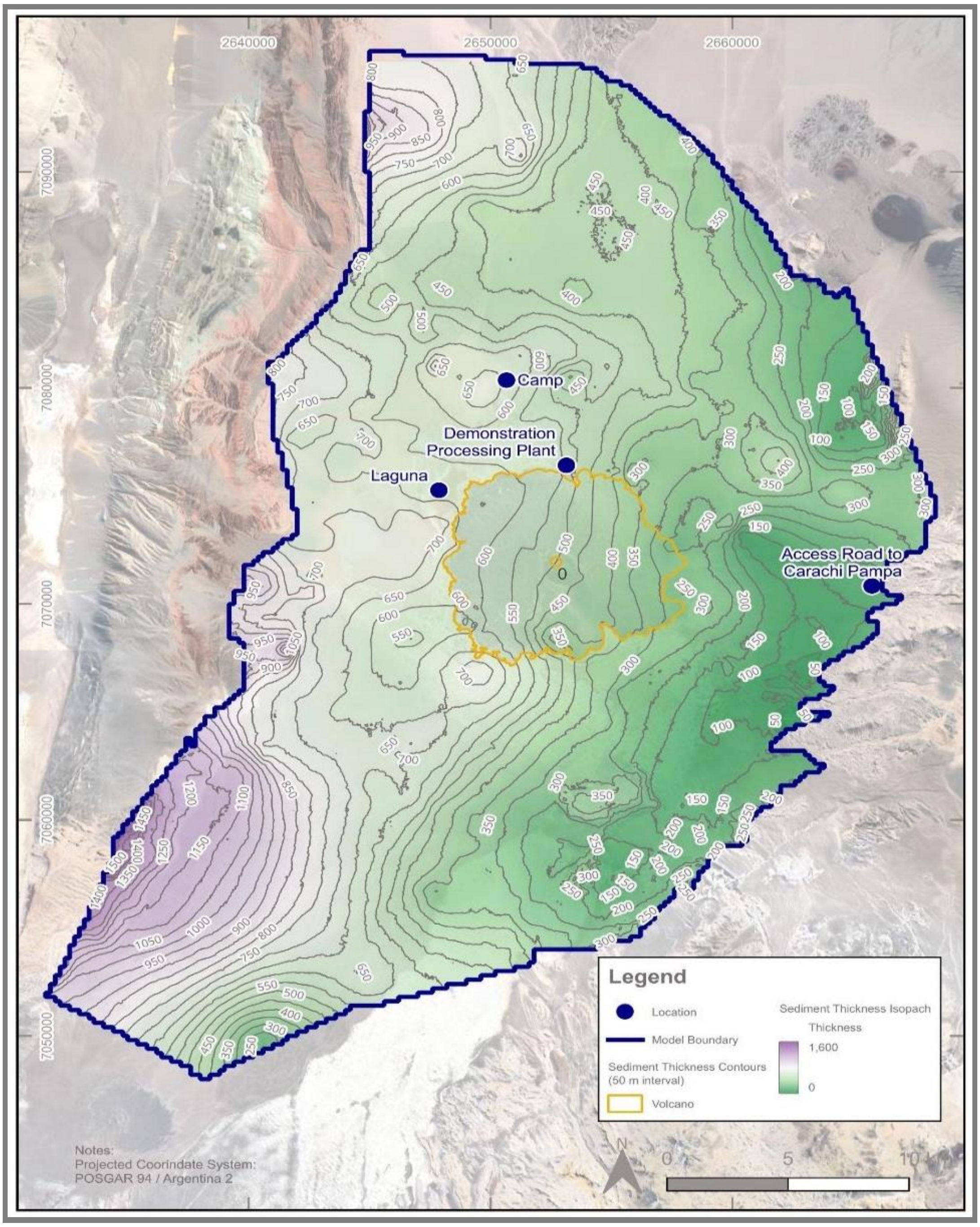


Figure 3-7: Basin fill isopach map. Basin fill beneath the basaltic flows (yellow) and volcanic neck are more uncertain given the lack of information in that sector.

3.4.2 Transient Electromagnetic Survey

A basin wide extensive transient electromagnetic (TEM) survey was conducted in 2023 with a total of 140 km of survey lines. This proved to be effective in delineating the brine, brackish water, freshwater, and zones of dry sediments. TEM helped to develop an understanding of the regional groundwater levels and indicative salinity levels. Figure 3-8 is a map of the TEM lines with select TEM cross sections, Table 3-1 includes a concise interpretation of those lines. The interpreted brine signatures within the TEM survey data show pervasive existence of brine outside of the central resource area (Measured Resource outline).

The indicative brine signatures from the TEM survey show pervasive existence of brine outside of the central resource area, which were validated in drillholes K21D38, located south of the central resource area, and K22D39, located north of the central resource area. Results from K23D40 further to the north of K22D39 provides further evidence of an extensive brine body within the basin. Georeferenced TEM section lines imported into Leapfrog software provide a high-level indication of the potential distribution of brine in the Kachi basin (Figure 3-8 and 3-9 through 3-11).

Typically, along the edges of the salar and into the adjacent alluvial fan deposits, there is a wedge of lighter freshwater near the surface sitting over the denser brine filling the basin. This freshwater wedge thins and disappears in the topographical low of the central salar where brine is found immediately below the surface or adjacent to the fresher water laguna.

A significant freshwater wedge is observed in the TEM in the northern and eastern sectors of the basin and was confirmed by well penetrations at K22 and K23 (> 200 m thick wedge, thickening to the north) and immediately north of the volcano at K09 (> 40m thick wedge) where subsurface inflow and localized recharge along the large alluvial fans occurs from the north and east. Freshwater wedges were observed to be absent to thin along the western and southern margins of the basin and confirmed from well penetrations at K18, K19 and K20 (<2m thick wedge) and at K21, which showed a gradual increase in salinity from brackish to brine over the upper 80 m interval. An estimated freshwater thickness map was generated from the TEM data

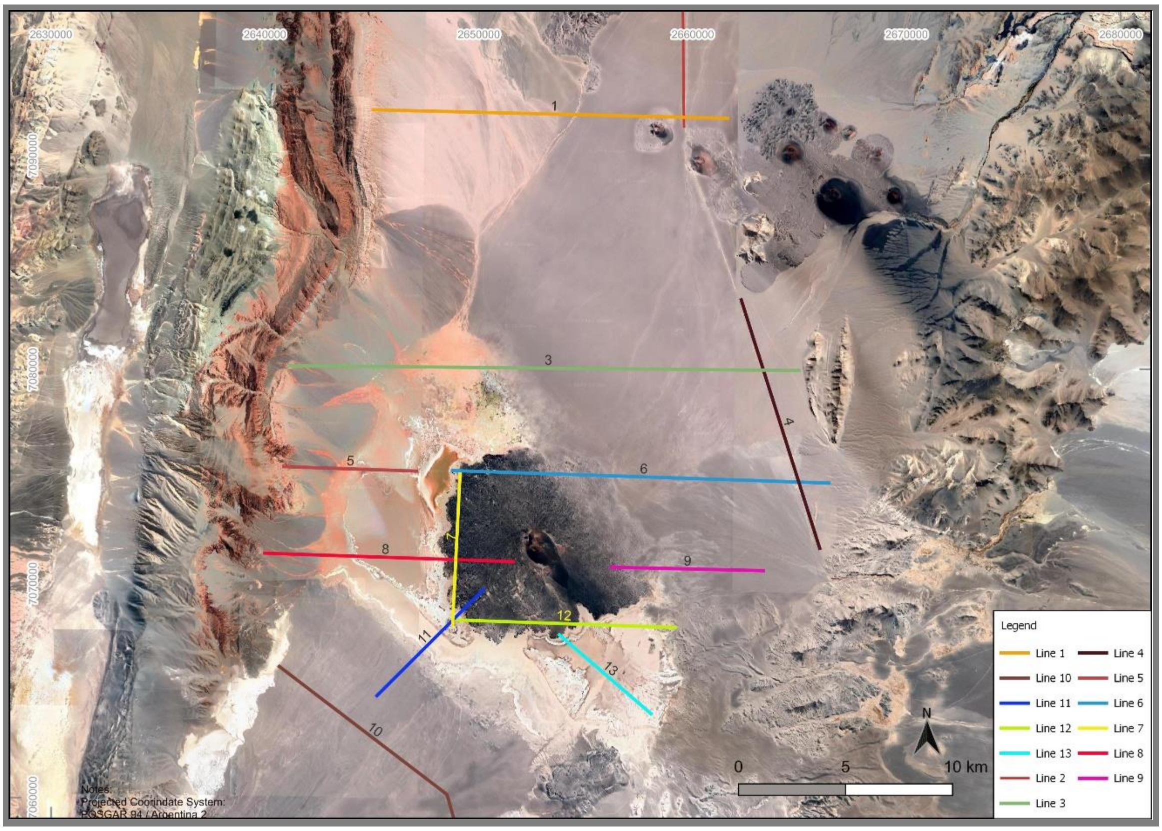


Figure 3-8: TEM lines and locations, mapping the distribution of brine from north to south through the project area.

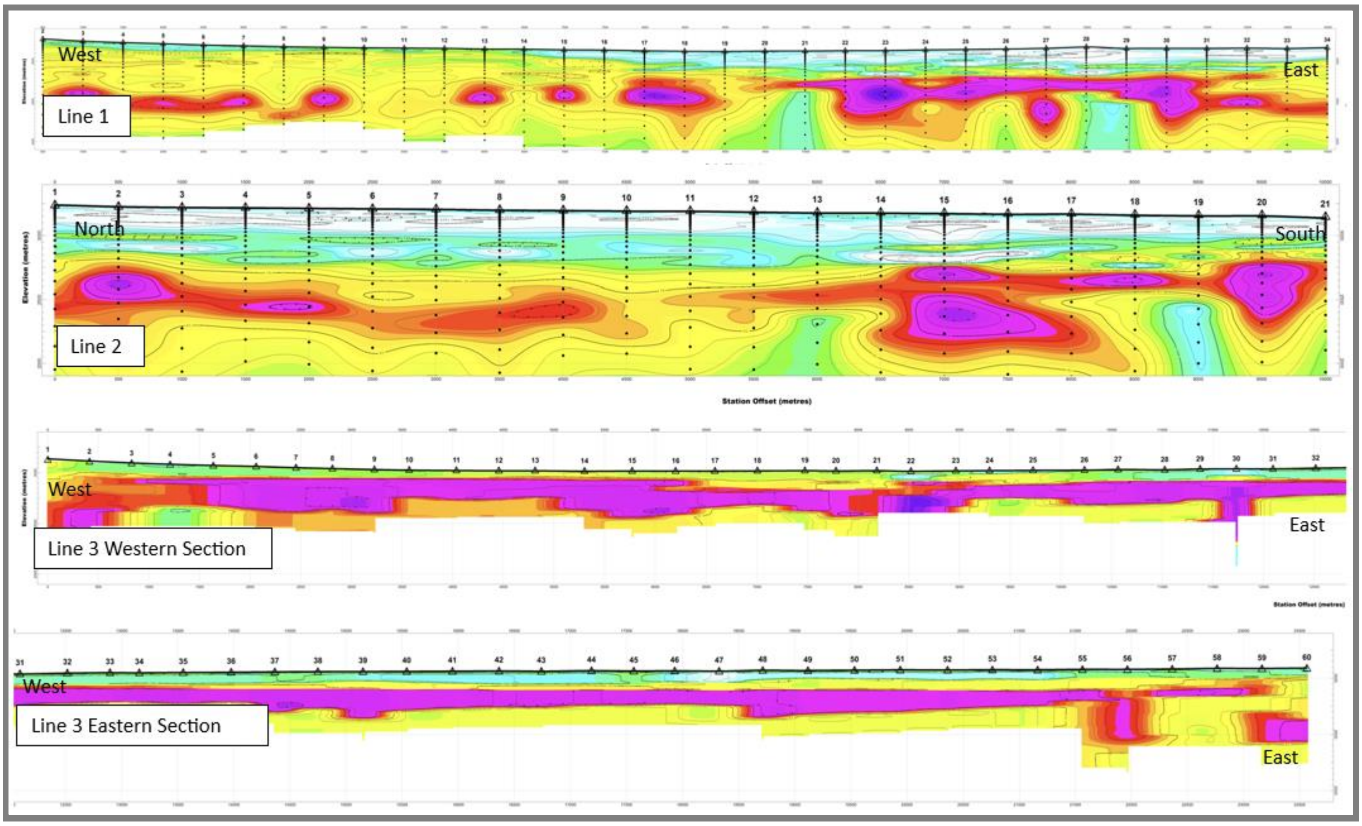


Figure 3-9: TEM Lines 1, 2 & 3 in the north.

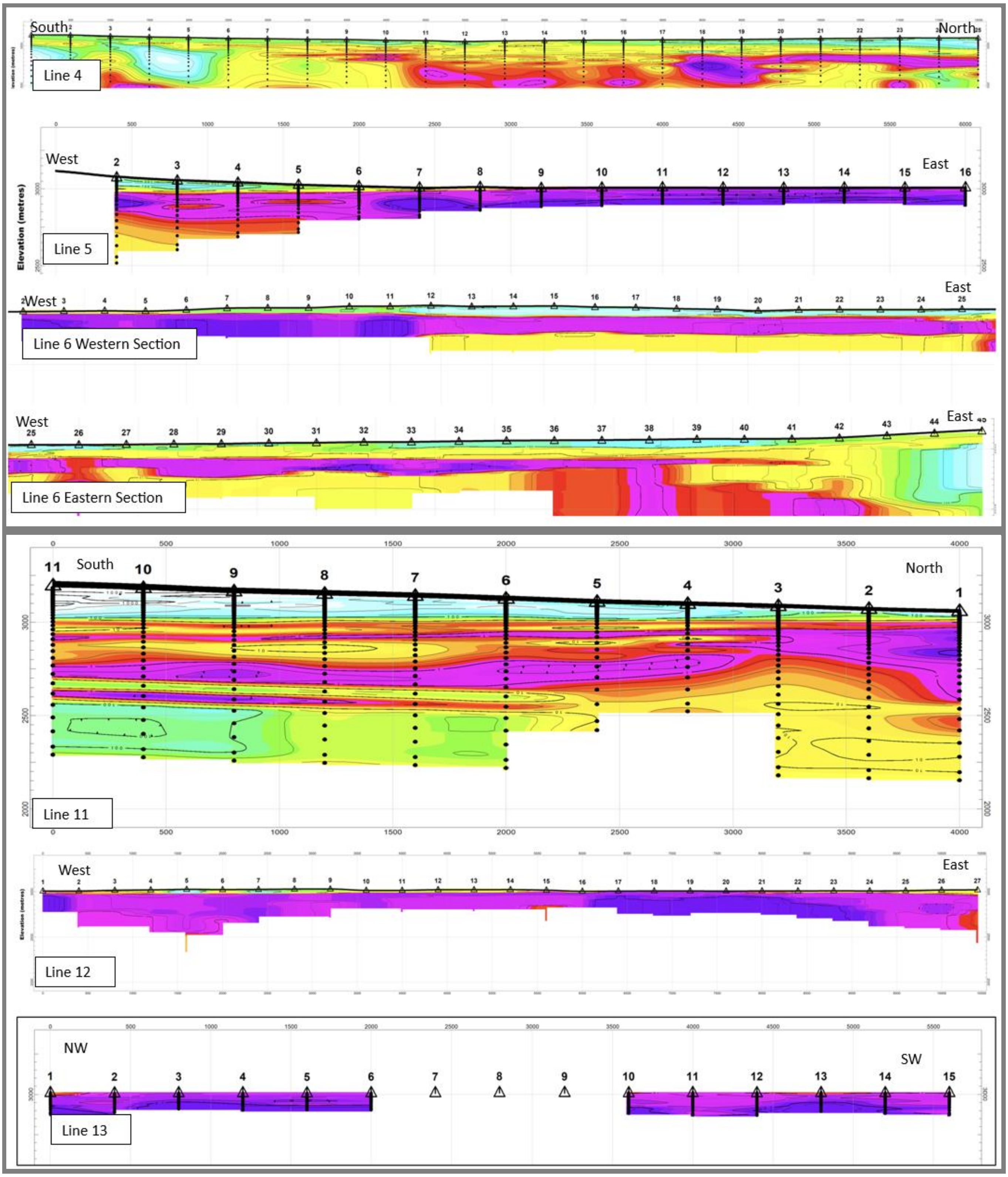


Figure 3-10: TEM Lines 4, 5, 6, 11, 12 and 13 in the centre and south.

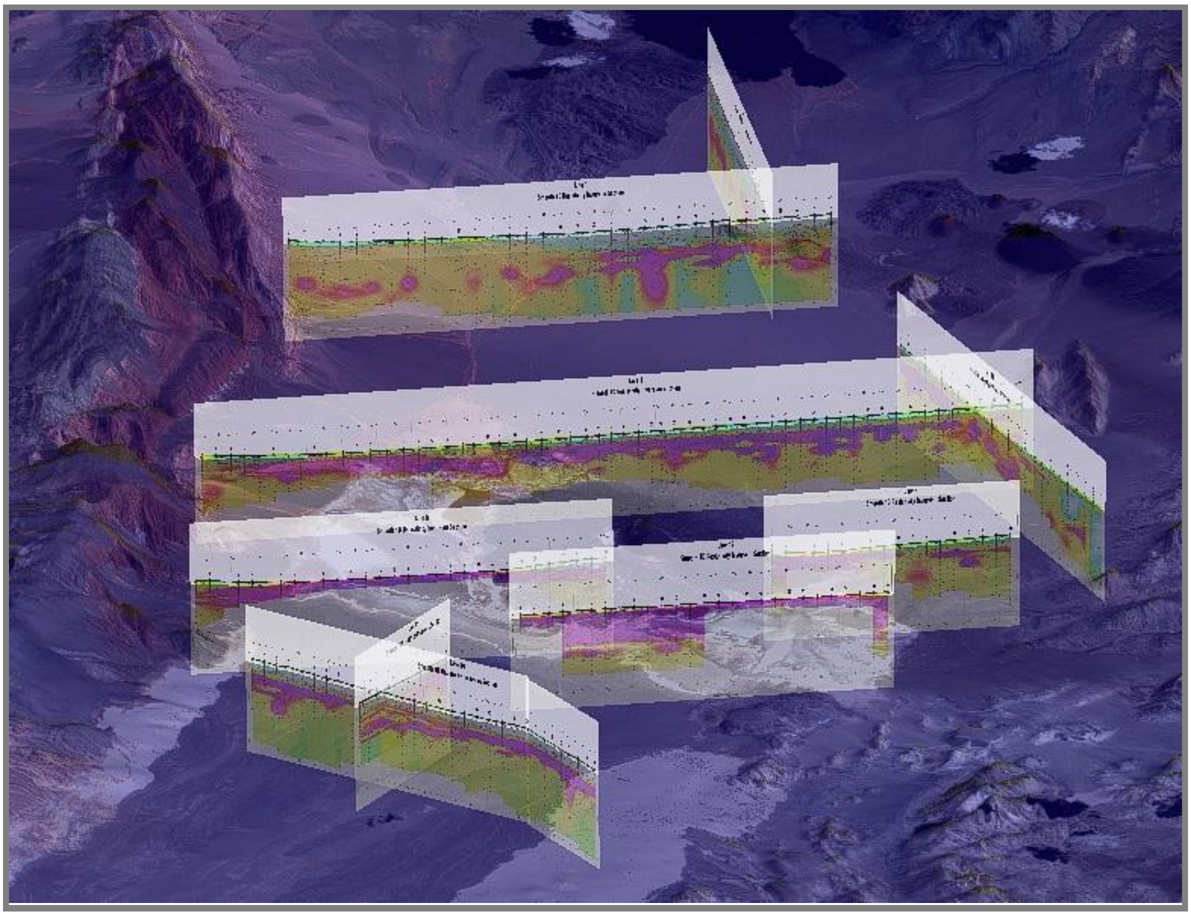


Figure 3-11: TEM lines through the project area (some removed for clarity), with satellite image of surface features. The presence of brine is indicated by the purple to red zone in the TEM throughout the project area.

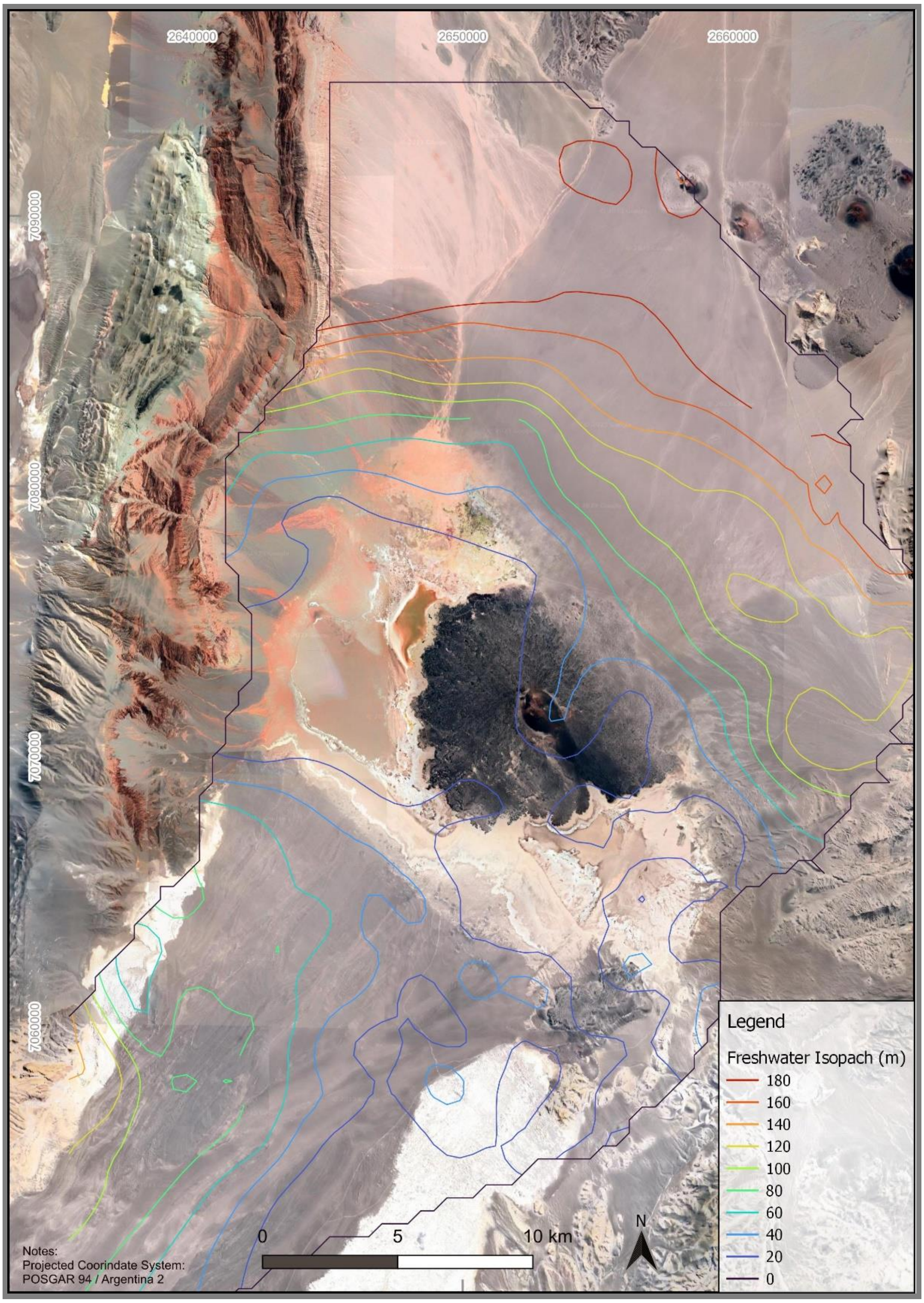


Figure 3-12: Freshwater thickness defined from geophysics and drilling.

3.5 Stratigraphy

A subsurface stratigraphic interpretation of the Kachi Project area was conducted to assist in predicting the probable placement of key geologic features which may control dynamic flow behaviour of the lithium rich brine and fresher associated groundwaters. The superficial geology was mapped across the basin by differentiating segments with similar pedological characteristics at the surface (Figure 3-13). The outcrop and surface geology are dominated by sedimentary and volcanic rocks. Unconsolidated sediments cover the basin in the form of alluvial fans generally coinciding on the edges of the halite-crusted salar. The hydraulic properties of the differing sediment types across the basin are heterogeneous, and hence brine flow regimes will be variable as a general function of sediment type.

In the Carachi Pampa basin area the major segments of sediment types were differentiated by the geologic environments they were deposited in. The three primary Environments of Deposition (EOD) for the modern Carachi Pampa basin are 1) lacustrine deposits of the salar (fine sand with minor gravel lenses, silt and clays, and evaporites); 2) clastic alluvial fans with minor fluvial and eolian deposits (coarse gravels and sands with minor fine sequences of silt and clay); and 3) volcanics (basalts, ignimbrites, or tuffs). Pre-basin sediment stratigraphy of Tertiary clastic deposits and basement metamorphic rocks were not differentiated.

Four major assemblages of alluvial fan complexes enter the basin from north, east, south, and west directions, each with a different provenance of source sediments from the surrounding highlands. At the terminal distal toes of the alluvial fans, where fine grain sediments commonly collect, the alluvial fan sediments transition to the finer, more mature sediments of the lacustrine salar.

The EOD classifications were simplified to reflect the seven primary depositional areas immediately in and surrounding the Kachi Project. These EODs are the Basalt Cinder-Cone, the Salar, Fan-to-Salar Transition Zones, the West Fan Complex (West Fan), the South Fan Complex (South Fan), the North Fan Complex (North Fan), and the East Fan Complex (East Fan; Figure 3-13)

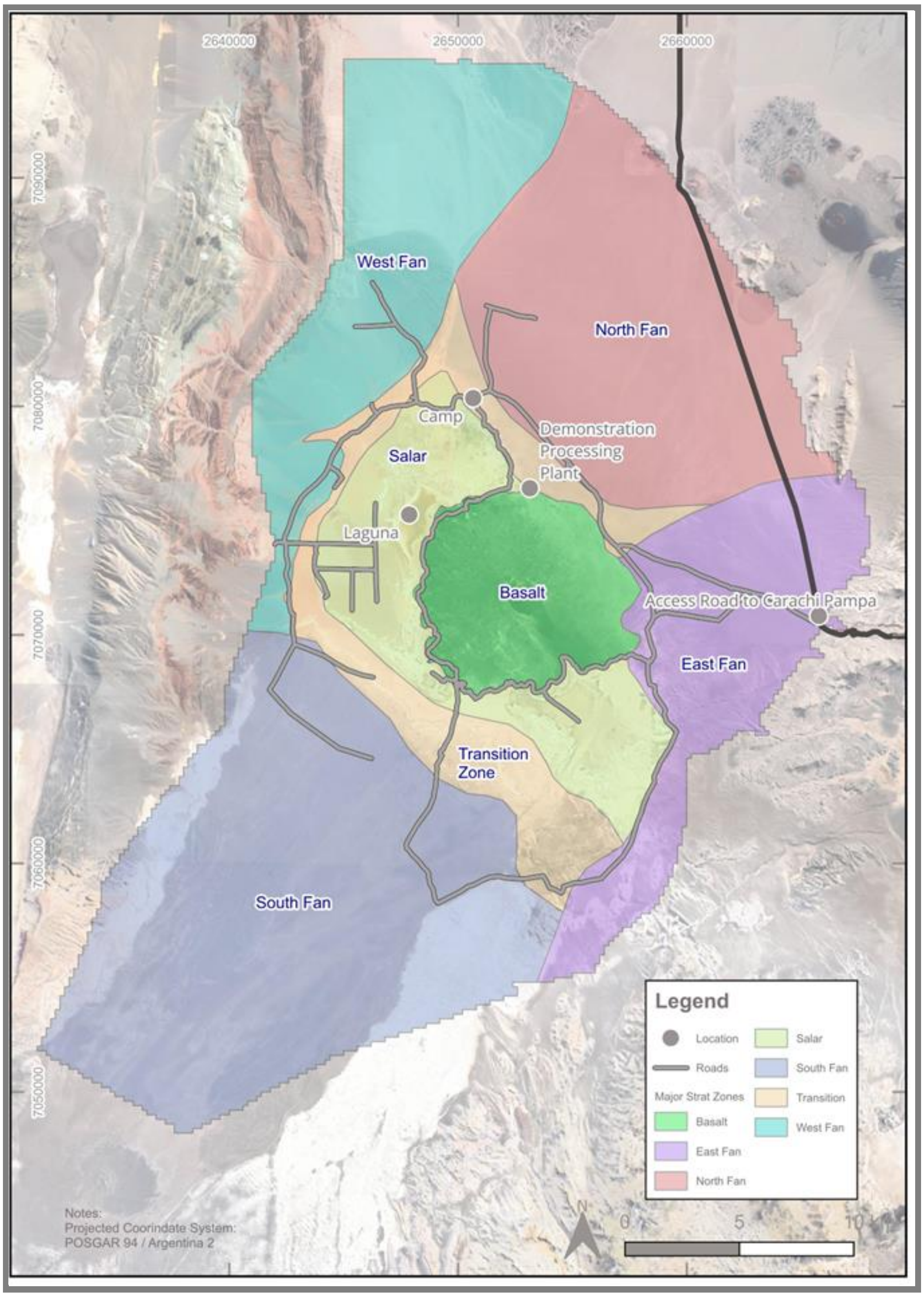


Figure 3-13: Lithological units identified in the project area.

3.5.1 Basalt Cinder-Cone

The Quaternary basalt flows and cinder cone of the Carachi Pampa volcano cover an area of more than 66 km^2 on the eastern side of the salar basin. The geologically young volcano is oriented in a northwest-southeast direction, which is aligned with the deep-seated tectonic architecture of the basement block deformation. The volcano is interpreted to be fed by an intrusive dyke with much smaller dimensions than the basalt shield at the surface. Along the western edge of the volcano, springs and seeps feed the Carachi Pampa laguna and surrounding vegas.

3.5.2 Salar

The base of the salar is defined by the top of the crystalline metamorphic rocks of the Famabalasto and Falda Cienaga Formations. Passive seismic interpretation of the metamorphic basement top indicates the deepest section of the main basin to the southwest (>700 m), shallowing gradually to the east (<150 m). Several smaller mini basins to the north and west have been observed. Multiple well penetrations at K01, K02, K03, K04, K05, K06, K08, K11, K12, K14, K15 and K16 have revealed that the Salar depositional environment is comprised of basin filling lacustrine sediments, primarily medium to fine well-sorted, sub-rounded sands with interbedded intervals of silts and clay and occasional volcanic ignimbrites. Confining sedimentary layers of silts, clays, or ignimbrites within the basin have the potential to impede brine flow in the basin, particularly in the vertical direction. Several meters of evaporites, primarily halite, have been deposited at the playa surface, and older layers of evaporite deposits are noticeable absent from the lacustrine well penetrations deeper into the salar basin. The laguna and vega areas of the Salar are associated with fine-grain clays and silts that are deposited in and around the open bodies of water at the core of the basin.

The lacustrine deposits that host the lithium-rich brine in the basin have been organized into three distinct flow units (A-C) (Figure 3-3):

- Unit A: medium to fine well-sorted, sub-rounded sands with *significant* interbedded intervals of silts and clay
- Unit B: medium to fine well-sorted, sub-rounded sands with *minor* interbedded intervals of silts and clay
- Unit C: medium to fine well-sorted, sub-rounded sands with *significant* interbedded intervals of silts and clay. Limited penetrations at depths beyond 400 m suggest that the basal portions of the unit may be coarser-grained, weakly-consolidated sandy conglomeratic deposits. These are potentially associated with early basin fill that was deposited as the extensional tectonic regime generated accommodation space that rapidly infilled by coarse-grain, high energy sediments shed from the nearby steep terrains of Tertiary alluvium.

3.5.3 West Alluvial Fan Complex

The West Alluvial Fan Complex consists of approximately 15 modern day fans that have formed along the western flank of the basin ranging from 2-5 km in width and approximately 5 km in length. The fan complex has been penetrated by 5 wells (K18, K19, K20, K22 and K23). The source material is red-bedded sandstone and claystone sequences of Tertiary alluvium located in the thrusted highlands of the Los Colorados Range. The fans point-source out of canyons in the highlands of the Los Colorados. The fans are comprised of coarse-grained, sub-rounded to sub-angular sands and gravels that have been deposited a short distance from the point source. Modern fans demonstrate a fining outward sediment sorting pattern. Small ephemeral braided fluvial stream systems generally form in the center of each fan, depositing fine sand, silts and clays along the stream beds. There is potential for confining fine-grain sediments to baffled flow between individual fans and at the fan's distal edges that transition to the finer-grained lacustrine basin fill. Overall, due to the coarse nature of the fan sediments, the West Fan is likely to be a hydraulically well-connected EOD both vertically and laterally.

3.5.4 South Alluvial Fan Complex

The South Alluvial Fan Complex is a single fan complex oriented NNE at the southern end of the Salar. It is approximately 9-12 km in width and approximately 20 km in length. The fan has been penetrated by 3 wells (K21 in the west of the fan and K24 and K25 at the northern transition zone to the Salar deposits). The fan consists primarily of gravel and sand, with interbedded silt and clay. Volcanic tuffs, ash and ignimbrites are common, and the modern fan complex is flanked by surficial ignimbrite deposits to the west, east and north. The fan forms on a steep steady slope, with a gradient of 55.4 m/km (over a distance of 20 km) up to Cerro Blanco at the southern end of the Carachi Pampa basin. The source material for the fan is the Mid Pliocene to Holocene age Cerro Blanco pyroclastic complex located to the south of the basin and comprised primarily of ignimbrites, tuffs and volcanics.

There is no modern evidence of fluvial processes at the surface of the fan. Modern sediments are deposited mostly by aeolian processes with large gravel-mantled mega-ripples present on the surface of the modern fan. Overall, the fan does not show much evidence to support the fining outward sediment sorting pattern typically associated with alluvial fans, though fine sediments do collect at the lacustrine transition zone area at the northern terminal edge of the fan. There is some potential for baffled flow at the terminal edge of the fan at the transition to the Salar sediments, but the coarse nature of the sediments will likely result in a hydraulically well-connected fan complex both vertically and laterally. There is minimal fresh and brackish water observed in the wells drilled to date and the fan has a similar depth of groundwater as the main lacustrine basin indicating a hydraulically connected system. A higher geothermal gradient relative to temperatures observed in the lacustrine basin has been documented, with well temperatures observed in the 25-35o C range compared to the average 20-25°C in Salar wells. Passive seismic data indicate a deep basin (>750m) under the northwestern section of the fan, which could potentially indicate a thinning of the basement and an associated increase of the geothermal gradient in the area.

3.5.5 North and East Alluvial Fan Complexes

Approximately 1-3 modern day fans have formed along the northern flank of the Carachi Pampa basin with the largest fan complex approximately 2-17 km in width and approximately 25 km in length. The source material for the Northern Alluvial Fan Complex is the metamorphic and volcanic deposits of the Antofagasta region to the northwest of the Salar. The fans formed from sediments shed from the moderately steep terrains and have travelled tens of km away from the material source. The modern fan demonstrates a fining outward sediment sorting pattern typically associated with alluvial fans. There is evidence of fluvial process at surface with ephemeral braided channel systems forming as the fan enters the Salar. The southern edge of the fan system is actively inundating the northern flank of the basalt shield. No Kachi brine wells penetrate the North Alluvial Fan Complex, but freshwater wells in the area (K17R30, K10R19, K09R18) indicate a significant freshwater wedge.

3.5.6 East Alluvial Fan Complex

The source material for the East Alluvial Fan Complex is Cerro Galan volcanic highlands to the north and east of the basin. No Kachi brine wells penetrate the East Alluvial Fan Complex, but freshwater wells in the area indicate a significant freshwater wedge similar to the northern fans. There is evidence of fluvial processes at the surface with braided channel systems from the El Peñón region infiltrating down into the fan at the east edge of the Carachi Pampa basin.

3.5.7 Fan-to-Salar Transition Zones

The transition zones from the alluvial fan complexes to lacustrine sediments comprising the salar are a continuum of interfingering sediments which generally trend from the coarse high-energy sediments to finer-grained low energy sediments of the central basin. The position of the transition zone is at the terminal distal edges of the fans and is likely controlled by tectonics, particularly in the transition to the West and South Fans which have a linear trend similar to the alignment of the dominant and secondary fault structures. The transition zones are variable between the fans, but all of them show evidence of fine-grain sediment deposition at the surface.

The K25 well drilled into the South Fan transition zone showed thick (>1 m) deposits of clay lenses and is one of the few wells to show evidence of secondary carbonate diagenesis in the subsurface which could be evidence either of freshwater mixing with brine or hydrothermal fluids upwelling in the area. The significant deposition of finer-grain sediments at the transition zones has the potential to hydraulically baffle flow across the boundary between the fan systems and the salar to varying degrees, though it is unlikely to create significant barriers between them due to the abundant sand that appears to be deposited in a continuum from the highlands.

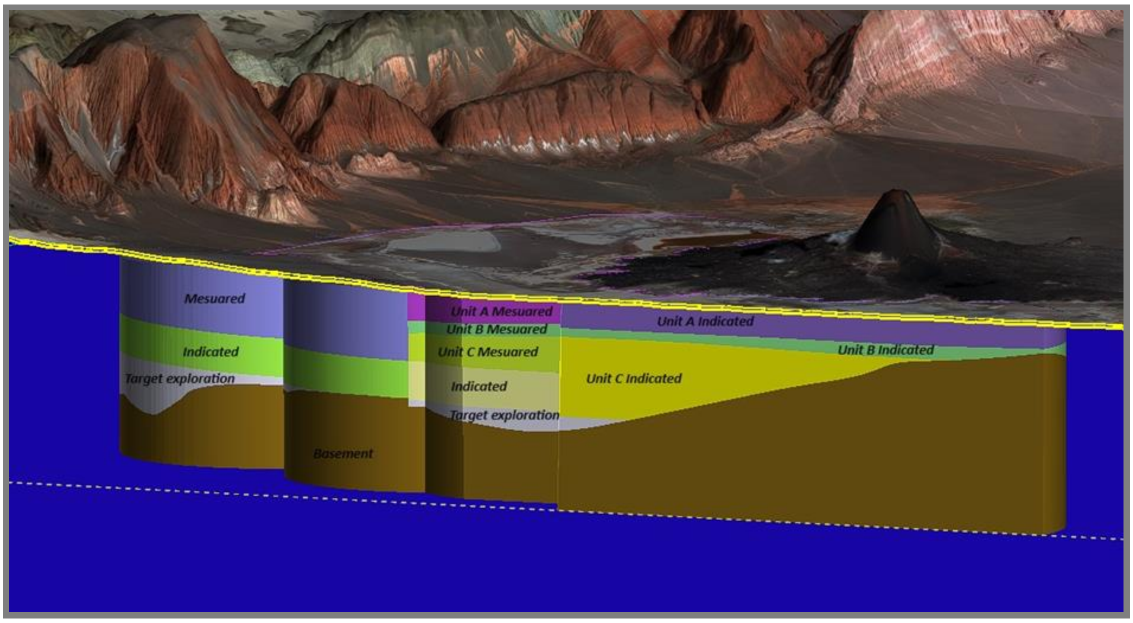


Figure 3-14: Resource Classifications, looking north through the Resource area

4. DRILLING AND SAMPLING TECHNIQUES

4.1 Recent Drilling

Drilling of 25 new diamond and rotary drill holes has been completed since the maiden resource including an additional 5 diamond drill holes since the January 2023 resource update and additional 2 diamond drillholes since the June 2023 resource update. The location of the holes is shown in Figures 4-1. Note that drill holes are labelled by platform and sequential hole number (i.e., in the format KxxDyy). Drilling method denoted with Diamond core (D) and Rotary (R).

All new holes have been geophysically logged to provide additional information, except where the condition of holes prevented this. Samples from the diamond and rotary drill holes were sent to external laboratories for drainable porosity and hydrochemical analysis. The data and were used to revise the geological model and data sets used for the resource estimate update.

Drillholes K22D39, K23D40, and K24D41 (Figure 4-1) are the first locations to explore the potential resource below 400 m bgs. These holes have intersected lithium bearing brines previously categorized and documented as part of the exploration target. The results have proven the lithium brine body extends well beyond 400 m depth, in addition to delineating the resource over a larger spatial footprint well beyond the salar in the central portion of the basin.

Significant lithium intersections have been encountered at K23D40 and K24D41. The highest lithium concentrations at depth to date were intersected in K24D41 returning grades of 180 up to 348 mg/L lithium, with an average of 267 mg/L over 445 m (166 – 610 m), returning grades of 180 up to 348 mg/L lithium.

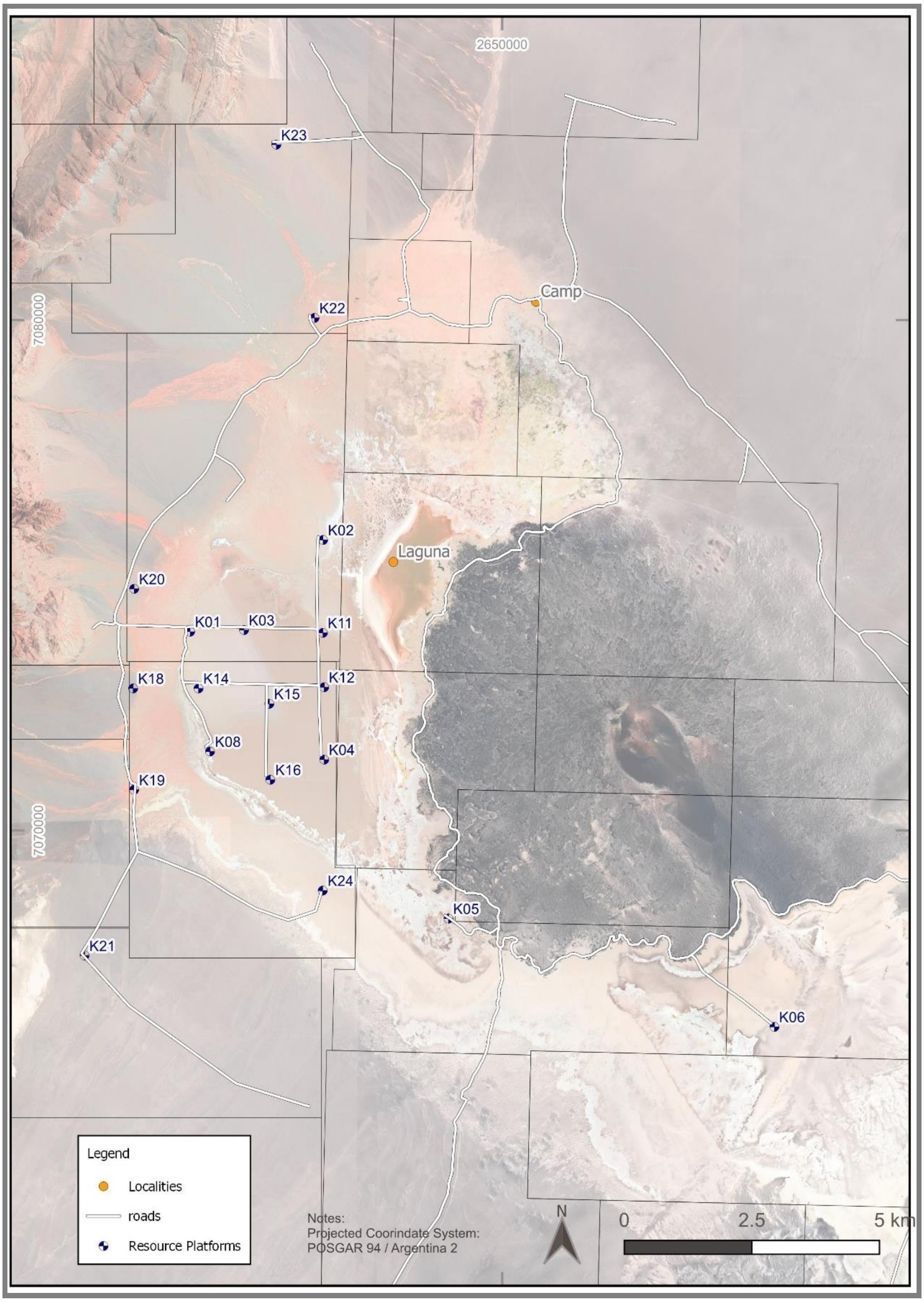


Figure 4-1: Drillholes are labelled by platform and sequential hole number (i.e., in the format KxxDyy). Measured Resources coincide with the Central Salar area.

4.2 Geophysical Logging

Downhole geophysical logs have been collected since May 2019 on most drillholes where conditions are suitable to do so. There is an extensive set of logs including gamma ray, resistivity, acoustic televiewer, inclination, calliper, temperature, and Borehole Magnetic Resonance (BMR). Wells were installed PVC casing which facilitated the use of the BMR tool retrospectively at wells K03R12, K04R15 and K08R14, A total of 16 drillholes (Table 4-1) have been logged with BMR. BMR logs have been highly useful for identifying zones of movable, capillary and immobile water, specific yield estimates, and relative assessments of hydraulic conductivity. The geophysical logs were limited to 400 m and therefore deeper holes also only have geophysical logs to 400 m.

Table 4-1: Borehole Geophysics

Platform	Drillhole	Borehole Geophysics
K01	K01D01	Electrical Profile
K02	K02R16	Electrical Profile
	K02P01	None
	K02P02	None
K03	K03D02	None
	K03R03	None
	K03R12	BMR and Electrical Profile
K04	K04R15	Electrical Profile
	K04P01	None
K05	K05D09	None
	K05D11	Electrical Profile
K06	K06D04	None
	K06D05	None
	K06R06	None
	K06D07	None
	K06D08	Electrical Profile
	K06R10	None
K08	K08R14	BMR and Electrical Profile
	K08R17	Electrical Profile
	K08P01	None
	K08P02	None
K09	K09R18	Electrical Profile
K10	K10R19	Electrical Profile
K11	K11D20	BMR and Electrical Profile
	K11P01	None
	K11R26	BMR
	K11R26B	None
	K11R29	None
K12-KC	K12D21	None
	K12D27	BMR
	K12R34	None
	K12P01	None
K13	K13R22	Electrical Profile

Platform	Drillhole	Borehole Geophysics
K14-KA	K14D23	None
	K14D24	BMR
	K14P01	None
	K14R37	None
K15-KD	K15D25	None
	K15P01	None
	K15R31	BMR
	K15R36	None
K16-KE	K16D28	BMR
K17	K17R30	Electrical Profile
K18-KG	K18D32	BMR
	K18P01	None
K19-KH	K19D33	BMR
K20-KF	K20R35	BMR
K21-REIN S2	K21D38	BMR
K22-REIN N2	K22R39	BMR
K23-REIN N1	K23D40	BMR
K24-RS 1	K24D41	BMR
	K24D43	None
K25-RS 2	K25D42	None
	K25D44	BMR

Data collected during the 2022/2023 logging campaign includes:

- TPOR – Total porosity measured in V/V (%).
- CBWV – Porosity bound (clay bound water) to clays or pore sizes equivalent to those found in clayey sediments measured in V/V (%).
- CAPWV – Porosity bound to silts and very fine sands as capillary water, or equivalent pore sizes governed by capillary forces measured in V/V (%).
- FFV – Free-flowing moveable water porosity capable of flowing; related to fine sands to gravels or equivalent pore sizes measured in V/V (%).
- SR – Specific retention of sediment or rock measured in V/V (%).
- SY – Specific yield of sediment or rock measured in V/V (%).
- KTIM – Permeability calculated by Timur Coates model represented in mD (millidarcies).
- K_KTIM – Hydraulic conductivity calculated from permeability KTIM represented in m/day (meters per day).
- Temp – Temperature of well fluid in ºC.
- Cond 25 C – Well fluid hydraulic conductivity in µS/cm standardized to 25 ºC.
- Medium Res – Shallow formation resistivity by electromagnetic induction (ohm m).
- Deep Res – Deep formation resistivity by electromagnetic induction (ohm m).
- Caliper – Average open hole diameter (inches).
- GR – Natural radioactivity of the formation (sediment/fluid rock), in gamma rays measured in American Petroleum Institute (API) units.

- Spectral Gamma
  - U – Uranium content measured in ppm (parts per million).
  - Th – Thorium content measured in ppm.
  - K – Potassium content (%).

4.2.1 BMR Derived Specific Yield

The specific yield data is considered equivalent to the moveable (free) water from the BMR log (Figure 4-2) and was used as the primary input to the geologic model for resource estimation. This data was verified against laboratory tested core samples (points in Figure 4-2).

The recent drilling program involved two locations: K23D40 located north of the central resource area and K24D41 located within the central resource area. K23D40 revealed a different stratigraphic profile to that observed within the central resource area and is consistent with stratigraphy noted at K22 (see Kachi M&I resource update, 15 June 2023). The K23D40 column is predominantly coarser-grained and devoid of the common intercalated fine-grained material common in the central resource area. This indicates that there is a relatively rapid transition of depositional regime moving away from the basin center. Logs within the salar area are shown in Figure 4-4 with general sequence of intercalated stratigraphy allowing a degree of correlation. West of the salar / transition area, stratigraphy becomes coarser with greater proportion of sand and gravels, as would be expected in alluvial fans and early basin fill materials. Logs for drillholes in the southern and western fan are shown in Figure 4-5.

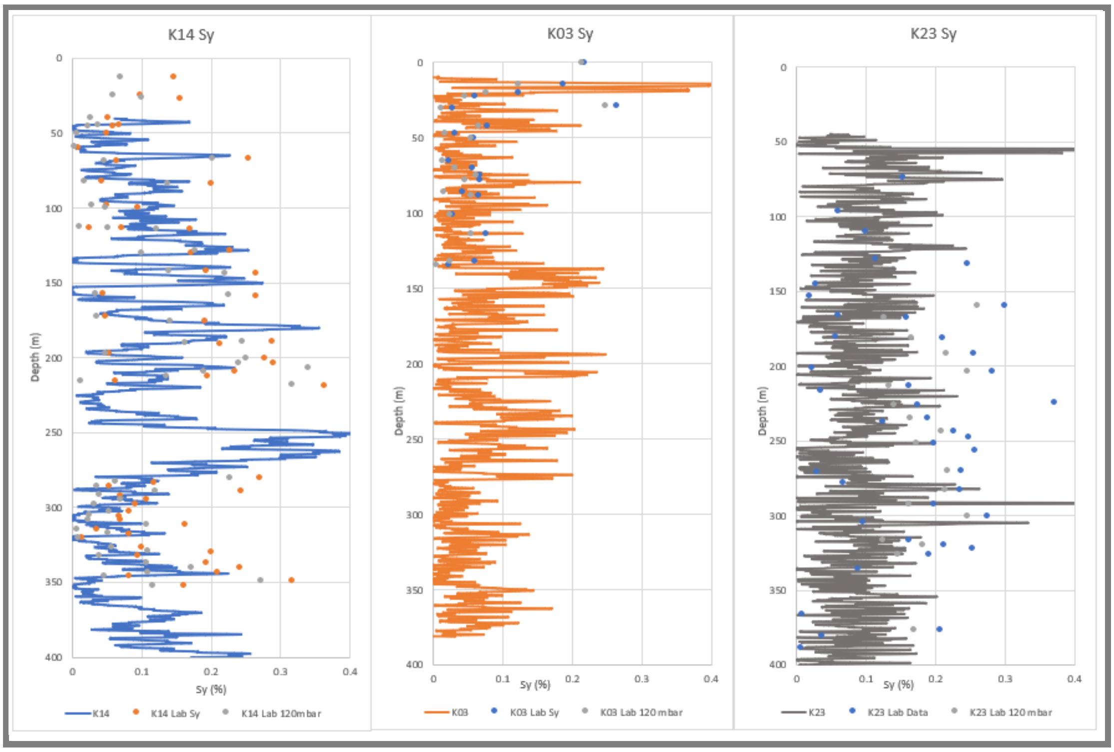


Figure 4-2: Comparison of Laboratory measured Sy and downhole BMR Sy for K03, K014 and K23.

4.2.2 Downhole Electrical Conductivity

Measurements with the downhole BMR geophysics tool are accompanied by measurement of electrical conductivity (EC) and salinity. Figure 4-3 shows selected EC results with depth, which support the findings of the brine characterisation with a high degree of lateral and vertical consistency. K14, K18 and K19 results are slightly lower potentially indicative of slightly lower total dissolved solids (TDS) potentially either a result of greater distance from the salar core or slight dilution associated with localized recharge on the fan. However, further north on the fan K22 and K23 results in the fan to the north of the central salar area are notable for EC traces that are near identical and typical of those in the central salar.

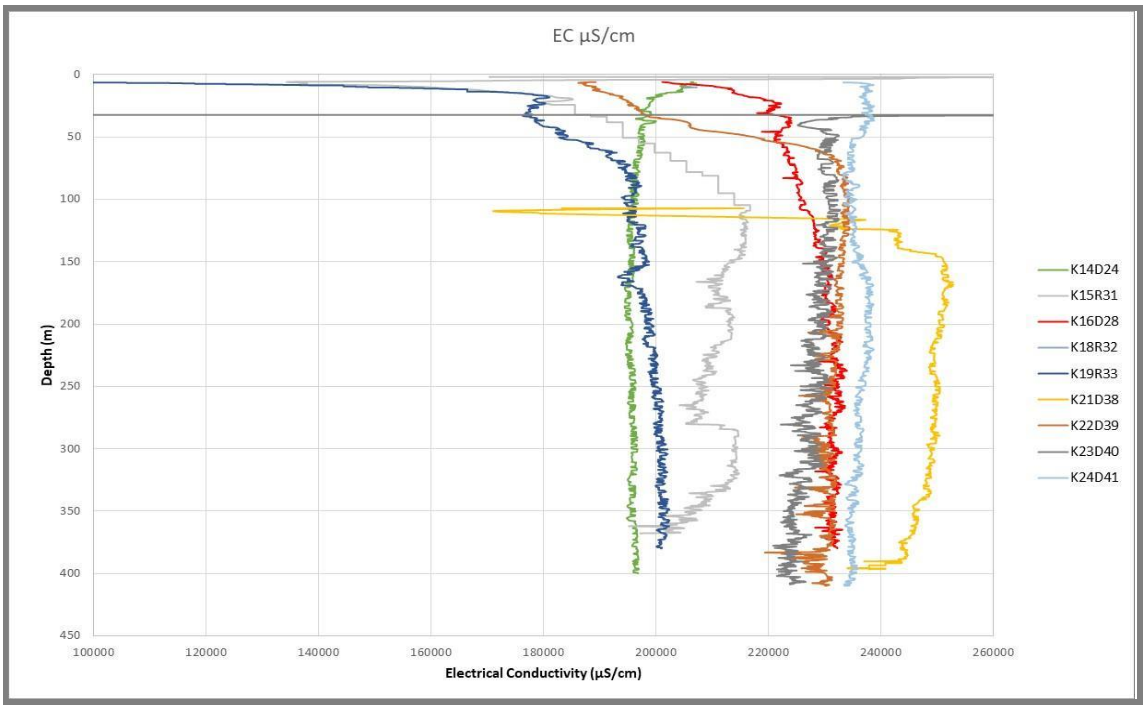


Figure 4-3: Downhole Electrical Conductivity

4.2.3 BMR Derived Stratigraphic Definition

The geophysical logging campaign supported conceptualization of the basin stratigraphy. The general concept of delineating the stratigraphic column into the three major resource components, Units A through C, are shown from boreholes in the central salar area in Figure 4-4. Spectral gamma peaks likely indicate volcanic tuff horizons with textural differences as marker beds.

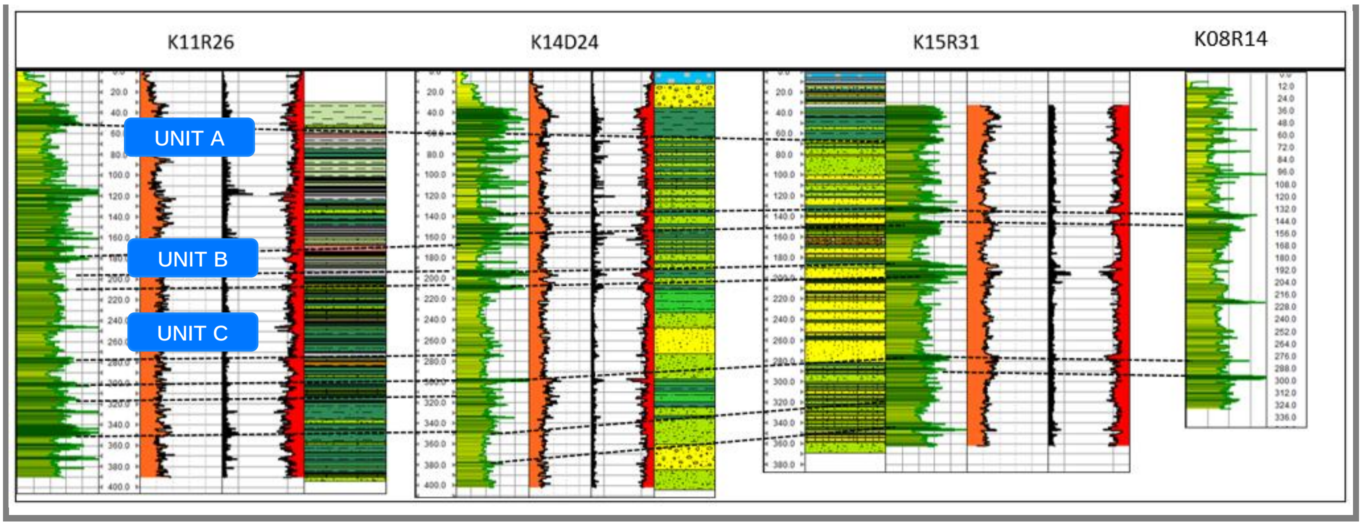


Figure 4-4: Downhole Gamma / Spectral Gamma Geophysical Logs Salar and Transition Zone

As drilling stepped away from the central salar area across transition zones and onto regional fans, the depositional regimes change is clearly evident. Drilling on the western fan transition zone (K18 – K20) and K21D38 (K21) located south of the central resource area and K22D39 (K22) located north of the central resource area, have revealed different stratigraphic profiles to that observed within the central resource area. The stratigraphic column within the fans is predominantly coarser grained and devoid of the common intercalated fine-grained material common in the central resource area. Figure 4-5 shows the geophysical logs for K21D38, K18D22, K19D33, and K23D40, which shows the fan stratigraphy transition based on the different gamma signals. Figure 4-6 shows logs from K23 in the north to K24 in the southern part of the central salar that show a transition from fine grained in the southern salar to coarser material in the northern and western fans. However, given the coarser grained nature of these materials they are interpreted to be in direct hydraulic connection with the central salar hydrostratigraphy.

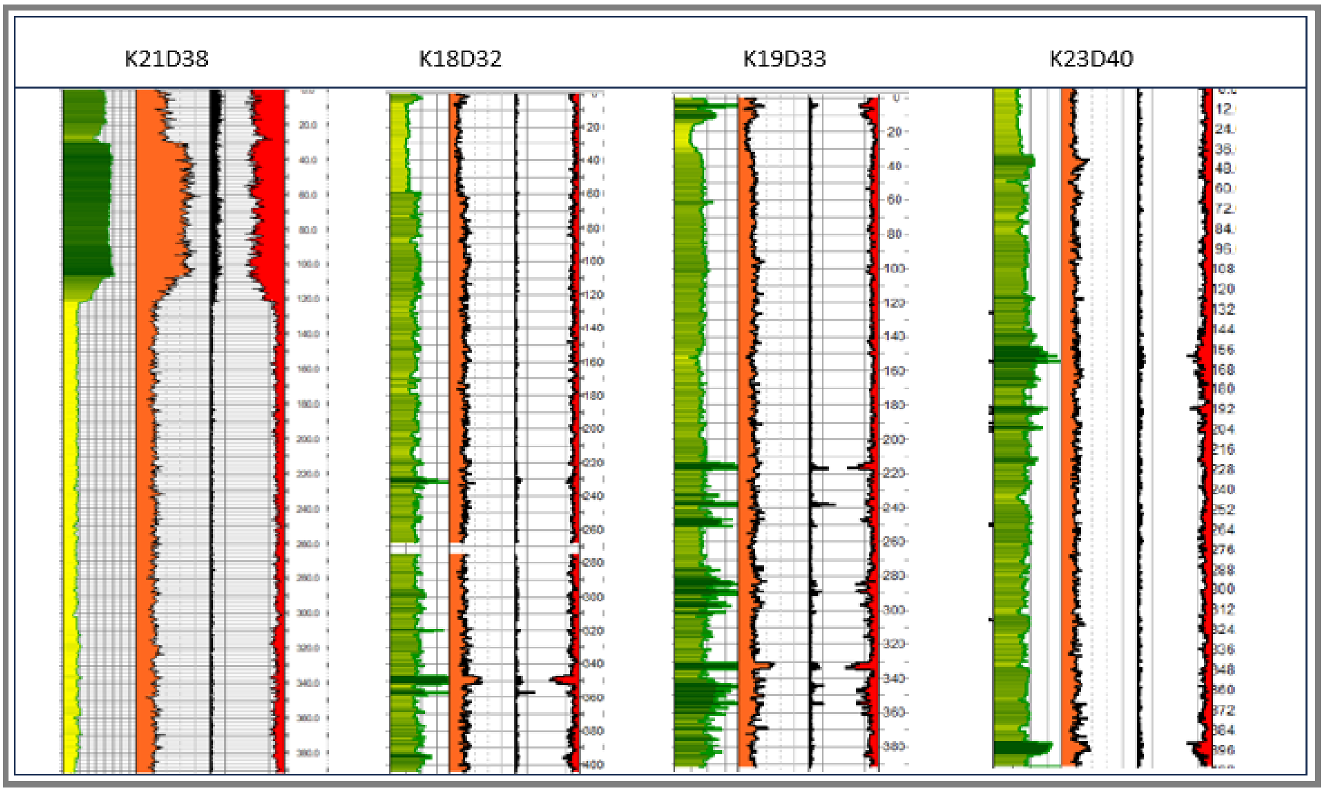


Figure 4-5: Downhole Gamma / Spectral Gamma Geophysical Logs Southern and Western Fan

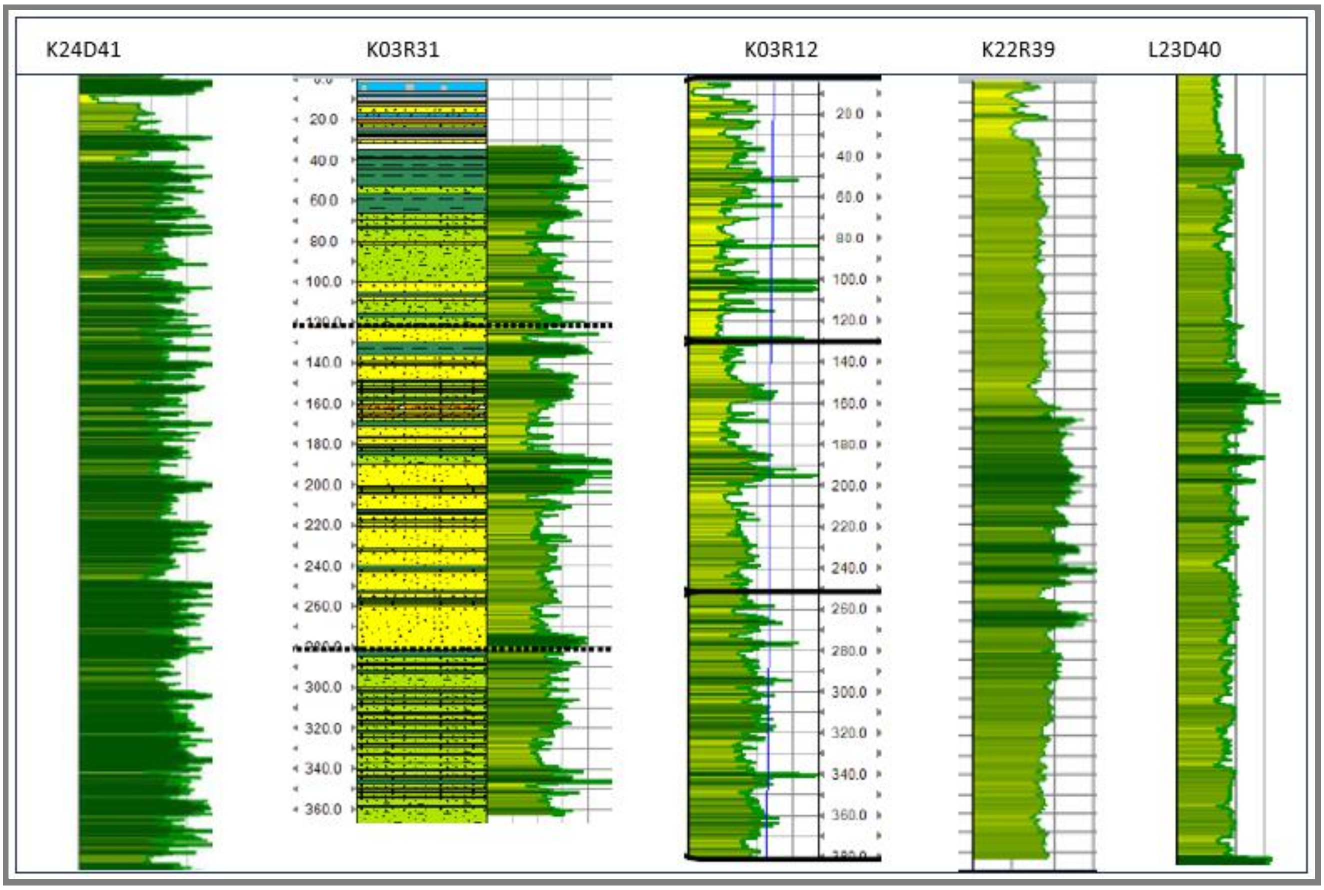


Figure 4-6: Downhole Gamma / Spectral Gamma Geophysical Logs South – North Transect

4.3 Laboratory Core Testing

Approximately 200 30 cm core samples were collected in transparent polycarbonate tubes which were retrieved from the core barrel at the drill site and stored in core trays. Samples (Figure 4-7) were analysed by the Geosystems Analysis (GSA) laboratory in the United States which has extensive experience analysing salar cores. The laboratory uses the Rapid Brine Release (RBR) method to measure drainable porosity (termed specific yield (Sy) for Kachi work) and total porosity (Pt) (Tzung-mow et al, 2018). The RBR method is based on the moisture retention characteristics method for direct measurement of total porosity (Flint and Flint, 2002), specific retention (Romano and Santini, 2002), and specific yield (Cassel and Nielson, 1986). A simplified Tempe cell design (ASTM 06836-16) was used to test the core samples. Brine release was measured at 120 mbar and 330 mbar of pressure for reference (Nwankwor et al., 1984, Cassel and Nielsen, 1986). Bulk density, particle size analysis, and specific gravity were also measured on select core samples.

Quality control paired samples, representative of the range in lithology types, were selected and tested using other drainable porosity laboratory techniques. These are the Relative Brine Release Capacity (RBRC) method of the DB Stephens Laboratory (Stormont et. al., 2018) and the Centrifuge Moisture Equivalent of Soils (Centrifuge, ASTM D 6836-16) method by Core Laboratories in Houston, Texas. These methods provided an estimate of variability in the definition of the drainable porosity across different laboratory methods.

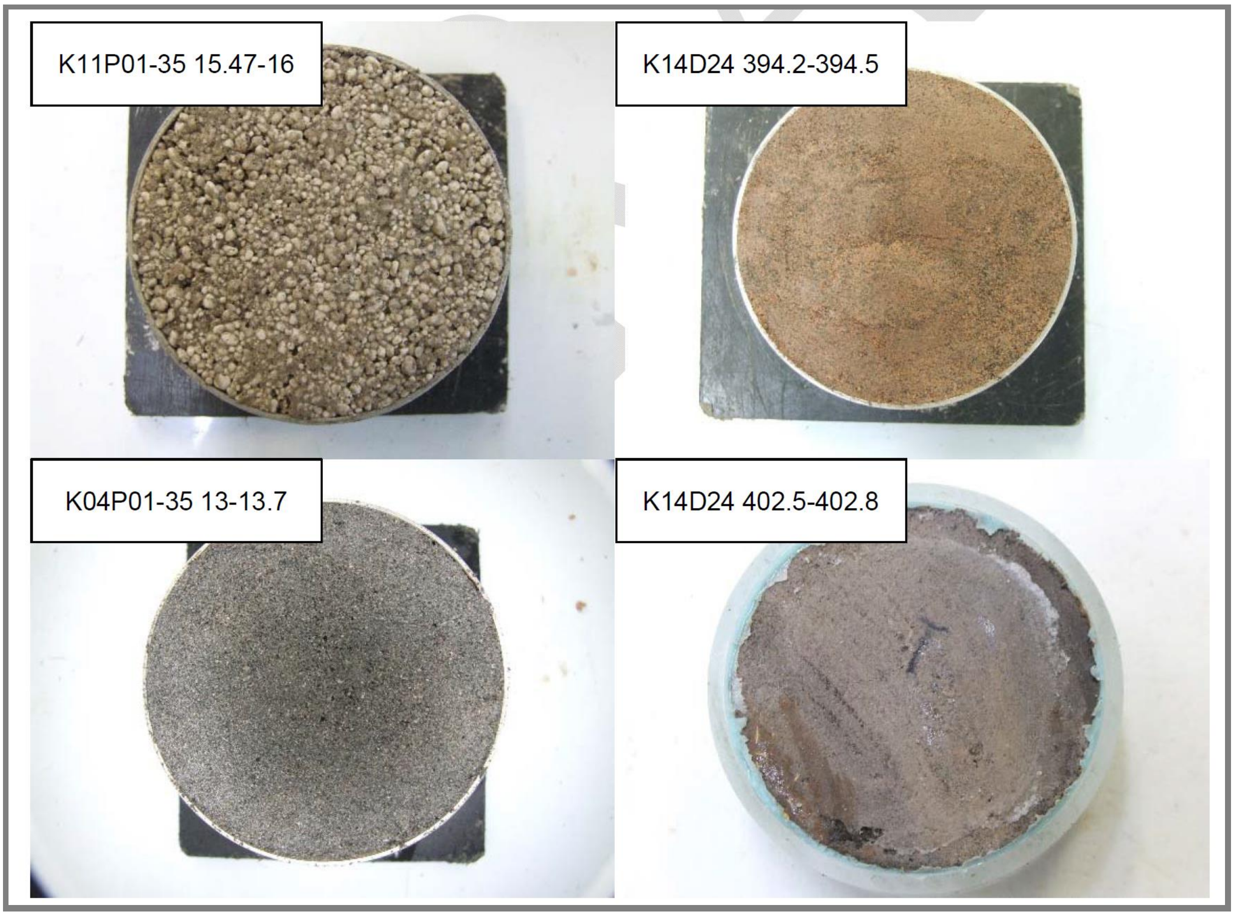


Figure 4-7: Examples of samples received by GSA

Principal findings from the GSA work are that the coarser material groups (i.e. moderate-fine sand dominated, volcanics units, and moderate sand grain size dominated materials), had higher specific yields, ranging from 12% to 21% (Table 4-2). The lowest specific yield values are present in the semi-consolidated fines (0.04), fines-dominated (5%) and consolidated material (7%) groups. Differences in average Sy values were driven by lithology, where coarser grained materials and those with greater porosity had higher Sy values, and finer grained materials and those which were partially or fully consolidated having lower Sy values.

Table 4-2: Summary of porosity and specific yield results from core samples analysed through August 2023 (GSA, 2023)

Lithological Group	n	RBR P_t – Total Porosity		RBR S_y – Specific yield		RBR Drainable Porosity @ 120 mbar	
		Mean	StdDev	Mean	StdDev	Mean	StdDev
Consolidated material	28	0.36	0.10	**0.07**	0.04	0.04	0.03
Semi-consolidated fines	8	0.40	0.10	**0.04**	0.02	0.02	0.01
Fines dominated material	46	0.39	0.09	**0.05**	0.02	0.03	0.02
Fines and moderate dominated material	41	0.36	0.04	**0.12**	0.05	0.07	0.04
Medium dominated material	71	0.37	0.05	**0.21**	0.07	0.15	0.07
Volcanics	2	0.66	0.14	**0.13**	0.07	0.07	0.04

Notes: specific yield (Sy) and total porosity (Pt). The Sy or drainable porosity is the amount of solution that may be released under gravity drainage conditions from saturated porous media. The RBR 120 mbar drainable porosity is considered representative of coarser grained materials, with limited fine content. The Pt is the ratio of the pore volume to the bulk soil volume.

4.3.1 K23 and K24 Physical Properties Testing

Recent Testing of K23 and K24 Samples were completed since the GSA report described above. Forty-seven samples were analysed for specific gravity (ASTM D 854 – 02), bulk density (ASTM D 2937 – 00), total porosity, field water capacity, and specific yield (MOSA Part 4 Ch. 2, 2.3.2.1, Ch. 3, 3.3.3.2 and 3.3.3.5/Horton et al.). The samples were collected at regular intervals for representative sampling See Figure 4-8 and Table 4-3 for these recent results, showing the higher Sy in K23D40. Results are summarised in Table 4-4.

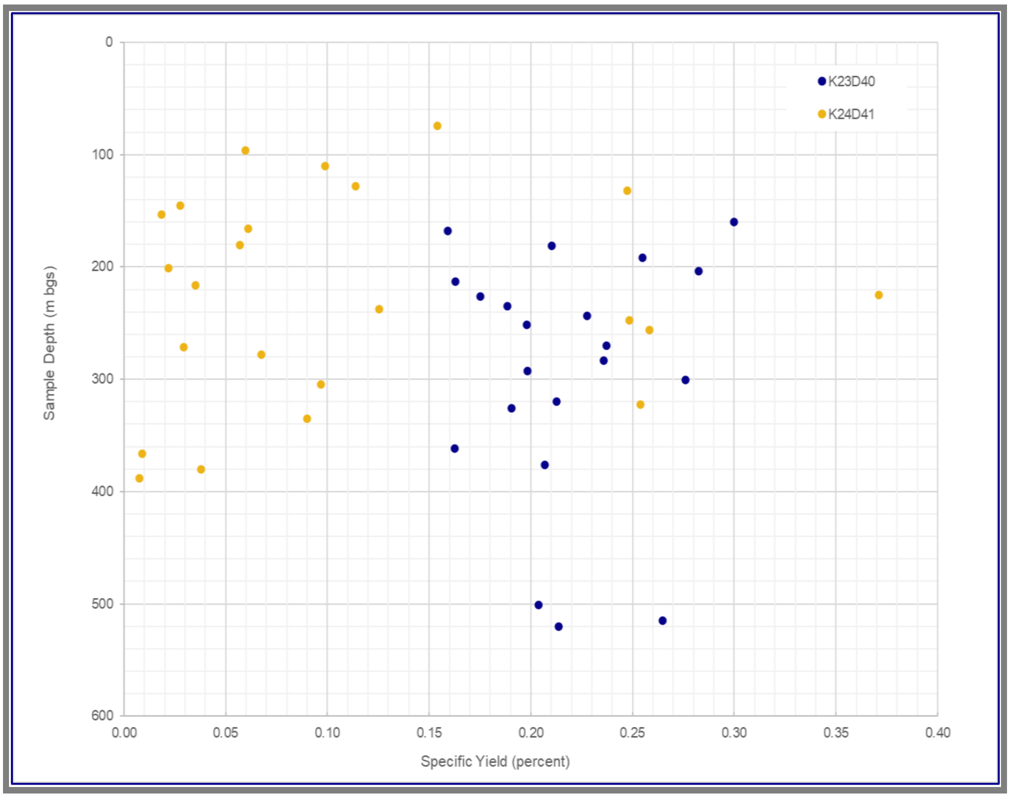


Figure 4-8: Measured specific yield in recent drillholes

Table 4-3: Recent porosity testing results from K23D40 and K24D41

Sample ID	Porosity (cm^3/cm^3)	Field Water Capacity (cm^3/cm^3)	Yield for 0-120 mbar (cm^3/cm^3)	Specific Yield (cm^3/cm^3)
K15D25 362.66-362.96	0.338	0.221	0.053	0.117
K15D25 379.6-379.9	0.331	0.269	0.013	0.063
K15D25 392.2-392.5	0.283	0.263	0.016	0.02
K23D40 160-160.3	0.365	0.065	0.26	0.3
K23D40 168-168.3	0.218	0.059	0.126	0.159
K23D40 181.06-181.36	0.29	0.08	0.165	0.21
K23D40 192.015-192.315	0.324	0.069	0.216	0.255
K23D40 203.62-203.92	0.357	0.074	0.247	0.282
K23D40 212.87-213.17	0.261	0.098	0.134	0.163
K23D40 226.35-226.65	0.239	0.064	0.141	0.175
K23D40 235.13-235.43	0.245	0.057	0.164	0.189
K23D40 243.62-243.92	0.271	0.043	0.21	0.228
K23D40 251.59-251.89	0.245	0.047	0.172	0.198
K23D40 269.79-270.09	0.278	0.041	0.218	0.237
K23D40 283.26-283.56	0.288	0.052	0.214	0.236
K23D40 292.36-292.56	0.281	0.083	0.162	0.198
K23D40 300.44-300.74	0.348	0.072	0.247	0.276
K23D40 319.53-319.83	0.281	0.069	0.183	0.213
K23D40 325.96-326.26	0.266	0.075	0.146	0.19
K23D40 361.33-316.63	0.253	0.09	0.124	0.162
K23D40 376.47-376.77	0.285	0.078	0.17	0.207
K24D41 74.09-74.39	0.346	0.192	0.112	0.154
K24D41 96.08-96.38	0.376	0.316	0.017	0.06
K24D41 153.2-153.5	0.357	0.339	0.011	0.018
K24D41 180.7-181	0.194	0.137	0.035	0.057
K24D41 166-166.3	0.538	0.477	0.042	0.061
K24D41 131.86-132.16	0.361	0.114	0.209	0.247
K24D41 128.12-128.42	0.269	0.155	0.076	0.114
K24D41 110-110.3	0.271	0.172	0.058	0.099
K24D41 145.11-145.41	0.404	0.377	0.021	0.028
K24D41 201.34-201.64	0.47	0.448	0.012	0.022
K24D41 216.46-216.76	0.411	0.376	0.03	0.035
K24D41 224.82-225.12	0.439	0.068	0.357	0.371
K24D41 237.61-237.91	0.369	0.243	0.09	0.125
K24D41 247.4-247.6	0.394	0.146	0.173	0.248
K24D41 256.29-256.59	0.357	0.099	0.204	0.258
K24D41 271.08-271.38	0.385	0.356	0.011	0.029
K24D41 278.1-278.4	0.33	0.263	0.048	0.067
K23D40 501.2-501.5	0.273	0.069	0.18	0.204
K24D41 304.5-304.8	0.335	0.239	0.064	0.097
K24D41 322.2-322.5	0.358	0.104	0.194	0.254
K23D40 514.85-515.15	0.332	0.067	0.24	0.265
K23D40 520.2-520.5	0.366	0.152	0.155	0.214
K24D41 335.3-335.8	0.326	0.236	0.043	0.09
K24D41 366.2-366.8	0.368	0.359	0.007	0.009
K24D41 380.5-380.8	0.472	0.434	0.012	0.038
K24D41 388.2-388.8	0.359	0.351	0.006	0.008
K23D40 514.85-515.15	0.332	0.067	0.24	0.265
K23D40 520.2-520.5	0.366	0.152	0.155	0.214
K24D41 335.3-335.8	0.326	0.236	0.043	0.09
K24D41 366.2-366.8	0.368	0.359	0.007	0.009
K24D41 380.5-380.8	0.472	0.434	0.012	0.038
K24D41 388.2-388.8	0.359	0.351	0.006	0.008
K15D25 362.66-362.96	0.338	0.221	0.053	0.117
K15D25 379.6-379.9	0.331	0.269	0.013	0.063
K15D25 392.2-392.5	0.283	0.263	0.016	0.020
K23D40 160-160.3	0.365	0.065	0.260	0.300
K23D40 168-168.3	0.218	0.059	0.126	0.159
K23D40 181.06-181.36	0.290	0.080	0.165	0.210
K23D40 192.015-192.315	0.324	0.069	0.216	0.255
K23D40 203.62-203.92	0.357	0.074	0.247	0.282
K23D40 212.87-213.17	0.261	0.098	0.134	0.163
K23D40 226.35-226.65	0.239	0.064	0.141	0.175
K23D40 235.13-235.43	0.245	0.057	0.164	0.189
K23D40 243.62-243.92	0.271	0.043	0.210	0.228

Sample ID	Porosity (cm^3/cm^3)	Field Water Capacity (cm^3/cm^3)	Yield for 0-120 mbar (cm^3/cm^3)	Specific Yield (cm^3/cm^3)
K23D40 251.59-251.89	0.245	0.047	0.172	0.198
K23D40 269.79-270.09	0.278	0.041	0.218	0.237
K23D40 283.26-283.56	0.288	0.052	0.214	0.236
K23D40 292.36-292.56	0.281	0.083	0.162	0.198
K23D40 300.44-300.74	0.348	0.072	0.247	0.276
K23D40 319.53-319.83	0.281	0.069	0.183	0.213
K23D40 325.96-326.26	0.266	0.075	0.146	0.190
K23D40 361.33-316.63	0.253	0.090	0.124	0.162
K23D40 376.47-376.77	0.285	0.078	0.170	0.207
K24D41 74.09-74.39	0.346	0.192	0.112	0.154
K24D41 96.08-96.38	0.376	0.316	0.017	0.060
K24D41 153.2-153.5	0.357	0.339	0.011	0.018
K24D41 180.7-181	0.194	0.137	0.035	0.057
K24D41 166-166.3	0.538	0.477	0.042	0.061
K24D41 131.86-132.16	0.361	0.114	0.209	0.247
K24D41 128.12-128.42	0.269	0.155	0.076	0.114
K24D41 110-110.3	0.271	0.172	0.058	0.099
K24D41 145.11-145.41	0.404	0.377	0.021	0.028
K24D41 201.34-201.64	0.470	0.448	0.012	0.022
K24D41 216.46-216.76	0.411	0.376	0.030	0.035
K24D41 224.82-225.12	0.439	0.068	0.357	0.371
K24D41 237.61-237.91	0.369	0.243	0.090	0.125
K24D41 247.4-247.6	0.394	0.146	0.173	0.248
K24D41 256.29-256.59	0.357	0.099	0.204	0.258
K24D41 271.08-271.38	0.385	0.356	0.011	0.029
K24D41 278.1-278.4	0.330	0.263	0.048	0.067
K23D40 501.2-501.5	0.273	0.069	0.180	0.204
K24D41 304.5-304.8	0.335	0.239	0.064	0.097
K24D41 322.2-322.5	0.358	0.104	0.194	0.254
K23D40 514.85-515.15	0.332	0.067	0.240	0.265
K23D40 520.2-520.5	0.366	0.152	0.155	0.214
K24D41 335.3-335.8	0.326	0.236	0.043	0.090
K24D41 366.2-366.8	0.368	0.359	0.007	0.009
K24D41 380.5-380.8	0.472	0.434	0.012	0.038
K24D41 388.2-388.8	0.359	0.351	0.006	0.008
K23D40 514.85-515.15	0.332	0.067	0.240	0.265
K23D40 520.2-520.5	0.366	0.152	0.155	0.214
K24D41 335.3-335.8	0.326	0.236	0.043	0.090
K24D41 366.2-366.8	0.368	0.359	0.007	0.009
K24D41 380.5-380.8	0.472	0.434	0.012	0.038
K24D41 388.2-388.8	0.359	0.351	0.006	0.008

Table 4-4: Measured specific yield summary statistics from recent drillholes K23D40 and K24D41

Percentile	K23D40	K24D41
50th	21.0%	6.7%
10th	16.3%	1.3%
90th	28.1%	25.6%

5. BRINE CHARACTERIZATION

The brine characterization program included a variety of sampling techniques and quality control measures to improve confidence in the reliability of the lithium data. Additionally, geochemistry data is analysed to evaluate spatial and statistical trends. These data and related analyses are discussed in the subsequent sections with an emphasis on chemistry data collected since the last resource update in June 2023.

5.1 Brine Sampling and Analysis

Brine samples from the characterization program were collected using a variety of sampling methods including:

- Packer (single and double)
- Drive point
- Bailer
- Hydrasleeve
- Installed piezometer screens (airlifting)
- Test well development and long-term pumping tests
- Downhole borehole logging of electrical conductivity

Sampling methods showed a wide range of concentrations. Some methods appear either high or low biased, depending on preferential sampling zones and the practical application of sample collection. The most frequently used brine collection methods (single packer, airlift, and bailer) showed the greatest concentration ranges (Figure 5-1). Packer sampling from diamond drill holes and sampling from installed piezometers and wells were the principal methods used to acquire geochemical brine samples. Since May 2023, the packer sampling was entirely single packer configurations, as these were found to yield the most reliable samples (less susceptible to bypass). Additionally, lugeon tests were not performed since that time to improve hole stability. Standard operating procedures for packer sampling are followed with significant development of the test interval, at least three (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.

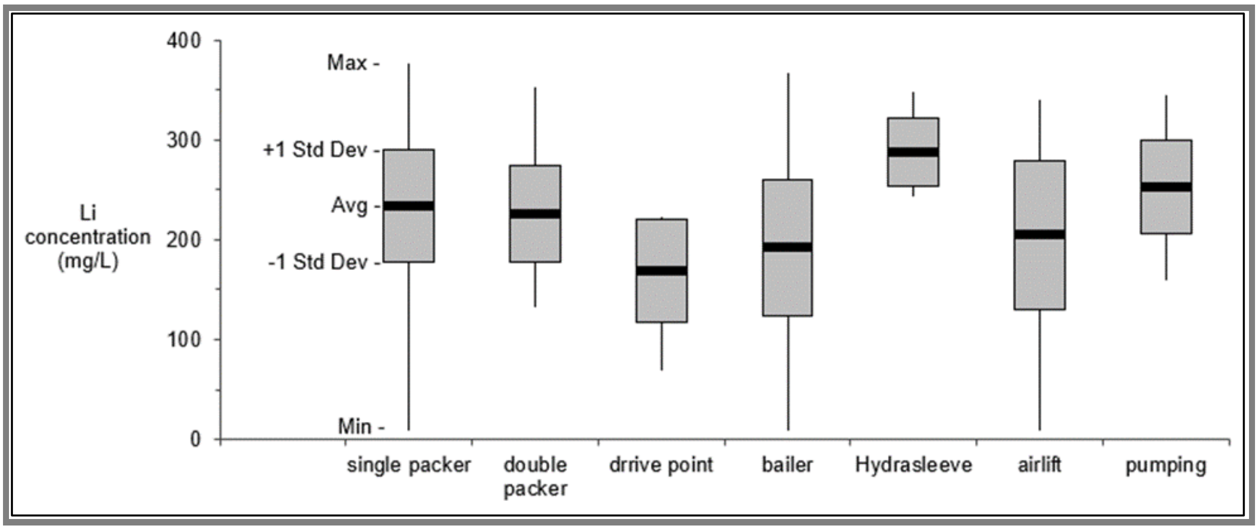


Figure 5-1: Lithium concentration ranges for various sampling collection methods.

Pumping showed a narrower concentration range with higher concentrations, which could be expected since the pumping is cleaning out the drilling fluids and sediment from the well, removing any potential dilution effects from drilling, and the location of the test wells in the core of resource / salar. Double packers and Hydrasleeves also show narrow concentration ranges with higher concentrations, but probably due to preferential sampling zones. Drive point samples resulted in the lowest lithium grades and this is probably due to drilling fluids diluting the brine sample as the drive point penetrates the bottom of the borehole.

Samples are taken in triplicate, with primary sample analyses split between two analytical laboratories. An analysis of this data is in the quality control and data verification section, later in this chapter. In the earlier days of the Project the Alex Stuart laboratory was used as the primary laboratory, this was later changed to the SGS laboratory at the project restart in 2020. In 2021, an increased rate of duplication marked a change to the analytical program with both laboratories being utilised at high frequency and this continues at present. The deepest samples analysed, from below 400 m to more than 600 m bgs, are from two drillholes, K24D41 in the central resource area and K23D40 beneath the alluvial fans to the northwest.

The step out drilling at platform K23 significantly extends the limits of the resource to the north. K23D40, recorded average lithium grades of 228 mg/l and a maximum of 254 mg/l (average between primary and check lab). Furthermore, the alluvial fan materials at this location are coarser grained than the central resource area and dominated by coarse grained sands and gravelly sands. These coarser grained alluvial fan materials are interpreted to transition to the finer grained materials in the central resource area as a result of hydraulic sorting, ultimately yielding the clean fine-grained sands with clayey silt interbeds more typical of the salar. Lithium was encountered over the entire vertical sampling interval (288 to 610 m bgs) and lithium concentration from the deepest sample (602 to 610 m bgs) was measured at 209 mg/L, above the 205 mg/L design basis[2] for the project. Bedrock was not encountered in this hole and lithium brine remains unconstrained beyond 610 m bgs. Additional details on the results of this drillhole are provided in the August 22, 2023 ASX announcement.

Within the central resource area, drilling at K24D41 (Figure 5-1) measured average lithium grades of 267 mg/l and a maximum of 346 mg/l (at 248 m bgs). This represents the highest lithium concentration intersected at depth. Additionally, deep samples collected from below the previously defined vertical resource extent, from 400 m to 610 m bgs (eight samples from 415 m to 610 m) averaged 238 mg/L. The lithology encountered at K24D41 was similar to other holes in the central resource area, principally comprised of clean well sorted fine-grained sand, albeit with fewer fine grained interbeds. The deeper portion of the hole below 400 m was found to be more than 90-percent clean well sorted fine sands or gravelly sands based on logging of the hole. This suggests that the material below 400 m may have higher bulk hydraulic conductivity than the portion of Unit C above 400 m. However, in general, the sediments are consistent with the geological materials encountered in Units B and C. Examination of the lithology log below 400 m shows the “cleanest” horizon of fine sands with gravelly sands. Additional details on the results of this drillhole are provided in the October 4, 2023 ASX announcement.

The complete list of sample locations, depths, and assays from 2018 to present are included in Appendix A - Table of Resource Drill Hole Collars.

5.2 Spatial and Vertical Geochemical Variability

Observing trends in major ion chemistry can assist with comparing groundwater to identify if water is derived from the same or different sources, or mixtures of sources. In this case, comparisons can be made with the different stratigraphy zones as a method of tracing origin. The Piper Trilinear Diagram (Piper plots) is useful for this purpose, as it enables each groundwater sample to be graphically plotted at a unique point based on the relative concentrations of the major ions typically found in solution – i.e., the cations calcium (Ca^{2+}), magnesium (Mg^{2+}), sodium (Na^{+}) and potassium (K^{+}); and the anions chloride (Cl^{-}), carbonate (CO_3^{-}), bicarbonate (HCO_3^{-}) and sulphate (SO_4^{2-}).

A Piper diagram of the major elemental concentrations of ions in waters across the basin watershed shows that the evolution of the dominant north and east inflow zones are distinct water groupings entering the basin and are strongly connected to the brines that exist beneath the salar in the basin floor and the fresh aquifers in the north part of the basin (Figure 5-2). The waters outside of the topographic watershed to the west (Incahausi Salar) and much of the higher elevation sub-basin waters (Laguna Grande and Diamante) are not strongly related to the basin floor brines. The reason is that these saline waters are more highly evolved in either the

[2] Design basis refers to the assumed minimum feed grade to the DLE plant during operations. However, a reserve statement will be necessary to demonstrate achievable feed grades for the Project.

Na+ direction or Ca+ compared to the saline waters on the Carachi Pampa basin floor. This suggests that those areas are not the dominant source of groundwater inflow to the basin floor.

Piper plots for the Salar / Transitions Zone, Southern Fan, and Western Fan are shown in Figure 5-3. The piper plots demonstrate that there is very little difference in ionic proportion distribution across the salar and fan areas at depth.

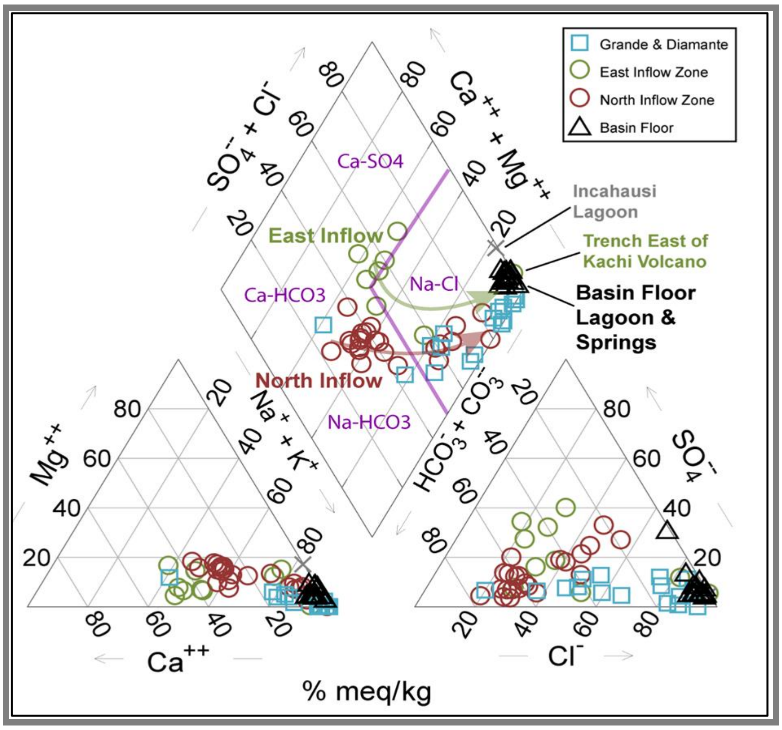


Figure 5-2: Major elemental concentrations of ions in waters across the basin watershed plotted in Piper space. Groupings of the North and East primary inflows are highlighted and their geochemical evolution towards the basin floor waters (From Lithium Solutions, Moran et al., 2023)

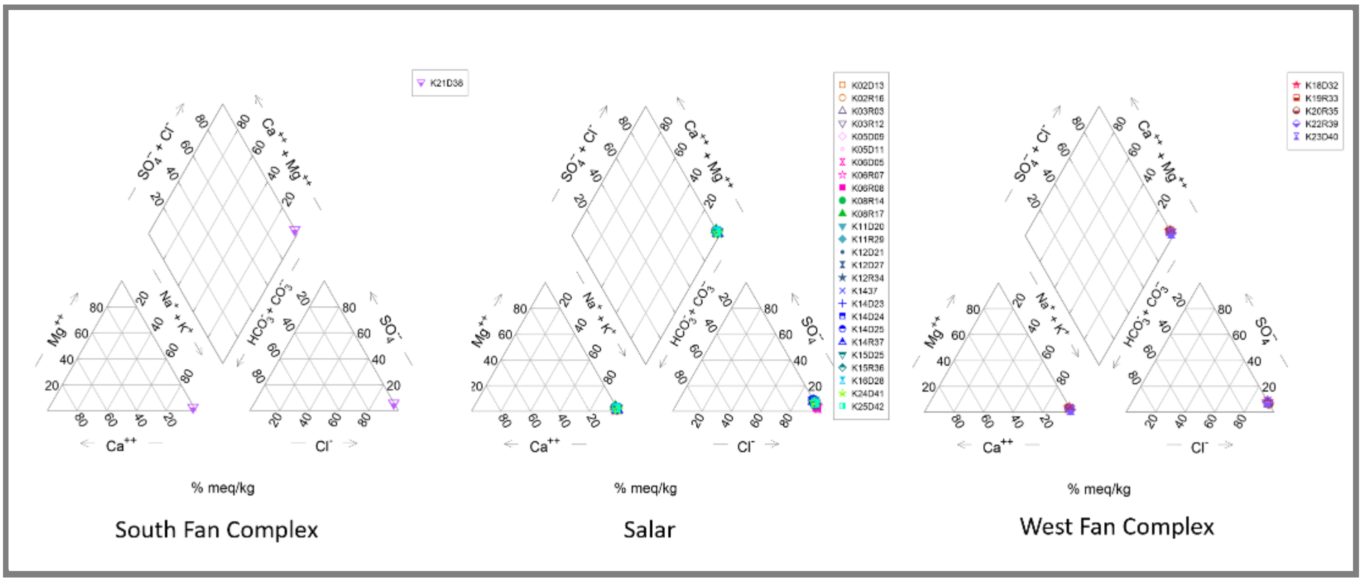


Figure 5-3: Piper Plots for all Resource Sampling in South Fan, West Fan and Salar/Transitions Zones

Stiff diagrams offer a quick visual way to compare ionic compositions of brine samples as the general shape of the ionic composition does not change with concentration or dilution. A Stiff diagram was prepared of a representative sample from each of 18 Kachi wells (Figure 5-4). Like the Piper plots, a high degree of homogeneity in the hydrogeochemistry across the wells is apparent, both spatial and vertically and irrespective of hydrostratigraphic unit.

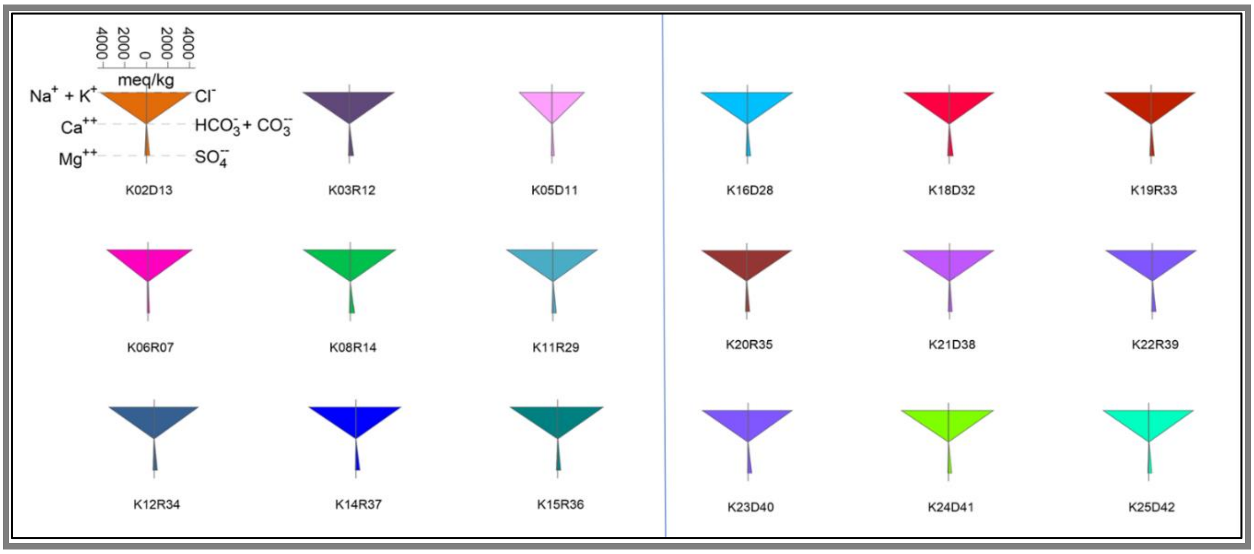


Figure 5-4: Stiff Diagrams of the average ionic concentrations of brine samples from 18 wells

All Kachi brine samples are dominated by Na+ and Cl- concentrations, with minimal concentrations of CO_3^{-2} and HCO_3^- classifying the Carachi Pampa brines as sodium-chloride (Na-Cl) dominant. Although the aqueous geochemistry is very similar across the wells sampled to date, there are some small, but interesting differences in the ion concentrations in the wells to the southeast of the volcano K05 and K06, as well as the single penetration in the South Fan Complex, K21. These three wells tend to be lower in solutes such as Li^+ and SO_4^{2-} but higher in Ca^{2+} than measurements in the wells from the Salar or West Fan Complex (Figure 5-3). The differences in salinity in K06 and K05 are likely due to mixing and dilution with groundwater influx from the east.

The differences in K21 well could indicate dilution and mixing with potential hydrothermal fluids from the Cerro Blanco pyroclastic complex. K21 is also higher in temperature relative to the northern and central well brines, likely due to the southern well's closer proximity to Cerro Blanco. Fluids. To the north K22 and K23 tend to be slightly lower in solutes relative to the central brines, particularly in boron and lithium. These results are in alignment with the current hypothesis that freshwater is flowing into the basin predominantly from the east and north directions.

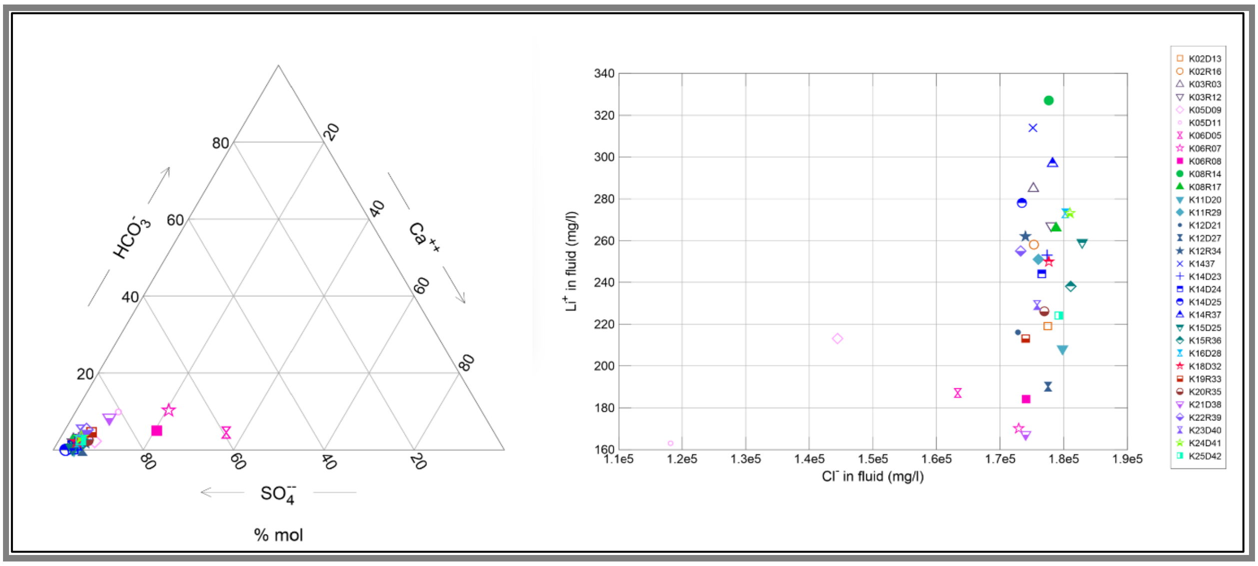


Figure 5-5: Trilinear and cross-plots of average ionic concentrations from brine samples

The high level of consistency in geochemistry that has been observed throughout the exploration program is also apparent in total dissolved solids (TDS) and chloride (Cl^-). Figure 5-5 and Figure 5-6 illustrates a narrow range of TDS levels which is very uniform throughout the stratigraphic column. Recent characterization data shows that this trend is both laterally and vertically consistent to depths in excess of 600 m (Figure 5-6). Figure

5-6 also shows lithium concentration with depth for all resource drilling derived data. While the depth to concentration relationship is not as well defined, there is a clear relationship with a slight increase in lithium concentration with depth to at least 400 m bgs. Beyond 400 m bgs the relationship is less clear and is constrained by a limited number of samples below 400 m bgs.

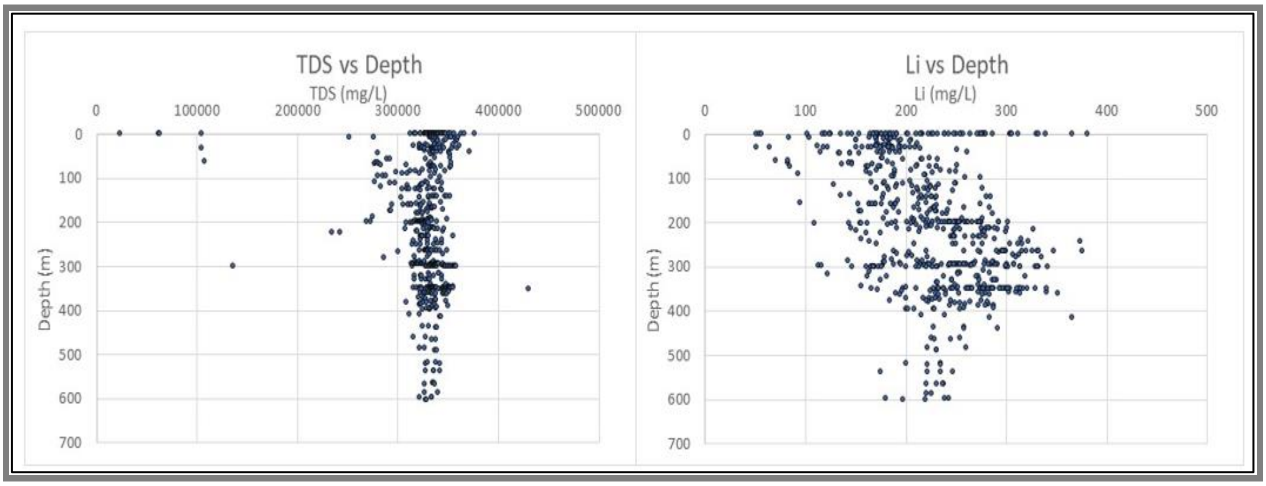


Figure 5-6: Total Dissolved Solids and Lithium concentrations (mg/L) with depth (m bgs)

Similar to the general chemistry, the lithium concentrations are similarly consistent over the footprint drilled to date (Figure 5-7) and by hydrostratigraphic unit (Figure 5-8). There are 375 downhole resource samples in the database. Of the reported field samples, 74% are greater than 200 mg/L (Figure 5-7).

The lithium distribution can also be sorted by hydrostratigraphic unit (Figure 5-8 and Figure 5-9). Histogram plots demonstrate that lithium concentrations in Unit A are lowest, likely a result of periodic dilution associated with freshwater inputs with the highest values occurring at depth in Unit C. This is consistent with general increasing lithium concentration with depth trend shown in Figure 5-6 and the unconfined aquifer character of Unit A, which is subject to rainfall and lateral recharge. Concentrations in the West Fan Complex and South Fan tend to have lower average lithium concentrations.

Data collected from test wells during airlift development and during pumping tests is indicative of very consistent average lithium concentration from the two tested wells (Table 5-1) and their radius of influence associated with pumping. These data are considered the most reliable of the available data given they are the least prone to possible contamination by leakage from less mineralized overlying horizons during testing and test the largest volume of geologic material and are therefore considered the most representative of the Unit B reservoir.

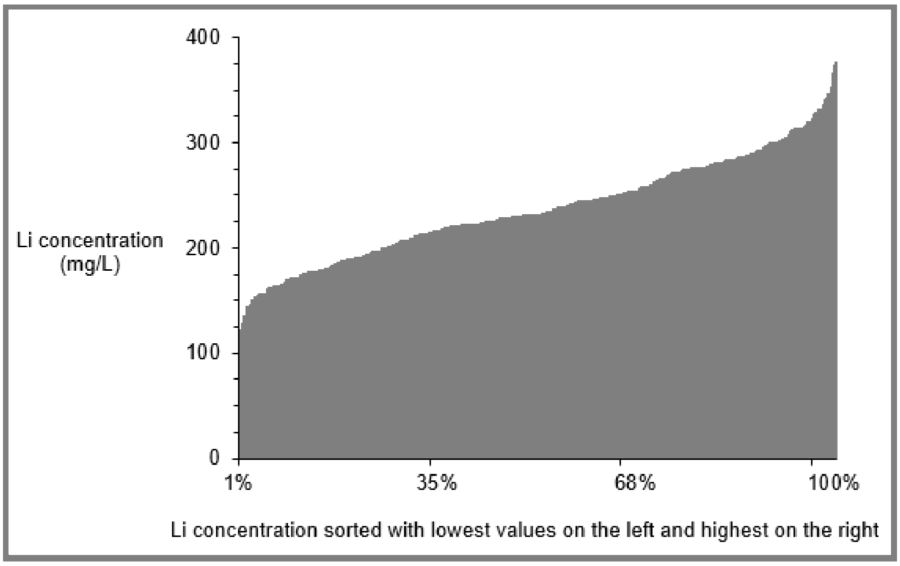


Figure 5-7: Lithium distribution in field samples (based on all 375 resource samples available)

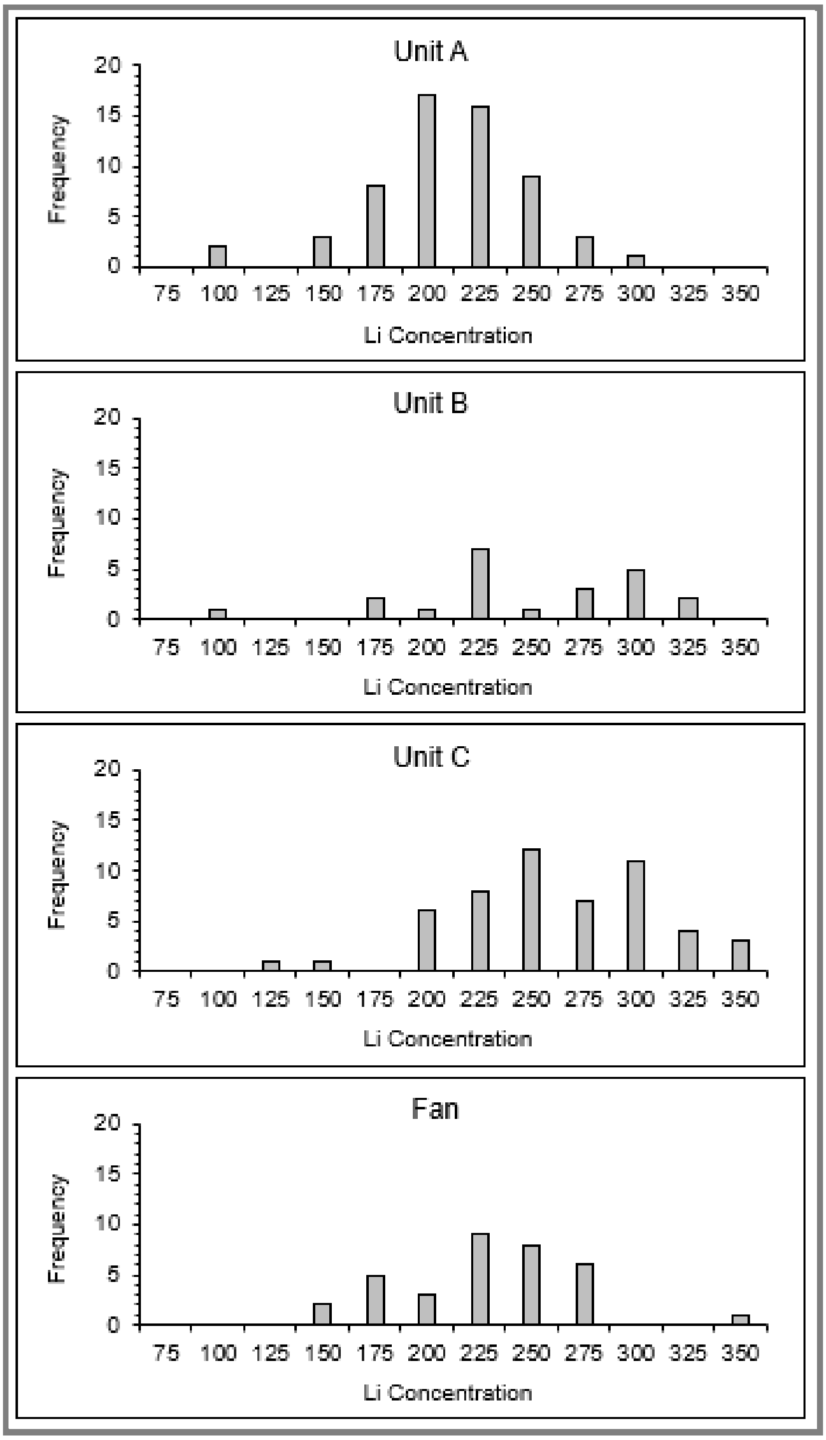


Figure 5-8: Lithium concentration by hydrostratigraphic unit based on averaged values used in the resource modelling as detailed in Appendix A (Table of Resource Drill Hole Collars). Fan includes both West Fan Complex and South Fan Complex.

Table 5-1: Lithium Concentration in Samples Collected during Air Lift Development and Pumping Tests

Pumping Well	Pumping Well Platform	Number of Lithium Samples Collected	Average Li Concentration (mg/L)
K12R34	K12	5	262.0
K11R29	K11	20	263.2
K14R37	K14	2	314
K15R36	K15	2	266

Shorter term 6-hour pumping tests were also completed in Unit C and two samples were collected from each test. The lithium concentrations are 314 mg/L and 266 mg/L for K14R37 and K15R36, respectively. Despite the relatively short tests, the early and late test samples are close in values and the volume of brine sampled is still much larger than packer samples and thus represent high confidence samples for the central portion of the resource area in Unit C.

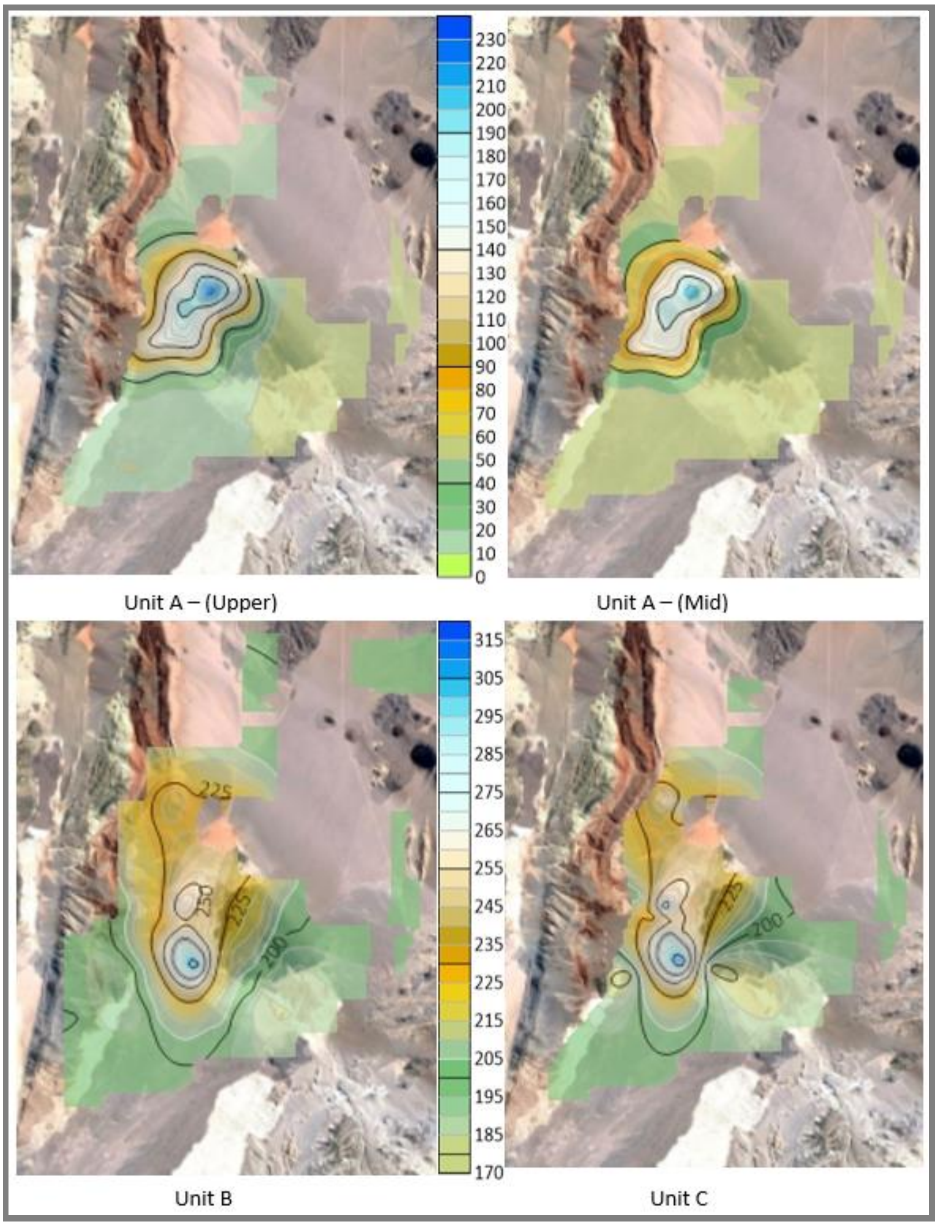


Figure 5-9: Interpolated Unit A, B and C Lithium concentrations (mg/l) (extended into the surrounding alluvial fans)

Density differences within the brine itself can be a major dynamic driver of fluid flux within the basin. Within the brine body the fluid density measurements indicate a general increase in fluid density with depth, averaging 1.206 g/cc in samples taken 0-50 m depth 1.2 08 g/cc at 50-100m and 1.211 g/cc at 200+m. The primary driver of the differential brine density is evapo-concentration (Figure 5-10). Water sitting at or near the surface of the salar evaporates back into the atmosphere, minerals such as halite, sulphates, and carbonates precipitate out of solution generating thick deposits of evaporites at the air-brine interface. The remaining brine near the surface is enriched in solutes, such as Li, K, Mg and B, increasing fluid density. As this happens the brine begins to sink. As the denser evapo-concentrated brine sinks to the lower basin, it displaces the existing less dense brine already at the bottom. The less dense brine is forced out to the salar edges and up to the surface.

The less dense brine then migrates toward the basin center where the water evaporates off and the remaining brine becomes denser and sinks. This process sets up a vertical density current that can mix the brine within the basin. If significantly confining sedimentary layers exist within the basin, they have the potential to partition the basin into several vertically or laterally segregated aquifers. In such a case, confining sedimentary layers could prevent density flows from setting up and inhibit subsurface brines from mixing, resulting in variable chemistries from wells sampled at variable depths and areas within the basin. The differences in shallow (i.e., Unit A) and deep chemistry (i.e., Unit B and C) in the central salar suggest that confining layers due limit or constrain the hydraulic connection to the deeper system, even over geologic time scales.

The well brine geochemistry measured in 18 wells across the Kachi project is relatively homogeneous, indicating the fluids in the core of the basin are well mixed over geologic time. There is no apparent contribution of major geochemically unique brine inflows entering the basin from directional sources, indicating limited modern day hydrothermal inputs. The high degree of consistency in hydrogeochemistry is indicative of a hydraulically well-connected basin in the vertical direction and between the salar and the surrounding alluvial fan complexes.

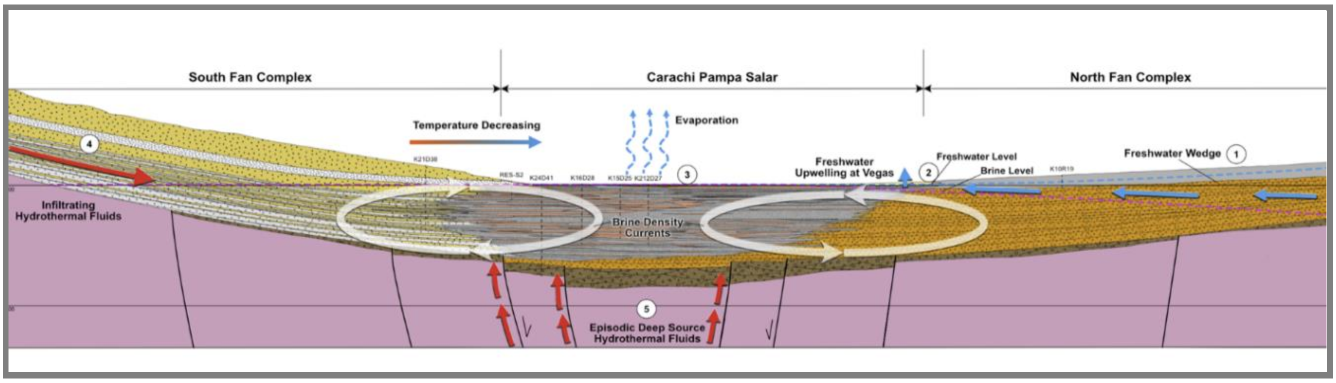


Figure 5-10: Kachi basin conceptual model, showing the evolution of density currents by evaporation -

Significant observations include:

1. Significant freshwater wedge builds up over the denser basin brines as groundwater sourced from highland precipitation to the north and east infiltrates the basin.
2. Freshwater from the wedge upwells at the surface to form vegas and springs at the edge of the laguna. Brackish waters are generated in the mixing zone of freshwater and brines also upwell around the vega system.
3. As water evaporates at the core of the basin the brine is enriched in solutes, increasing the fluid density of the evapoconcentrated brine. As the denser brine sinks to the lower basin, it forces less dense brine to the salar edges. This in turn sets up a density current that churns the brine within the basin and generates a consistent chemical character to the brines at the Kachi project.
4. To the south of the salar in the southern fan complex the brines penetrated in K21 show an increase in temperature relative to the brines in the center of the basin, ranging from 35°C to 20°C respectively. This could be evidence of warmer hydrothermal fluids infiltrating the basin from the nearby Cerro Blanco pyroclastic complex.
5. In addition to the shallow hydrothermal fluids infiltrating from the southern fan complex, it is possible that deep sourced hydrothermal fluids may have entered the basin during episodes of tectonic extensional forces that may have opened temporary vertical flow paths into the base of the salar.

5.3 Adjacent properties – Xantippe Resources

Xantippe Resources (Xantippe) is an Australian-listed company that owns eight lithium tenements totalling 21,900Ha (21.9 km^2) adjacent to Lake Resources Kachi Project (Figure 5-11; Xantippe properties in blue).

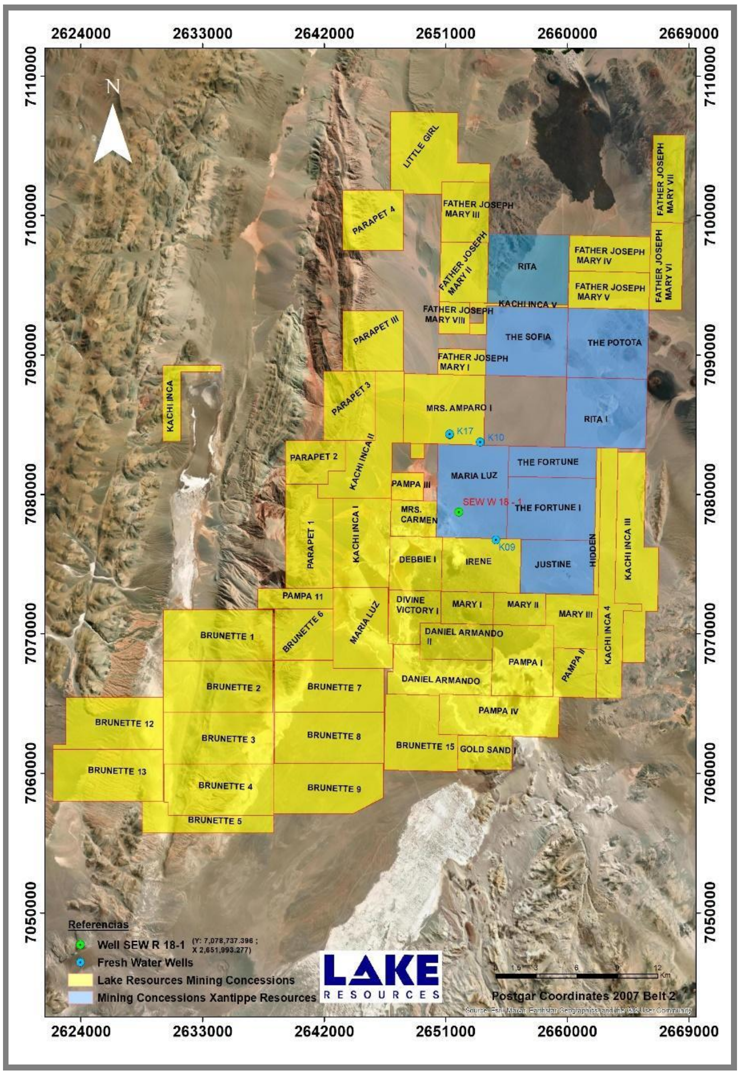


Figure 5-11: Xantippe tenements (blue) relative to the Kachi Project tenements (yellow). Kachi freshwater wells near the tenement boundaries (light blue) and Xantippe test well (light green).

The Luz Maria property is immediately upgradient of the environmentally sensitive vegas and along with La Fortuna I and II and Justina, overly the main freshwater wedge within the basin. Variable density groundwater flow dynamics associated with the freshwater wedge – brine interactions in this sector are what are interpreted to support the vega system. Underlying the freshwater wedge, there is a mixed brackish zone and then ultimately beneath that, brine.

There is 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 (NRG 2016).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 reported lithium concentrations are comparatively low relative to Lake's Kachi project. The screen interval and quality of the well seal are unknown, and grades may be diluted by the influx of freshwater in this sector from the north and, more importantly, the east, which are conceptually the major source of groundwater recharge to the basin[3]. Most importantly the Xantippe data provide further evidence for the interpreted large-scale spatial extent and extrapolation of the lithium brine resource beyond the drillholes to the north and east and beneath the volcano.

[3] Lithium Solutions, 2023. XXX

6. QUALITY CONTROL AND DATA VERIFICATION

The sampling program consisted of collecting brine samples as well as quality assurance and quality control (QAQC) samples. QAQC samples included blanks, standards, field duplicates, and laboratory duplicates. There were 695 total samples in the database at the time of preparing this report, with 375 resource samples and 57 quality QAQC samples and 171 averaged samples used in the resource analysis. Two laboratories were used: 1) Alex Stewart (AS) and 2) SGS Salta (SGS). Of the reported field samples, 74% are greater than 200 mg/L lithium (Li) (Figure 6-1).

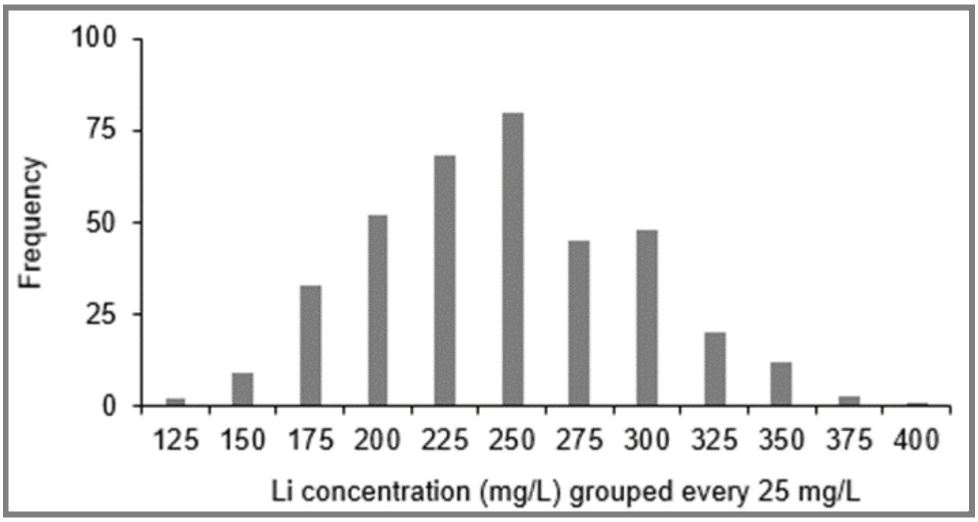


Figure 6-1: Lithium concentration for resource samples

The first sample was collected in 2017 but the first brine resource sample was collected in 2018. Sample frequency increased, beginning in 2021, with high sampling frequency from 2022 onward. With increased frequency of sampling per hole the average lithium concentrations have become more consistent between holes.

Blank samples show Li as at the detection limit. There are low values of major ions and that is because distilled or tap water was used which is not totally pure water, as for example in laboratory grade deionized water.

High and low internal standards that were collected from wells (not prepared in a laboratory) show some variability. Both SGS and Alex Stuart (AS) laboratory duplicate pairs are acceptable, meaning each laboratory is independently consistent. As Li grade increases, SGS over-predicted AS by more than 10% but sodium (Na) and chloride (Cl) ion correlations were very good. There is fairly good correlation between the laboratories (Figure 6-2). Outliers are generally thought to be due to a lack of precision at SGS.

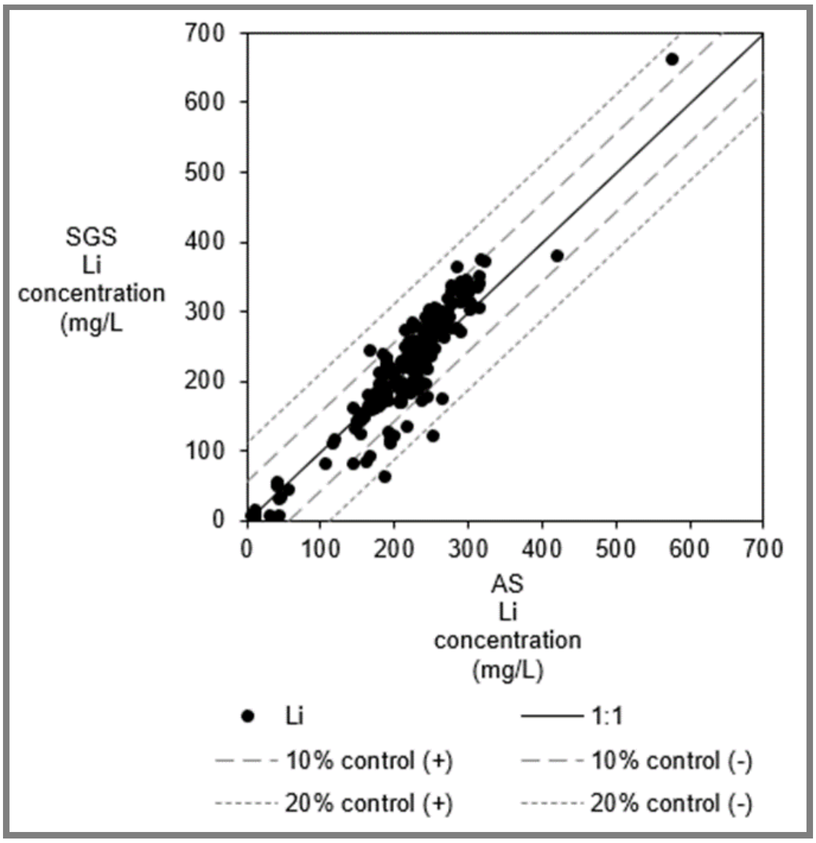


Figure 6-2: AS to SGS Li correlation

A cation-anion balance (CAB) was calculated for all brine samples in the database and the results are considered acceptable. This included downhole resource samples, surface samples, and QAQC samples. Of the 695 total samples included, 63 samples (9.1%) were out of balance by more than 5%, 24 samples (3.5%) were out of balance by more than 10%, and 10 samples (1.4%) were out of balance by more than 20% (Figure 6-3). These out of balance samples for the most part only occurred when the ionic strength of solution was very low (i.e. the brine is very dilute or brackish water). The cluster of samples with ionic strength of 6 - 7 is typical of Puna Region brines (Valdez et al, 2023).

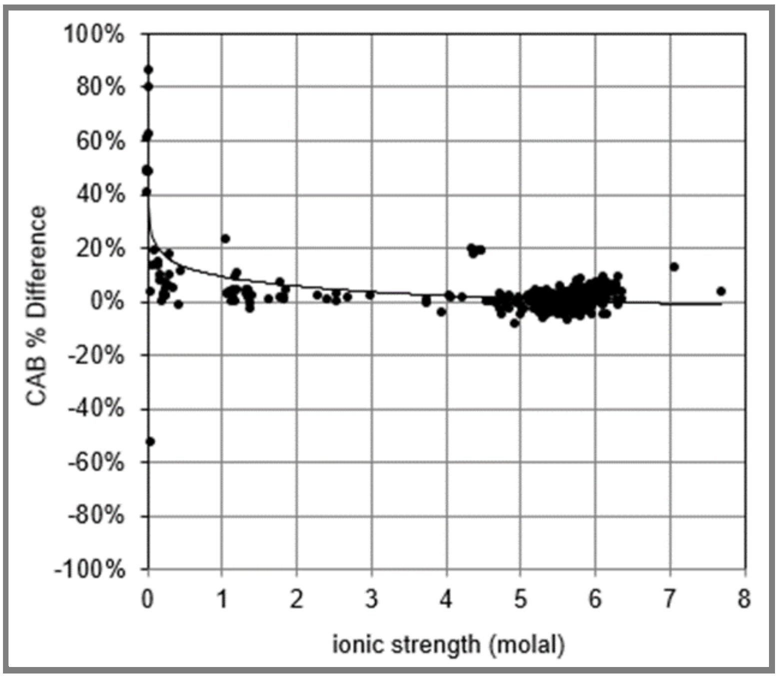


Figure 6-3: An acceptable CAB depends on the ionic strength of the solution.

Three pumping tests and one airlift test were completed in the central salar area. For all testing, Li grades were greater than 240 mg/L, which maintained or sometimes increased as pumping time increased (Figure 6-4). A long-term pumping and injection test was performed with pumping well K11R29 from the KB drill Pad to the KC Pad. Lithium concentration remained relatively constant during the long-term tests (Figure 6-5).

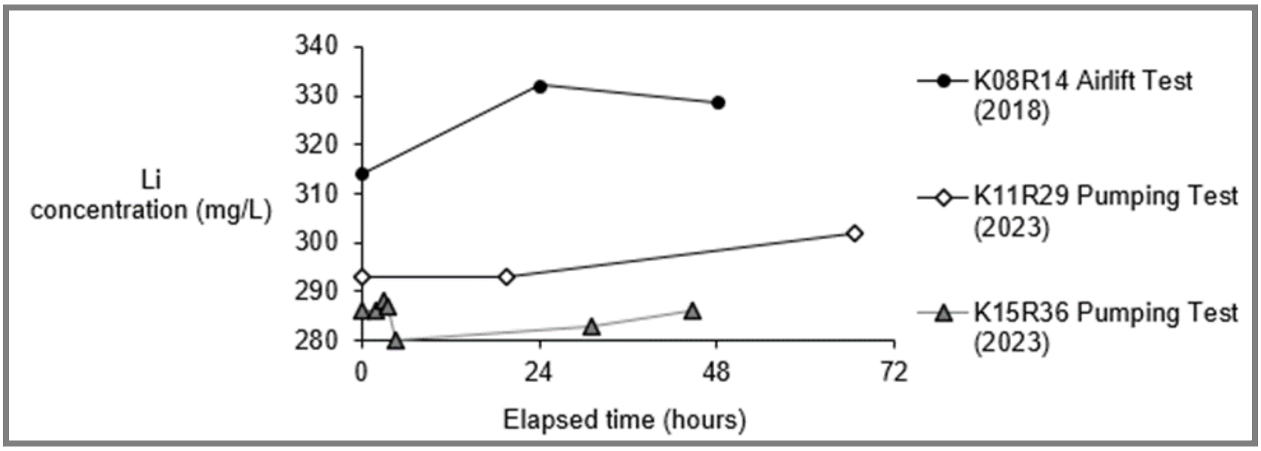


Figure 6-4: Pumping and airlift tests over time.

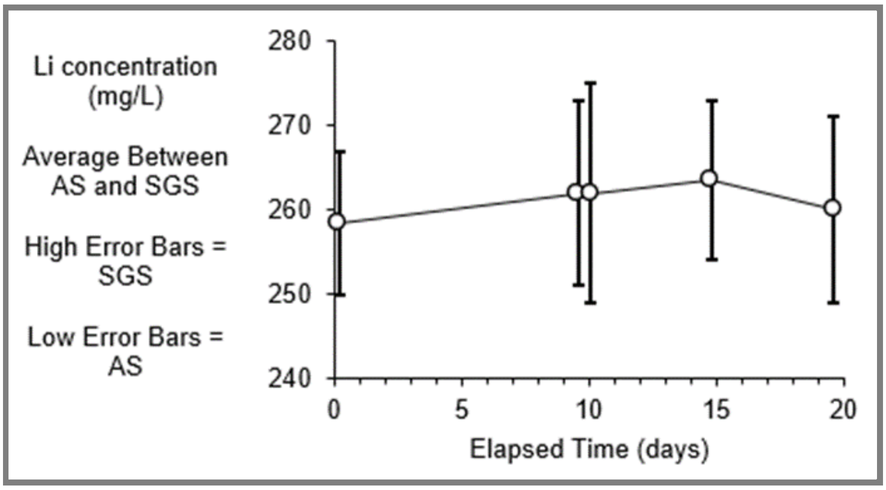


Figure 6-5: K11R29 long term pumping test lithium results over time

7. MINERAL RESOURCES

7.1 Resource Estimation Inputs and Constraints

Estimation of a brine resource require definition of:

- The spatial distribution of the host sediments (the reservoir distribution) and an assessment of their horizontal and vertical continuity.
- The distribution of drainable porosity (specific yield) values.
- The distribution of elements in the brine.
- The external limits (geological or property boundaries) of the resource area.

The resource grade is a combination of the aquifer volume, the drainable porosity (portion of the aquifer volume that is filled by brine that can potentially be extracted) and the concentration of elements of interest in the brine.

The Kachi sediments are a layered sequence of sediments that contributes brine flow to production wells. More permeable sand and gravel units provide relatively higher flows. The combined 2023 Measured, Indicated and Inferred resources cover 274.8 km^2 (Figure 8-9), significantly larger than the January 2023 Resource area (187.6 km^2) and slightly larger than June 2023 (267 km^2).

The pore spaces of the unconsolidated sediments within the basin are interpreted to be filled with brine below any freshwater, with the “hard” boundaries of the basin, namely the bedrock surface and basin bounding faults, conceptualized to be the limiting factor in brine distribution. However, for the resource estimate the brine extent is limited by:

1. The depth of drilling in various sectors of the basin (the vertical extent of lithium is open in all areas of the deposit but below the maximum depth of drilling at the site) no resource is estimated.
2. The basin bounding fault to the west (Figure 3-1).
3. Constraints on interpolations and extrapolations under the volcano in the basin center (Figure 3-1), to add conservatism to the Inferred Resource estimates given higher uncertainty in that area.
4. Top of basement surface defined by drilling intersections, and lack thereof, and extensive passive seismic data sets.
5. Constraints on the spatial extents of the extrapolation resources to radial distances to incorporate a degree of conservativism rather than extension of the resource to conceptual limits such as distal basin boundaries conceptualize to limit the brine extent.

At depth the passive seismic geophysical survey basement topography is calibrated with two drill holes to date and provides a limit for the resource, which extends no deeper than 600 m, the maximum depth to drilling to-date.

Within the salar the three-dimensional distributions of the different stratigraphic units were defined using Leapfrog software, with these units based on geological and geophysical logging observations, correlation between resource drillholes and environment of deposition mapping (e.g., to delineate alluvial fan and transition zones).

Sections below describe some changes between the January and June 2023 resources and the current resource.

7.2 Expanded Vertical Interpolation of the Resource

Recent drilling beyond 400 to maximum depth of 630 m (K21) have allowed interpolation of the resource to greater depths. The rationale for expansion of Unit C, and the related resources, in the vertical dimension below the previous limit of 400 m is as follows:

1. Lithological continuity: the lithology encountered between 400 and 610 m bgs is consistent with the geologic materials in the upper 400 m, to which the estimate was previously extended. The stratigraphic section is comprised principally of fine-grained sands (Figure 7-1).

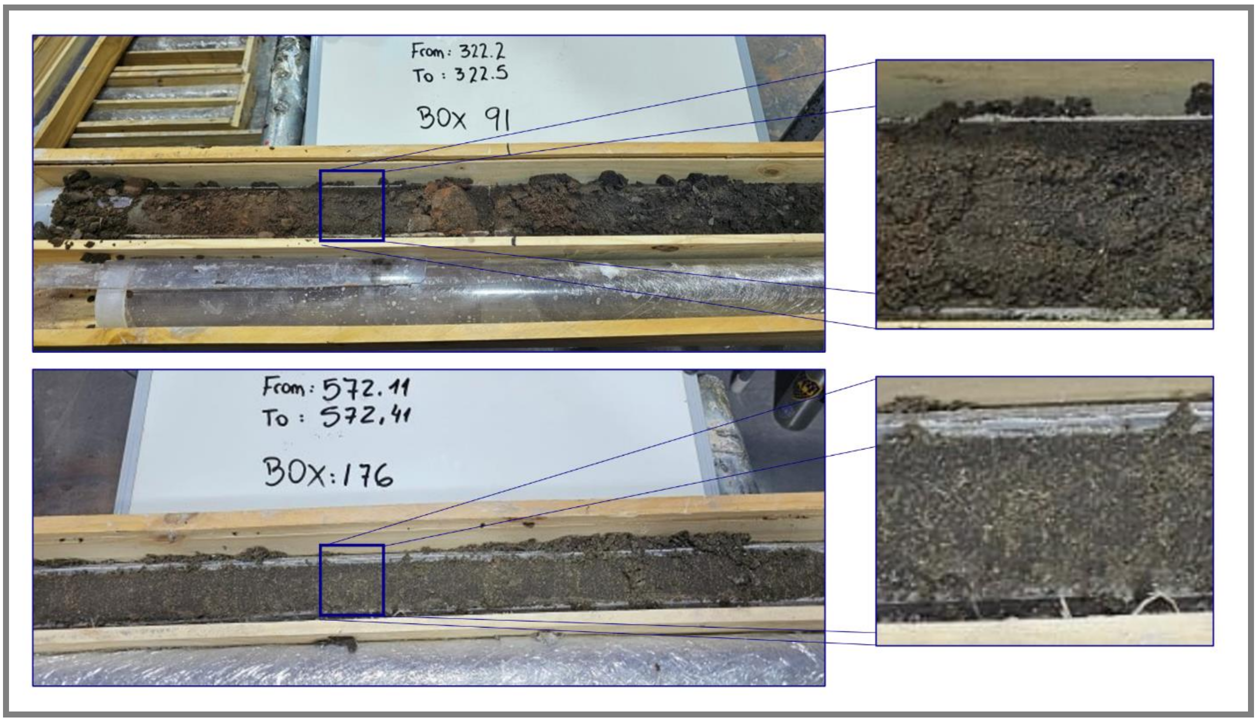


Figure 7-1: Comparison of fine-grained sand reservoir materials in Unit C at various depths

2. Consistent lithium concentrations: For K23D40 and K24D41 the 300-400 m bgs lithium concentrations are 226 mg/L and 270 mg/L respectively, versus 234 mg/L and 238 mg/L for the 400 m to 600 m interval.
3. The depth to basement is well established in the central resource area from passive seismic data that matches well with the two drilled bedrock intercepts to date, as well as the additional deep drillholes to more than 600 m bgs that did not intercept bedrock (refer to top of bedrock Figure 3-5 above). Combined, the data provide a reliable data set from which to interpolate the bedrock surface in the Project area.
4. The vertical extension of the resource delineations has only been completed in the areas of higher overall drillhole density within Unit C, beneath the Measured and Indicated Resource footprints defined in this resource estimate.
5. Basin fill material between 600 m bgs and the top of bedrock surface is considered an exploration target, for improved definition in future exploration work.

7.3 Incorporation of the Western Fan Resource

The drilling in the western alluvial fan (K18, K20, K23) has indicated that the subsurface in this sector of the Project area has a different character than in the central resource area. As described in Section 3, the coarse-grained sediments have different hydraulic properties, namely higher hydraulic conductivity and specific yield. Additionally, available data suggests that while lithium brine extends throughout the Western Fan Complex in the Project area, it may be present at lower average concentrations of 220 mg/L (K18, K20, K23) relative to the central resource area (Figure 7-2). Therefore, while the unit is more amenable to high efficiency well operations due to high hydraulic conductivity and higher specific yield, it has lower average measured lithium concentrations. The lower concentrations may be a result of the greater distance from the salar core and/or small volume of dilution associated with localized recharge on the fan.

As a result of these different characteristics relative to the central salar area where hydrostratigraphic units A, B, and C are defined, the West Fan Complex is considered a unique hydrostratigraphic unit in the resource. Irrespective of this unit designation, the Western Fan Complex is interpreted to be hydraulically well connected to the salar due to the coarse-grained nature of the materials and as supported by the measured degree of homogeneity in brine chemistry.

7.4 Interpolation of the Southern Salar Resources

In previous resource evaluations (LKE June ASX Announcement) the southern Indicated Resource associated with K05 and K06 platforms was not laterally connected to the Measured Resource, due to strict adherence to resource distance recommendations made by Houston (2011). However, after consultation with Houston, and consideration of the consistent lithium concentration, brine chemistry, and stratigraphy through the southern area, it is evident that the resource continues between these two drill locations and can be interpolated as Indicated Resource. However, it is noted there are some subtle differences in brine chemistry in the southeastern sector.

The processes resulting in lower lithium concentrations in this sector are unclear, but such a trend is evident in the available data (Figure 7-2 to 7-5) for all three hydrostratigraphic units (i.e., Units A, B, C). Additionally, there is a tendency for the total dissolved solids and calcium to sulfate ratios to be lower and higher, respectively compared to the central salar area. These differences are particularly apparent in Units A and B (Figures 7-4 and 7-5). This may be the result of natural dilution associated with groundwater inflow from the east or episodic runoff from the South Fan.

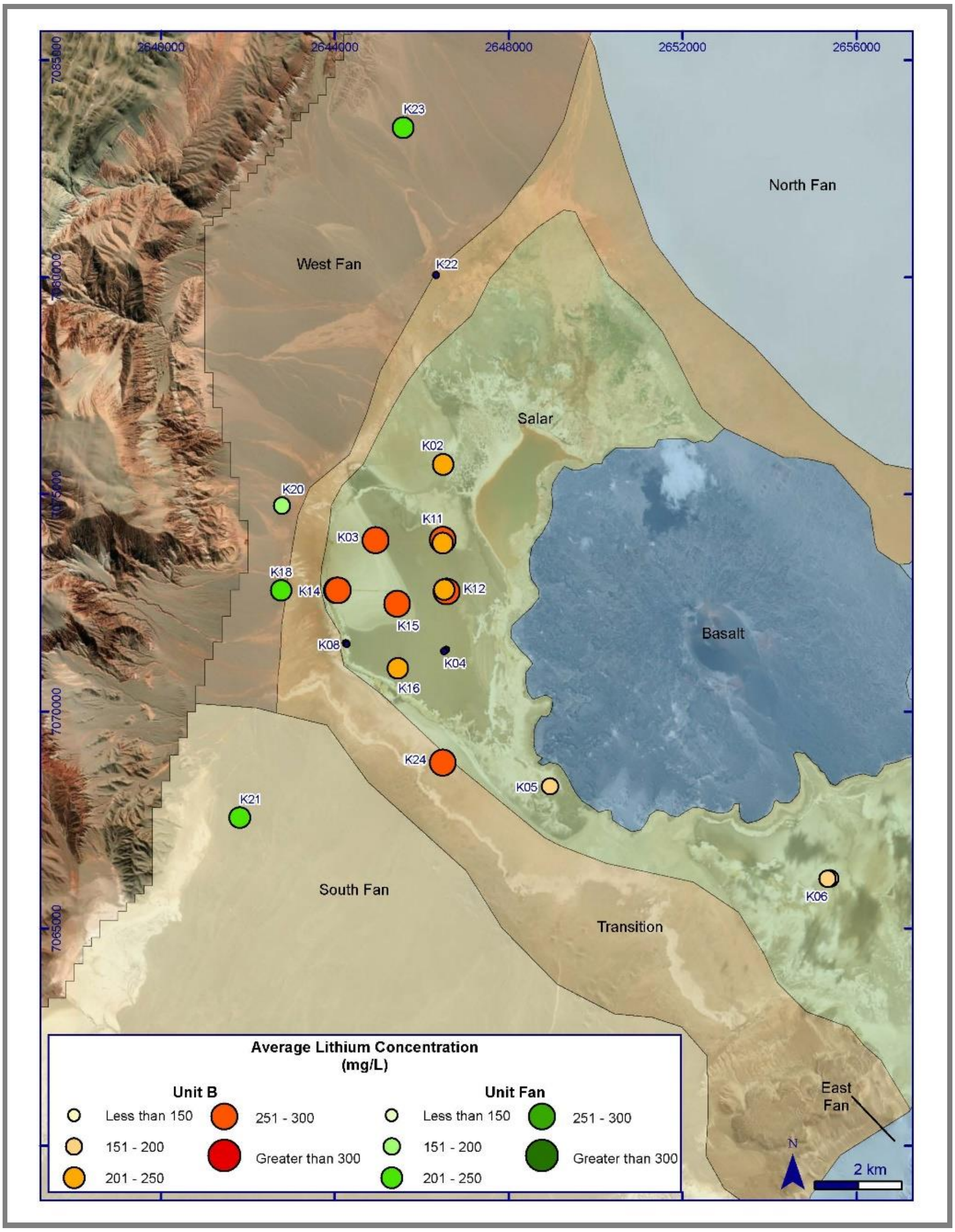


Figure 7-2: Lithium concentrations in Unit B in the salar and equivalent depths in the surrounding alluvial fans

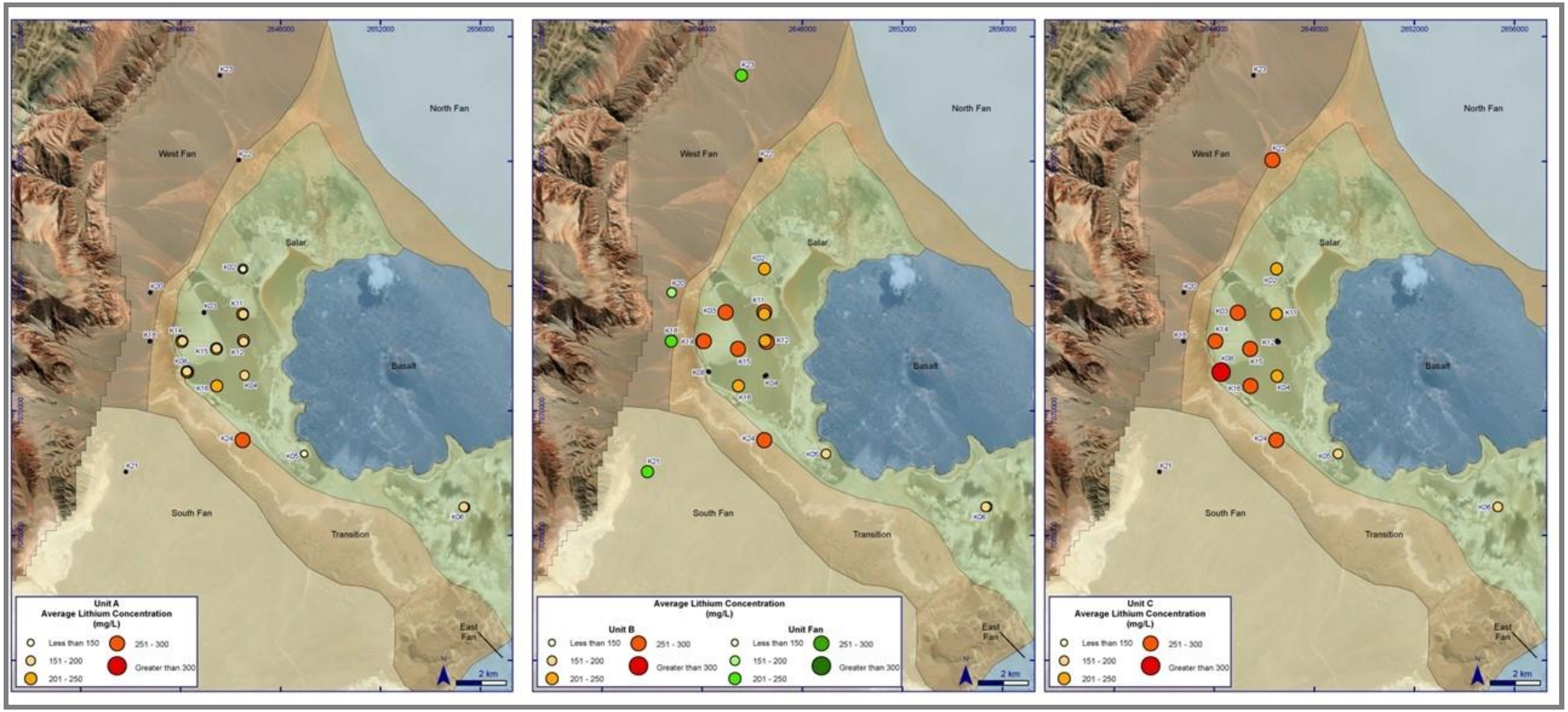


Figure 7-3: Lithium concentration by hydrostratigraphic unit

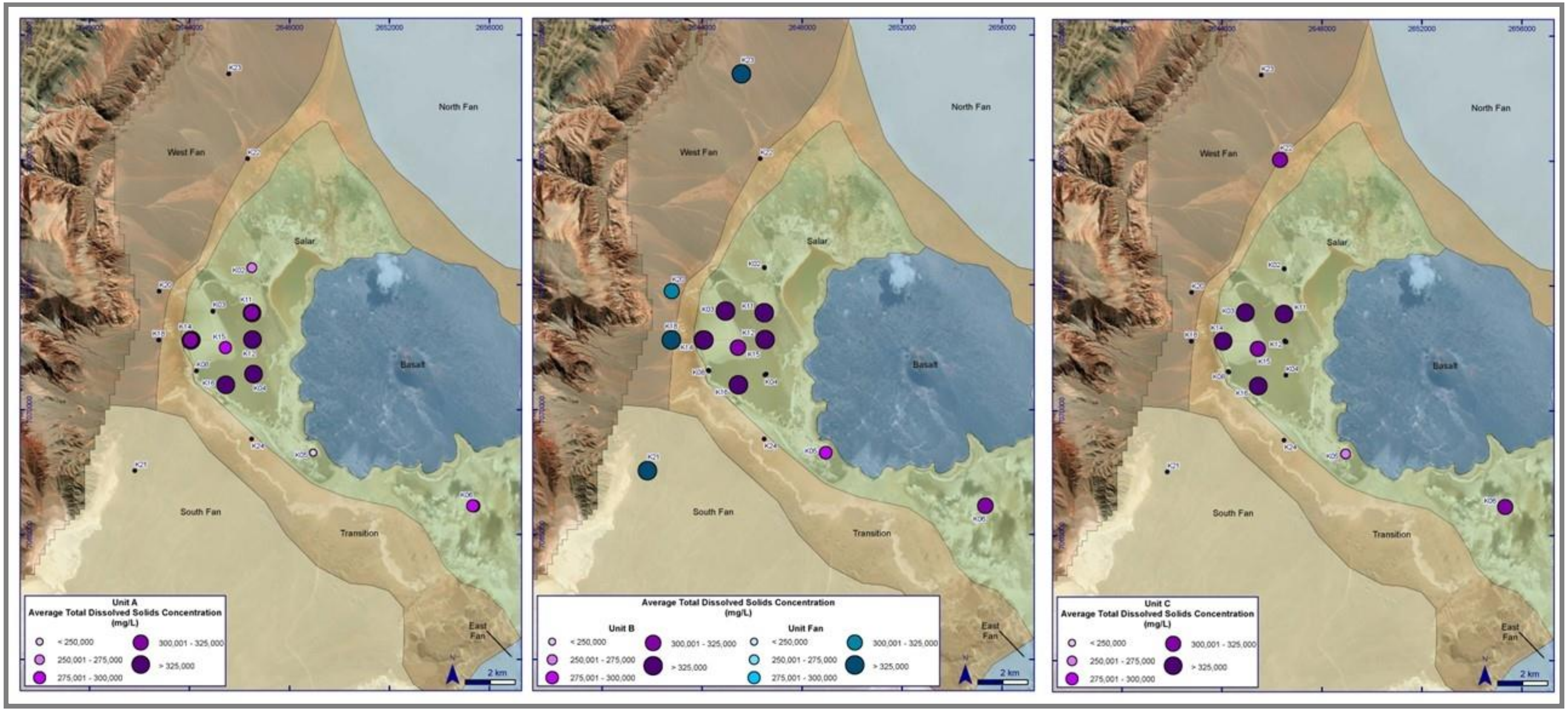


Figure 7-4: Average total dissolved solids concentration by hydrostratigraphic unit

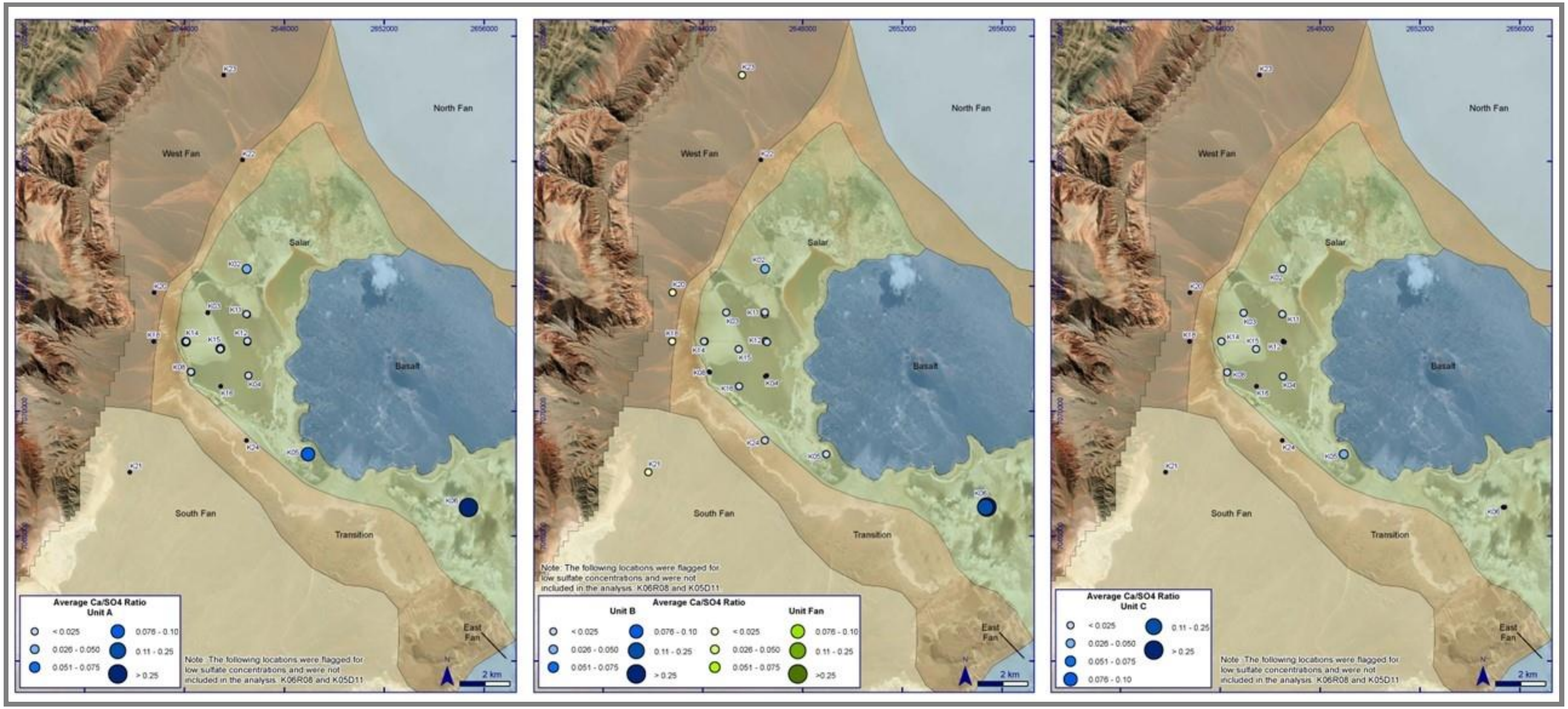


Figure 7-5: Average Ca/SO4 ratio by hydrostratigraphic unit

7.5 Resource Below the Basalt Shield Volcano

The Pliocene basaltic volcano penetrates basin sediments to the east of the central salar area, Flow and air fall basalts, create what has been interpreted to be, a veneer over the lake sediments, covering an area of approximately 55km^2. Brine saturated sediments are believed to extend beneath the shield volcano east of the salar. Brine is also expected to continue at depth beneath 400 m, but to date drilling has been carried out in these areas to support resource estimation there. (some of this may be repetitive from earlier in the report)

TEM results show that the brine body continues under the shield perimeter and passive seismic data shows the consistent strong reflector at depth when survey transect have run onto the basalt.

However, with no actual drilling results, the resource is considered as Inferred only and the resource has been limited to an interval of 100 m – 400 m depth. Below 400 m, the resource is within the exploration target. Above 100 m, there is no certainty of depth of basalt flows or the result surficial subsidence due to the geo-mechanical stresses which built up during formation.

Given the subterranean architecture of the basalt volcano is unknown, the inferred radius from boreholes has been reduced to 4 km. Again, it is recognised that the brine body extends further below the shield structure. Additional potential resource has been allocated to the exploration target.

Note: In the previous resource update (LKE ASX Announcement June 2023), a small area on the western margins of the volcano was classified as measured where the distance is within 2.5 km of platforms K04, K11 and K12. For this update and for the purpose of consistency, this area has been redesignated inferred pending the results of an ANT geophysical survey.

8. RESOURCE CLASSIFICATION AND APPROACH

8.1 Resource Model Development

Within the salar the three-dimensional distributions of the different hydrostratigraphic units were defined using Leapfrog software, with these units based on geological and geophysical logging observations and correlation between resource drillholes.

8.1.1 Specific Yield Data

BMR downhole geophysics was used to provide drainable porosity data to generate a block model across the salar area, applying ordinary kriging to the composited drainable porosity data. The BMR data was compared with laboratory test results for physical properties and provides a higher resolution albeit more conservative data source (i.e., lower average drainable porosity values).

8.1.2 Brine Analyses

There was a high degree of duplication undertaken with sample analyses. This was undertaken to address systematic differences in results between the primary and secondary (check) laboratories. The results from both laboratories for each individual sample collected were averaged and this average was used for the resource estimation. Additional details are provided in Section 6.

The distribution of lithium was estimated from interval sampling data from surface to maximum drilling depth (610 m at K23 and K24).

- Samples were nominally spaced at 28 m intervals, but actual sampling depended on the conditions of the holes. The average distance between samples varies statistically depending on use of duplicates.
- Where discrete intervals have samples analysed in both AS and SGS laboratories, the results are averaged, and the sample separation is 36 m.
- Where all samples are averaged over resource exploration drill meters, sample separation is 19 m.
- Higher frequency sampling during 2021 - 2023 (see Table 8-2) has seen samples currently have an average vertical spacing of 19 m (based on effective exploration drilling depths and the number of samples collected).

The assay data contained several sites where multiple samples were collected using different methods (installed piezometers with fixed screen intervals, and packer sampling); these were averaged and the mean value was used within the resource estimation.

The block model was constructed with 400 m by 400 m blocks, with a 10 m vertical height. The resource estimate was undertaken using Leapfrog software with variograms developed for the drainable porosity point samples (from the BMR data) and the lithium concentrations. Estimation was undertaken using ordinary kriging for the much higher quantity of BMR porosity samples and Inverse Distance Squared estimation for lithium concentration.

8.2 Resource Characterization

Since the initiation of the exploration campaign by Lake in late 2017, exploration drilling has been undertaken on 21 platforms (locations) to a maximum depth of 630 m with diamond and rotary drilling methods. A large proportion of these were geophysically logged to provide stratigraphic information. The initial drill hole pattern was undertaken with a spacing averaging on the order of 1.5 km within the central resource area, which provides a high level of confidence in correlation of the geology between holes. Recent drill holes stepped out to test the brine extent within the basin.

The resource estimate has initially developed from this central drilling pattern under the protocol of measured resource within a 2.5 km radius around exploration drill holes.

The accumulation of drill hole data resulted in significant improvement and understanding of both the spatial and the vertical extent of lithium brine. Characterization of the conceptual geological model was incorporated into the resource geology block model. Most notable points leading to the characterization of geology model are as follows:

- Fine grained lacustrine sediments which include intercalated sand, silt and, clay are limited to the salar footprint.
- Outside the salar and beneath gravel fans (north and west) and fan / ignimbrite (south), stratigraphy is predominantly sandy gravels to depth with minor finer grained intervals.
- An interpreted transition zone delineating the rapid transition between salar finer sediments and coarser fan gravels.
- Lithium bearing brine extent is open laterally and vertically beyond the defined limits of the assessed resource, with the Exploration Target defined beneath and lateral to the resource.

The stratigraphy can be correlated laterally and for the purpose of resource estimation, has been divided into four primary hydrogeological and resource intervals, Unit A, Unit B, Unit C and Gravel Fans (Figure 5-1). Units A, B, and C are comprised of unconsolidated basin sediments derived from the surrounding alluvial fans with lacustrine sediments developed in the salar center. There are varying degrees of clay, silt, sand, and gravel content (Table 8-1) and depending on particle size, depth, and depositional history, porosity and permeability vary.

The resource model was previously limited to 400 m depth, primarily due to the previous limitation of drilling. Figure 8-1 shows measured, indicated and inferred resource zones to a depth of 400 m.

However, drilling has now been undertaken to as deep as 630 m, confirming the basin sediments continue at depth beneath the Measured resource footprint (to 400 m). Indicated Resources are defined below the Measured Resources. Brine is expected to extend to depths of 600-700 m under the Measured Resources and to 700-800 m on the western side of the basin. This potential is currently defined in the Exploration Target.

Table 8-1: Main geological resource units. The Basalt Volcano is not included in the resource.

Local Unit	Geologic Description
A	Intercalated sand, silts and clays. High frequency of thin clay bands. Clay rich aquitard with leaky properties (25-50 m). Central salar area includes intercalated sands, clays and silts but with predominantly finer grained silts and clays. Variable transmissivity.
B	Higher sand proportion. Interpreted as higher permeability zone, lower natural gamma ray response, located below prominent gamma peak.
C	Similar to Unit B but with higher frequency of clay bands between 300 and 400m.
Gravel fans	Coarser grained alluvial fan deposits surrounding the central salar area (Units A, B, C). The fan deposits are predominantly gravel and sand, with notably higher specific yield defined to date in the Northern Fan.
Basalt Volcano	A classic shield volcano that has pierced lake sediments (approximately 0.75 Myr (Báez et al. 2015) with air fall and flow deposits. The geometry of the supply vent at depth is at present unknown. The shield is interpreted to cover lake sediments as a veneer.

8.2.1 Resource Estimate Methods

Background

Previous resource estimates were defined with three hydrostratigraphic layers; A, B and C based on the geophysics of the wells within the central salar area. The thicknesses of each unit in the wells can be seen in the following table. The geological units were defined on the basis of the completed geophysics in the wells, with BMR (Borehole Magnetic Resonance) data and Gamma response in particular to define the boundaries of the geological units.

8.2.2 Recent Exploration Results

As deeper drilling results were achieved within the central salar and in step out drill holes off the salar onto alluvial fans, two key trends became apparent:

1. The previously defined Unit C, which was delimited by drilling limitations to 400 m, extended to depths of at least 600 m bgs in much of the western half of the basin.
2. There is a rapid transition from fine grained intercalated lacustrine sediments consisting of fine silts and sands to coarser grained basin infill consistent within topography observations and that this geometry permeated to depth.

Table 8-2 provides detail of the stratigraphic unit breakdown from each location.

Table 8-2: Exploration Wells Summary with Hydrostratigraphic Unit Delimitations and Number of Brine Samples

Hole ID	Unit A	Unit B	Unit C	Western Fan	Southern Fan	Exploration Target	Brine Samples*
K01D01	2 - 76.25						2
K02D13	0.5 - 190	190 - 280	273 - 405			600 – 695	29
K02D16	0.5 – 140.5	140.5 – 185.5	224.5 - 307			600 – 619	18
K03D02	0.5 – 190.5	190.5 – 298.4	280 - 405			600 - 715	11
K03R03	3 - 184	184 - 247	300 - 362			600 - 637	19
K03R12	3 – 35.5		298 – 353.5				8
K04P01	6 – 176.5	176.5 - 244				600 – 741	24
K04R15	6 – 151	151 – 167.5					2
K05D11	1.5 - 238	238 - 278	185.5 - 334			600 - 710	44
K06D04	3 – 150.5						24
K06D08	3 - 194	194 – 242	242 - 300				6
K08P01	3 – 164.4	164.4 - 217	244 – 400.5				32
K08R14	6 - 228	228 - 294	247 - 404			600 – 711	35
K08R17	6 - 165	165 – 224.5					12
K11D20	6 -228	228 - 300	278 - 396			600 – 711	23
K12D21	8 - 226	226 - 294	294 - 360				5
K14D24	7 – 211.8	211.8 - 298					27
K15D25	9 - 215	215 - 345				600 – 710	20
K15R31	0 - 204	204 - 273	345 - 406			600 – 724	50
K16D28	8 - 204	204 - 273	273 - 405			60 – 670	0
K18D32				10 – 600			19
K19R33				7 - 600			13
K20R35				13 - 600			16
K21D					115 - 630		9
K22D					15 - 610		6
K23D40					71 - 610		26
K24D41	12- 186	186 - 232	232 - 575				37

Note: Brine sample do not include evaporation study standpipes and hence total samples do not match Section 6 total samples.

The resource estimation now corresponds to the volume that exists to the base of the borehole (Table 8-2 above), at 600 m, with the base of the basin, at more than 700 meters, based on the passive seismic geophysics completed in the project. The characteristics of the units in the lower part of the basin are not yet known but conceptually they are expected to have similar characteristics to unit C and the fan gravels, depending on the location within the basin.

8.2.3 Lateral limits of the model with a radius of 2.5 km and 5 km

Using the thickness of each hydrostratigraphic unit, a geological model was generated with the Leapfrog Geo program (Geological Model). For the model boundaries, a polygon layer was generated in Qgis software, based around the distance from drill holes. The depth of the model was extended to the basement surface modelled from passive seismic data and underlying the gravels and lacustrine sediments (Figure 3-6 and Figure 3-7).

The shape layer for the model boundaries was generated using the location of the existing wells in the project. Each well was the center of a 2.5 km and 5 km circle. Once the circles of the different diameters were generated, the edges were unified, obtaining irregular polygons, one for the sum of the 2.5 km radii of and the other for 5 km.

The edges of the shapes that were outside the properties, over the central and eastern part of the Carachi Pampa. With respect to what is a reasonable distance for data to be extrapolated beyond the drilling area, as a fluid, brine resources are likely to be rather more uniform than a hard rock mineral resource. This is the rationale used by Houston et al. (2011) when suggesting guidelines for interpolated sampling in an immature salar should be 7-10 km between wells for an Inferred Resource, 5 km for an Indicated Resource and 2.5 km for a Measured Resource. Where the resource is open, and in the absence of any potential hydrogeological boundaries, it was considered reasonable to use the same distances for extrapolation distances beyond measurement locations. However, where there was more uncertainty, the extrapolation distance was reduced further. The center and eastern portion of the volcano and the Tertiary outcrops to the west of the salt flat, were cut out of the resource model.

In maps (Figure 8-9 and 8-10) one can see the resulting polygons and the classification of the measured resource, which is also presented below in Figure 8-1, with the different units within it.

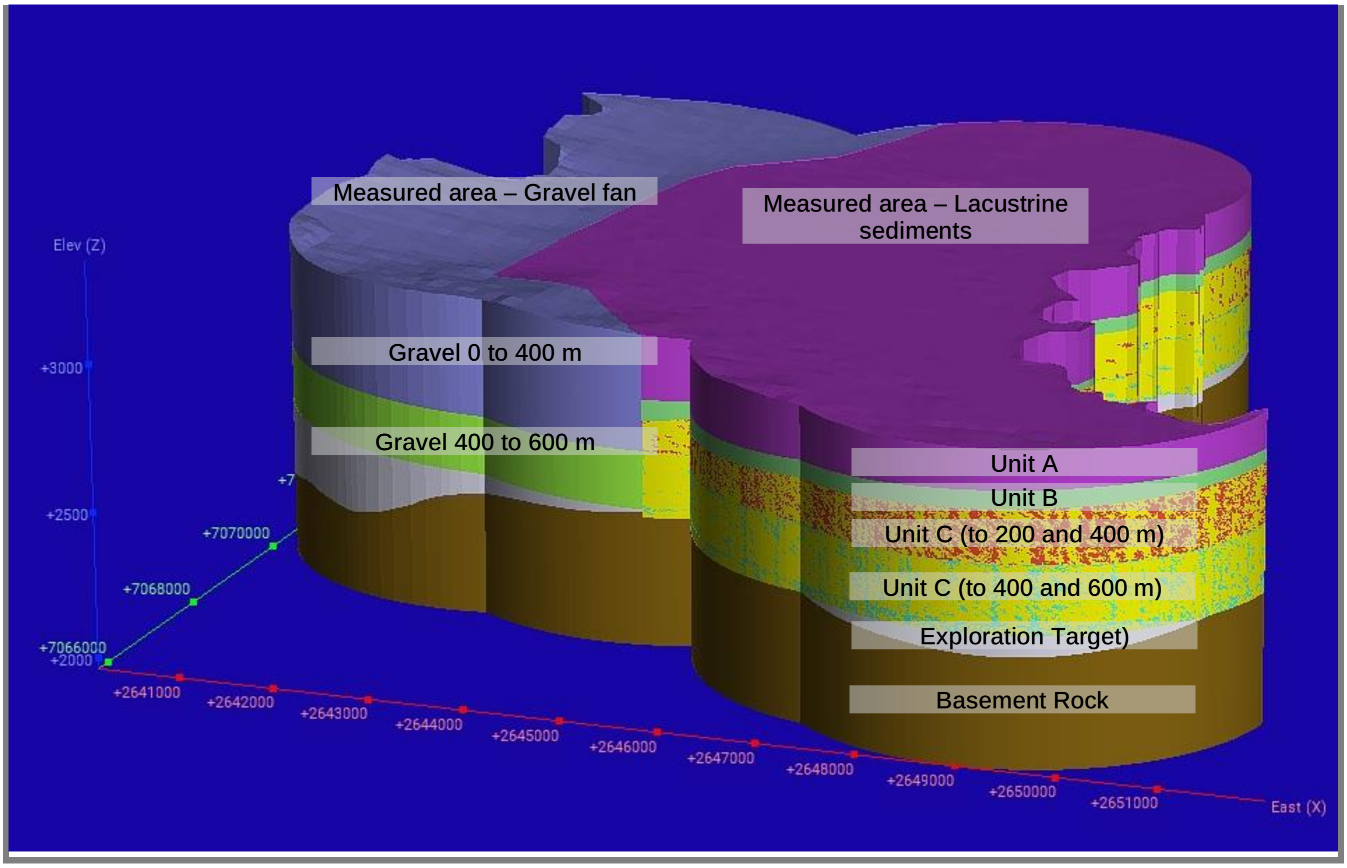


Figure 8-1: Block model diagram for measured resource (2.5 km radii), showing the different geological units.

8.3 Resource Estimate Inputs

8.3.1 Brine Samples Used for Estimation

Section 6 noted that there were 695 total samples in the database at the time of preparing this report, with 375 resource samples. Total drilling for the project is in excess of 13,000 meters, which include production bores and redrilled holes. Resource exploration drilling meters using the deepest exploration drillhole on each resource drilling platform is a total of 7,250 m. This equates to a bulk average of 19 drill meters per sample. This average vertical spacing has gradually improved from an average of 28 m in mid-2022, as sampling methodology has improved as the project has progressed. Multiple brine sampling methods have been used including packer sampling and pumping and it is these chemistry results which have been used as inputs for the resource estimation. This is considered an acceptable approach in this situation, given the level of information available in the salar, the drill spacing, and lithological and brine concentration continuity between drill holes.

Within these 375 assays, there was a high degree of duplication and samples where depth intervals overlapped. The Leapfrog software inputs data in discrete intervals and does not allow overlap of sampling intervals. Where duplication occurs such as dual results from primary and check laboratories, data was averaged. Where sample intervals overlapped, the sampling interval was reduced into discrete zones that did not overlap. This resulted in the reduction of individual sampling intervals from 275 to 167. Appendix B provides resource drillhole collars with key analytical geochemistry results.

Note also that with the installation of production test bores and subsequent aquifer test pumping (K11 and K12), high quality (no potential for contamination) samples from installed screens were collected. Exploration program sampling from within this interval (i.e. Unit B) were replaced with data from the screened production bores as these results we considered to be more representative. Hence the sample table presented in Appendix B has the reduced number of samples in comparison to total resource samples collected.

8.3.2 Lithium Concentration

To estimate lithium values, combined concentration data points were made with the inverse distance weighted method.

- Pass 1 - a data search radius of 2000 m - 2000 m - 400 m respectively in X, Y, Z dimensions.
- Pass 2 - a data search radius of 4500 m - 450 0 m - 600 m respectively in X, Y, Z dimensions.
- Pass 3 - a data search radius of 12000 m - 10000 m - 700 m respectively in X, Y, Z dimensions.

The results of the two models were combined, defining the contained lithium in each block, with the contents of each block then classified based around the drill spacing and data availability.

Consideration of the drill spacing, the overall extent of brine mineralisation, application of the brine guidelines (Houston, et. al., 2011), and understanding of the project area and continuity of mineralisation the following distances were used for resource classification:

- A domain generated by the sum of 2.5 km radii around drill holes. The reason for this was to have greater control for the measured area, with a smaller domain and reduced data dispersion. This was applied for the estimation of the central Measured Resource and the Indicated Resources to the south and north.
- A domain generated with the 5 km radii for the Inferred Resources and for a small section of Indicated Resources, approximately 1.5 km wide in the southeast, between holes K05 and K06.

The figure below shows the variograms of the three axes (Figure 8-2). For the major axes a distance of 1000 meters was used, which is approximately 2/3rds of the distance between drill holes in the centre of the resource area. For the minor axis a distance of 200 metres was used, which is the half the distance between upper and lower samples in 400 m deep wells.

The circle below shows the orientation of the axes and their variability according to direction. The directions were selected based on the least variability in the data.

The graphs show where the greatest number of data pairs are with respect to their distance and variability, presented in the theoretical variograms, aiming to respect the data curve as best as possible. On the horizontal axis where the curve becomes flat is the distance from which the data no longer has any influence on its peers This distance is greater than the drill spacing limits defined above which statistically validates the resource classification. The histogram below shows the distribution of the data used for the variogram and its main statistics.

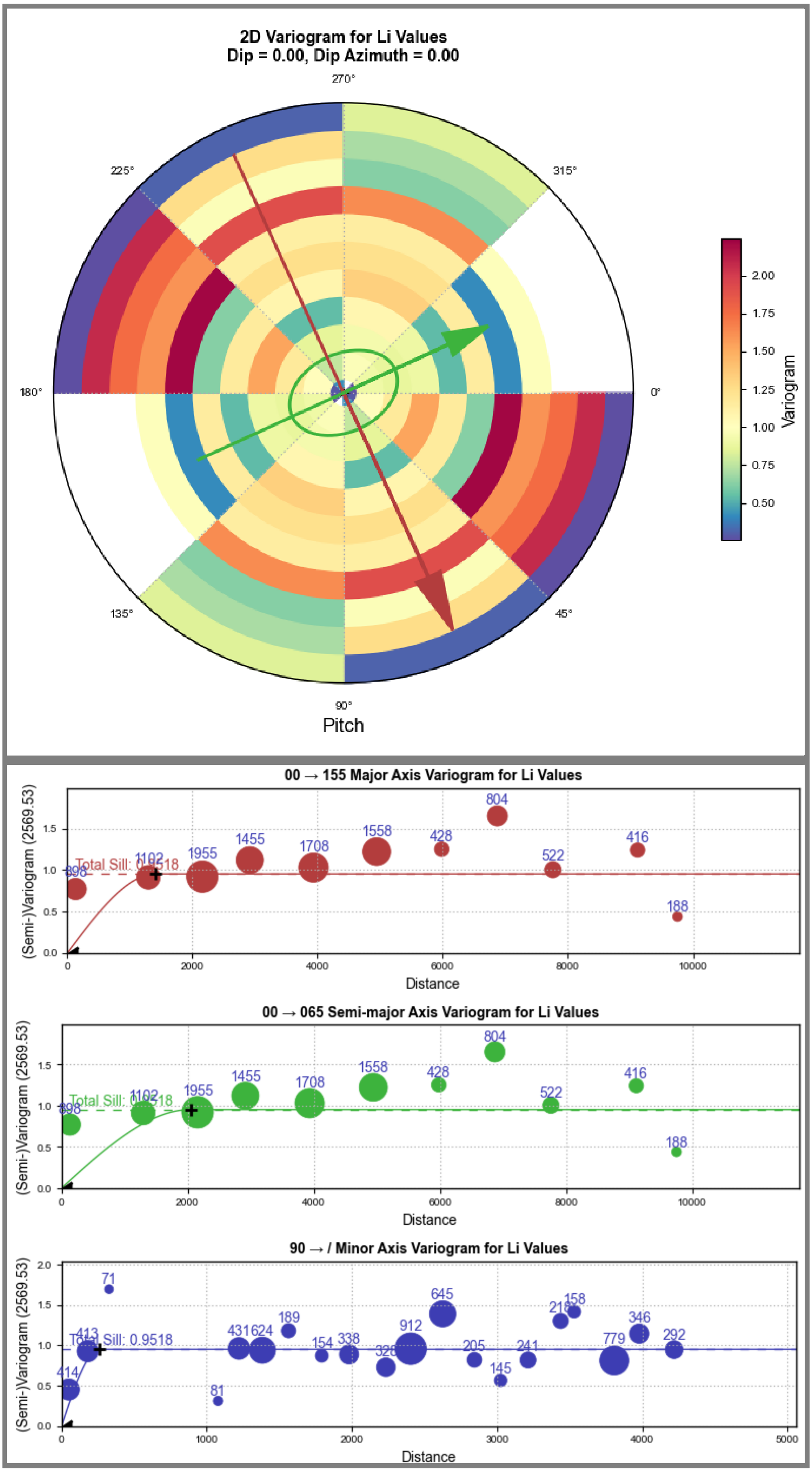


Figure 8-2: Lithium concentration variogram

Figure 8-3 shows a histogram for lithium concentrations from drill holes, which were used to generate the geologic block model. Table 8-3 provides calculated statistics of the data distribution.

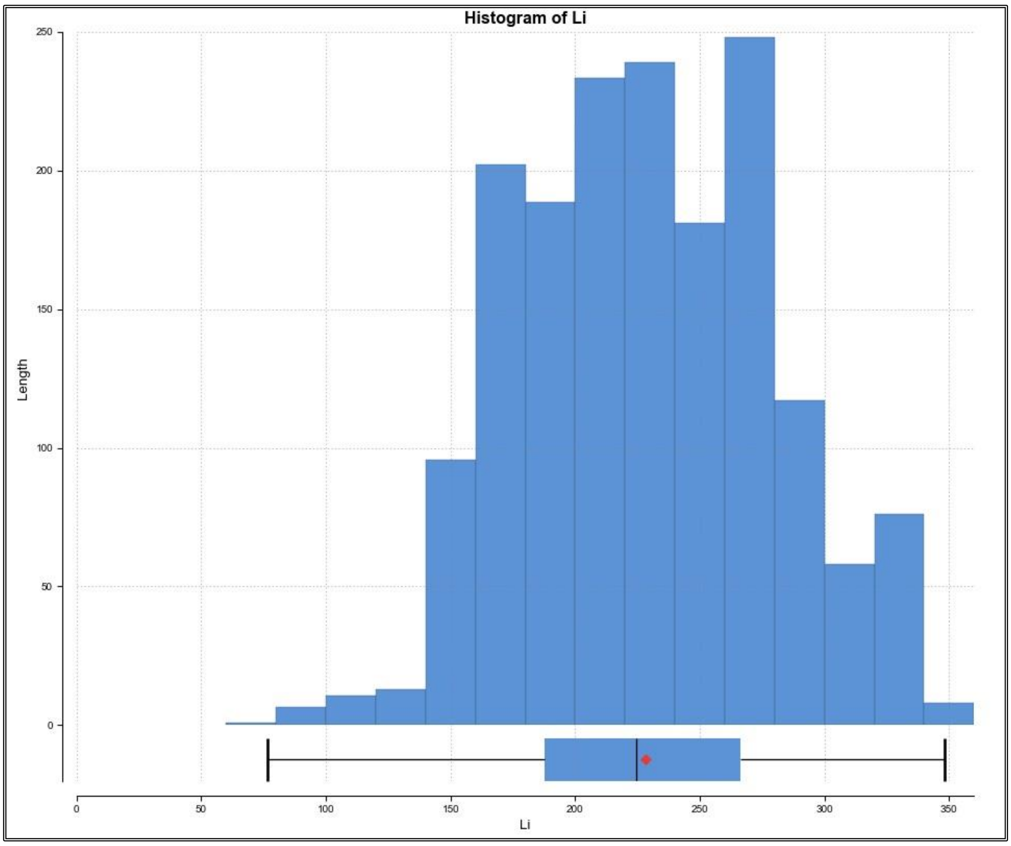


Figure 8-3: Lithium concentration histogram, combined length of intercepts by concentrations. The vertical axis is the sum of the length in metres of all the intersections in that bin, so it can be the sum of the different sample intervals.

Table 8-3: Lithium concentration statistics

	Weighted Value
Count	166
Length	1,677.3
Mean	228.187
SD	51.2985
CV	0.224809
Variance	2631.53
Minimum	76.586
Q1	187.82
Q2	224.455
Q3	266.484
Maximum	348

8.3.3 Specific Yield

Specific yield (Sy) or drainable porosity data collected from BMR downhole geophysical logging was composited to a 10 m scale. This provided information at a scale more consistent with that of brine samples, and to remove the small-scale changes in porosity that are a feature of the sediments. The composite results were compared with the original data, to ensure it was adequately respected, and with the resource estimation blocks coincident with the drill hole data. Section 4.2 and 4.3 described BMR and laboratory derived data for physical properties and the correlation between the two methods within the central salar area, where there is a high proportion of finer sediments. The use of BMR derived Sy is viewed as a conservative approach, with results generally lower when compared to laboratory results for the same interval of the hole. This relationship between BMR Sy data and laboratory derived data is different off the salar, in the surrounding fans. There the BMR shows considerably higher Sy values than the central salar area. Therefore, Sy inputs were increased in the Alluvial fan zones although the shift that was forced is still well below the 10th Percentile Sy as shown in Table 4-4 for K23.

The specific yield data were composited into 10 m intervals vertically to smooth out the significant small scale variation and to provide a similar density of data to the lithium assays. The BMR generates a large amount of specific yield data (every 2 cm approximately, greater than two orders of magnitude more data than the lithium analyses) and the data has significant variation over short distances. For kriging estimation, a variogram model was developed for the data, prior to deciding on the search ellipse parameters. To estimate the specific yield porosity (Sy), a combined estimation was carried out. This means that different estimates were made with different (increasingly larger) search ellipses, with the results then combined into one estimate, giving greater weighting to the smaller eclipse radii. This combination is performed to cover the entire estimation area.

Different types of estimators were used with increasing estimation distances, with three passes carried out, each with different search ellipse distances. The first two passes used the Kriging method, with fairly isotropic X and Y distances, whereas the third pass, with less data, used the nearest neighbour method. The iteratively derived passes consisted of:

- Pass 1 - a data search radius of 3,444 m – 3,718 m – 229 m respectively in X, Y, Z;
- Pass 2 - a data search radius of 7,005 m – 5,928 m – 229 m respectively in X, Y, Z;
- Pass 3 a data search radius of the third pass 13,855 – 6,030 – 359 in X, Y, Z, to take in more broadly spaced data in the north and south of the project area.

The specific yield data distribution is shown in Figure 8-4 and calculated statistics of the data distribution are provided in Table 8-4.

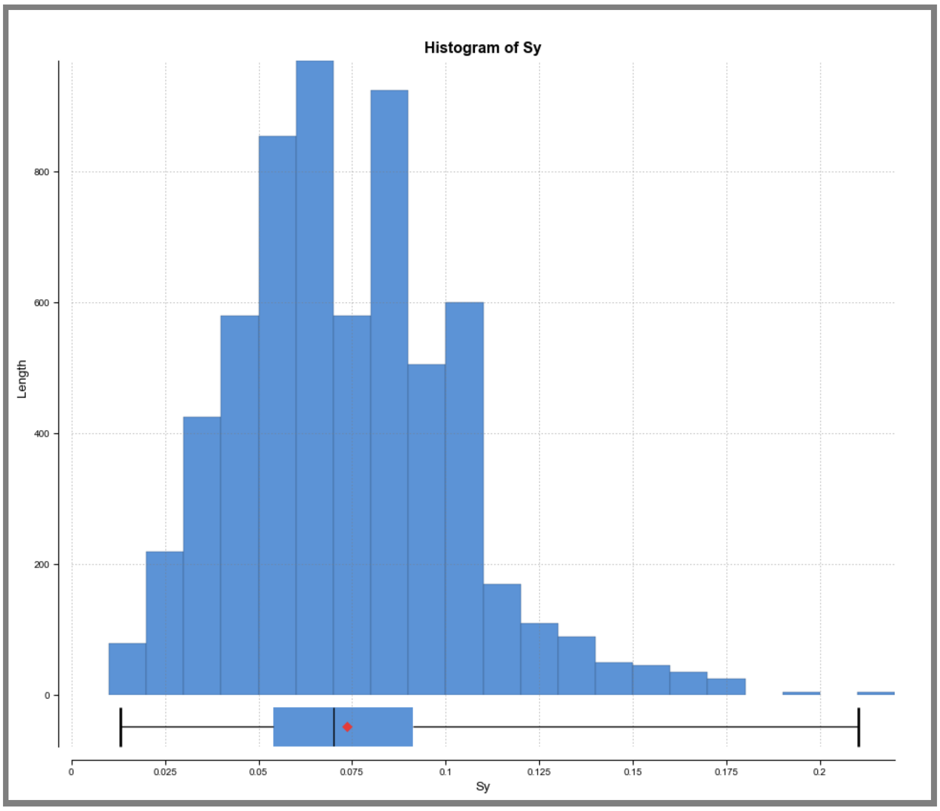


Figure 8-4: Histogram, for Specific Yield (drainable porosity) based on BMR. The vertical axis is the sum of the length in metres of all the intersections in that bin, so it can be the sum of the different sample intervals.

Table 8-4: Specific yield histogram for 10 m aggregate BMR data

	Weighted Value
Count	1,255
Length	6,275.0
Mean	0.0735531
SD	0.0288204
CV	0.391832
Variance	0.000830617
Minimum	0.0131228
Q1	0.0538595
Q2	0.0701134
Q3	0.0912548
Maximum	0.210237

8.4 Resource Classification

8.4.1 Measured Mineral Resources

A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

The Measured Resources (Figure 8-9) is defined within the center of the resource area, where the stratigraphy is continuous and well correlated, brine chemistry and grades are consistent and as a result there is a high degree of confidence. There are two components of the Measured Resource, the salar deposits and a portion of the West Fan Complex. The drill spacing in the Measured Resource area ranges from 1.1 to 1.9 km and averages approximately 1.5 km. The average is less than published guidance for an appropriate drill spacing for Measured Resources in clastic salars (Houston and others, 2011). Furthermore, pumping tests that extracted more than 16 million liters (K12R34) and 31 million liters (K11R29) demonstrated remarkably consistent lithium concentration, further confirming grade continuity with a high degree of confidence indicative of a Measured Resource designation.

The specific yield value of the West Fan Complex Measured Resource is 9.5 percent. This is a conservative value, given that most of the fan materials may be more consistent with K23D40, which had a median drainable porosity value of 16 percent (see Section 8.3.3).

The Measured Resource category only extends to the 400 m depth, given that few holes extend below this depth, despite drilling intercepts to the current maximum depth of 630 m bgs.

8.4.2 Indicated Mineral Resource

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

Indicated resources are defined in the southern sector of the deposit between drillholes at sites K05 and K06, where it is clear that lithium enriched brine continues, as does the same generalized stratigraphy. The recent TEM survey also supports the continuity of the brine through this sector of the Project, which further supports the drilling and lithological correlations. However, the grades in this sector tend to be lower, and the chemistry of these holes has subtle differences compared to the Measured Resource area. These earlier drillholes had some difficulties with sample collection and it is possible there was dilution of some brine samples from overlying zones. However, there may also be freshwater dilution in this sector associated with groundwater inflow from the east or elsewhere. As a result of these considerations, the resources were classified as an Indicated Mineral Resource.

The results of K23D40 confirm the presence of brine north of the salar, as identified in the TEM survey. The grade from K23D40, averaging 228 mg/l over 322 m, is consistent with lithium concentrations further south in the salar area and with K22D39, between K23D40 and the Measured Resource. Based on this continuity of results Indicated Resources are defined extending north of the Measured Resource, with a 2.5 km radius around K22 and K23, as the southern area of Indicated Resources is defined around K06.

Indicated Resources are also defined in the deeper sediments between 400 m bgs and 600 m bgs in the salar area (Figure 3). As discussed above, deeper drilling at K23D40 and K24D41 has led to an understanding that the lithium brine extends at least to the top of the basement rock (bedrock) below salar sediments or gravels, filling the void spaces in the sediments. The geologic sediments encountered in the deeper drilling, to 600 m, are a continuation of the overlying depositional environment with the same fine-grained sands dominating the stratigraphy. The consistency in lithium concentrations, fluid density and hydrochemistry with respect to shallower samples are further evidence of the continuity and connectivity of the lithium brine throughout the unconsolidated materials in the central resource area.

In the absence of hydrogeologic boundaries (e.g., basin bounding fault to the west of the salar), the continuity of the Indicated Resource has been constrained to a 2.5 km radius despite the hydrogeological and hydrogeochemical evidence that it may potentially be more expansive.

8.4.3 Inferred Mineral Resources

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

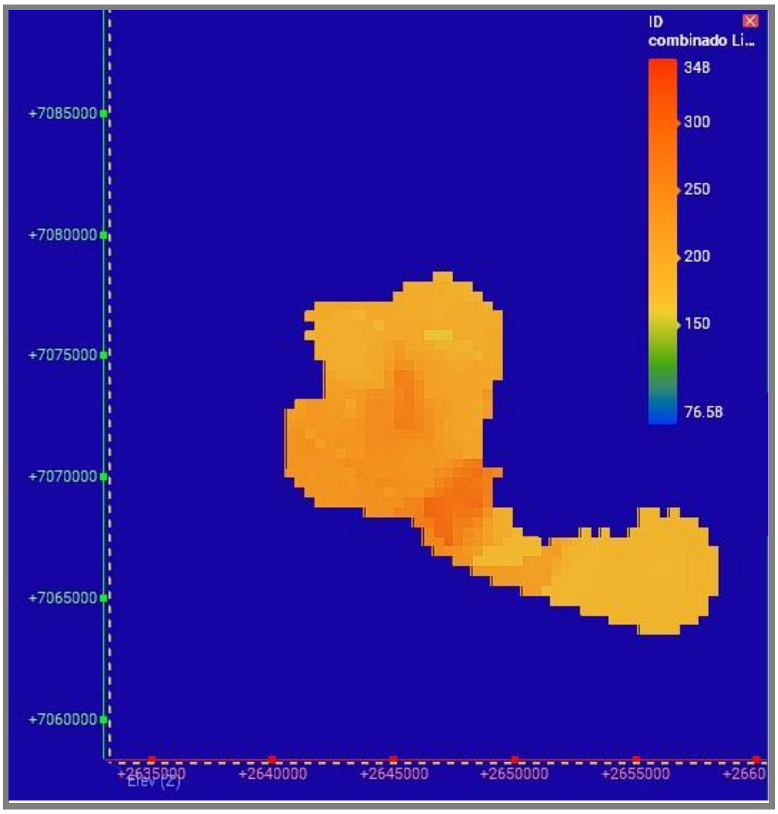


Figure 8-5: M&I Lithium model plan at elevations of 2800 m at 2.5 km radius (predominantly in Unit B)

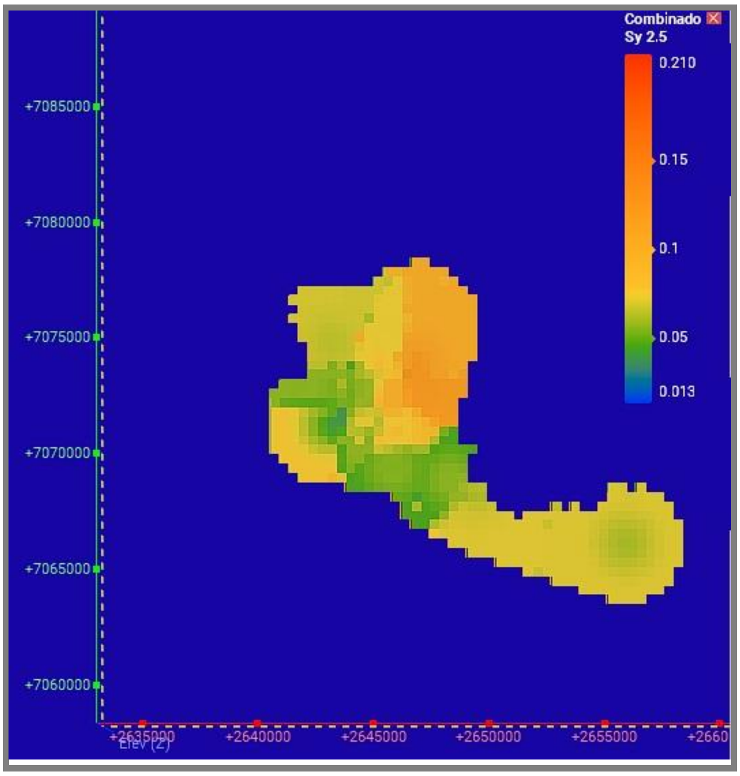


Figure 8-6: M&I Specific yield model plan at elevations of 2800 m at 2.5 km radius (predominantly in Unit B)

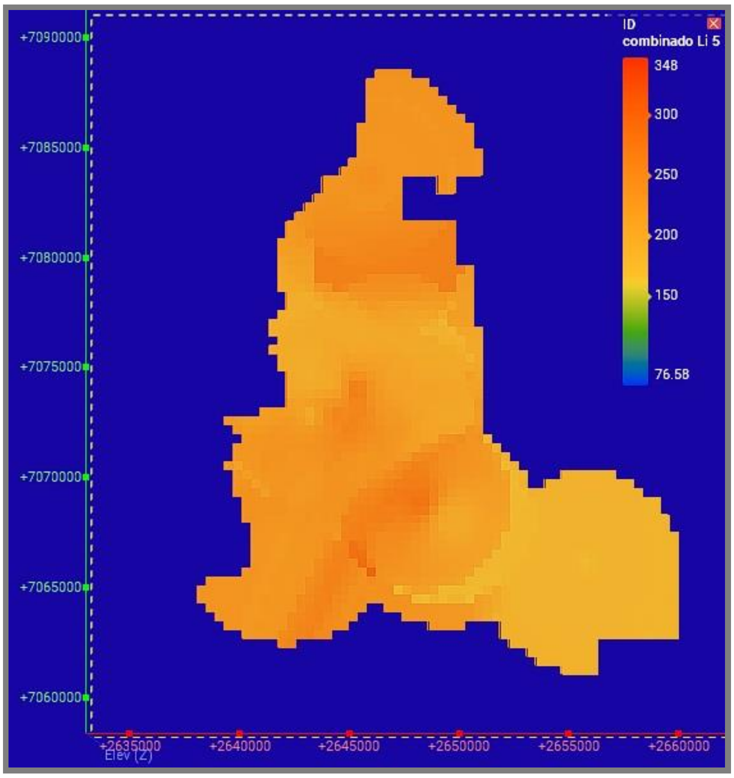


Figure 8-7: Lithium block model plan at elevations of 2800 m at 5 km radius (predominantly in Unit B), with M&I plus Inferred

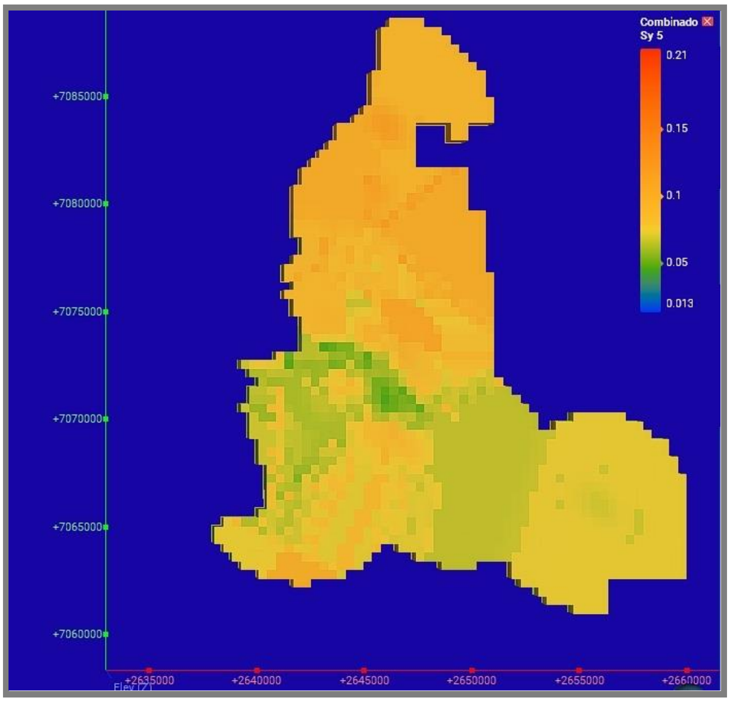


Figure 8-8: Specific yield model plans at elevations of 2800 m at 5 km radius (predominantly in Unit B) with M&I plus Inferred

Much of the data collected in the Inferred Resource area is associated with more recent step-out holes with reliable data collection (i.e., K21D38, K22D39, K23D40). While the drill spacing is greater in these step-out areas to north and south, the intersected stratigraphy is highly favourable to lithium extraction and generally coarser-grained than in the salar.

The lithium concentrations, fluid density and hydrochemistry within these recent intersections are very consistent and comparable to that observed within the central resource area. Given the consistency and continuity of both the hydrogeological flow regime and hydrochemistry, locations within the interpolated area and within accepted extrapolation areas around are categorized as an Indicated resource, with further extrapolation to 5 km being an Inferred Resource.

Brine saturated sediments extend beneath the shield volcano east of the salar, but to date, no drilling has been carried out in these areas. However, TEM survey results confirm that the highly conductive brine body extends beneath the shield volcano to the north, west, and south, and is likely to continue beneath the entire volcano, except in the (assumed to be vertical) feeder structure along which the lava was injected before flowing out at the land surface. Additionally, drilling immediately adjacent to the surface lava flows have intersected lithium brine (e.g., K05) and wells north of the volcano, on mineral concessions owned by third parties, also intersected lithium brine (Attachment A). Given the continuity of stratigraphy, lithium brine intersects and brine TEM signatures, the Inferred Resource is reasonably extrapolated beneath the volcano.

8.5 Estimated Resources

The resource estimate is outlined in the following tables presenting the lithium and lithium carbonate tonnages. Variograms were developed for lithium and drainable porosity data for the estimation process, with the results of the variograms used to develop the search ellipses used for the estimation.

For the estimation of lithium content, three expanding passes (Table 8-5) were applied using an inverse distance squared methodology.

For the estimation of drainable porosity, two passes of ordinary kriging with expanded search ellipse were used, followed by a larger search ellipse in pass 3, using a nearest neighbour estimation. The search ellipse for the first two passes of the porosity evaluation used a near isotropic search ellipse, based on the variograms.

Dimensions are shown in Table 8-5. For the third pass the search ellipse was expanded considerably and a more anisotropic ellipse was used for the nearest neighbour estimation. For the estimation of lithium concentration 2 search passes were used and the ellipse was expanded to allow estimation of grade into the southern area, with an isotropic ellipse used in each pass.

The block model results were compared with composite and original drill hole data at the drill hole locations, to check the estimation reasonably reflects the original drill hole data. The Resource Estimate (Table 8-5) was considered to adequately reflect the original data.

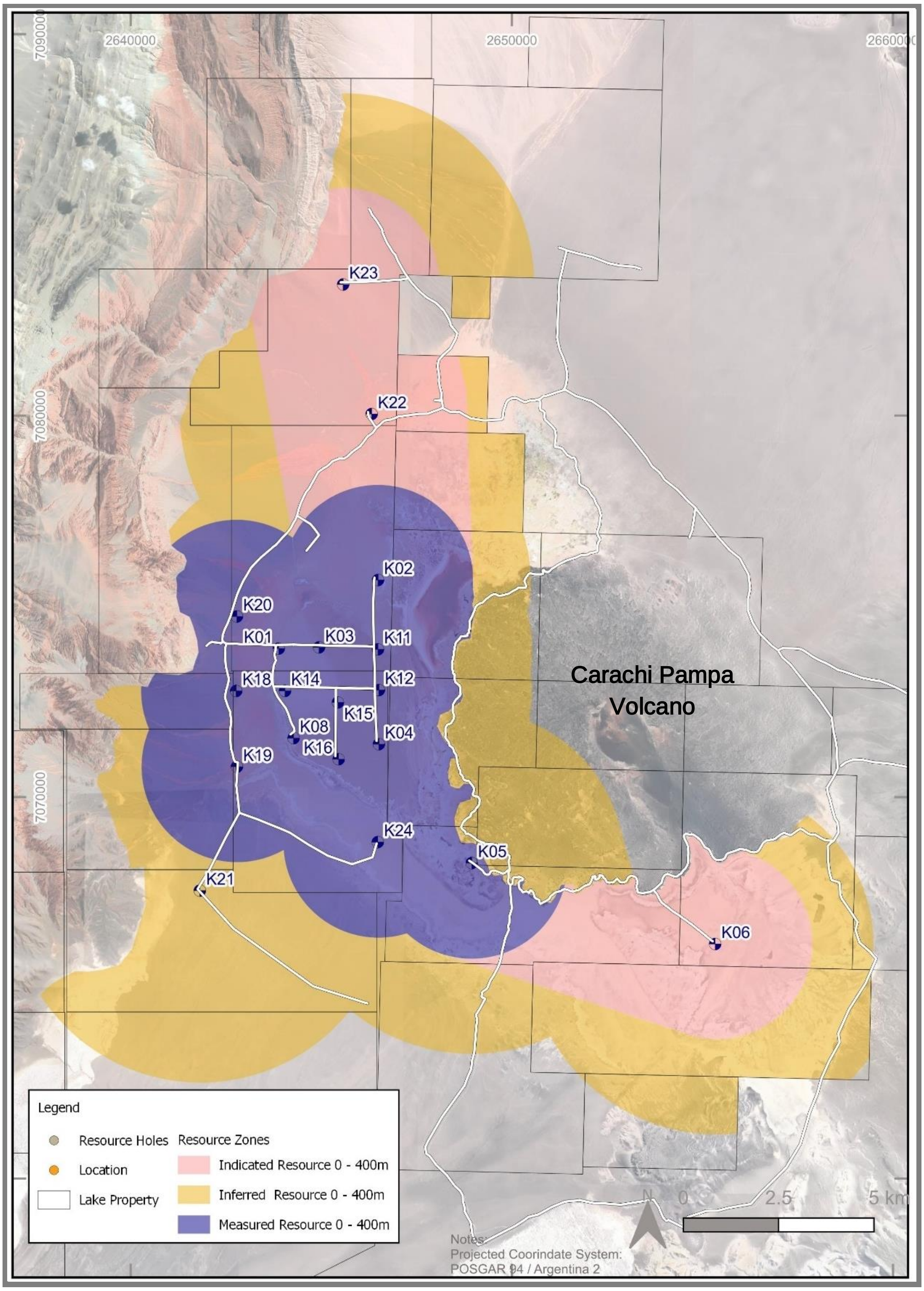


Figure 8-9: Diagram showing the Measured (purple) and Indicated Resources (pink), with the surrounding area of Inferred Resource (orange). Note the area of the Carachi Pampa Volcano

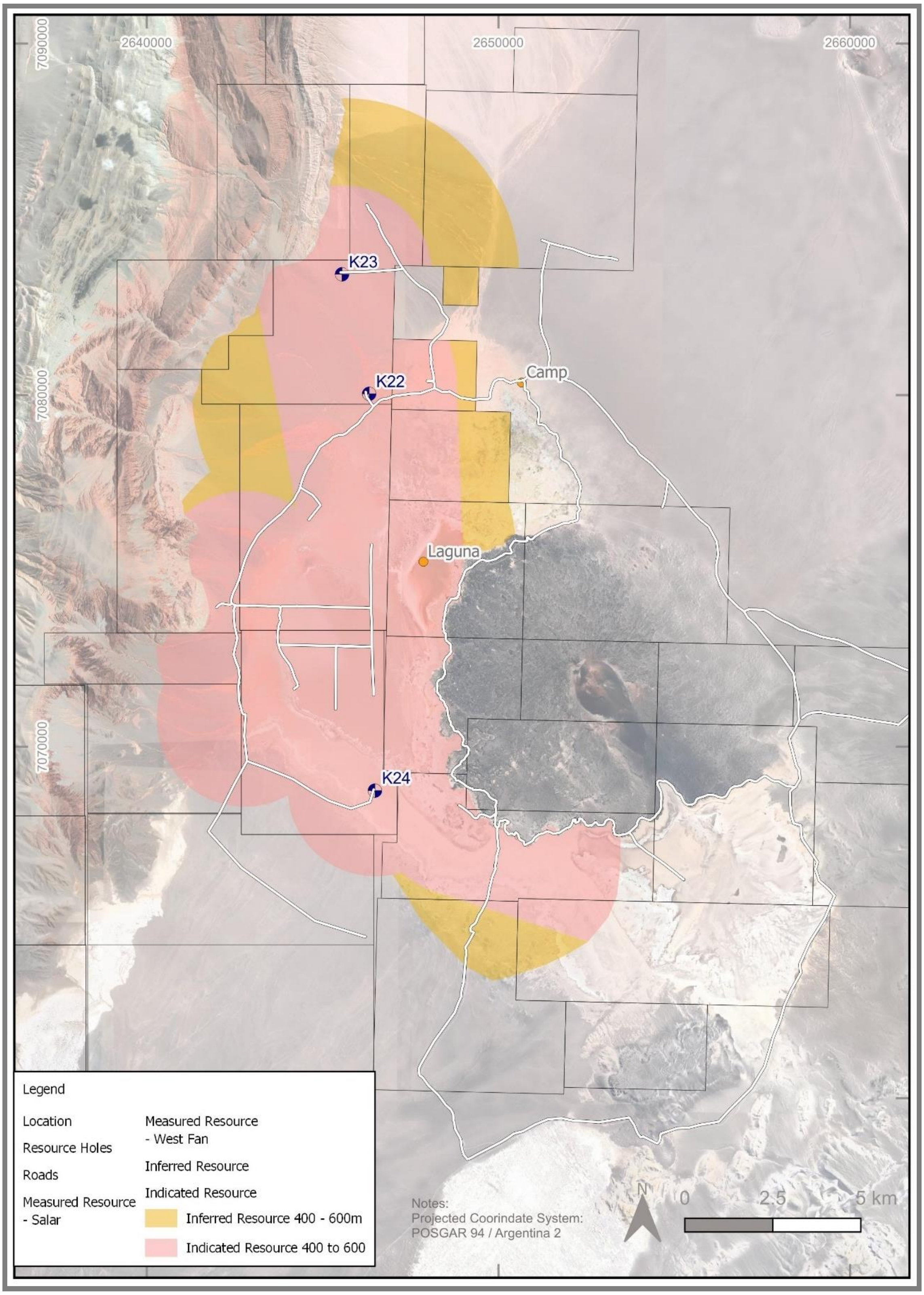


Figure 8-10: Diagram showing the Indicated Resources, with the surrounding area of Inferred Resource (orange) with depth 400 – 600m.

Table 8-5: Updated resource estimate of contained lithium

Measured

Unit	Sediment Volume m^3	Specific Yield %	Brine Volume m^3	Li mg/l	Li Tonnes	Tonnes LCE
A	11,001,000,000	0.078	858,078,000	210	180,000	956,000
B	4,366,100,000	0.081	352,090000	229	81,000	429,000
C	8,007,400,000	0.068	544,503,000	230	125,000	667,000
Fan West	8,833,000,000	0.095	839,135,000	220	185,000	982,000
Total	**32,207,500,000**	**-**	**2,593,806,000**	**-**	**570,000**	**3,035,000**

Indicated

Unit	Sediment Volume m^3	Specific Yield %	Brine Volume m^3	Li mg/l	Li Tonnes	Tonnes LCE
A (South)	3,694,300,000	0.076	278,924,000	181	50,000	269,000
B (South)	1,489,000,000	0.075	111,543,000	179	20,000	106,000
C (South)	4,382,400,000	0.067	294,407,000	182	54,000	285,000
A (North)	3,075,200,000	0.095	292,144,000	232	68,000	361,000
B (North)	4,294,400,000	0.095	407,968,000	241	98,000	522,000
C (North)	9,188,400,000	0.092	845,333,000	182	206,000	488,000
400 - 600 m Under Salar	12,230,170,000	0.066	806,922,000	242	195,000	1,039,000
400 - 600 m West Fan Deep	4,858,200,000	0.092	446,954,000	244	109,000	580,000
Total	43,212,070,000		3,484,954,000		800,000	4,258,000
Total M&I	**75,419,004,000**		**6,078,197,000**		**1,370,000**	**7,293,000**

Inferred

Unit	Sediment Volume m^3	Specific Yield %	Brine Volume m^3	Li mg/l	Li Tonnes	Tonnes LCE
A	4,756,500,000	0.080	378,325,000	185	70,000	372,000
B	1,671,300,000	0.079	131,198,000	191	25,000	134,000
C	5,287,600,000	0.074	393,746,000	218	86,000	457,000
Fan North	8,895,490,000	0.081	716,324,000	232	166,000	884,000
Fan South	12,248,490,000	0.064	781,249,000	239	187,000	993,000
Under volcano	6,718,700,000	0.074	500,471,000	192	96,000	512,000
Total	**39,578,080,000**		**2,901,314,000**		**630,000**	**3,352,000**

8.6 Interpolated and Extrapolated Resources

A portion of the various mineral resources have been extrapolated beyond drillhole locations. Such judgements are common within resource estimation and the concept of relative interpolated vs extrapolated resources are in part, important for conveying confidence in the resource estimation process.

Interpolation is a technique used to estimate values within a given range of data points. It assumes that the data points provide a continuous representation of a function or relationship. When you interpolate, you are essentially making a mathematical estimation about what the data might look like between the known points.

Key characteristics of interpolation:

- It is used to estimate values within the range of existing data.
- It assumes that the data points represent a continuous function or relationship.

Common interpolation methods include linear interpolation (connecting points with straight lines), polynomial interpolation (fitting a polynomial function to the data), and spline interpolation (using polynomial functions).

Extrapolation, on the other hand, involves estimating values beyond the range of existing data points. It assumes that the relationship between the data points continues or can be extended beyond the known range. Extrapolation can be riskier than interpolation because it relies on assumptions about how the data behaves outside the observed range, and these assumptions may not always hold true.

Key characteristics of extrapolation:

- It is used to estimate values beyond the range of existing data.
- It assumes that the relationship observed in the data extends or holds true outside the known range.
- Extrapolation can be less reliable than interpolation, especially when the data does not follow a simple and predictable pattern.

In summary, the main difference between interpolation and extrapolation lies in their respective purposes and the range of data they deal with. Interpolation estimates values within the known data range, assuming a continuous relationship, while extrapolation estimates values beyond the known data range, making assumptions about the continuation of that relationship. When using either method, it's crucial to consider the reliability of the underlying assumptions and the potential for error, especially with extrapolation, which can be more uncertain when applied to situations with complex and unpredictable data patterns. Therefore, extrapolation is more reliable when the continuity of the hydrostratigraphy, hydrogeology and brine chemistry support a well-mixed system with appropriate consideration of any “hard” boundaries such as basin bounding faults, for example.

The resource calculation uses both interpolation and extrapolation within defined protocols that restrict uncertainty in the resource estimation. A measured resource component has the expectation of a high degree of certainty and hence a high degree of interpolation is required. By contrast, an inferred resource component has an accepted degree of uncertainty but not without good reason. The protocols used at Kachi are based on guideline recommendations (Houston et all 2012), however the continuity of the resource allows these to be applied confidently. Figure 8-11 shows the area where existing drill hole data is contained, and Table 8-6 provides proportional a breakdown of interpolated and extrapolated resources in the estimate. Figure 8-12 shows a graphical representation for proportion of Extrapolated resource by resource category and proportion of interpolated vs extrapolation for each resource category.

The Measured Resource component is approximately 78% interpolated, with most of the resource encompassed by the distal drillholes such as K21, K22, K23, K06 and the Xanthippe bore (Figure 8-9), all of which are included within the geologic block model governing geostatistics. Given the ubiquitous nature of the brine body and the brine chemistry (Figure 8-7), hydrostratigraphy and hydraulic connectivity, interpolation between these points provide high confidence that this portion of the Measured Resource area presented is conservative. The small, extrapolated portion of the Measured Resource within the accepted 2.5 km radius and between drillholes and the basin bounding mountain block, where additional drilling would be challenging. Again, with the consistent nature of the brine chemistry and aquifer physical properties, there is a high degree of confidence that the resource is consistent.

Below the Measured Resource base of 400 m, a block of Indicated Resource has been defined to a depth of 600 bgs, based on the deeper drilling at K22, K23 and more recently K24, to depths in excess of 600 m bgs. While the lateral distances between these locations are slightly beyond the distance used to defined Inferred

Resource at the Project in previous assessments, both the raw data and resource block model show lateral and vertical consistency, with the resource immediately overlying having a dense borehole spacing. Also, within the 400 m to 600 m depth interval, extending laterally from deep boreholes K21, K22 and K23, inferred resource extends to a distance of 5 km.

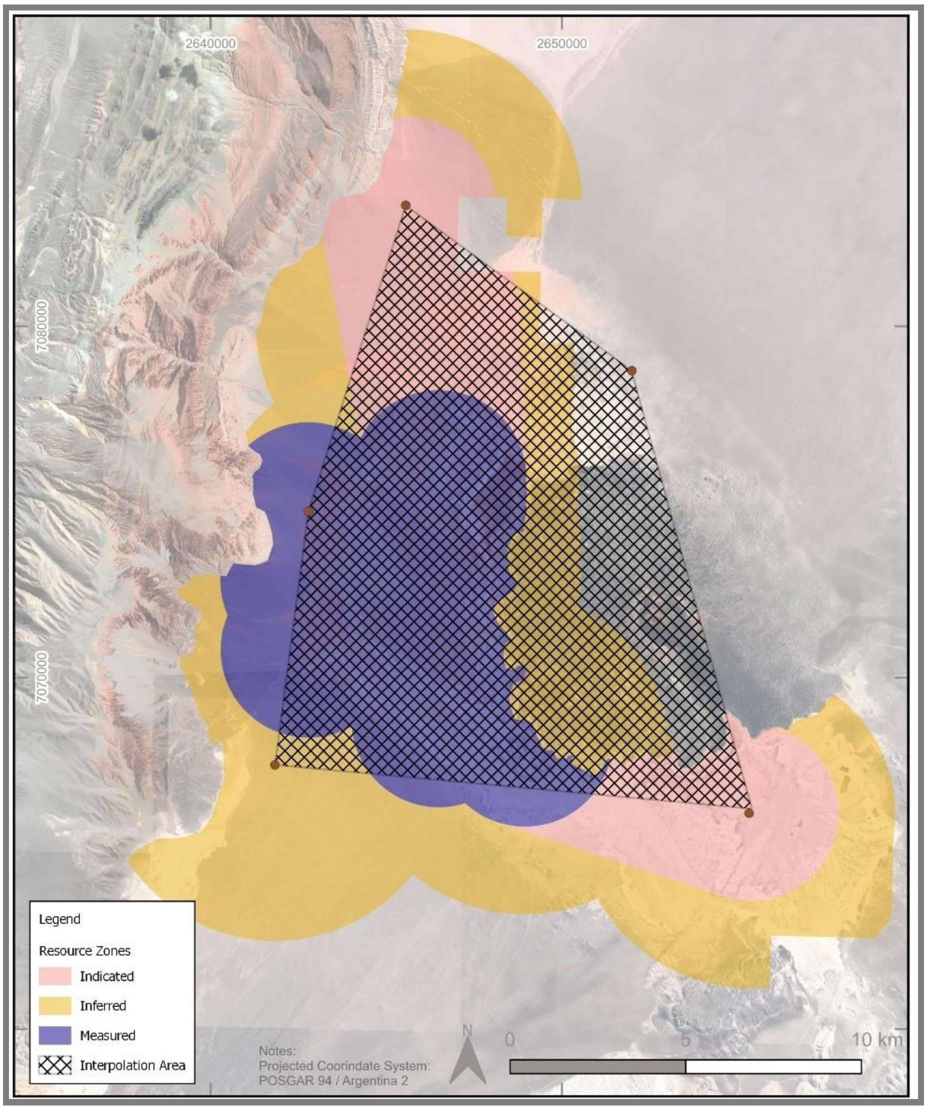


Figure 8-11: Resources with interpolation area

Table 8-6: Interpolated vs Extrapolated Resource

Mineral Resource Category	Total Resource Estimate (LCE)	Interpolated Fraction (% / LCE)	Extrapolated Fraction (% / LCE)
Measured	3,035,000	78	22
Indicated	4,258,000	58	42
Inferred	3,352,000	18	82

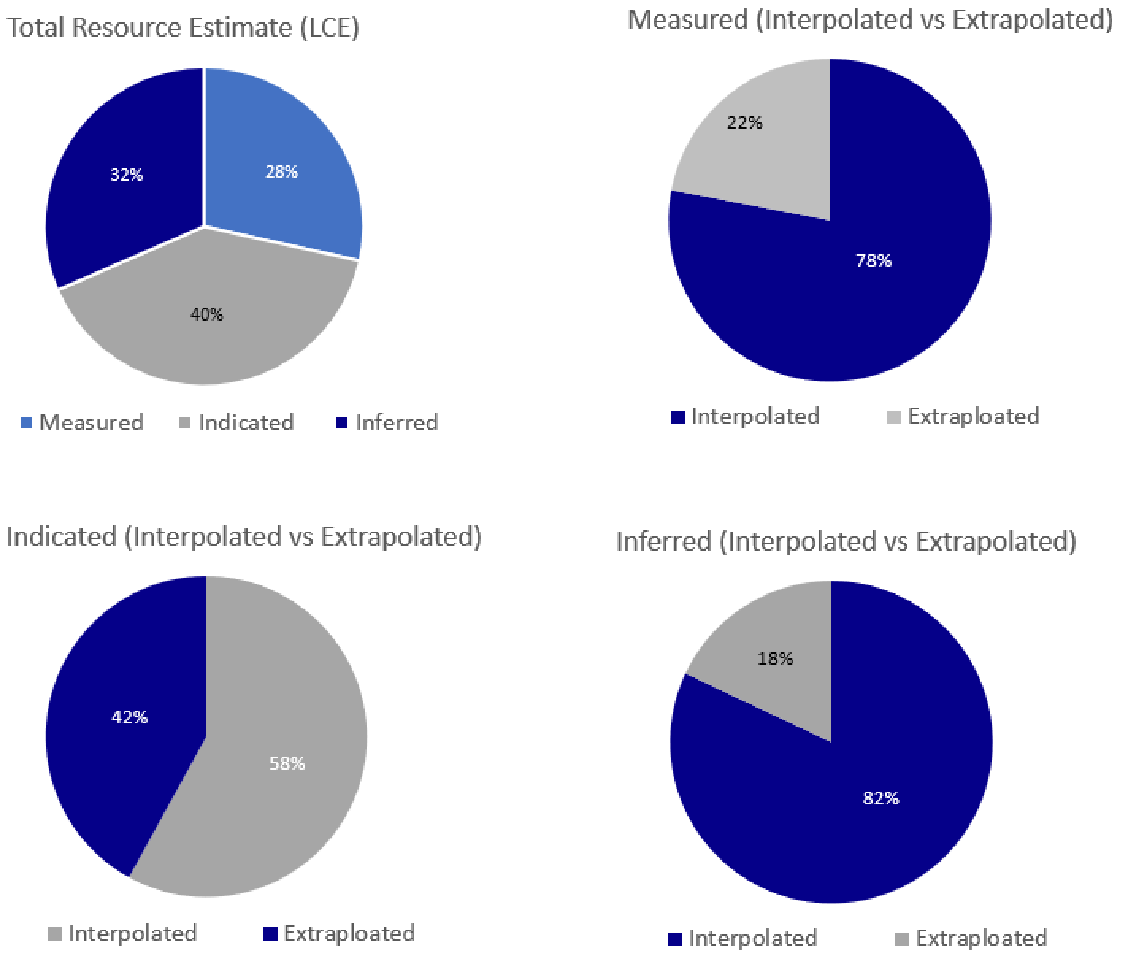


Figure 8-12: Proportion of Extrapolated Resource by Resource Category and Proportion of Interpolated vs Extrapolated for Resource Components

8.7 Exploration Targets

The resource is open laterally to the north and south and also at depth. TEM results (June 2023 Resource update) have previously indicated that there are highly conductive brines beneath the rocks of the extinct Carachi Pampa volcano and the resource also extends further eastward. The volcano is interpreted to have a mushroom-like geometry forming a veneer overlying basin sediment outside of a central core.

The TEM geophysical survey better defined the distribution of brine away from the central salar area. This highlighted the probability of defining additional resources north and south of the current resources, within the large conductive zone that encompasses the salar and current resources. Although the TEM does not confidently define the bottom of the conductive unit it suggests that brine probably extends to the base of the basin, with substantial potential to define additional resources in deeper drilling (Figure 8-13). Table 8-7 provides a range of grades and tonnages for the exploration target which has been based on known intersection of the TEM data set within the resource area presented above and an assessed conservative range of specific yield in comparison to drill hole information from areas underlying alluvial fan.

. Table 4 provides a range of grades and tonnages for the exploration target based on known intersection of the TEM data set within the resource area presented above and an assessed conservative range of specific yield in comparison to drill hole information from the fan areas.

Recent analytical chemistry results from drilling at Platforms K21 and K23 has substantiated the TEM results observed basin wide.

The exploration target has been reconfigured and is divided into components which include:

- Under the indicated resource within the central resource area from 600 m to basement
- Under the inferred resource defined under the basalt shield limited to 4 km from nearest borehole.
- Under the southern fan between 400 m depth and basement contact
- Under western and northern fan between 600 m depth and basement contact
- In area outside the resources inside the properties (out of reserve and southern PP) from top of conductive unit to basement contact.

Figure 8-13 shows exploration target areas which includes the target area from 600 to approximately 700 m depth below measured and indicated resource. From 400 to basement outside of the inferred resource and from top of highly conductive brine signature to basement outside of 5 km radius from intersected resource.

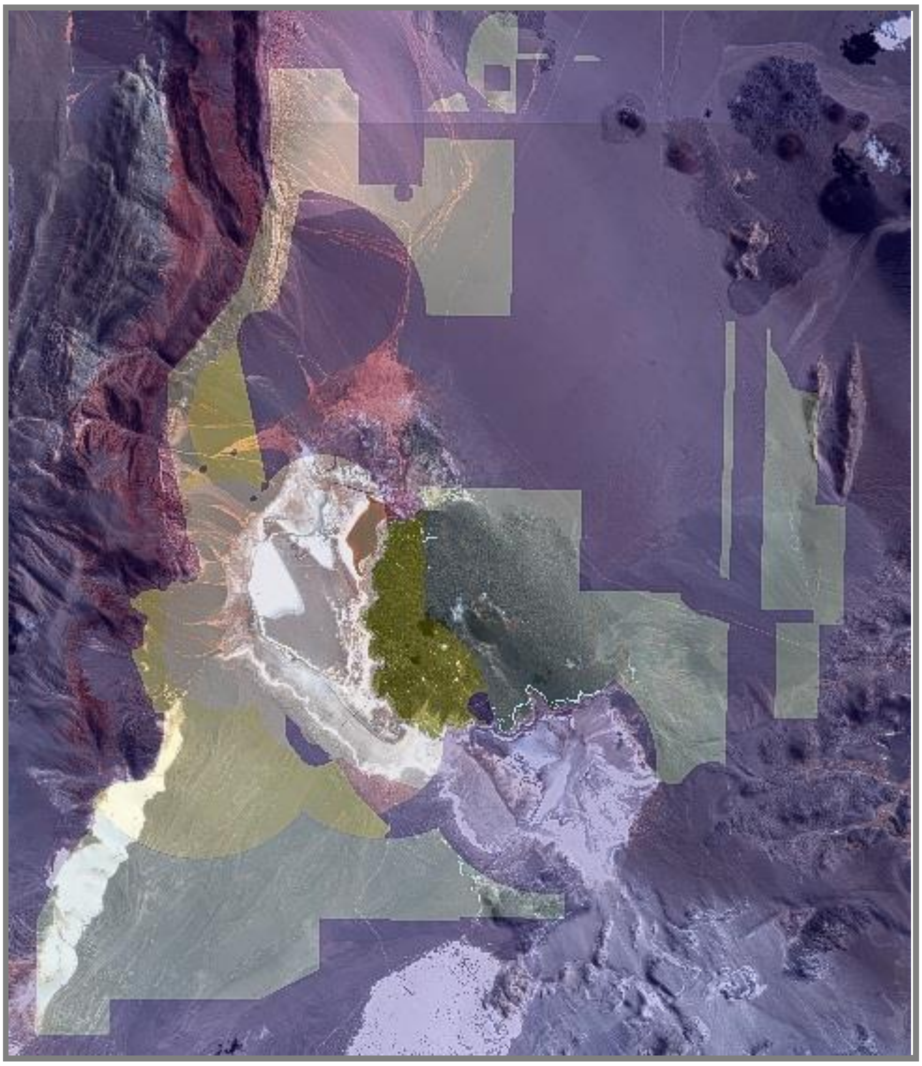


Figure 8-13: exploration target areas outside the resource area.

Future exploration drilling aims to convert at least a portion of the exploration target volume to resources. Note that insufficient exploration has been conducted to conclude with any certainty that the exploration target could be converted to resources. Drilling and testing are required to evaluate whether the exploration targets can be converted to resources, which may not be possible for different reasons. It is important to note the exploration target contains a range of possible parameters, that are considered to represent the likely range of conditions in this volume, but the results should be considered to have a high uncertainty and are not to be considered resources or to be confused with resources.

Table 8-7: Exploration target, including 600 to basement below the existing M&I resource. 400 to basement below the existing Inferred resource And extension target areas north and south of the resource from conductive surfaces to basement.

Sediment Volume m^3	Porosity	Brine volume m^3	Li mg/l	Li Tonnes	Tonnes LCE
115,488,762,000	0.120	13,858,651,440	200	2,771,730	14,745,605
115,488,762,000	0.060	6,929,325,720	100	692,933	3,686,401

Numbers may 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.

Figure 8-14: Exploration target areas. Includes target from 600 to approximately 700 m depth below existing measured and indicated resource. From 400 to approximately 700 m depth below existing inferred resource. Extension target area north and south of the resource from top of conductive layer to basement.

Figure 8-15: Exploration target areas outside resource area

9. CUT-OFF GRADE

DLE will be used to extract brine in the implementation of the Kachi project. Design limits are in final evaluation and when this is defined, the cut-off grade will be re-evaluated. However, a cut-off grade of 100 mg/l has been applied to the resource estimate.

A grade-tonnage curve has been prepared from the Leapfrog model (Figure 9-1), showing resource tonnage degradation with increasing average lithium concentration. The graph shows effectively no change in tonnage below an average grade of 150 mg/l concentration for lithium (i.e., less than 0.1%).

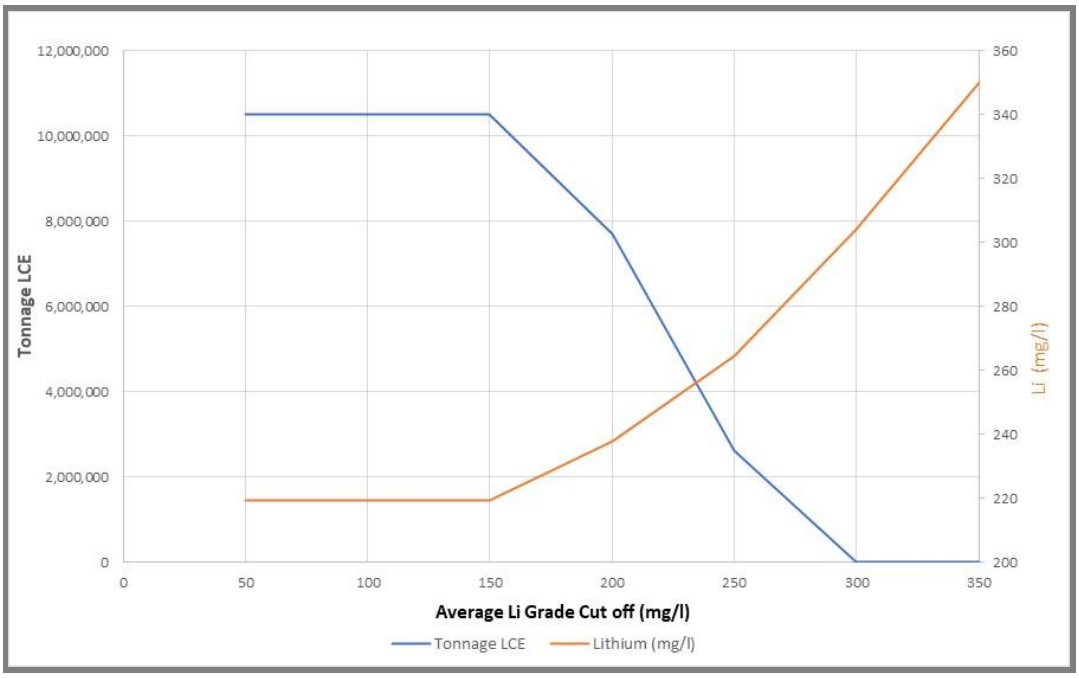


Figure 9-1: Grade Tonnage Curve for Total Kachi Resource

This reflects the large homogeneous nature of the brine mineralisation, with almost all assay results to date exceeding 100 mg/l. This cut-off grade takes into account the current economic considerations related to brine processing.

The bulk of mineralisation that is likely to be exploited is hosted in the mineral resource is within the salar and immediate surroundings which does not underlie areas of brackish water that could eventually affect extraction even though this occurs sub regionally.

The affected of variable cut off grades applied is represented in Figure 9-2 with degradation of block model cells at cut off grades of 100, 200, 250 and 300 mg/l lithium respectively.

The resource is extremely homogeneous in grade and the average concentration is well accepted as ideal for direct lithium extraction (DLE) process limits. The resource has also been shown to be extensive and this is reflective in the relatively small impact under 200 mg/l lithium in Figure 9-2.

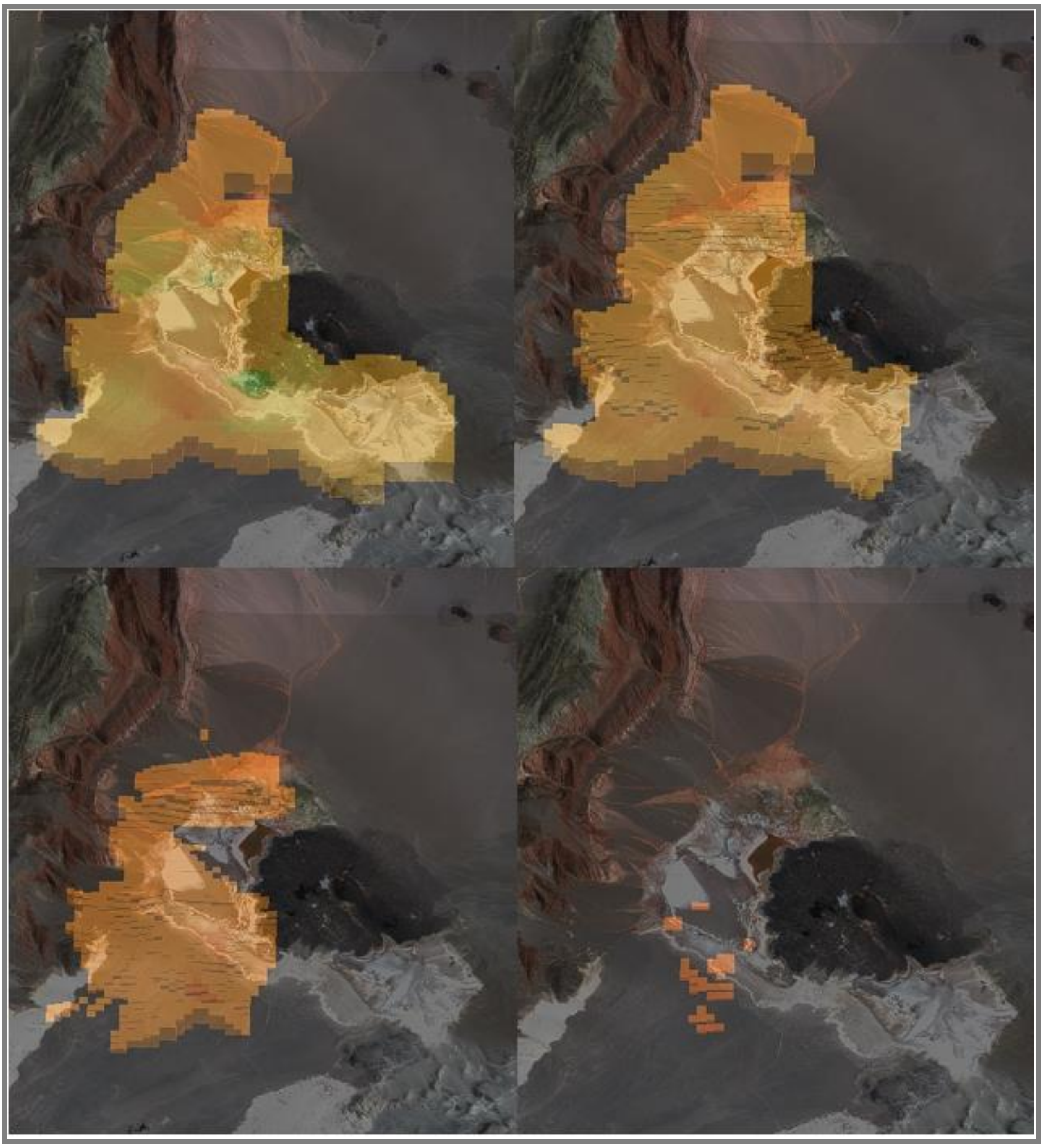


Figure 9-2: Block model degradation with increasing cut of grade

The cut-off grade is set by comparing the increased wellfield development, production and maintenance costs against the November 2023 spot market price of >$20,000 / ton LCE. It is anticipated that the cut-off grade will be revised downwards in the future.

The price estimate for Lithium Carbonate is from information provided by industry consultants based on their extensive experience within the lithium market, and by pricing service providers. The actual prices which to be negotiated by Lake Resources will be based on market prices.

The Qualified person understands the lithium market is predicted to have a shortage of supply in the near term, which will support higher than inflation adjusted historical prices.

10. POWER

The Kachi Project requires approximately 60 MW of power to support production of 25,000 TPA of lithium. The Project is located 250-300 km from the nearest power grid connection. A recently completed feasibility study has determined that the best option to support the power requirement is a 280 km high voltage line from La Puna southwards alongside existing highways to Kachi. Preliminary cost estimates prepared as part of the feasibility study indicate that power can be delivered for a cost that is economic. Lake has had discussions with a number of companies interested in constructing the high voltage line and providing power to Kachi under a Power Purchase Agreement (PPA).

We will also install a hybrid Power Island, consisting of a 25 MW solar park, batteries, and diesel generators. This Power Island will be used initially to support commissioning of the commercial plant prior to the availability of the high voltage power line. The solar park will be available for the life of the Project to reduce grid power requirements. The diesel generators will be kept as a cold reserve to serve as emergency power should that ever be required.

11. MINING AND METALLURGY

Lithium brine will be extracted from the saturated sediments using vertical wells, initially focused on the central resource area. These wells will be at least 400 m deep with screens on the order of 200 m. After brine processing, the spent brine, which has about 20-percent of the original lithium content and 90-percent of the total dissolved solids remaining, will be injected back into the subsurface via injection wells and/or potentially rapid infiltration basins.

The current plan includes a plant and related infrastructure capable of producing 25,000 tpa of battery grade lithium carbonate from the lithium chloride brine resource.

The feed is extracted and pumped from the brine extraction wells to the Brine Feed Pond, which provides surge volume between extraction wells and the main processing plant. The brine is pH-adjusted to precipitate iron and then fed to a filtration system to remove suspended solids. The filtered brine is then processed in the direct extraction package, which recovers and concentrates lithium to the eluate stream. The direct lithium extraction (DLE) step employs a novel ion-exchange media and system developed by Lilac Solutions to extract lithium from the brine and elute is sent as waste for reverse osmosis (RO) treatment and then brine reinjection.

The eluate stream is then concentrated through reverse osmosis. The concentrated eluate is treated for impurities by the stage-wise addition of lime and sodium carbonate, with the solid precipitates separated by filtration. Impurity removal is followed by evaporation using mechanical vapour recompression (MVR) technology, making it suitable for further processing into lithium carbonate and recovering water (as RO permeate and evaporator condensate) for recycling. Further trace impurities are removed by ion

exchange to target battery-grade product specifications. Lithium carbonate is precipitated from the purified stream by addition of sodium carbonate, the primary reagent input for the process.

The precipitated lithium carbonate is washed through two stages of centrifuging and a stage of repulp washing to achieve the final product purity required. This product is dried and packaged for sale. A recirculation stream from lithium carbonate precipitation, which contains a considerable residual amount of soluble lithium chloride, is fed to a crystallization system for additional lithium recovery, condensate water recovery, and the production of a concentrated sodium chloride brine feed for the chlor-alkali plant. This chlor-alkali plant electrochemically converts sodium chloride from the concentrated brine into hydrochloric acid and sodium hydroxide reagents to meet the demands of the process.

Based on the material presented in this update and the detailed report (Attachment A) and previous JORC reports for the Project, the multi-disciplinary team that includes geologists, hydrogeologists, and chemical and civil engineers with relevant experience in brine geology/hydrogeology, direct lithium extraction technologies, are in collective agreement that the project exceeds the reasonable prospects criteria for economic extraction of lithium from the brine.

12. ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG)

Salt lakes/salars are a form of wetland, which are inhospitable to all except adapted flora and fauna and which have been successfully developed as lithium operations coexisting with the native flora and fauna in both Argentina and Chile. Argentina is signatory to the Ramsar Convention under the auspices of UNESCO. Under the Convention on Wetlands (Ramsar, 1971). Ramsar site 1865 “Lagunas Altoandinas y Puneñas de Catamarca” Figure 12-1) was established in February 2009 under an agreement between the Ramsar Convention Organization and the government of Argentina, represented by the Environmental Secretariat of the Catamarca Province. The provincial government in 2021 approved lithium extraction and mine development at the nearby Tres Quebradas lithium brine Project, located in a similar wetland zone to the Lake Kachi Project.

The Kachi Project environmental area is concluding a socio-environmental baseline study with two years of sampling that included all biophysical components in the environmental area of influence of the project in the Carachi Pampa basin. A specific study has been carried out to project climate change in the period up to 2050. A thorough biodiversity and ecosystem services baseline has been compiled, covering the desert and salt flat with emphasis on the wetlands and lake close to the Carachi Pampa volcano. Special emphasis has been placed on migratory wetland birds given the localization of the project within a Ramsar site. There are national and provincial protected areas some distance from the production project, which may be affected by external infrastructure and logistics activities. Environmental and social management plans and procedures have been developed for minimizing risks in all sensitive areas. Cultural heritage, paleontological and landscape assessments complete the baseline which has been designed in line with the requirements of the Equator Principles.

A social baseline has been constructed from surveys of land use, communities and public perceptions in nearby El Peñon and Carachi Pampa Community, supported by two field surveys with numerous interviews and three community consultation meetings. The recently self-declared, Carachi Pampa indigenous community consists of a single extended family that obtains its livelihood in part from the Carachi Pampa wetland, and particular care has been taken to understand their interests and dependencies. A study of the foraging capacity of the wetlands has identified a degree of over-grazing on the wetlands with consequential impacts to these areas.

The environmental management system will address fresh water and brine management, energy efficiency, alternative energies, and reduction of the environmental footprint associated with the innovative process of ion-exchange lithium recovery. The process will not produce effluent discharges and will have measured airborne emissions of gases and particulate matter within national standards. Hazardous materials and solid wastes will be managed according to good international industry practices (GIIP in the IFC terminology).

A permitting plan has been developed, with emphasis initially on the Environmental Impact Assessment (EIA) which must be subject to public comment and evaluated by the provincial mining authority leading to an Environmental Impact Declaration (EID) resolution. Approval of this permit will enable the evaluation of the sectoral permits required for the construction and operation of the enterprise.

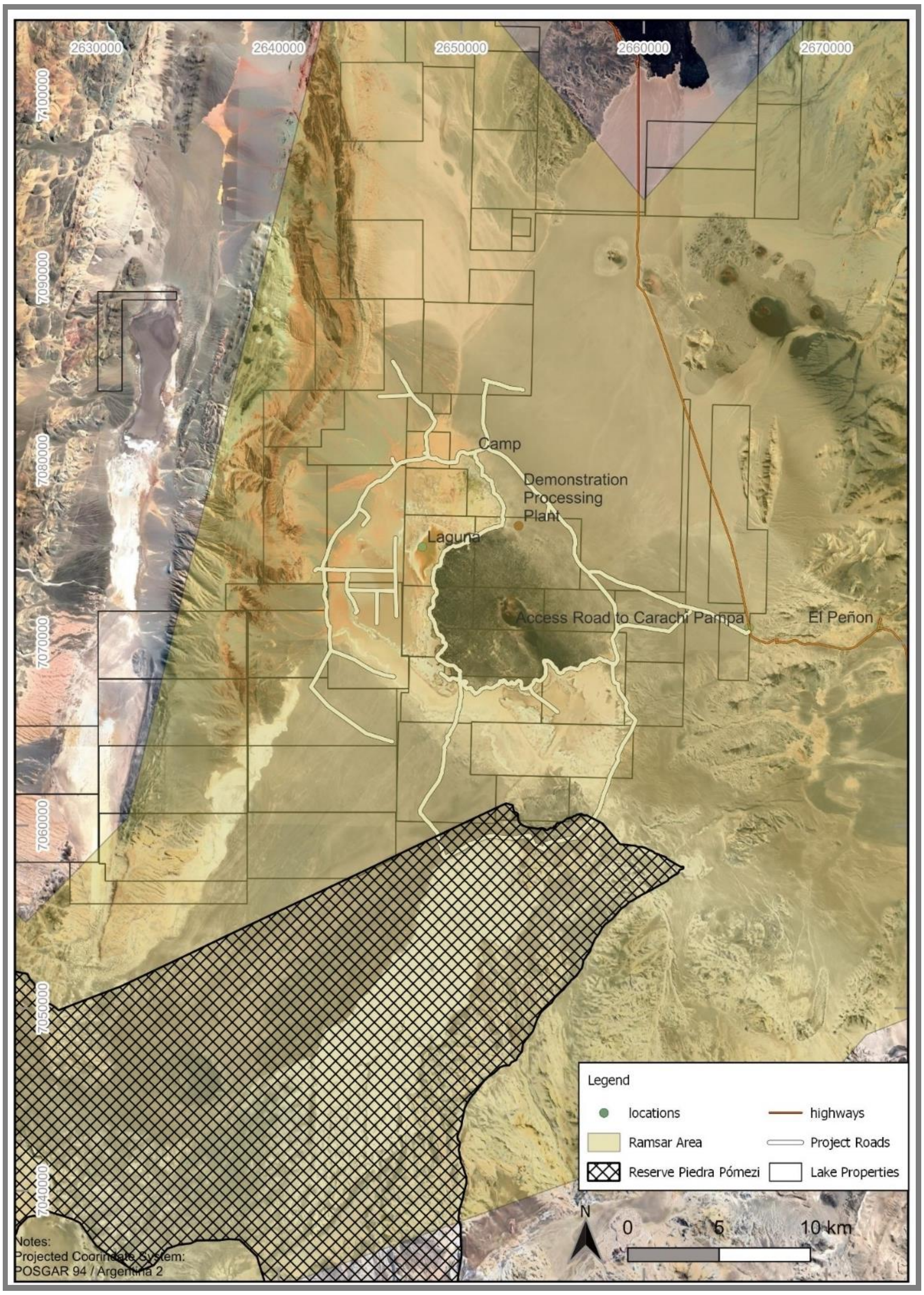


Figure 12-1: Protection Areas

13. REFERENCES

Association of Mining and Exploration Companies. 2020. Guidelines for Resource and Reserve Estimation for Brines.

Atacama Water Consultants. 2022. *Technical Memorandum – Kachi Project – Soil Evaporation Measurements, Wet Season 2022*. 5th April 2022.

Báez et al. 2015. *Estratigrafia y Evolucion del Complejo Volcanico Cerro Blanco Puna Austral Argentina*.

Flint, L.E. and Flint, A.L. (2002). Porosity. *In: Methods of Soil Analysis, John Wiley & Sons Ltd., Hoboken, 241-254.*

GeoSystems Analysis. 2023. *Brine Release and Physical Property Testing for Kachi Lithium Project (Final Report)*. November 2023. Prepared for Lake Resources LLC.

Houston, J., Butcher, A., Ehren, P., Evans, K., & Godfrey, L. 2011. *The Evaluation of Brine Prospects and the Requirement for Modifications to Filing Standards*. Economic Geology, 106(7), 1225–1239.

Lake Resources. 2023 (11 January). *Kachi M&I Resource Doubled to 2.2 Million Tonnes Lithium Carbonate Equivalent with 3.1 Million Tonnes Inferred Resource (ASX and OTC Announcement)*.

Lake Resources. 2023 (15 June). *Lake Resources Provides JORC Update on its Flagship Kachi Project (ASX and OTC Announcement)*.

Lake Resources. 2023 (08 August). *Lake Resources Completes Intermediate Milestone to Achieve DFS with Successful Extraction and Injection Tests at its Flagship Kachi Project (ASX and OTC Announcement)*.

Lake Resources. 2023 (22 August). *Further Drilling at Flagship Kachi Project Reveals Large Lateral and Vertical Expansion of Lithium-Bearing Brine (ASX and OTC Announcement)*.

Lake Resources. 2023 (04 October). *Further Drilling at Flagship Kachi Project Reveals Higher Lithium Grades and Large Vertical Extension of Lithium-Bearing Brine (ASX and OTC Announcement)*.

Lithium Solutions. 2023. *Hydrophysical Water Budget Assessment and Hydrogeochemical and Isotopic Tracing of Water Source and Transit in Carachi Pampa Basin, Argentina (Technical Memorandum)*.

NRG. 2016. *Technical Report on The Carachi Pampa Lithium Project Catamarca Province, Argentina (now Xantippe)*. https://panorama-minero.com/noticias/nrg-metals-y-la-actualidad-exploratoria-en-salar-escondido/.

Quantec, 2023. *Report for a Transient Electromagnetic (TEM) Survey over the Kachi Project (Catamarca, Argentina)*

Resource Potentials, 2018. *HVSR passive seismic survey data QA/QC, processing and preliminary results for the Kachi, lithium brine project, Argentina*

Valdez, S., A. Orce Schwarz, and M. Thames Cantolla. 2023. *Empirical Models to Determine Ions Concentrations in Lithium Brines with High Ionic Strength*. Results in Engineering, V 18, p 10 p.

APPENDIX A

Table 1: Porosity testing results

Hole_ID	From	To	Total Porosity	Yield 120 mbar	Specific Yield
K01D01	0.42	0.57	0.32	0.27	0.28
K01D01	6.47	6.62	0.43	0.27	0.30
K01D01	13.9	14.05	0.60	0.09	0.15
K01D01	23	23.15	0.39	0.26	0.29
K01D01	30.75	30.8	0.38	0.06	0.09
K01D01	57.17	57.32	0.53	0.07	0.08
K01D01	63.15	63.3	0.33	0.25	0.26
K01D01	67.8	67.95	0.44	0.33	0.36
K03D02	0.55	0.7	0.23	0.21	0.22
K03D02	15.1	15.25	0.49	0.12	0.19
K03D02	20.27	20.42	0.51	0.08	0.12
K03D02	22.9	23.05	0.46	0.05	0.06
K03D02	28.75	28.9	0.32	0.25	0.26
K03D02	30.75	30.9	0.39	0.01	0.03
K03D02	42.4	42.55	0.48	0.07	0.08
K03D02	47	47.15	0.37	0.02	0.03
K03D02	50.5	50.65	0.53	0.06	0.06
K03D02	65.75	65.9	0.53	0.01	0.02
K03D02	70.15	70.3	0.37	0.03	0.06
K03D02	75.3	75.45	0.56	0.06	0.07
K03D02	78.5	78.65	0.32	0.05	0.07
K03D02	86.01	86.16	0.37	0.02	0.04
K03D02	88.3	88.45	0.56	0.06	0.07
K03D02	101.2	101.35	0.53	0.03	0.03
K03D02	113.91	114.06	0.26	0.06	0.08
K03D02	132.51	132.66	0.32	0.02	0.06
K03D02	134.38	134.54	0.43	0.00	0.02
K05D11	194.68	194.83	0.46	0.05	0.06
K05D11	199.5	199.65	0.35	0.21	0.24
K05D11	203.04	203.19	0.42	0.00	0.00
K05D11	205.77	205.92	0.35	0.21	0.25
K05D11	209.75	209.9	0.39	0.15	0.19
K05D11	211.85	212	0.36	0.16	0.19
K05D11	215.8	215.95	0.33	0.21	0.25
K05D11	222.29	222.44	0.39	0.08	0.10
K05D11	224.52	224.67	0.40	0.04	0.05
K05D11	226.81	226.96	0.41	0.00	0.04
K05D11	249.2	249.35	0.33	0.01	0.02
K05D11	254.05	254.2	0.43	0.04	0.06
K05D11	254.4	254.55	0.44	0.03	0.05
K05D11	259.14	259.29	0.31	0.15	0.18
K05D11	262.47	262.62	0.35	0.26	0.28
K05D11	264.73	264.88	0.37	0.13	0.16
K06D04	8.15	8.3	0.38	0.25	0.28
K06D04	15.65	15.8	0.42	0.08	0.11
K06D04	27.78	27.93	0.18	0.04	0.05
K06D04	43.81	43.96	0.26	0.01	0.06
K06D04	52.4	52.55	0.35	0.25	0.27
K06D04	66.13	66.28	0.42	0.30	0.31
K06D04	70	70.15	0.37	0.25	0.26
K06D04	139.43	139.58	0.28	0.02	0.05
K06D04	228.98	229.13	0.29	0.05	0.06
K06D04	233.35	233.5	0.33	0.22	0.24
K06D04	328	328.15	0.27	0.17	0.19
K06D04	345.63	345.7	0.07	0.02	0.04
K06D04	348.54	349	0.16	0.07	0.07
K06D04	369.44	369.6	0.15	0.03	0.06
K06D04	384.41	384.58	0.13	0.00	0.04
K11D20	20.35	20.5	0.29	0.05	0.07
K11D20	22.12	22.27	0.36	0.16	0.19
K11D20	38.35	38.5	0.35	0.23	0.27
K11D20	53.15	53.3	0.36	0.15	0.19

Hole_ID	From	To	Total Porosity	Yield 120 mbar	Specific Yield
K11D20	56.75	56.9	0.14	0.03	0.05
K11D20	59.7	59.85	0.36	0.09	0.12
K11D20	68.55	68.7	0.39	0.22	0.27
K11D20	73.9	74.05	0.36	0.29	0.31
K11D20	78	78.15	0.41	0.04	0.08
K11D20	94.1	94.25	0.37	0.28	0.31
K11D20	95.9	96.05	0.30	0.06	0.07
K11D20	113.55	113.7	0.43	0.06	0.08
K11D20	124.6	124.75	0.46	0.03	0.14
K11D20	127.5	127.65	0.35	0.05	0.08
K11D20	137.25	137.4	0.44	0.14	0.24
K12D21	70.15	70.45	0.55	0.04	0.06
K12D21	72.16	72.46	0.51	0.00	0.01
K12D21	87.75	88	0.38	0.01	0.05
K12D21	107.5	107.8	0.38	0.09	0.15
K12D21	121	121.3	0.58	0.03	0.05
K12D21	130.7	131	0.47	0.04	0.06
K12D21	136.17	136.47	0.52	0.06	0.15
K12D21	137.61	137.91	0.48	0.00	0.02
K12D21	159.01	159.31	0.41	0.02	0.06
K12D21	166	166.3	0.36	0.17	0.23
K12D21	170.5	170.8	0.38	0.04	0.05
K12D21	177.49	177.79	0.40	0.20	0.25
K12D21	198.01	198.31	0.40	0.01	0.04
K12D21	202.6	202.9	0.37	0.11	0.18
K12D21	212.7	213	0.35	0.19	0.24
K14D23	13	13.25	0.36	0.07	0.15
K14D23	25	25.3	0.53	0.06	0.10
K14D23	26.75	27.05	0.32	0.10	0.16
K14D23	40	40.3	0.45	0.03	0.05
K14D23	44.5	44.8	0.43	0.04	0.07
K14D23	45.7	46	0.46	0.02	0.06
K14D23	50.3	50.5	0.39	0.01	0.05
K14D23	59.5	59.8	0.49	0.00	0.01
K14D23	67	67.3	0.43	0.20	0.25
K14D23	68.6	68.9	0.43	0.05	0.06
K14D23	82	82.3	0.54	0.02	0.04
K14D23	83.5	83.8	0.35	0.14	0.20
K14D23	98.2	98.5	0.37	0.03	0.05
K14D23	99.7	100.04	0.33	0.05	0.09
K14D23	112.96	113.26	0.46	0.01	0.03
K14D23	113.5	113.83	0.41	0.05	0.07
K14D23	114.4	114.7	0.32	0.12	0.17
K14D23	128.71	129.01	0.32	0.18	0.23
K14D23	130	130.3	0.35	0.10	0.17
K14D23	142	142.3	0.40	0.14	0.19
K14D23	143.5	143.8	0.38	0.22	0.27
K14D23	157	157.3	0.50	0.03	0.05
K14D23	158.5	158.8	0.35	0.23	0.27
K14D23	172.22	172.52	0.45	0.04	0.05
K14D23	175.5	175.8	0.36	0.14	0.19
K14D23	189.09	189.39	0.37	0.24	0.29
K14D23	190.44	190.74	0.33	0.16	0.21
K14D23	197.5	197.8	0.24	0.05	0.05
K14D23	200.2	200.5	0.34	0.25	0.28
K14D23	203.5	203.8	0.40	0.24	0.29
K14D23	206.7	207	0.54	0.34	0.44
K14D23	209.5	209.8	0.53	0.19	0.24
K14D23	212.7	213	0.42	0.14	0.20
K14D23	215.5	215.75	0.39	0.01	0.06
K14D23	218.5	218.63	0.47	0.32	0.36
K14D23	280	280.3	0.37	0.23	0.27
K14D23	283.1	283.32	0.34	0.06	0.12
K14D23	286	286.3	0.32	0.04	0.05
K14D23	289	289.12	0.38	0.12	0.24
K14D23	292	292.1	0.35	0.04	0.07
K14D23	295	295.15	0.44	0.07	0.11

Hole_ID	From	To	Total Porosity	Yield 120 mbar	Specific Yield
K14D23	298	298.1	0.35	0.03	0.09
K14D23	302.5	302.8	0.32	0.05	0.08
K14D23	305.5	305.7	0.29	0.03	0.07
K14D23	308.5	308.8	0.36	0.02	0.07
K14D23	311.5	311.8	0.40	0.11	0.16
K14D23	314.5	314.67	0.37	0.01	0.04
K14D23	317.5	317.8	0.35	0.05	0.08
K14D23	320.5	320.8	0.34	0.01	0.02
K14D23	326.5	326.8	0.42	0.06	0.10
K14D23	329.5	329.7	0.37	0.11	0.20
K14D23	332.5	332.7	0.27	0.04	0.09
K14D23	337.2	337.5	0.34	0.11	0.19
K14D23	340	340.3	0.36	0.17	0.24
K14D23	343.2	343.5	0.40	0.11	0.21
K14D23	346	346.25	0.33	0.05	0.08
K14D23	349	349.2	0.41	0.27	0.32
K14D23	352.15	352.45	0.34	0.12	0.16
K15D25	362.66	362.96	0.22	0.05	0.12
K15D25	379.6	379.9	0.27	0.01	0.06
K15D25	392.2	392.5	0.26	0.02	0.02
K23D40	160	160.3	0.07	0.26	0.30
K23D40	168	168.3	0.06	0.13	0.16
K23D40	181.06	181.36	0.08	0.17	0.21
K23D40	192.015	192.315	0.07	0.22	0.25
K23D40	203.62	203.92	0.07	0.25	0.28
K23D40	212.87	213.17	0.10	0.13	0.16
K23D40	226.35	226.65	0.06	0.14	0.18
K23D40	235.13	235.43	0.06	0.16	0.19
K23D40	243.62	243.92	0.04	0.21	0.23
K23D40	251.59	251.89	0.05	0.17	0.20
K23D40	269.79	270.09	0.04	0.22	0.24
K23D40	283.26	283.56	0.05	0.21	0.24
K23D40	292.36	292.56	0.08	0.16	0.20
K23D40	300.44	300.74	0.07	0.25	0.28
K23D40	319.53	319.83	0.07	0.18	0.21
K23D40	325.96	326.26	0.08	0.15	0.19
K23D40	361.33	316.63	0.09	0.12	0.16
K23D40	376.47	376.77	0.08	0.17	0.21
K24D41	74.09	74.39	0.19	0.11	0.15
K24D41	96.08	96.38	0.32	0.02	0.06
K24D41	153.2	153.5	0.34	0.01	0.02
K24D41	180.7	181	0.14	0.03	0.06
K24D41	166	166.3	0.48	0.04	0.06
K24D41	131.86	132.16	0.11	0.21	0.25
K24D41	128.12	128.42	0.15	0.08	0.11
K24D41	110	110.3	0.17	0.06	0.10
K24D41	145.11	145.41	0.38	0.02	0.03
K24D41	201.34	201.64	0.45	0.01	0.02
K24D41	216.46	216.76	0.38	0.03	0.03
K24D41	224.82	225.12	0.07	0.36	0.37
K24D41	237.61	237.91	0.24	0.09	0.13
K24D41	247.4	247.6	0.15	0.17	0.25
K24D41	256.29	256.59	0.10	0.20	0.26
K24D41	271.08	271.38	0.36	0.01	0.03
K24D41	278.1	278.4	0.26	0.05	0.07
K23D40	501.2	501.5	0.07	0.18	0.20
K24D41	304.5	304.8	0.24	0.06	0.10
K24D41	322.2	322.5	0.10	0.19	0.25
K23D40	514.85	515.15	0.07	0.24	0.26
K23D40	520.2	520.5	0.15	0.15	0.21
K24D41	335.3	335.8	0.24	0.04	0.09
K24D41	366.2	366.8	0.36	0.01	0.01
K24D41	380.5	380.8	0.43	0.01	0.04
K24D41	388.2	388.8	0.35	0.01	0.01

APPENDIX B

Table 2: Resource Drill Hole Collars

Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
K02D13	2646493	7075690	Diamond HQ	58.5	59.5	A	217	3557.5	4437.7	Drive point
				64	108	A	181.7	2884.5	3620.3	Simple packer
				138	190.5	A	144.4	1589.9	3077.9	Simple packer
				269	298.4	B	203.5	2163.1	4099.7	Simple packer
				301	31 9	C	200.4	2172.6	4182.7	Simple packer
				313	343	C	251.7	1411.2	4987.2	Simple packer
				346	388	C	206.2	1814.6	4380.9	Simple packer
K02P01	2646499	7075676	Rotary	7	10	A	93.7	1378.3	1778.3	Airlift
K02P02	2646565	7075674	Rotary	31	35	A	175.7	2525.1	3762.2	Airlift
K03R03	2644936	7073943	Rotary	213.08	236.08	B	287.5	1243.4	5880.5	Airlift
K03R12	2644942	7073926	Rotary	349.16	391.44	C	275.7	1140	5403.6	Pumping test
				13	16	A	200.7	3854.5	4320.7	Airlift
K04P01	2646565	7071419	Rotary	16	28	A	198.6	4169.7	4144.7	Airlift
				30	35	A	183.9	3127	4212	Airlift
				31	34	A	184.9	3154.2	4329.1	Airlift
K04R15	2646513	7071387	Rotary	295	343	C	242.2	1240.7	5336.8	Pumping test
K05D09	2648943	706827	Diamond HQ	61	62	A	76.6	1202.6	1257.1	Drive point
				107.5	108.5	A	213.1	1301.1	4163.5	Drive point
				156	157.5	A	95.2	1460	1926	Artesian
				188	190	B	215.3	919	3596	Double packer
				200	201	B	204	919.7	3669.5	Double packer
				242	243	C	176	889.6	3115.8	Double packer
K05D11	2648950	7068270	Diamond HQ	288	289	C	142.9	1088	2251	Artesian
				299	300.5	C	116.3	1035	1782	Artesian
				291	334.5	C	286.4	1164	4084	Simple packer
K06D04	2655328	7066144	Diamond HQ	95	113	A	187	879.1	3294.2	Airlift
				69	70	A	187.6	999.4	3241	Drive point
				120	121	A	181.9	933.4	3301	Drive point
				165	166	A	170	880	3650	Drive point
				205	206	B	164	891	3575	Drive point
K06D08	2655338	7066149	Diamond HQ	258	259	C	189	962	4120	Drive point
				354	405	R	161.5	911	3415	Simple packer
K06R10	2655398	7066156	Rotary	150	173.5	B	191.9	1119	3420.8	Artesian

Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
K08R14	2644275	7071546		300	360	C	326.5	1231.9	6038.5	Airlift
K08P01	2644254	7071571	Rotary	40	43	A	181.4	2385.4	3836.9	Airlift
				41.5	47.5	A	175.6	2193.9	3514	Airlift
K08P02	2644261	7071562	Rotary	7	10	A	185.1	4352.6	3545.4	Airlift
K08R17	2644263	7071556	Rotary	141.33	195.33	A	224.2	3818.9	4738.2	Pumping test
				83	130	A	187.8	2651.2	4039.8	Simple packer
				117	165	A	215.9	1838.2	4840.5	Simple packer
				214	215	B	211.8	1571	4693.6	Double packer
				248	325	B	190.1	2677.4	4394.9	Simple packer
				356	357	C	218.4	1148.7	4486.3	Double packer
K11D20	2646488	7073873	Diamond HQ	364	380	C	222.3	831.7	4525.7	Airlift
				377	400	C	197.9	1004.7	4244.4	Simple packer
				10	13	A	181.5	2896.9	4242.6	Airlift
				25	28	A	174.8	2434.7	3790.7	Airlift
K11P01	2646522	7073067	Rotary	31	34	A	183.6	2736.5	4202.5	Airlift
K11R29	2646548	7073949	Rotary	200	255	B	287.25	1653.5	5426.25	Pumping test
				13	16	A	150.8	2520.1	3781.6	Airlift
K12P01	2646522	7072770	Rotary	25	28	A	178.4	2918.1	4338.2	Airlift
				26.15	29.1	A	173.65	2636	3896	Airlift
				55	73	A	176.6	2641.9	3863.1	Bailer
				73	84	A	168.2	2584.8	3741.7	Bailer
				94	109	A	219.2	1508.6	4254.9	Bailer
				109	124	A	172.4	2329.9	3912.6	Bailer
				124	139	A	224.5	1418.1	4721.8	Bailer
				144	154	A	223.2	1486.2	4579.6	Bailer
				156	169	A	232.2	1347.4	4827	Bailer
K12D21	2646520	7072801	Diamond HQ	171	184	A	233.5	1353	4992	Bailer
				195	199	B	223.6	1383.6	4521.1	Bailer
				202	211	C	221.2	1408.5	4036.4	Airlift
				7	16	A	167.6	3135.4	3373.7	Bailer
				15	28	A	177.2	2747.7	3739.8	Airlift
				31	40	A	153.9	2687.3	3578.5	Bailer
				43	46	A	152.1	2683.2	3462.5	Bailer
				46	55	A	139.8	2630.5	3333.7	Airlift
				66	75	A	145.4	2004.6	4525.9	Bailer
				75	86.5	A	227.5	1923.7	4796.9	Bailer
				87	100	A	247.7	2230	4731.1	Bailer
				100	115	A	266.5	2191.2	4737.7	Bailer

Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
K14D23	2644072	7072780	Diamond HQ	115	130	A	249.6	2722.3	4884.8	Bailer
				130	145	A	217.8	2087.3	4110.3	Bailer
				159	175	A	217.7	1196.7	4448.9	Bailer
				250	295	B	294.1	1695.1	5472.9	Airlift
K14D24	2644050	7072783	Diamond HQ	70.3	71.3	A	231.4	2273.8	4624.7	Double packer
				88.3	89.3	A	208	2773.6	3796.7	Double packer
				124.3	125.3	A	249.3	2507.4	4284.5	Double packer
				145.3	146.3	A	195.4	2212.8	3917.4	Double packer
				181	182	A	254.4	1414.1	4711.7	Double packer
				221	222	B	277.5	1302.1	5254.5	Double packer
				273	274	B	312.5	1365.9	6192.3	Double packer
				330	331	C	281.1	988.2	4995.6	Double packer
				364	365	C	280.4	864.9	4861.8	Double packer
				396.3	397.3	C	201	1839.1	4241.8	Double packer
				301	372.5	C	300.75	955.75	4965.75	Pumping test
K14R37	2644113	7072780	Rotary	350	377	C	325	1022.5	5446	Airlift
K14P01	2644059	7072767	Rotary	31.9	35.86	A	200.6	2764.2	3806.4	Airlift
K15D25	2645438	7072482	Diamond HQ	175	176	A	230.5	2115.5	5500.2	Double packer
				199	200	B	241.6	1563.8	5777.2	Double packer
				267	268	B	283.5	2047.6	5313.2	Double packer
				280	281	B	322.8	1421.1	5459.7	Double packer
				301	302	C	323.1	1230	5480	Double packer
				358	359.5	C	287.4	946.2	4981.8	Double packer
				374.5	405	C	230.4	1047.7	4591.3	Simple packer
K15P01	2645434	7072497	Rotary	30.9	33.9	A	164.4	2268.5	3744.2	Airlift
K15R36	2645456	7072403	Rotary	350	400.5	C	306.78	677.08	5075.6	Pumping test
K16D28	2645457	7070992	Diamond HQ	56.3	57.3	A	231.9	2562	4425	Double packer
				82.3	83.3	A	211.8581	2564.5	4404	Double packer
				121.3	122.3	A	207.1639	2337	4353	Double packer
				166.3	167.3	A	207.7051	2545.5	4426	Double packer
				208.3	209.3	B	223.25	2488	4543	Double packer
				221.3	222.3	B	300.08	1469	6085	Double packer
				265.3	266.3	B	204.2701	2459.5	4376	Double packer
				322.3	323.3	C	295.5663	1166	5361	Double packer
				377.3	378.3	C	260.2421	855	4720	Double packer

Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
				387.3	388	C	265.6143	886.5	4821	Double packer
K18D32	2642714	7071991	Diamond HQ	73	74	A	221	3506	4150	Double packer
				124	125	A	218	3456	4239	Double packer
				167.5	169.5	A	219	3424	4163	Double packer
				193	195	A	215.5	3360	4220.5	Double packer
				298	300	B	231	1749.5	4364	Double packer
				323	325	C	254	1514	4613.5	Double packer
				362	364	C	333	950	5542	Double packer
				397	399	C	241	1464.5	4460	Double packer
				382	383	C	251.5	1535.5	4314.5	Double packer
K18P01	2642767	7072787	Diamond HQ	31	37	A	203	3163	3984.66	Airlift
K19R33	2642787	7070796	Diamond HQ	58	59	A	216	3922	4154	Double packer
				112	114	A	197	3266	3866	Double packer
				202	203	A	162	2461	3186	Double packer
				323	324	C	171.5	20.4	3081.5	Double packer
				373	374	C	218	1286	4251	Double packer
K20R35	2642787	7074735	Diamond HQ	43	45	A	133	2251	2368	Double packer
				67	69	A	137	2260	2377	Double packer
				86	88	A	161	2836	2800	Double packer
				124	126	A	171	2926	3406	Double packer
				178	180	A	187	2607.5	4278.5	Double packer
				277	279	C	204	2198	3808.5	Double packer
				361	363	C	266.5	708	4893	Double packer
				393	411	C	273	781	4814	Double packer
				205	217	B	196.5	2253	3596	Airlift
K21D38	2641814	7067547	Diamond HQ	175	177	A	155	1490	3102	Double packer
				202	204	A	155.5	1629	3006	Double packer
				295	430	C	176.6	1758.33	3676	Simple packer
				395	407	C	229	1426	4911	Airlift
K22R39	2646322.9	7080044.1	Diamond HQ	350	424	C	253	1126	4365	Simple packer
				385	403	C	271	1140	4650	Airlift
K23D40	2645574	7083439	Diamond HQ	288	322	C	254	1011.5	4601	Simple packer
				350	360	C	213	893	4150	Simple packer
				360	390	C	210	922.5	4116.5	Simple packer

Hole id	Easting	Northing	Drilling Method	From	To	Resource Unit	Li (mg/l)	Mg (mg/l)	K (mg/l)	Sample Type
				409	420	D	228	1053.5	3817	Simple packer
				436	445	D	243	944	4401	Simple packer
				461	470.5	D	240	947.5	4456	Simple packer
				485	496	D	241	962	4478	Simple packer
				521	530.5	D	229	901	4116.5	Simple packer
				538	550	D	235	937.5	4282	Simple packer
				566	575.5	D	229	917.5	4233.5	Simple packer
				587	601	D	224	911	4146.5	Simple packer
				602	610	D	209	907.5	3893.5	Simple packer
				371.96	383.76	C	212	982.5	4280.5	Airlift
K24D41	2646495	7068815	Diamond HQ	166	175	A	271	895	6259	Simple packer
				191	200	A	266	941.5	6762.5	Simple packer
				215	226	B	309.5	1165.5	6750.5	Simple packer
				242	250	B	348	1170.5	6803	Simple packer
				265	277	B	346	710.5	5738	Simple packer
				289	300	C	278.5	718	4864	Simple packer
				315	325	C	269	680	4884.5	Simple packer
				341	350	C	260.5	606.5	4844.5	Simple packer
				379	391	C	273	654	4835.5	Simple packer
				389	400	C	276	595	4801.5	Simple packer
				415	426	D	325	566	4939	Simple packer
				440	450	D	275	568.5	4718.5	Simple packer
				466	475	D	237	835	4483	Simple packer
				490	500	D	231	811.5	4496.5	Simple packer
				518	526	D	217.5	806.5	4679	Simple packer
				539	550	D	205	812	4419	Simple packer
				565	575	D	234.5	813	4610.5	Simple packer
				599	610	D	211.5	957	4427	Simple packer
				395	410	C	385	709	5249	Airlift