



LAKE RESOURCES

LAKE RESOURCES N.L. (ASX:LKE)

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FURTHER DRILLING REINFORCES CONFIDENCE IN SCALE OF SIGNIFICANT LITHIUM BRINE DISCOVERY- KACHI LITHIUM PROJECT

- Initial drilling confirms the Kachi Lithium Brine Project is an exciting maiden discovery of a very large and deep salt lake basin, of similar size to globally significant lithium producers.
- Kachi is likely to be a partially covered salt lake over 22 x 8 kilometres that hosts a very large lithium brine body with potential to increase further.
- Eight rotary and diamond drill holes ended in lithium brine-bearing sediments. Results reported for 7 resource drill-holes, from 3 drill platforms, with variable depths up to 405 metres.
- Highlight is drill-hole K03R03 (northern area), with higher brine grades closer to the centre of the basin averaging 306mg/L lithium, low impurities and low average Mg/Li ratio of 4.3, a ratio similar to large Argentine projects of Galaxy and Neo Lithium.
- K03R03 results indicate higher concentrations of lithium bearing brines occur at depth in the northern area compared to shallow drilling (<150m) from platform K03. Drilling is underway to explore deeper sections below the best results from K03.
- Passive Seismic Geophysical survey indicates lake sediments continue to depths greater than 600m. Drilling results from site K06 correlate with seismic survey results.
- Excellent passive seismic data vindicates the exploration approach and aids planning of additional drilling sites. The results of K03R03 in the north are being followed up to establish the lateral and depth extent of higher lithium grades and to assess flow rates.
- Drilling continues to expand the data set for an initial resource estimate in the coming months.
- Work in Jujuy province continues, aimed at gaining drill access to the Cauchari area.

Argentine-focused lithium exploration and project development company **Lake Resources NL (ASX: LKE)** is pleased to provide an update on drill results and ongoing exploration activities at its 100%-owned Kachi Lithium Brine Project in Catamarca Province.

The Company can now definitively demonstrate that lithium brine is present from near surface to over 400m depth in drill holes spaced 11km apart (Figure 1) across the project. Drilling and seismic geophysical surveying also confirms Kachi is a very large-scale partially covered salt lake over an area of at least 22 x 8 kilometres (more than 150 km²). Brine is interpreted to continue in sandy sediments beneath gravels and volcanic rocks with the potential to increase this area significantly as they may hide the true size of the basin.

Lake has been conducting two concurrent phases of drilling operations:

1. Resource and exploration drilling utilising a diamond drill rig to collect drill cores for porosity assessment and to obtain brine samples for resource estimation, and
2. Production well drilling using rotary drill rigs for additional resource estimation data and construction of wells for test pumping purposes. These will be available to pump lithium brine into trial evaporation ponds and test the brine evaporation and chemical evolution under site

environmental conditions. A total of eight drill holes have been completed on three separate drill platform locations (Figure 1).

Note: A change in naming convention for drill sites and drill hole identification has been undertaken for management purposes where D represents diamond drill holes and R rotary drill holes.

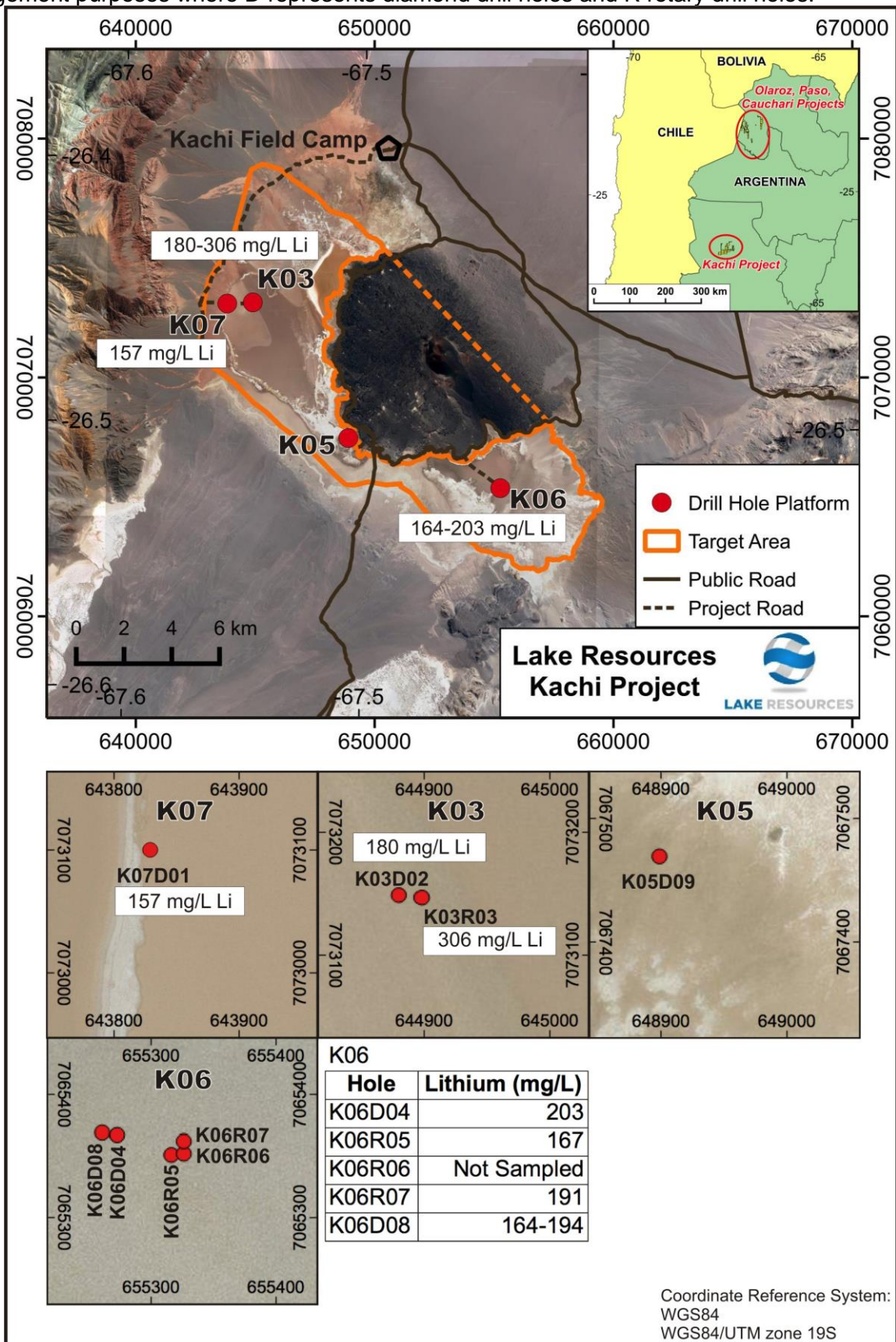


Figure 1. Kachi Lithium Project showing drilling locations, details of the drill hole layout at each location and lithium concentrations for each drill hole which are averaged where multiple brine samples have been taken at various depths

Resource Drilling – Kachi Lithium Brine Project

Lake Resources' 100%-owned Kachi Lithium Brine Project in Catamarca province, Argentina covers over 50,000 hectares of mining leases owned 100% by Lake's Argentine subsidiary, Morena del Valle Minerals SA. These are held over the centre of the known Kachi salt lake in the deepest part of the basin. Surface sampling has revealed positive lithium results in brines, which are being explored at depth through the drilling and geophysics programs.

The current status of resource diamond drilling comprises the completion of four diamond drill-holes on four platforms and analysis of brine samples. A further diamond drill hole is currently underway at a new location (platform K05). Four rotary wells have also been drilled to date with a further drill hole recently started on platform K03 in the west of the project. Table 1 provides drill hole location details and lithium results which are averaged where multiple samples have been taken at a single interval.

Recent drilling intersected different interlayered lithologies which are dominated by sandy sediments. Samples have been collected for porosity tests in a laboratory in the USA with extensive experience in analysing salt lake sediments for their porosity characteristics, in particular the specific yield (also known as drainable porosity). Given the success of exploration in confirming elevated lithium concentrations and favourable sandy sediments for brine extraction the company intends to conduct a resource estimate for the project in accordance with the JORC reporting code as soon as practical. This will include the porosity data and systematic brine analyses from the drilling samples.

Analytical results for lithium to date have been highest in drill-hole K03R03 (northern area). Brine samples in this hole display encouraging densities with a favourable Mg/Li ratio of 4.3. This area is a key target for ongoing investigation. In the short term drilling will return to this area and target deeper unconsolidated brine bearing sediments confirmed by the passive seismic geophysical survey. Figure 2 shows an extensive area with potentially very deep lake sediments in the vicinity of K03 that is yet to be investigated.

Diamond drilling intersected thick intervals of intercalated sands, gravels and sandy clays with some clay horizons. The predominant litho-type of lake sediments is sand-dominant, and poorly consolidated, with relatively low core recoveries in sandy material. Initial indications from field hydraulic testing indicate high permeabilities for the sandy material, which will be further tested with the installation of large diameter production test bores.

The deepest drilling to date at 405m has been undertaken in the south of the project area in diamond drill hole K06D08 (Figure 1).

Brine Chemistry

Brines with high density (1.18 - 1.22 g/cm³) have been intersected in thick sandy and gravelly aquifers, with the best results to date being 306 mg/L after 27 hours of airlifting from hole K03R03, installed with filters over an interval of 3 – 242m. This is located further towards the centre of the northern area of the salt lake. To date the lithium brines analysed show positive chemistry with low combined impurities (boron, sulphate, calcium, magnesium, iron). A number of sample results are pending from recent drilling from site K05 and regular updates will be provided as drilling progresses.

Average lithium grades from deeper levels (350 – 400m) in the south at K06 also show high density (1.2 g/cm³), however the brine grade of 180 mg/L suggests that the brine is distinct from that at the K03 site. Deeper horizons are now being targeted in the vicinity of site K03 where positive results have been previously found with the aim of locating higher grades and extend the potential size of the brine mineralisation.

Table 1: Kachi Lithium Project – details of drill-hole locations

Exploration Hole	Previous Name	Drilling Method	Easting	Northing	Total Depth (m)	Assay Interval (m)	Lithium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)
Northern Area									
K07D01	CPD-01	Diamond	643829	7073100	76.25	10 - 34	157		3330
K03D02	PP1-JV-003	Diamond	644880	7073149	150.5	74 - 92	180	1740	4435
K03R03	PB1-DV-003	Rotary	644898	7073147	242	3 - 242	306*	1307*	5998*
Southern Area									
K06D04	PP1-JV-006	Diamond	655320	7065352	167.5	95 - 113	203	766	3321
K06R05	PB1-DV-006	Rotary	655273	7065354	87	68 - 85	167	1000	3160
K06R06	PB2-DV-006	Rotary	655307	7065374	180	Not Sampled			
K06R07	PB3-DV-006	Rotary	655326	7065362	189	159 – 179	191	1009	961
K06D08	PP2-JV-006	Diamond	655326	7065362	405	69 -70	194	958	3171
						120 - 121	191	873	3199
						165-166	170	880	3650
						205-206	164	894	3590
						258-259	164	888	3560
						354-405	170	877	3670

Coordinates are WGS84 Z19 South

* Average for multiple samples during extended air lift

Geophysical Survey

A seismic geophysical survey is being undertaken using passive seismic techniques, with the aim of developing an understanding of basin geometry and thickness of the sediments hosting the brine. This method distinguishes lithologies with highly contrasting seismic velocities such as unconsolidated lake sediments and harder cemented sediments, basement rocks or ignimbrites (compact volcanic ash units) and has been used very successfully on a number of salt lake projects in South America and Australia. To date 170 stations have been processed.

The distinct reflectors identified in the survey correlate well with dense lithologies such as a number of ignimbrite units within the predominantly sandy sediments and probable basement rocks intersected at 300m depth in K06D08 in the south of the project area (Figure 2). Drilling at K06 provides a correlation with the seismic survey and indicates the presence of unconsolidated sediments to a depth in excess of 500m under gravel cover away from the areas of surface salt where drilling is currently being conducted and in excess of 600m in the vicinity of site K03. Figure 2 shows a schematic cross-section and raw data used for the interpretation.

Importantly the seismic survey also suggests the majority of the basaltic volcanic material visible at surface forms a thin veneer overlying lake sediments, which is very positive for the project as it further increases the volume of sediments that potentially host brines.

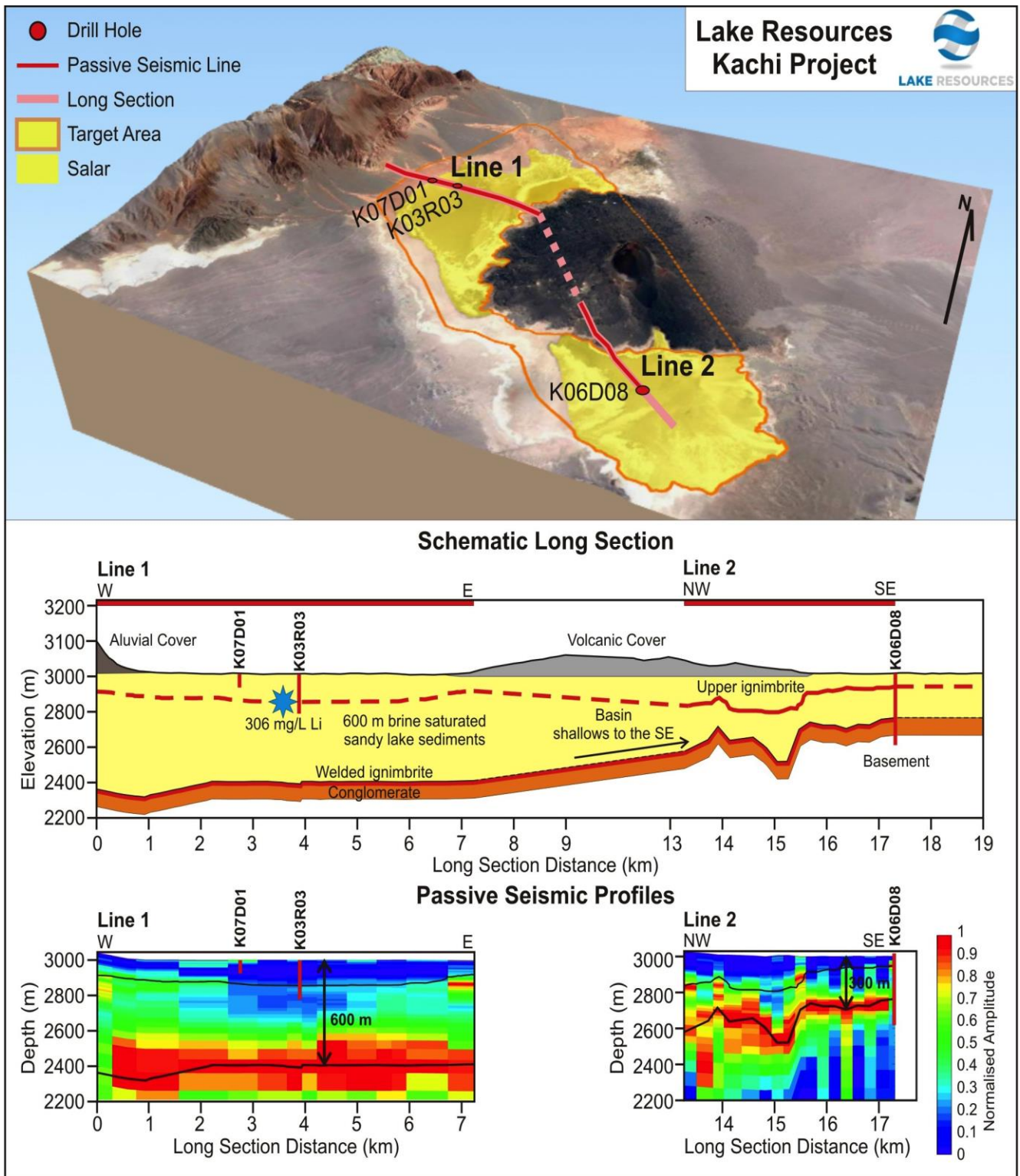


Figure 2. Kachi Lithium Project, with passive seismic survey results and reflector around 600m depth on Line 1 and 300-600m depth on Line 2



Figure 3. Kachi Lithium Project, with images of the rotary drill rig and the diamond rig in the south east side-by-side; the rotary rig at K03 ready to drill deeper; a view of the salt lake from the south west looking north

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Background on Lake Resources NL (ASX:LKE)

Lake Resources NL (ASX:LKE, Lake) is a lithium exploration and development company focused on developing its 3 lithium brine projects and 1 hard rock project in Argentina, all owned 100%. The leases are in a prime location among the lithium sector's largest players within the Lithium Triangle where half of the world's lithium is produced. Lake holds one of the largest lithium tenement packages in Argentina (~180,000Ha) secured in 2016 prior to a significant 'rush' by major companies. The large holdings provides the potential to provide security of supply demanded by battery and electric vehicle manufacturers located.

The three key brine projects, Olaroz/Cauchari, Paso and Kachi, are located adjacent to major world class brine projects either in production or being developed in the highly prospective Jujuy and Catamarca Provinces. The Olaroz-Cauchari project is located in the same basin as Orocobre's Olaroz lithium production and adjoins SQM/Lithium Americas Cauchari project, where high grade lithium (600 mg/L) with high flow rates have been drilled immediately across the lease boundary. The Kachi project covers 50,000 Ha over a salt lake south of FMC's lithium operation and near Albemarle's Antofalla project.

Drilling at Kachi has confirmed a large lithium brine bearing basin over 25km long and over 400m deep. Drilling over Kachi is aimed to produce a resource statement later in 2018. Drilling will commence in coming months at Olaroz-Cauchari now that tenure has been confirmed in a landmark agreement in March 2018. This will provide several catalysts for the company's growth. Scope exists to unlock considerable value through partnerships and corporate deals in the near-term.

Significant corporate transactions continue in adjacent leases with development of SQM/Lithium Americas Olaroz/Cauchari project with an equity/debt investment over \$300 million and Advantage Lithium's equity transaction in some of Orocobre's leases. LSC Lithium has also raised over \$60 million on a large lease package in similar areas as Lake's properties. Nearby projects of Lithium X were recently acquired via a takeover offer of C\$265 million completed March 2018.

The demand for lithium continues to be strong for lithium ion batteries in electric vehicles, according to recent data from the leading independent battery minerals consultant - Benchmark Mineral Intelligence. Supply continues to be constrained suggesting good opportunities for upstream lithium companies for many years.

Competent Person's Statement – Kachi Lithium Brine Project

The information contained in this ASX release relating to Exploration Results has been compiled by Mr Andrew Fulton. Mr Fulton is a Hydrogeologist and a Member of the Australian Institute of Geoscientists and the Association of Hydrogeologists. Mr Fulton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Andrew Fulton is an employee of Groundwater Exploration Services Pty Ltd and an independent consultant to Lake Resources NL. Mr Fulton consents to the inclusion in this 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.

Table 1 Report: Kachi Lithium Brine Project

Criteria	Section 1 - Sampling Techniques and Data
<i>Sampling techniques</i>	<ul style="list-style-type: none"> Brine samples were taken from the diamond drill hole with a bottom of hole spear point during advance and using a straddle packer device to obtain representative samples of the formation fluid by purging a volume of fluid from the isolated interval, to minimize the possibility of contamination by drilling fluid then taking the sample. Low pressure airlift tests are used as well. The fluid used for drilling is brine sourced from the drill hole and the return from drillhole passes back into the excavator dug pit lined to avoid leakage. The brine sample was collected in a clean plastic bottle (1 litre) and filled to the top to minimize air space within the bottle. A duplicate was collected at the same time for storage and submission of duplicates to the laboratory. Each bottle was taped and marked with the sample number. Drill core in the hole was recovered in 1.5 m length core runs in core split tubes to minimize sample disturbance. Drill core was undertaken to obtain representative samples of the sediments that host brine.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> Diamond drilling with an internal (triple) tube was used for drilling. The drilling produced cores with variable core recovery, associated with unconsolidated material, in particularly sandy intervals. Recovery of these more friable sediments is more difficult with diamond drilling, as this material can be washed from the core barrel during drilling. Rotary drilling has used 8.5" or 10" tricone bits and has produced drill chips. Brine has been used as drilling fluid for lubrication during drilling.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> Diamond drill core was recovered in 1.5m length intervals in the drilling triple (split) tubes. Appropriate additives were used for hole stability to maximize core recovery. The core recoveries were measured from the cores and compared to the length of each run to calculate the recovery. Chip samples are collected for each metre drilled and stored in segmented plastic boxes for rotary drill holes. Brine samples were collected at discrete depths during the drilling using a double packer over a 1 m interval (to isolate intervals of the sediments and obtain samples from airlifting brine from the sediments within the packer). As the brine (mineralisation) samples are taken from inflows of the brine into the hole (and not from the drill core – which has variable recovery) they are largely independent of the quality (recovery) of the core samples. However, the permeability of the lithologies where samples are taken is related to the rate and potentially lithium grade of brine inflows.
<i>Logging</i>	<ul style="list-style-type: none"> Sand, clay, silt, salt and cemented rock types was recovered in a triple tube diamond core drill tube, or as chip samples from rotary drill holes, and examined for geologic logging by a geologist and a photo taken for reference. Diamond holes are logged by a senior geologist who also supervised taking of samples for laboratory porosity analysis as well as additional physical property testing. Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies and their relationships. When cores are split for sampling they are photographed.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> Brine samples were collected by packer and spear sampling methods, over a metre. Low pressure airlift tests are used as well to purge test interval and gauge potential yields. The brine sample was collected in one-litre sample bottles, rinsed and filled with brine. Each bottle was taped and marked with the sample number.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> The Alex Stewart Argentina/Norlab SA in Palpala, Jujuy, Argentina, is used as the primary laboratory to conduct the assaying of the brine samples collected as part of the sampling program. The SGS laboratory in Buenos Aires has also been used for both primary and check samples. They also analyzed blind control samples and duplicates in the analysis chain. The Alex Stewart/Norlab SA laboratory and the SGS laboratory are ISO 9001 and ISO 14001 certified, and are specialized in the chemical analysis of brines and inorganic salts, with experience in this field. This includes the oversight of the experienced Alex Stewart Argentina S.A. laboratory in Mendoza, Argentina, which has been operating for a considerable period. The quality control and analytical procedures used at the Alex Stewart/Norlab SA laboratory or SGS laboratory are considered to be of high quality and comparable to those employed by ISO certified laboratories specializing in analysis of brines and inorganic salts.

<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> Field duplicates, standards and blanks will be used to monitor potential contamination of samples and the repeatability of analyses. Accuracy, the closeness of measurements to the “true” or accepted value, will be monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory. Duplicate samples in the analysis chain were submitted to Alex Stewart/Norlab SA or SGS laboratories as unique samples (blind duplicates) during the process Stable blank samples (distilled water) were used to evaluate potential sample contamination and will be inserted in future to measure any potential cross contamination Samples were analysed for conductivity using a hand held Hanna pH/EC multiprobe. Regular calibration using standard buffers is being undertaken.
<i>Location of data points</i>	<ul style="list-style-type: none"> The diamond drill hole sample sites and rotary drill hole sites were located with a hand held GPS. The properties are located at the junction of the Argentine POSGAR grid system Zone 2 and Zone 3 (UTM 19) and in WGS84 Zone 19 south.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> Brine samples were collected over 1m intervals every 6 m intervals within brine producing aquifers, where this was possible.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> The salt lake (<i>salar</i>) deposits that contain lithium-bearing brines generally have sub-horizontal beds and lenses that contain sand, gravel, salt, silt and clay. The vertical diamond drill holes will provide a better understanding of the stratigraphy and the nature of the sub-surface brine bearing aquifers
<i>Sample security</i>	<ul style="list-style-type: none"> Samples were transported to the Alex Stewart/Norlab SA laboratory or SGS laboratory for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified. Samples were transported by a trusted member of the team. The samples were moved from the drillhole sample site to secure storage at the camp on a daily basis. All brine sample bottles sent to the laboratory are marked with a unique label not related to the location.
<i>Review (and Audit)</i>	<ul style="list-style-type: none"> No audit of data has been conducted to date. However, the CP has been onsite periodically during the programme. The review included drilling practice, geological logging, sampling methodologies for water quality analysis and, physical property testing from drill core, QA/QC control measures and data management. The practices being undertaken were ascertained to be appropriate.
Criteria	Section 2 - Mineral Tenement and Land Tenure Status
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> The Kachi Lithium Brine project is located approximately 100km south-southwest of FMC’s Hombre Muerto lithium operation and 45km south of Antofagasta de la Sierra in Catamarca province of north western Argentina at an elevation of approximately 3,000m asl. The project comprises approximately 51,770 Ha in twenty seven mineral leases (minas) of which five leases (9,445 Ha) are granted for drilling, twenty leases are granted for initial exploration (39,575 Ha) and two leases (2750 Ha) are applications pending granting. The tenements are believed to be in good standing, with payments made to relevant government departments.
<i>Exploration by other parties</i>	<ul style="list-style-type: none"> Marifil Mines Ltd conducted sparse near-surface pit sampling of groundwater at depths less than 1m during 2009. Samples were taken from each hole and analysed at Alex Stewart laboratories in Mendoza Argentina. Results were reported in an NI 43-101 report by J. Ebisch in December 2009 for Marifil Mines Ltd. NRG Metals Inc recently commenced exploration in adjacent leases under option. An initial diamond drillhole intersected lithium bearing brines from 172-198m and below with best results to date of 15m at 229 mg/L Lithium, reported in December 2017. A VES ground geophysical survey was completed prior to drilling. A NI 43-101 report was released in February 2017. No other exploration results were able to be located
<i>Geology</i>	<ul style="list-style-type: none"> The known sediments within the <i>salar</i> consist of salt/halite, clay, sand and silt horizons, accumulated in the <i>salar</i> from terrestrial sedimentation and evaporation of brines. Brines within the Salt Lake are formed by solar concentration, interpreted to be combined with warm geothermal fluids, with brines hosted within sedimentary units. Geology was recorded during the diamond drilling and from chip samples in rotary drill holes/
<i>Drill hole Information</i>	<ul style="list-style-type: none"> 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).
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> Assay averages have been provided where multiple sampling occurs in the same sampling interval.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> N/A pending results
<i>Diagrams</i>	<ul style="list-style-type: none"> A drill hole location plan is provided showing the locations of the drill holes.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> Brine assay results are available from 7 drill holes from the drilling to date, reported here. Information will be provided as it becomes available.

<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> There is no other substantive exploration data available regarding the project.
<i>Further work</i>	<ul style="list-style-type: none"> The company is undertaking a 1000m maiden diamond drilling programme and 2000m maiden rotary water well drilling programme which may be expanded based on results. Ongoing ground geophysics will also be undertaken.