

## HIGH GRADE LITHIUM BRINES INCREASE AT CAUCHARI

### Results at Depth Consistent with Adjoining Major Projects

- Consistently high grade lithium brine results returned from base of current hole with results from 480 to 500 mg/L lithium below 289m depth down to 460m depth in discovery hole at Lake's 100% owned Cauchari Lithium Brine Project, Argentina.
- Lithium brine zone significantly extended to 288m wide (172m – 460m depth) with best results at the base of hole of 496 mg/L lithium over 73m to a depth of 460m.
- Brine zones consistent with brine results from adjoining world-class major projects.
- Drillhole now being extended at depth after completion of detailed sampling.

Lake Resources NL (ASX: LKE) announced today consistently high grade lithium brines from the base of the current discovery hole extending the lithium brine zone to 288 metres wide (from 172 – 460m depth) at its Cauchari Lithium Brine Project in Argentina. Results from 480 to 500 mg/L lithium were returned below 289m depth down to 460m depth, with the best results at the base of hole of 496 mg/L lithium over 73m to a depth of 460m.

The results are consistent with similar results from the adjoining billion-dollar major projects advancing towards production at Cauchari, in the heart of the Lithium Triangle including Ganfeng/Lithium Americas (LAC) and the Advantage Lithium (AAL)/Orocobre joint venture.

The drillhole is now being extended at depth. Detailed sampling with a packer instrument has been completed and further results are awaited.

Lake's Managing Director Steve Promnitz said: "The excellent results are further confirmation of Lake's major discovery at Cauchari, and the similarity with the adjoining projects moving into production. This is now a wider pay zone of lithium brines than at the adjoining project exceeding what was reported by Advantage Lithium and Lithium Americas in this area. The drill hole will be extended to depth and we are pleased that results are improving with depth".

"Cauchari continues to advance as a major project for Lake, which added to our prospective Olaroz project and the world-class Kachi project comprises a portfolio of potentially highly valuable projects in the heart of the Lithium Triangle. We look forward to announcing further results from Cauchari, followed by drilling at Olaroz, as we work to add value for shareholders."

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**AT THE HEART OF THE  
LITHIUM TRIANGLE**

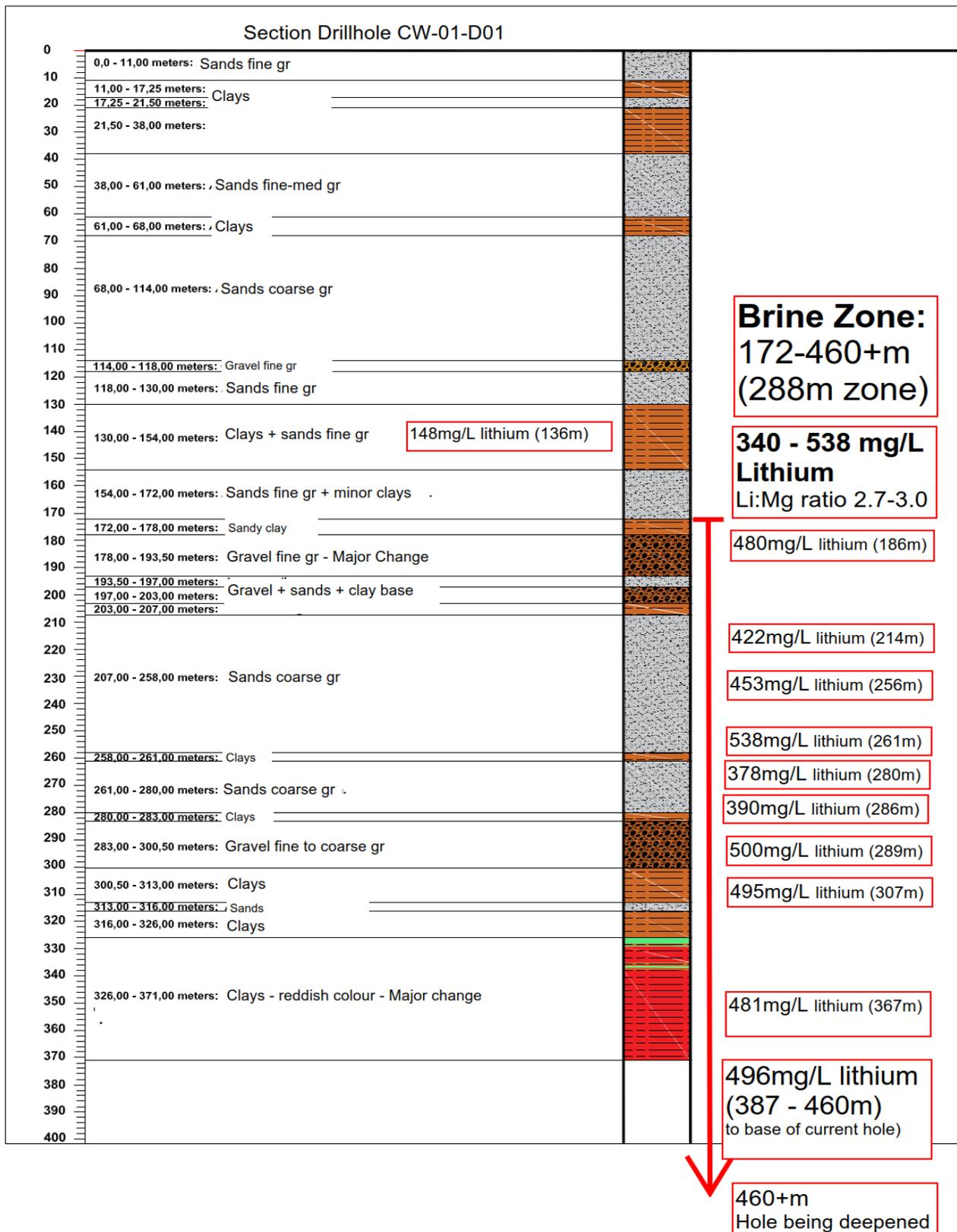


Figure 1: Section of drillhole at Cauchari with the 144m brine zone, results and geological comments on stratigraphy.

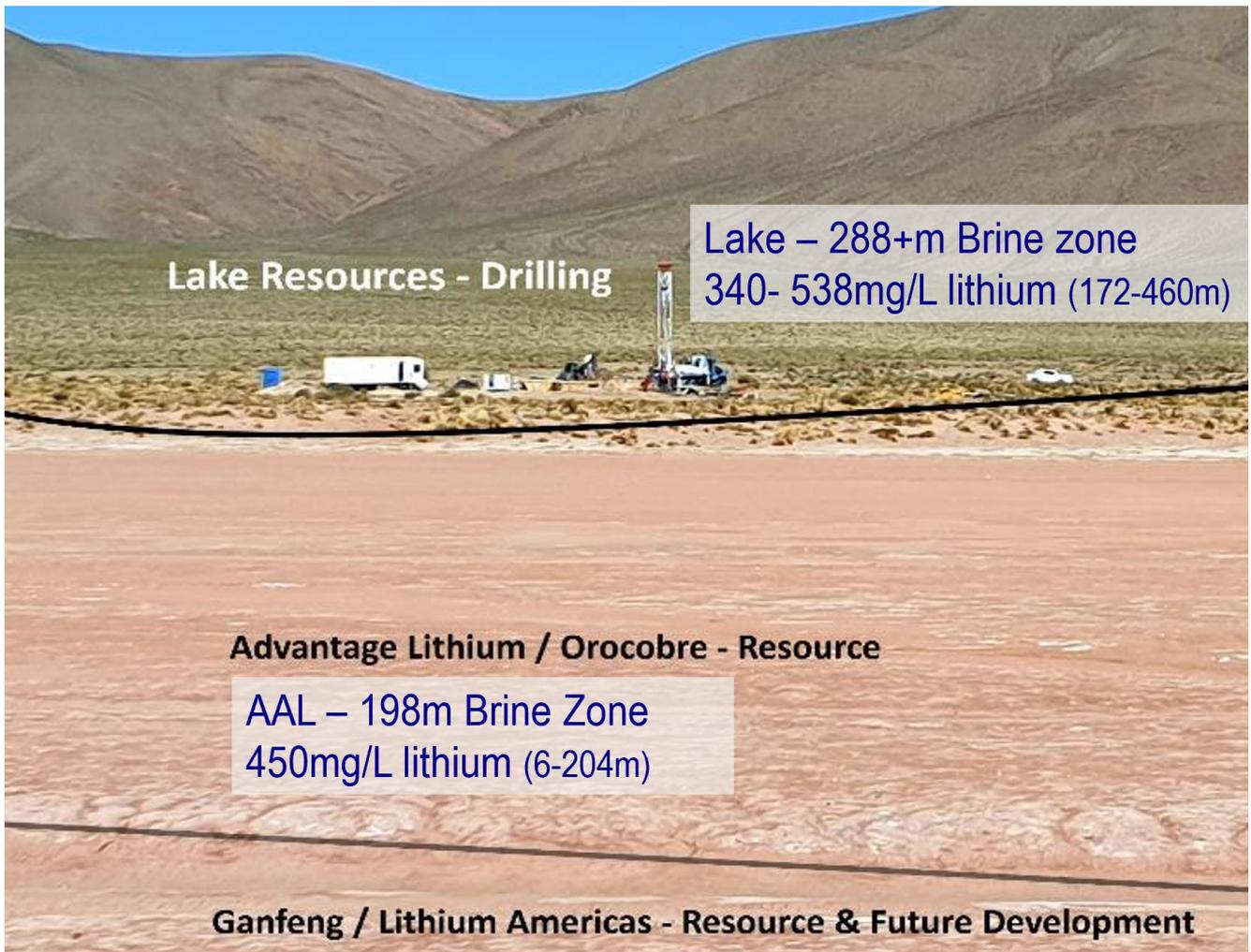


Figure 2,3: Location of LKE's drill operations at Cauchari in relation to Advantage Lithium/Orocobre & Ganfeng/Lithium Americas leases. (Note: The marked boundaries are indicative only. Please refer to the detailed map).

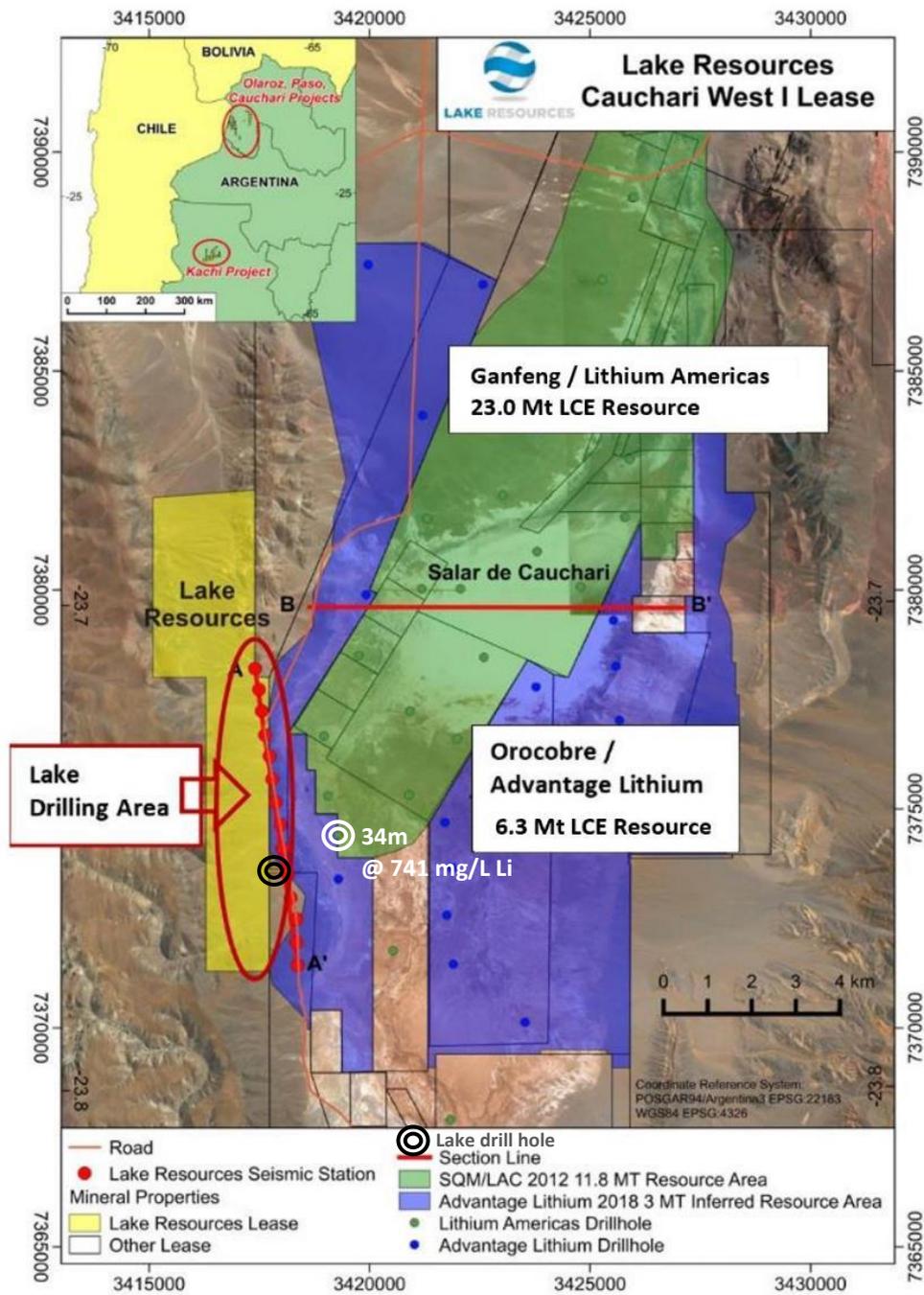


Figure 4: Cauchari Lithium Project, with adjoining Ganfeng / Lithium Americas combined resource and Orocobre / Advantage Lithium combined resource with (Orocobre announcements 7/11/2017, 4/12/2017, 18/01/2018, 15/03/19; Advantage Lithium announcement 5/3/2018, 10/01/2019, 7/03/19, 24/04/19). (Third Party Resource details summarised in LKE's ASX announcement dated 6 Sept 2018)

## 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.

## About Lake Resources NL (ASX:LKE)

Lake Resources NL (ASX:LKE, Lake) is a lithium exploration and development company focused on developing its three lithium brine projects and 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 (~200,000Ha) secured in 2016 prior to a significant 'rush' by major companies. The large holdings provide the potential to provide consistent security of supply, scalable as required, which is demanded by battery makers and electric vehicle manufacturers.

The Kachi project covers 69,000 ha over a salt lake south of FMC's lithium operation and near Albemarle's Antofalla project in Catamarca Province. Drilling at Kachi has confirmed a large lithium brine bearing basin over 20km long, 15km wide and 400m to 800m deep. Drilling over Kachi (currently 16 drill holes, 3100m) has produced a maiden indicated and inferred resource of 4.4 Mt LCE (Indicated 1.0Mt and Inferred 3.4Mt) (refer ASX announcement 27 November 2018).

A direct extraction technique is being tested in partnership with Lilac Solutions, which has shown 80-90% recoveries and lithium brine concentrations in excess of 25000 mg/L lithium. Phase 1 Engineering Study results have shown operating costs forecast at US\$2600/t LCE in the lowest cost quartile (refer ASX announcement 10 December 2018). This process is will be trialed on site with a pilot plant in tandem with conventional methods as part of the PFS underway. Discussions are advanced with a number of downstream entities, mainly battery makers, to jointly develop the project.

The Olaroz-Cauchari and Paso brine projects are located adjacent to major world class brine projects either in production or being developed in the highly prospective Jujuy Province. The Olaroz-Cauchari project is located in the same basin as Orocobre's Olaroz lithium production and adjoins Ganfeng Lithium/Lithium Americas Cauchari project, with high grade lithium (600 mg/L) with high flow rates drilled immediately across the lease boundary.

The Cauchari project has shown high grades and high flow rates from a series of horizons over 288 metres, with up to 538 mg/L lithium, similar to lithium brine horizons announced from adjoining pre-production areas under development. Results provide confirmation of the continuity of lithium bearing horizons from adjoining world-class major projects (refer ASX announcements 28 May, 12 June 2019). The Olaroz project is planned to be drilled for the first time in LKE's 100% owned Olaroz leases as soon as drilling is completed at Cauchari.

Significant corporate transactions continue in adjacent leases with development of Ganfeng Lithium/Lithium Americas Cauchari project with Ganfeng announcing a US\$237 million for 37% of the Cauchari project previously held by SQM, followed by a further US\$160 million to increase Ganfeng's equity position to 50% on 1 April 2019, together with a resource that had doubled to be the largest on the planet. Ganfeng then announced a 10 year lithium supply agreement with Volkswagen on 5 April 2019. Nearby projects of Lithium X were acquired via a takeover offer of C\$265 million completed March 2018. The northern half of Galaxy's Sal de Vida resource was purchased for US\$280 million by POSCO in June-Dec 2018. LSC Lithium was acquired in Jan-Mar 2019 for C\$111 million by a mid-tier oil & gas company with a resource size half of Kachi. These transactions imply an acquisition cost of US\$55-110 million per 1 million tonnes of lithium carbonate equivalent (LCE) in resources.

For more information on Lake, please visit <http://www.lakeresources.com.au/home/>

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

Exploration Hole	Drilling Method	Easting	Northing	Elevation	Total Depth (m)	Azimuth / Dip (deg)	Assay Interval (m)	Lithium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)
CW01D01	Diamond	3418810	7373543	3948	460	90	136m	148	586	1290
							186m	452	1590	4330
							<b>186m</b>	<b>480</b>	1650	4580
							<b>214m</b>	<b>422</b>	1190	3360
							<b>256m</b>	<b>453</b>	1320	3580
							<b>261m</b>	<b>538</b>	1200	3270
							274m	339	994	2690
							280m	378	1120	2960
							286m	390	1170	3030
							<b>289m</b>	<b>500</b>	1510	3910
							<b>307m</b>	<b>495</b>	1400	4100
							<b>367m</b>	<b>481</b>	1380	3940
							<b>387m-460m</b>	<b>496</b>	1480	4080
CW01R02	Rotary	3418801	7373545	3948	230 (*)	90				

\* = Hole terminated early due to drilling issues without samples

Coordinates are Argentine POSGAR Zone3 (UTM19)

All results are preliminary to date. Detailed sampling underway with packer instrument.

**APPENDIX 1 - JORC Code, 2012 Edition**

**Table 2 Report: Cauchari Lithium Brine Project**

Criteria	Section 1 - Sampling Techniques and Data
Sampling techniques	<ul style="list-style-type: none"> <li>Brine samples were taken from the diamond drill hole with a bailer during advance and once the hole is completed, a double packer device will be used 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 will be used as well. The fluid used for drilling is either brine sourced from the drill hole or nearby pumped water mixed into a brine. The return from drillhole passes back into the excavator dug pit lined to avoid leakage.</li> <li>The brine sample was collected in a clean plastic bottle (1 litre) and filled to the top to minimize air space within the bottle. A duplicate was collected at the same time for storage and submission of duplicates to the laboratory. Each bottle was taped and marked with the sample number.</li> <li>Drill cuttings were collected each metre from the parts of the hole drilled with a tricone bit.</li> <li>Drill core in the hole was recovered in 1.5 m length core runs in core split tubes when drilling was undertaken with a diamond bit. Drill core was undertaken to obtain representative samples of the sediments that host brine.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Diamond drilling with an internal (triple) tube was used for drilling. The drilling produced cores with variable core recovery, associated with unconsolidated material, in particularly sandy intervals. Recovery of these more friable sediments is more difficult with diamond drilling, as this material can be washed from the core barrel during drilling.</li> </ul>

	<ul style="list-style-type: none"> <li>• Rotary drilling has used 8.5" or 10" tricone bits and has produced drill chips.</li> <li>• Brine has been used as drilling fluid for lubrication during drilling.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• Diamond drill core was recovered in 1.5m length intervals in the drilling triple (split) tubes. Appropriate additives were used for hole stability to maximize core recovery. The core recoveries were measured from the cores and compared to the length of each run to calculate the recovery.</li> <li>• Chip samples are collected for each metre drilled and stored in segmented plastic boxes for rotary drill holes.</li> <li>• Brine samples were collected at discrete depths with a bailer as drilling advanced. Brine samples will be collected once the drill hole is completed using a double packer over a 1 m interval (to isolate intervals of the sediments and obtain samples from airlifting brine from the sediments within the packer).</li> <li>• As the brine (mineralisation) samples are taken from inflows of the brine into the hole (and not from the drill core – which has variable recovery) they are largely independent of the quality (recovery) of the core samples. However, the permeability of the lithologies where samples are taken is related to the rate and potentially lithium grade of brine inflows.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• Sand, clay, silt, salt, breccia, coarse sandstone/conglomerate and cemented rock types 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.</li> <li>• Diamond holes are logged by a senior geologist who also supervised taking of samples for laboratory porosity analysis as well as additional physical property testing.</li> <li>• Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies and their relationships. When cores are split for sampling they are photographed.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• Brine samples were collected by bailer and will be collected by packer sampling methods, over a metre, once the drill hole is completed. Low pressure airlift tests will be used to purge test interval and gauge potential yields.</li> <li>• The brine sample was collected in one-litre sample bottles, rinsed and filled with brine. Each bottle was taped and marked with the sample number.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• The Alex Stewart Argentina lab 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 is used for both primary and check samples. They also analyzed 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.</li> <li>• 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.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses. Accuracy, the closeness of measurements to the "true" or accepted value, will be monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory.</li> <li>• Duplicate samples in the analysis chain were submitted to Alex Stewart or SGS laboratories as unique samples (blind duplicates) during the process</li> <li>• Stable blank samples (distilled water) were used to evaluate potential sample contamination and will be inserted in future to measure any potential cross contamination</li> <li>• Samples were analysed for conductivity using a hand-held pH/EC multiprobe.</li> <li>• Calibration using standard buffers is being undertaken at times.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• The diamond drill hole sample sites and rotary drill hole sites were located with a hand-held GPS.</li> <li>• The properties are located in the Argentine POSGAR grid system Zone 3 (UTM 19) and in WGS84 Zone 19 south.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• Brine samples will be collected over 1m intervals every 6 m intervals within brine producing aquifers, where possible. Brine samples were collected where possible as the drill hole progressed.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• The salt lake (<i>salar</i>) deposits generally have sub-horizontal beds and lenses that contain sand, gravel, salt, silt, clay, breccia and coarse sandstone/conglomerate. The vertical diamond drill holes provide a better understanding of the stratigraphy and the nature of the sub-surface brine bearing aquifers.</li> </ul>

<i>Sample security</i>	<ul style="list-style-type: none"> <li>• Samples were transported to the Alex Stewart laboratory or SGS laboratory for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified. Samples will be transported by a trusted member of the team.</li> <li>• The samples were moved from the drillhole sample site to secure storage at the camp on a daily basis. All brine sample bottles sent to the laboratory are marked with a unique label not related to location.</li> </ul>
<i>Review (and Audit)</i>	<ul style="list-style-type: none"> <li>• No audit of data has been conducted to date. However, the CP will be onsite periodically in the future as drilling progresses during the programme and has previously provided guidance to the technical people on a similar project.</li> </ul>
<b>Criteria</b>	<b>Section 2 - Mineral Tenement and Land Tenure Status</b>
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• The Cauchari Lithium Brine project is located approximately 500m from the Ganfeng/Lithium Americas Cauchari pre-production area and 25km south of Orocobre's Olaroz lithium operation, and 23km north east of Catua in Jujuy province of north western Argentina at an elevation of approximately 3,900m asl.</li> <li>• The project comprises approximately 1936 Ha in one mineral lease (minas) granted for drilling. Cauchari is a part of the Cauchari-Olaroz project with 17,953 Ha in eleven mineral leases (minas) with 10 granted access for exploration, 5 granted for drilling and 5 in the last phase prior to drilling approval.</li> <li>• The tenements are believed to be in good standing, with statutory payments completed to relevant government departments.</li> </ul>
<i>Exploration by other parties</i>	<ul style="list-style-type: none"> <li>• Lithium Americas (Ganfeng Lithium 50% JV) has completed a series of drilling campaigns with rotary and diamond drill rigs since 2009 with drilling still continuing on production wells as part of the pre-production drilling. A combined resource of 23 million tonnes lithium carbonate equivalent (LCE) has been reported on 1 April 2019, comprised of 18.0 million tonnes LCE in the Measured &amp; Indicated category and 5.0 million tonnes in the Inferred category. This resource doubled from the previous resource in July 2012 of 11.8 million tonnes LCE in the Measured &amp; Indicated category.</li> <li>• Results were reported in an NI 43-101 report by Mark King, Roger Kelley and Daron Abbey in July 2012 and April 2019 for Lithium Americas.</li> <li>• Advantage Lithium (Orocobre 25% JV) has completed a series of drilling campaigns with one rotary hole and 25 diamond drill holes since 2011. A combined resource of 6.3 million tonnes lithium carbonate equivalent (LCE) has been reported in March 2019, released 19 April 2019, comprised of 4.8 million tonnes LCE in the Measured &amp; Indicated category and 1.5 million tonnes in the Inferred category. This resource doubled from the previous combined resource in 2018 of 3 million tonnes LCE in the Measured &amp; Indicated and Inferred categories. Gravity, VES, TEM and AMT ground geophysical surveys were completed prior to and following drilling campaigns.</li> <li>• Results were reported in an NI 43-101 report by Fritz Reidel in April 2019 and Fritz Reidel with P Ehren in June 2018 for Advantage Lithium and in December 2016 by M Brooker and P Ehren for Advantage Lithium and in April 2010 by John Houston for Orocobre.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Brines within the Salt Lake are formed by solar concentration and hosted within sedimentary units.</li> <li>• Geology was recorded during the diamond drilling and from chip samples in rotary drill holes.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• All drill holes are vertical, (dip -90, azimuth 0 degrees).</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• Results to date are initial analytical laboratory results. No data aggregation has been undertaken. In the future, assay averages will be provided where multiple sampling occurs in the same sampling interval.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• Mineralisation interpreted to be horizontally lying and drilling is perpendicular to the horizons.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• A drill hole location plan is provided showing the locations of the drill platforms. Individual drill locations are provided in Table 1.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• Preliminary brine assay results are available from the drilling to date. Detailed information from the packer sampling will be provided as it becomes available.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• There is no other substantive exploration data available regarding the project.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• The company is undertaking an 500m maiden diamond drilling programme and 300m maiden rotary water well drilling programme which may be expanded based on results.</li> </ul>